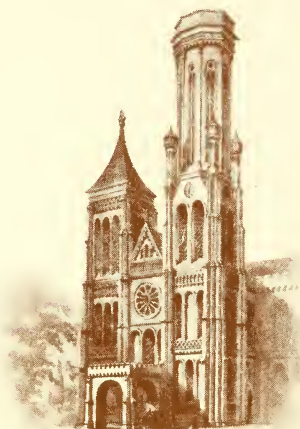


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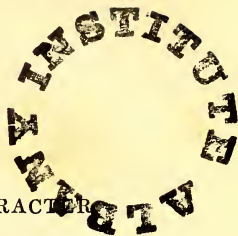
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AN
ENCYCLOPÆDIA
OF
PLANTS;



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

COMBINING
ALL THE ADVANTAGES OF A LINNEAN AND JUSSIEUEAN SPECIES PLANTARUM,
AN HISTORIA PLANTARUM, A GRAMMAR OF BOTANY,
AND A DICTIONARY OF BOTANY AND VEGETABLE CULTURE.

The whole in English;

WITH THE SYNONYMES OF THE COMMONER PLANTS IN THE DIFFERENT EUROPEAN
AND OTHER LANGUAGES;
THE SCIENTIFIC NAMES ACCENTUATED, THEIR ETYMOLOGIES EXPLAINED;
THE CLASSES, ORDERS, AND BOTANICAL TERMS ILLUSTRATED BY ENGRAVINGS;
AND WITH
FIGURES OF NEARLY TEN THOUSAND SPECIES,
EXEMPLIFYING SEVERAL INDIVIDUALS BELONGING TO EVERY GENUS INCLUDED
IN THE WORK.

EDITED BY J. C. LOUDON, F.L.S. H.S. &c.
THE SPECIFIC CHARACTERS BY AN EMINENT BOTANIST;
THE DRAWINGS BY J. D. C. SOWERBY, F.L.S.; AND
THE ENGRAVINGS BY R. BRANSTON.

LONDON:
PRINTED FOR
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PATERNOSTER-ROW.

1829.

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New-Street-Square.

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P R E F A C E .

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

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

An Introduction is given to each system of arrangement (p. 3. and 1051.), and a General Introduction to the whole work (p. 1.), in which its uses are explained. When the beginner has a plant in flower and would ascertain its name, he will turn to the Linnean System, as explained in the Introduction to that system (p. 3.); and, when he has but a small part of any plant, he will turn to the Natural System, as directed in the General Introduction (p. 1.).

All the Technical Terms, or words not usually found in an English dictionary, are explained in the Glossary (p. 1094.); and engravings are given of such of the objects designated as might occasion any difficulty to a beginner. This Glossary and the two Introductions (p. 3. and 1051.) form together a complete Grammar of Botany.

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

The signs used for the habits of plants (column 3.), and their duration in the garden (col. 4.), are improvements in botanical description by the Editor*, now applied for the first time. The twenty-three varieties of habit are indicated by

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

figures of the plants themselves; as a grass for a grass, a bulb for a bulb, a plant floating on water for an aquatic, &c. &c., to recollect which requires no exertion of memory. A perennial is indicated by a triangle, instead of the old sign, ♃; an annual remains a circle as before, ○, because among other reasons gardeners sow patches of annual flowers in circles; and a biennial is a double circle, ⊙, instead of the old sign, ♂. The bark stove is a square, □; the dry stove three sides of a square, ⊓; the green-house two and a half sides of a square, ⊔; and the frame two sides of a square, ⊖. By combining the signs of duration with habitation, ⊠ ⊡ ⊢ ⊣, &c. &c., much room is saved in abridged botanical description. Thus in consequence of the single innovation of the triangle and the square, we have simplified and extended the power of indicating the habits and habitations of plants by signs from ten, the usual number in the most complete botanical catalogues, to forty, the number employed in this work.

It is usual, in botanical works enumerating genera and species, to give an Appendix containing the additions discovered or made since the book began to be printed. An Appendix to this Encyclopædia may possibly appear at some future period; but, in the mean time, the *Hortus Britannicus*, by the same Editor, which contains an enumeration brought down to the end of the year 1828, will serve every purpose of an Appendix, and, in so far as it embraces some reformatations in the genera, will be found superior to any Appendix that could be made.

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

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

J. C. L.

Bayswater, May, 1829.

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NATURAL ARRANGEMENT.

Introduction to the Jussieuan System

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NAMES OF BOOKS REFERRED TO.

- A. ac. pa. 860. } Mémoires de l'Académie Royale
Act. par. } des Sciences. 1 vol. 4to. 1666
—1788. Paris.
- Abb. ins. 780. Abbott's Natural History of the
Insects of Carolina. Folio.
- Abel China, 394. Abel (Clarke). A Voyage to
China. 4to.
- Ac. E. 886. Acta Eruditorum quae Lipsiae pub-
licantur. 50 vols. 4to. 1682-1731.
- Act. bon. 176. De Bononiense Scientiarum et
Artium Instituto Commentari-
arii. 4to. Bononiae. 7 vols.
1748-1791.
- Act. helv. 540. } Acta Helvetica physico-mathema-
Ac. h. 828. } tico-botanico-medica. 8 vols.
4to. Basileae, 1757-1777.
- Act. holm. 944. Kongl. svenska vetenskaps aca-
demiens Handlingar. 8vo.
Stockholm, 1739-1816.
- Act. petr. 58. Commentarii Academiae Scientiarum
Imperialis Petropolitanae.
14 vols. 4to. Petropoli, 1728-
1751.
- Act. ups. 90. Acta literaria et Scientiarum Up-
saliae publicata. 8vo. 1720-
1816.
- Allion. 94. Allioni (Carolus). Rariorum Pe-
demontii Stirpium Specimen.
1 vol. 4to. Taurini, 1753.
- All. auc. 16. *Id.* Auctuarium ad Floram Pe-
demontanam. 1 fasc. 4to. Tau-
rini, 1789.
- All. ped. 16. *Id.* Flora Pedemontana, 3 vols.
fol. Taurini, 1785.
- Alp. æg. 196. Alpinus (Prosper). De Plantis
Egypti liber. 4to. Venetiis,
1592.
- Alp. ex. 94. *Id.* De Plantis exoticis libri duo.
4to. Venetiis, 1629.
- Amœn. ac. 334. } Linnaei Amenitates Academicæ,
Am. ac. 382. } seu dissertationes antehac
seorsim editæ. 10 vols. 8vo.
Holmiæ and Lipsiæ, 1749, et
seq.
- Am. rut. 14. Ammann (Johan) Stirpium rario-
rum in Imperio Rutheno sponte
provenientium Icones et De-
scriptiones. 4to. Petrop. 1739.
- And. ger. 578. Andrews (Henry). Coloured En-
gravings of Geraniums. Fol.
London.
- And. hea. 304. *Id.* Coloured Engravings of
Heaths, with botanical de-
scriptions. 3 vols. fol. London,
1802-1809.
- Ann. bot. 4. Annals of Botany, by C. König
and J. Sims. 2 vols. 8vo. Lon-
don, 1805 and 1806.
- Ann. mus. 354. } Annales du Muséum d'Histoire
An. mu. 88. } Naturelle. 20 vols. 4to. Paris,
1802-1813.
- Ard. me. 176. Arduini (Pietro). Memoria di Os-
servazioni e di Sperienze sopra
la Coltura e gli Usi di varie
Piante. 4to. Padova, 1766.
- Ard. spec. 24. *Id.* Animadversionum botanica-
rum Specimen. 4to. Patavii,
1759.
- As. r. 2. Asiatic Researches, or the Trans-
actions of the Society insti-
tuted in Bengal. 4to. Calcutta,
1788, &c.
- Asso arr. 556. De Asso (Ignatius). Synopsis Stir-
pium indigenarum Arrago-
niæ. 4to. Marsiliæ, 1779.
- Aublet, 16. } Aublet (Fusée). Histoire des
Aub. guian. } Plantes de la Guiane Fran-
çaise. 4 vols. 4to. London,
1773.
- Balb. diss. 676. } Balbis (Joh. Baptist.). Miscel-
Balb. miss. 66. } lanea Botanica. 4to. 1804.
- Banks ic. Kæ. 806. Banks (Josephus). Icones selectæ
Plantarum quas in Japonia
collegit et delineavit E.
Kämpfer. Fol. London, 1791.
- Banks r. hous. 26. *Id.* Reliquiæ Houstonianæ. 4to.
London, 1781.
- Barr. ic. 24. } Barrelier (Jacobus). Plantæ per
Bar. rar. 204. } Galliam, Hispaniam, et Italiani
observata. Fol. Parisiis, 1714.
- Bartr. trav. 480. } Bartram's Travels in North A-
Bartr. iter. c. ic. } merica. 8vo.
- Batarra, 990. Batarra (John Ant.). Fungorum
Agri Ariminensis Historia.
4to. Faventia, 1759.
- Batsch. cent. 988. } Batsch (Aug. Joh. Georg. Carl.).
Bats. cont. 990. } Elenchus Fungorum. 4to.
Halæ, 1783-1789.
- Bauh. pin. 672. Bauhin (Caspar). Pinax Theatri
Botanici. 4to. Basileæ, 1623.
- Bauh. prod. 24. *Id.* Prodrumus Theatri Botanici,
in quo plantæ supra 600 pro-
ponuntur. 4to. Franc. Mœn.
1620.
- Bea. fl. d'Oware, } Palisot de Beauv. Flore des
788. } Royaumes d'Oware et de
Beauv. Ow. 36. } Benin. Folio. Paris, 1805.
- Bell. taur. 486. } Bellardi (Ludovico). Osservazioni
Botaniche, con un Saggio d'
Appendice alla Flora Pede-
montana. 8vo. Torino, 1788.
- Ber. ca. 722. } Bergius (Peter Jonas). Descrip-
Be. c. 288. } tiones Plantarum ex Capite
Bonæ Spei. 8vo. Stockholm,
1767.
- Berl. mag. 1036. Berlinischer Magazin, oder ge-
sammlte schriften. 4 vols. 8vo.
Berlin, 1765-1767.
- Besl. eys. æs. 90. } Besler (Basilius). Hortus Eystet-
B. ey. å. 160. } tensis. 2 vols. fol. Nuremberg,
1612.
- Bieb. cent. 278. } Bieberstein (Marschall von). Cen-
B. cen. 16. } turia plantarum rariorum Rosi-
æ meridionalis. Charkovia.
Fol.
- Bivon. cent. 676. } Bivona Bernardi (Antonin.). Si-
Biv. cen. sic. 724. } cularum plantarum Centuria
prima. 8vo. Panormi, 1806.
- Blackw. 34. } Blackwell (Eliz.). A curious her-
Blackw. hor. 622. } bal containing 600 cuts of the
useful plants. 2 vols. fol. Lon-
don, 1737.
- Bocc. mus. 88. Boccone (Paolo). Museo di Pianta
rare della Sicilia, Malta, Cor-
sica, Italia, Piemonte, et Ger-
mania. 4to. Venetia, 1697.
- Bocc. sic. 158. *Id.* Icones et Descriptiones raro-
rum Plantarum Siciliae, Me-
litæ, Gallia, et Italiæ. 4to.
Londini, 1674.
- Boerh. 22. } Boerhaave (Hermannus). Index
Boer. lug. 600. } Plantarum quas in Horto
Acad. Lugd. Bat. reperiuntur.
8vo. Lugd. Bat. 1710.

- Bolton fung. 986. Bolton (James). A History of Funguses growing about Halifax. 4to. Huddersfield, 1788—1791.
- Bolton fil. 878. *Id.* Filices Britanniae. 4to. London, 1785—1790.
- Bot. cab. 2. The Botanical Cabinet. By Conrad Loddiges and Sons. 14 vols. 12mo, and 4to, published monthly.
- Bot. mag. 2. The Botanical Magazine. 8vo, 55 vols. London, 1787—1829.
- Bot. reg. 2. The Botanical Register. 8vo, 14 vols. London, 1815—1829.
- Bot. rep. 4. The Botanist's Repository for new and rare Plants. 10 vols. 4to. London, 1797, et seqq.
- Brad. succ. 262. Bradley (Richard). Historia Plantarum Succulentarum. 4to. London, 1716—1727.
- Bre. cent. 184. Breynius (Jacobus). Exoticarum Plantarum Centuria. Fol. Gedani, 1678.
- Bre. prod. 686. *Id.* Prodrum Fascicul. rariorum Plantarum in Hortis Hollandiae observatarum. 2 vols. 4to. Gedani, 1680—1689.
- Brid. mus. 914. Bridel (Samuel Elias). Muscologia. 4to. Gothæ et Parisiis, 1797—1803.
- Bro. jam. 100. } Browne (Patrick). The Civil and
B. jm. 88. } Natural History of Jamaica. Fol. London, 1756.
- Brot. phyt. 556. Brotero (Felix Avellar). Phytographia Lusitaniae select. Fol. Olyssip. 1801.
- Bruce Abys. 856. Bruce (James). Travels to discover the Source of the Nile. 5 vols. 4to. Edinburgh, 1790.
- Buchoz ic. 302. Buchoz (Pierre Joseph). Collection des Fleurs. Fol. Paris.
- Bulliard, 986, } Bulliard. Histoire des Champignons
Bull. } de la France. Fol. Paris, 1798.
Bull. champ. 1022. }
Bull. herb. 154. } *Id.* Herbar de la France. Fol. 1780, &c.
- Bull. ph. n. 546. } Bulletin des Sciences par la Société
B. ph. n. 278. } Philomathique de Paris. 1791—1816.
- Bur. afr. 82. Burmann (Johannes). Rariorum Africanarum plantarum Decades 10. 4to. Amstelodami, 1738—1739.
- Bur. amer. 150. *Id.* Plantæ Americanae a C. Plumier detectæ et a J. Burmanno editæ. Fol. Amstelod. 1755.
- Bur. ind. 192. *Id.* Flora Malabarica, sive Index in omnes tomos Horti Malabari. Fol. Amst. 1769.
- Bur. zey. 68. } *Id.* Thesaurus Zeylanicus. 4to.
Bur. zeyl. 90. } Amst. 1737.
- Cam. hort. 218. Camerarius (Joachim). Hortus Medicus et Philosophicus. 4to. Franc. Mæn. 1588.
- Cat. car. 10. Catesby (Marsh). The Natural History of Carolina, Florida, &c. 2 vols. fol. London, 1741—1743.
- Cav. diss. 48. } Cavanilles (Ant. Jos.). Monadelphæ classis Dissertationes. 10 vols. 4to. Paris, 1785—1789. Madriti, 1790.
- Ca. d. 182. } *Id.* Icones et Descriptions Plantarum quæ aut sponte in Hispania crescut aut in Hortis hospitantur. 6 vols. fol. Madrit. 1791—1800.
- Clus. exot. 622. Clusius (Carolus). Exoticarum libri x. Fol. Antwerp, 1605.
- Clus. hist. 52. *Id.* Rariorum Plantarum historia. Fol. Antwerp, 1601.
- Co. gott. 90. Commentarii Societatis regie Scientiarum Göttingensis. 4to. 1751—1816.
- Col. ceph. 34. Columna (Fabius). Minus cognitarum stirpium Ecphrasis. 4to. Romæ, 1616.
- Com. hort. 22. Commelyn (Caspar). Horti Medici Amstelodamensis rariorum Plantarum Descriptio et Icones. 2 vols. folio. Amst. 1703.
- Com. pet. 348. Commentarii Academiae Scientiarum imperialis Petropolitanae. 14 vols. 4to. Petrop. 1728—1751.
- Com. præl. 244. Commelyn (Caspar). Prælua Botanica ad publicas Plantarum Demonstrationes. 4to. L. Bat. 1703.
- Com. rar. 180. *Id.* Horti Medici Amstelodamensis Plantæ rariores et exoticæ. 4to. L. Bat. 1706.
- Cook ic. v. 286. Cook (James). Voyage round the World (2d). 2 vols. 4to. 1777.
- Cor. can. 88. Cornuti (Jacob). Canadensium Plantarum aliarumque nondum editarum Historia. 4to. Paris, 1635.
- Crypt. brit. 1008. Greville (Charles Kaye). The British Cryptogamic Flora. 5 vols. 8vo.
- Cyrril. ic. 76. Cyrrillo (Domenico). Plantarum rariorum Regni Neapolitani Specimen. Fol. Neapol. 1788—1792.
- Dalec. lug. 583. Dalechamps (Jacques). Historia generalis Plantarum. 2 vols. fol. Ludg. 1586—1587.
- De Asso ar. 552. De Asso (Ignatius). Synopsis Plantarum indigonarum Aragoniæ. 4to. Marsiliæ, 1779.
- Dec. diss. 548. Decandolle (Augustin Pyramus). Dissertations différens sur la Botanique. Various fascicles, 4to.
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- Dec. legum. 854. *Id.* Mémoires sur les Légumineuses. 4to.
- Del. egypt. 558. Delile (Alire Rafeneau). Mémoires Botaniques extraits de la Description de l'Egypte. Fol. Paris, 1813.
- Del. eryng. 210. De la Roche (François). Eryngiorum necnon generis novi Alepideæ Historia. Fol. Paris, 1808.
- Dend. brit. 144. Watson (P. W.). Dendrologia Britannica. 1 vol. 1825.
- Desf. atl. 46. Desfontaines (René Louiche). Flora Atlantica. 2 vols, 4to. Paris, 1798—1799.
- Deutschl. fl. 1044. Sturm (Jacob). Deutschlands Flora. 2 vols. 4to. Nurnberg, 1798, &c.
- Dick. cr. 922. Dickson (James). Plantarum Cryptogamicarum Britanniae Fasciculi. 3 vols. 4to. London, 1785—1793.
- Dil. el. 94. } Dillenius (John Jac.). Hortus
D. elt. 132. } Eithamensis. 2 vols. fol. Londini, 1732.
D. e. 158. }
- Dil. Mus. 892. *Id.* Historia Muscorum. 4to. Oxonii, 1741.
- Dillw. conf. 930. } Dillwyn (Lewis Weston). Synopsis
Di. co. 926. } of the British Confervæ. 4to. 1802—1814.
- Dodar. mem. 636. } Dodart (Denys). Mémoires pour
Dod. me. 164. } servir à l'Histoire des Plantes. Fol. Paris, 1676.
- Dod. pempt. 98. Dodonæus or Dodoens (Rambrot). Stirpium Historiæ pemptades vi. Fol. Antwerp, 1583.
- Duh. arb. 104. Duhamel du Monceau (Henri Louis). Traité des Arbres et Arbustes qui se cultivent en France en pleine Terre. 2 vols. 4to. Paris, 1755.
- Duh. ar. e. n. } *Id.* The same work, a new edition,
Duh. ed. n. } by Michel. 5 vols. folio. Paris, 1801—1816.
Duh. nov. }
- Dun. mon. 480. Dunal (Michel Felix). Monographie des Anonaces. 4to.
- Dun. sol. 156. *Id.* Histoire naturelle, medicale, et économique, des Solanum et des genres qui ont été confondus avec eux. 4to. Montpellier, 1813.
- Du Roi, ed. 868. Du Roi (Joh. Phil.). Die Harbkesche wilde Baumzucht. 2 vols. 8vo. Braunschweig, 1771—1772.
- Edin. phil. journ. } The Edinburgh Philosophical
1040. } Journal. Edinburgh. 8vo, published quarterly.
- Ehr. pict. 20. Ehret (George Dion). Plantæ et Papilionæ rariores. Fol. London, 1748—1759.
- Eng. bot. 6. } English Botany, by Sir James
E. b. 926. } Edward Smith, and Mr. James Sowerby. 36 vols. 8vo.

- Esper fuci. 946. Esper (Eug. Joh. Christ.). *Icones fucorum, Abbildungen der Tange*, 4to. Nurnberg, 1797—1799.
- Ex. bot. 12. Exotic Botany, by Sir James Edward Smith. London, 1804—1808.
- Ex. fl. 626. The Exotic Flora, by W. J. Hooker. 3 vols. 8vo. Edinburgh, 1825—1827.
- Ferr. hesp. 654. Ferrari (Joh. Baptist). *Hesperides, sive de malorum aureorum cultura et usu*. Fol. Romæ, 1646.
- Feuillée, 844. } Feuillée (Louis). *Journal des Observations Physiques, Mathématiques, et Botaniques, faites dans l'Amerique Méridionale*, &c. 4to. Paris, 1714—1725.
- Feuill. ch. }
Feuill. it. }
Feuill. per. }
Fe. dan. 16. } *Icones Plantarum sponte nascentium in regnis Danicæ et Norvegiæ, &c.* 9 vols. folio. Hafniæ, 1761—1829.
- Fl. d'owar. 522. Paliset de Beauvois. *Flore des Royaumes d'Oware et de Benin*. 2 vols. fol. Paris.
- Fl. græc. 6. Sibthorp (Joh.). *Flora Græca*, ed. J. E. Smith. 6 vols. folio. London, 1806—1829.
- Fl. lapp. 820. Linnæus (Carolus). *Flora Lapponica*. 8vo. Amstelodami, 1757.
- Fl. per. 26. Ruiz (Hippol.) et Pavon (Jos.). *Flora Peruviana et Chilensis*. 3 vols. folio. Madriti, 1798—1799.
- Fl. port. 16. Hoffmannsegg and Link. *Flore Portugaise*. Fol. Rostoch et Berlin, 1806, &c.
- Forsk. ic. 102. Forskahl (Petrus). *Icones rerum naturalium*. 4to. Hafniæ, 1775—1776.
- Fras. mo. en. ic. 56. Frazer (John). *A short History of the Agrostis Cornucopiæ*. Fol. London, 1789.
- Fries obs. 1032. Fries (Elias). *Observationes Mycologicæ*. 12mo, 2 vols. Hafniæ, 1815—1818.
- Fuchs ic. 160. Fuchs (Leonhard). *De Historia Stirpium Commentarii insignes*. Fol. Basilicæ, 1542—1543.
- Gærtn. 688. }
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G. de f. 628. }
Gært. sem. 104. }
Gar. s. 380. }
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Garid. prov. 542. } *Gærtner (Josephus). De Fructibus et Seminibus Plantarum*. 2 vols. 4to. Lipsiæ, 1788—1791.
- Ger. ema. 90. }
Ger. herb. 22. } *Garidel (Pierre Joseph). Histoire des Plantes qui naissent aux environs d'Aix*. 2 vols. fol. Aix, 1715.
- Ger. prov. } *Gerard (John). The Herbal or General History of Plants*. 1 vol. fol. London, 1797. Enlarged by Johnson. 1 vol. Fol. 1633.
- Gmel. it. 14. } *Gerard (Ludovic). Flora Gallo-provincialis*. 8vo. Paris, 1761.
- Gmel. sib. 54. } *Gmelin (John George). Reise durch Sibirien*. 4 vols. 8vo. Götting. 1751—1753.
- Gouan ill. 210. } *Id. Flora Sibirica*. 4 vols. 4to. Petropol. 1747—1769.
- Goua. m. 118. } *Gouan (Antoine). Illustrationes botanicæ*. Fol. Tiguri, 1773.
- Gre. cryp. fl. 900. } *Id. Hortus regius Monspelienis*, 8vo. Lugduni, 1762.
- Gre. sc. cry. 912. } *Greville (Charles Kaye). The Scottish Cryptogamic Flora*. 4 vols. 8vo.
- Hac. pl. al. 118. Hacquet (Balthazar). *Plantæ Alpine Carniolicæ*. 4to. Viennæ, 1782.
- Hall. helv. 528. } *Haller (Albert). Historia Stirpium indigenarum Helvetiæ*. 3 vols. fol. Berne, 1768.
- Hall. hist. 14. }
Ha. h. n. }
H. n. h. 52. }
H. in. un. an. 276. } *Hænke (Thadæus), in Usteri's Annalen der Botanik*. 6 vols. 8vo. Zurich, 1791—1793.
- Hay. trm. 66. Hayne (Frid. Gottlieb). *Termini Botanici Iconibus illustrati*. 4to. Berlin, 1799.
- Hed. sp. mus. 900. Hedwig (Johannes). *Species Muscorum frondosorum*. 4to. Lipsiæ, 1801.
- Her. lugd. 160. }
Her. parad. 92. } *Hermann (Paulus). Horti Lugduni Batavi Catalogus*. 8vo. Lugd. Bat. 1687.
- H. & L. fl. p. 122. } *Id. Paradiis Batavus*. 4to. Lugd. Bat. 1798.
- Hof. et L. lu. 498. } *Hoffmannsegg and Link. Flore Portugaise*. Fol. Berlin, 1806—1829.
- Hoff. ph. 14. Hoffmann (Georg. Franz.). *Phytophagische blätter*. 8vo. Göttingen.
- Hoff. sal. 826. } *Id. Historia Salicum Iconibus illustrata*. Fol. Lipsiæ, 1785.
- H. sal. 820. }
Hook. ex. fl. 2. } *Hooker (William Jackson). The Exotic Flora*. 3 vols. 8vo. 1825—1827. Edinburgh.
- Hook. fl. ex. 18. } *Id. Monograph of the British Jungermannia*. 4to. London, 1812—1816.
- Hook. jung. 918. }
Hoo. mus. br. 902. } *See Musc. Brit.*
Hor. phys. br. 23. } *Horæ Physicæ Berolinenses*. Fol. Berlin.
- Hort. ber. 66. Willdenow (Car. Lud.). *Hortus Berolinensis*. Fol. Berlin, 1806—1810.
- Hort. cliff. 24. Linnæus (Carolus). *Hortus Cliffortianus*. Fol. Amst. 1737.
- Hort. Kew. 704. Aiton (William). *Hortus Kewensis*. Ed. 1. 3 vols. 8vo. London, 1789.
- Hort. trans. 38. Transactions of the Horticultural Society of London. 7 vols. 4to.
- Host. gr. 50. Host (Nicol. Thom.). *Icones et Descriptiones Graminum Austriacorum*. 3 vols. fol. Vindob. 1801—1803.
- Hout. pfl. 786. } *Houttuyn (Martin). Des ritters von Linné Pflanzensystem nach der anleitung des Houttuynschen werks*. 14 vols. 8vo. Nurnberg, 1777—1788.
- Houtt. syst. 590. }
Ho. sys. 544. }
Hum. no. g. 692. } *Humboldt, Bonpland, and Kunth. Nova Plantarum Genera et Species*. 7 vols. 4to. Paris, 1815 to 1825.
- Ic. hor kew. 306. Bauer (Francis). *Delineations of Exotic Plants cultivated in the Royal Garden at Kew*, publ. by W. J. Aiton. Fol. London, 1796.
- Icon. Kæmpf. 152. *Icones selectæ Plantarum quas in Japonia collegit et depingi curavit E. Kæmpfer*. Fol. London, 1791.
- Is. ac. p. 122. } *Isnard in the Acta Parisiensia.*
Jac. amer. 34. } *Von Jacquin (Nicolas Jos.). Stirpium Americanarum historia*. Fol. 1763.
- Jac. am. pic. 246. } *Id. The same work with coloured plates*, no date.
- J. a. ed. pl. 304. }
Jac. aust. 16. } *Id. Floræ Austriacæ icones*. 5 vols. fol. Vindob. 1773—1778.
- Jac. col. 16. } *Id. Collectanea ad Botanicam, &c. spectantia*. 5 vols. 4to. Vindob. 1786—1796.
- Jc. co. sup. 96. }
Jac. ecl. gra. 58. } *Id. Eclogæ Botanicæ*. Fol. 1811—1816.
- Jac. gr. ecl. 64. }
Jac. ecl. }
Jac. frag. 68. } *Id. Fragmenta Botanica*. Fol. 1800—1809.
- Jac. hort. 616. } *Id. Hortus Botanicus Vindobonensis*. 3 vols. fol. Vindob. 1764—1776.
- Jac. hor. vin. 646. }
Jac. vin. 4. } *Id. Icones Plantarum rariorum*. 3 vols. Fol. Vindob. 1781—1793.
- Jac. ic. 4. }
Jac. ic. rar. 22. } *Id. Miscellanea Austriacæ ad Botanicam, &c., spectantia*. 2 vols. 4to. Vindob. 1778—1781.
- Jac. pl. rar. 16. } *Id. Observationes Botanicae*. Fol. Vindob. 1764—1771.
- Jac. misc. 198. }
Jac. m. 368. } *Id. Oxalidis Monographia iconibus illustrata*. 4to. Vindob. 1792.
- Jac. obs. 52. } *Id. Plantarum rariorum Horti Cæsarei Schönbrunnensis*. 4 vols. Fol. Vindobonen. 1797—1804.
- Jac. ox. 384. }
Jac. schön. 24. } *Id. Stapeliæ cultæ*. Fol. Vindob. 1806—1815.
- Jacq. schb. 4. }
Jac. stap. 198. } *Id. Journal d'Histoire naturelle*. 4to. 2 vols. Paris, 1792.
- Jour. his. n. 676. } *Journal of Science, edited at the Royal Institution*. 8vo, published quarterly.
- Jo. of Sc. 244. }
Journ. sc. 750. }

- Jung. ic. rar. 14. Junghans (Phil. Carp.). *Icones Plantarum ad vitam impressæ.* Fol. Halæ, 1787.
- Jus. an. m. 658. Jussieu in the *Annales du Muséum.*
- Kæmpfr. 102. } Kæmpfer (Engelbert). *Amœnitates Exoticae*. 4to. Lemgovia, 1712.
- Kæm. am. } *Id. Icones selectæ Plantarum.* Fol. London, 1791.
- Kæ. amœn. 806. } *Id. Icones selectæ Plantarum.* Fol. London, 1791.
- Kæmpfr. ic 616. } *Id. Icones selectæ Plantarum.* Fol. London, 1791.
- Ker's rev. pl. 252. Ker (John Bellenen). *Recensio Plantarum hucusque in Repositorio Botaniconum depictarum*. 4to. London, 1801.
- Knor. del. 614. Knorr (Georg. Wolfgang). *Delicia naturæ selectæ*. 2 vols. fol. Nurnberg, 1766—1767.
- Knor. th. 160. } *Id. Thesaurus rei herbariæ horten-*
- Knor. the. 134. } *tensicæ universalis*. 2 vols. fol. 1770—1772.
- Krock. sil. 16. Krocker (Ant. Joh.). *Flora Silesiaca renovata*. 2 vols. 8vo. Vratislavia, 1787—1790.
- Kun. nov. g. 688. Kunth (Car. Sigism.). *Nova Genera et Species Plantarum*. 7 vols. 4to. Paris, 1825.
- Kunth mim. 854. *Id. Mimoses et autres Plantes Legumineuses du nouveau Continent.* Fol. Paris, 1819, &c.
- Lab. ic. pl. sy. 684. Labillardiere (Jac. Jul.). *Icones Plantarum Syriæ rariorum.* Fol. Paris, 1791—1812.
- Lab. nov. ho. 130. *Id. Novæ Hollandiæ Plantarum specimen*. 2 vols. fol. Paris, 1804—1806.
- Lab. syr. 26. *Id. Icones Plantarum Syriæ rariorum Decades* 10. 4to. Paris, 1791—1812.
- Lab. voy. 342. *Id. Relation du Voyage à la recherche de la Peyrouse.* Paris, 1793. 2 vols. 8vo.
- Lam. ill. 12. Lamarek (Jean Baptiste Monet de la). *Illustration des Genres*. 4to. Paris, 1791, &c.
- Lam. cinc. 842. Lambert (Aylmer Bourke). *Description of the Genus Cinchona.* London, 1787.
- Lam. pin. 802. } *Id. A description of the genus*
- Lamb. pin. supp. } *Pinus.* Fol. London, 1803. —
784. } *Suppl. Fol. London, 1825.*
- Lapey. fl. 368. } Picot de la Peyrouse (Philippe).
- La peyr. pyr. 164. } *Figures de la Flore des Pyrénées.* Fol. Paris, 1795—1801.
- Lawr. ros. 442. Lawrence (Miss). *A collection of Roses from Nature.* Fol. London, 1799.
- Lawr. pass. 566. *Id. Six numbers of coloured figures of Passion Flowers.* Fol. London.
- Leers. } Leers (John Dan.). *Flora Herbo-*
- Leers. her. 66. } *nenensis*. 8vo. Colon. Alobr. 1789.
- Lehm. ic. asp. 120. Lehmann (J. G. C.). *Plantæ Asperifoliæ Nucif.* 2 vols. 4to. Berlin, 1818.
- Lehm. nic. 136. *Id. Gen. Nicotianarum Historia.* 4to. 1818.
- L'Her. ger. 568. L'Heritier (Charles Louis). *Geraniologia.* Fol. Paris, 1787, 1788.
- L'Her. ser. 96. *Id. Sertum Anglicum sive Plantæ rariores.* Fol. Paris, 1788.
- L'Her. stirp. 234. } *Id. Stirpes novæ aut minus cogni-*
- L. He. s. n. 156. } *tæ.* Fol. Paris, 1784—1785.
- Lightf. fl. scot. 940. Lightfoot (John). *Flora Scotica.* 2 vols. 8vo. London, 1777.
- Lind. coll. 8. Lindley (John). *Collectanea Botanica.* Fol. London, 1821.
- Lind. dig. 528. *Id. Digitalium Monographia.* Fol. London, 1821.
- Lind. ros. 442. *Id. Rosarum Monographia.* 8vo. London, 1820.
- Li. ac. up. 166. Linnæus (Carolus). In the *Transactions of the Upsal academy.*
- Lin. am. ac. 498. *Id. Amœnitates academicae.* 10 vols. 8vo. Ed. I. Holm. et Lips. 1749, &c.
- Lin. fasc. 336. } Linnæus (Carolus, filius). *Plan-*
- L. fl. fa. 52. } *tarum rariorum Horti Upsaliensis fasc. I.* Fol. Lips. 1767.
- Lin. fil. de. 432. } *Id. Plantarum rariorum Horti Upsaliensis Decas.* Fol. Stock. 1762—3.
- Lin. dec. 120. } *Id. Plantarum rariorum Horti Upsaliensis Decas.* Fol. Stock. 1762—3.
- L. hort. cliff. 844. } Linnæus (Carolus, filius). *Hortus*
- Linn. cliff. 638. } *Cliffortianus.* Fol. Amster-
- Li. h. cl. 166. } *dam, 1737.*
- Linn. trans. 16. } *Transactions of the Linnean So-*
- L. t. 182. } *ciety of London.* 4to. Lon-
- Lob. ic. 94. } *don, 1791—1829.*
- } *De Lobel, or Lobelius (Mathias).*
- } *Stirpium Icones*. 4to. Ant-
- } *werp, 1591.*
- Lœf. hisp. 744. } Lœfling (Peter). *Iter Hispanicum.*
- Lœf. it. rar. } *8vo. Stockholm, 1758.*
- Loes. pruss. 370. } Loeselius (John). *Flora Prussica.*
- } *4to. Jégionti, 1793.*
- Lois. fl. gall. 658. Loiseleur Deslongchamps (J. L. A.). *Flora Gallica.* 2 vols. 12mo. Paris, 1806—1807.
- Lyngb. hydrop. } Lyngbye (H. C.). *Hydrophy-*
- dan. 930. } *tologia Danica.* 4to. Copen-
- Lyngb. phyt. dan. } *hagen.*
- Mag. b. mo. 128. } Magnol (Petrus). *Botanicum Mons-*
- Magn. mons. 612. } *pelienae.* 12mo. Monsp. 1686.
- Magn. hort. 170. } *Id. Hortus Regius Monspelienae.*
- } *8vo. Monsp. 1697.*
- Marc. bra. 512. Marcgravius (Georg.). *Historia rerum naturalium Brazilie.* Fol. L. Bat. 1648.
- Mart. cent. 118. } Martyn (John). *Historia Planta-*
- Mart. dec. 192. } *rum rariorum.* Cent. 1. dec. 1—5. Fol. London, 1728.
- Mass. stap. 193. Masson (Francis). *Stapelie novæ.* Fol. London, 1798.
- Meerb. ic. 106. Meerburg (Nicol.). *Plantarum selectarum Icones pictæ.* Fol. L. Bat. 1798.
- Mem. m. 8. Mémoires du Muséum d'Histoire Naturelle. 4to. Paris, 1815—1829.
- Mem. petr. 20. *Transactions of the Academy of St. Petersburg.* 4to. Petersb.
- Merian. sur. 626. Merian (Maria Sybilla). *De Metamorphosis Insectorum Surinamensium.* Fol. Hagæ, 1726.
- Mich. am. 18. Michaux (André). *Flora Boreali-Americana.* 2 vols. 8vo. Paris, 1803.
- Mich. querc. 794. *Id. Histoire des Chènes de l'Amérique septentrionale.* Folio. Paris, 1801.
- Mich. arb. 794. Michaux (André Franc. fils). *Histoire des arbres forestiers de l'Amérique septentrionale.* 3 vols. 4to. Paris, 1810—1813.
- Mich. ge. 166. } Micheli (Peter Ant.). *Nova Plan-*
- Mic. gen. 50. } *tarum genera.* Fol. Florence, 1729.
- Mi. n. g. pl. 640. } Miller (Phil.). *Gardener's Dic-*
- Mil. dic. 796. } *tionary.* Fol. ed. 8. 1768; the best.
- Mill. ic. 18. *Id. Figures of Plants described in the Gardener's Dict.* 2 vols. fol. London, 1760.
- Mœnch. m. 132. Mönch (Conrad). *Methodus Plantarum horti et agri Marburgensis describendi.* 8vo. Marburg, 1794.
- Mönch. weis. 426. *Id. Verzeichniss Ausländischer Bäume des lustschlosses Weissenstein,* 8vo. Frankf. 1785.
- Mor. 6. } Morison (Robert). *Plantarum*
- Mor. h. 124. } *Historia Universalis Oxoni-*
- M. his. 16. } *ensis.* 2 vols. fol. Oxon. 1680.
- M. h. l. 8. } *Mo. ox. s. 538.*
- M. h. s. 120. } *Moris. s. 94.*
- Mo. ox. s. 538. } *Mr. s. M. s. 208.*
- Moris. s. 94. } *Id. Plantarum umbelliferarum*
- Mr. s. M. s. 208. } *distributio nova.* Fol. Oxon. 1672.
- Mor. umb. 224. } *Murray 24.*
- Murray 24. } *Murr. 22.*
- Murr. 22. } *Murray (Joh. Andr.). Prodomus*
- Mur. got. 34. } *designationis Stirpium Gottin-*
- Mur. co. got. 98. } *gensium.* 8vo. Gotting. 1770.
- M. c. g. p. 330. } *Hooker and Taylor. Muscologia*
- Musc. brit. 896. } *Britannica.* 8vo. London, 1818.
- N. ac. ber. 72. } *Nova acta Academiae Berolinensis.*
- Nees crypt. 1008. } *Nees v. Esenbeck (C. G.). Das*
- Nees pilze, 998. } *System der Pilze und*
- Nees syst. 1010. } *Schwämme.* 4to. Wurtzburg, 1817.
- N. ac. p. 614. } *Nova acta Academiae Parisiensis.*

- N. c. p. 276. } *Novi Commentarii Academiæ Caesarsæ Petropolitanae.*
 N. co. pet. 510. } *De Ortega (Cas. Gomez). Novarum aut rariorum Plantarum, Hort. R. Madritensis Decades.* 4to. Madrid, 1797, 1798.
 Ort. dec. 192. }
- Osbeck (Peter). *A Voyage to China, &c.* 8vo. London, 1771.
 Osb. it. 176. }
- Pallas (Peter Simon), in the *Petersburgh Transactions.*
 Pal. ac. pet. 506. } *Id. Species astragolorum descriptæ et iconibus illustratæ.* Folio. Lips. 1800.
 P. a. p. 216. } *Id. Reise durch verschiedene provinzen des Russischen Reichs.* 3 vols. 4to. Petrop. 1771—1776
 Pall. astr. 340. } *Id. Flora Rossica.* Fol. Petrop. 1784—1788.
- Parkinson (John). *A Paradise of Pleasant Flowers.* Fol. London, 1629.
 Park. par. 240. }
- Id. Theatrum Botanicum.* Fol. London, 1640.
 Park. thea. 104. }
- Salisbury (Rich. Ant.). *Paradisus Londinensis.* 2 vols. 4to. London, 1805—1808.
 Par. lond. 16. }
- Parry (William). *A Voyage to discover the North West Passage.* 4to. London.
 Parry's append. 540. }
- Passæus (Crispinus). *Hortus floridus.* Fol. Arnheim, 1614.
 Pass. hort. 242. }
- Paterson (William). *A Narrative of Four Journeys into the Country of the Hottentots.* 4to. London, 1789.
 Pater. it. 574. }
- Persoon (Christ. Henr.). *Tentamen dispositionis methodicæ Fungorum.* 8vo. Lips. 1797.
 Pers. disp. 1038. }
- Id. Icones pictæ specierum rariorum Fungorum.* 4to. Paris and Strasb. 1803.
 Pers. ic. 994. } *Id. Synopsis plantarum s. Enchiridion Botanicum.* 2 vols. 12mo. Paris, 1805—1807.
 Pers. ic. pict. 996. }
- Aubert du Petit Thouars (Aubert). *Histoire des vegetaux recueillis dans les Iles Australes d'Afrique.* 4to. Paris, 1806.
 Pa. th. or. afr. 764. }
- Petiver (James). *Gazophylacium Naturæ et Artis.* Fol. London, 1702—1704.
 Pet. gaz. 312. } *Id. Herbarii Britannici Catalogus.* Fol. London, 1702—1704.
 P. gz. 98. }
- Id. Pterigraphia Americana.* Fol. London.
 Pet. h. br. 326. }
- Id. Musæi Petiveriani Centuriæ* 10. 8vo. London, 1695.
 Petiv. fil. 876. }
- Piccivoli (Giuseppe). *Hortus Panticaticus.* 4to. Firenze, 1783.
 Pet. mus. 308. }
- Piso (Gulielm.). *Historia Naturalis Brasiliæ.* Fol. Amsterdam, 1648.
 Ph. tran. 604. }
- De Candolle (Aug. Pyr.). *Plantarum Historia succulentarum.* Fol. and 4to. Paris, 1799—1803.
 Pic. h. p. 350. }
- Walstein (Franc.) et Kitaibel (Paul). *Descriptions et Icones Plantarum rariorum Hungariæ.* 3 vols. fol. Vienna, 1802—1812.
 Pis. bras. 246. }
- Plukenet (Leonard). *Phytographia s. Stirpium illustriorum, &c.* 4 vols. 4to. London, 1691—1706.
 Plant. grass. 230. }
- Plumier (Charles). *Description des Plantes de l'Amerique.* Fol. 1693—1712.
 Pl. rar. hu. 96. }
- Id. Traité des Fougères de l'Amerique.* Fol. Paris, 1705.
 Pluk. 18. } *Id. Nova Plantarum Americanarum genera.* 4to. Paris, 1703.
 Pluk. al. 22. } *Id. Plantæ Americane à C. Plumier detectæ et à J. Burmanno editæ.* Fol. Amst. 1755.
 Pk. alm. 50. }
- Po. it. ed. ger. 404. } *Poiret (J. L. M.). Voyage in Barbary.* 2 vols. 8vo. Strasb. 1789.
 Pt. et T. fl. 8. } *Poitreau et Turpin. Flore Parisienne.* Fol. Paris, 1808, &c.
 Pon. bald. 640. } *Pona (Joh.). Plantæ seu Simplicia quæ in Baldo Monte reperuntur.* 4to. Basilæ, 1608.
 Pursh fl. am. 22. } *Pursh (Frederick). Flora Borealis Americana.* 2 vols. 8vo. London, 1814.
 Pursh am. 160. }
- Quer (Martinez). *Flora Española.* 4 vols. 4to. Madrid, 1762—1764.
 Quer fl. 76. }
- Rauwolf (Leonh.). *Aigentliche beschreibung der Raiss in den Morganlander.* 4to. Laugangen, 1582—1583.
 Rauw. ic. 316. } *Redouté (P. J.). Les Liliacées.* 8 vols. fol. Paris, 1802—1816.
 Rauw. it. 822. }
- Id. Les Roses.* Fol. Paris.
 Red. lil. 2. }
- Id. Les Liliacées.* 8 vols. fol. Paris, 1802—1816.
 Red. ros. 448. } *Id. Les Roses.* Fol. Paris.
 Reliq. ho u. 814 } *Reliquiæ Houstonianæ.* 4to. London, 1781.
 R. houst. 18. } *Reneaulme (Paul). Specimen Historiæ Plantarum.* 4to. Paris, 1611.
 R. pl. h. 24. } *Retzius (And. Joh.). Observationes Botanicae.* 4to. London, 1774—1791.
 Ren. spec. 276. }
- Reneaulme (Paul). *Specimen Historiæ Plantarum.* 4to. Paris, 1611.
 Retz. obs. 212. } *Retzius (And. Joh.). Observationes Botanicae.* 4to. London, 1774—1791.
 Retz. st. 16. }
- Van Rhee (Henricus). *Hortus Indicus Malabaricus.* 12 vols. fol. 1678—1703.
 Rhee. 18. } *Rivinus (Aug. Quirinus). Ordo Plantarum Flore irregulari monopetalæ.* Fol. Lips. 1690.
 R. mal. 4. } *Id. Ordo Plantarum flore irregulari tetrapetalæ.* Fol. Lips. 1699.
 Riv. mon. 16. }
- Robert (Nicolas). *Icones Plantarum.* Fol. Paris, 1701.
 Riv. tetr. 546. }
- De la Roche (Daniel). *Dissertatio de Eryngis.*
 Rob. ic. 522. }
- Rœmer (Jac. Joh.). *Archiv für die Botanik.* 3 vols. 4to. 1796—1799.
 Roem. arc. 10. }
- Id. In the Copenhagen Transactions, or Acta Hafniensia.*
 Ro. in. ac. ha. 870. }
- Rottboll (Christ. Friis). *Descriptiones et Icones Plantarum rariorum.* Fol. Hafnia, 1773.
 Roth. gr. 48. } *Roth (Alb. Wilh.). Botanische Abhandlungen und Beobachtungen.* 4to. Nuremberg, 1787.
 Rt. gn. 50. }
- Roxburgh (William). *Plants of the Coast of Coromandel.* 2 vols. fol. London, 1795—1798.
 Roxb. cor. 4. }
- Rudge (Edward). *Plantarum Guianæ rariorum Icones et descr.* Fol. London, 1805.
 Rudg. gui. 86. } *Rumphius (George Everh.). Herbarium Amboinense.* 6 vols. fol. Amst. 1750.
 Ru. p. g. 2. }
- Rumphius (George Everh.). *Herbarium Amboinense.* 6 vols. fol. Amst. 1750.
 Rumph. 2. } *Sabbati (Liberatus). Hortus Romanus.* 7 vols. fol. Romæ, 1772—1784.
 Rum. amb. 102. } *Salisbury (Richard Anthony). Icones Stirpium rariorum.* Fol. London, 1791.
 Ru. am. 4. } *Santi (George). Viaggi al Mont Amiata e per la Toscana.* 3 vols. 8vo. Pisa, 1795—1806.
 Sabb. hort. 334. } *Savi (Gaetano). Flora Pisana.* 2 vols. 8vo. Pise, 1798.
 Sabb. rom. 158. }
- Salisbury (Richard Anthony). *Icones Stirpium rariorum.* Fol. London, 1791.
 Sal. st. ra. 2. }
- Santi (George). *Viaggi al Mont Amiata e per la Toscana.* 3 vols. 8vo. Pisa, 1795—1806.
 Sant. itin. 798. }
- Savi (Gaetano). *Flora Pisana.* 2 vols. 8vo. Pise, 1798.
 Savi pis. 62. }
- Schæffer (Jac. Christ.). *Fungorum Baviaræ et Palatinatus Icones.* 4 vols. 4to. Ratisbonæ, 1702—1770.
 Schæffer 986. } *Schrank (Franz. v. Paula). Baiersche Flora.* 2 vols. 8vo. Munich, 1789.
 Sch. 1002. }
- Schrank (Franz. v. Paula). *Baiersche Flora.* 2 vols. 8vo. Munich, 1789.
 Sch. br. 16. } *Schkuhr (Christ.). Botanisches handbuch.* 3 vols. 8vo. Wittenberg, 1791—1803.
 Schk. ba. 204. }
- Schkuhr (Christ.). *Botanisches handbuch.* 3 vols. 8vo. Wittenberg, 1791—1803.
 Schk. bot. 668. }
- Id. Histoire des Carex ou Laiches* 8vo. Leipsig, 1802.
 Schk. car. } *Id. Abbildungen der Farnkrauter.*
 Sc. ca. 774. } *Id. Botanisches Handbuch.* 3 vols. 8vo. Wittenberg, 1791—1803.
 Schk. fil. 878. }
- Schk. hann. 12. } *Id. Botanisches Handbuch.* 3 vols. 8vo. Wittenberg, 1791—1803.
 Schk. han. 88. } *S. h. 862.*

Schm. ar. 12.	Schmidt (Franz.). <i>Oesterrelchs Allgemeine Baumzucht</i> . 2 vols. folio. Vienna, 1792—1794.	Tab. ic. 94.	Tabernamontanus (Jac. Theod.). <i>Eicones Plantarum</i> , cur. N. Bassæo. 4to. Frankf. 1590.
Schm. ic. 176.	Schmiedel (Cas. Christ.). <i>Icones plantarum</i> . Folio. Norimb. 1762.	Tenore nap. 544. } Ten. fl. nap. 24. } Ten. neap. 132. } Th. act. haf. 732.	Tenore (Michel). <i>Flora Napolitana</i> . 4 vols. fol. Neap. 1811, &c.
Schm. mycol. 1038.	Schmidt. <i>Historia Mycologica</i> . 8vo. Schneevoght (G. Voorhelm). <i>Icones plantarum rariorum</i> . 2 vols. fol. Harlem, 1793.	Th. ac. st. 172.	Thunberg (Car. Petr.). In the Copenhagen Transactions.
Schne. ic. n. 316.		Th. ac. ups. 846. } Thun. ups. 204. } Thunb. diss. 46. } Thu. diss. n. 82. }	<i>Id.</i> In the Stockholm Transactions.
Schousb. 22. } Scho. maroc. 554. }	Schousboe (P. K. A.). <i>Iagttagelser over væxtriget i Marocco</i> . 4to. Kiøbenhavn, 1800.	Th. eric. 308. } Thu. eri. n. 314. } Th. g. n. } Thun. G. 172. } Th. jap. 360. }	<i>Id.</i> In the Upsal Transactions.
Schr. ger. 56.	Schrader (Henr. Adolp.). <i>Flora Germanica</i> . 8vo. Göttingæ, 1806.	Th. prot. n. 80. } Till. pis. 92. }	<i>Id.</i> <i>Dissertationes Academicæ Upsaliæ sub ejus præsidio habitæ</i> . 3 vols. 8vo. Götting. 1799—1801.
Schr. hal. 206	<i>Id.</i> De Halophytis Pallasii. 4to. Götting. 1810.	Th. eric. 308. } Thu. eri. n. 314. } Th. g. n. } Thun. G. 172. } Th. jap. 360. }	<i>Id.</i> <i>Diss. de Erica</i> . 4to. Upsal, 1785.
Sch. se. h. 220. } Sert. han. 364. } Sc. v. 14. }	<i>Id.</i> Sertum Hanoverianum. Fol. Götting. 1795—1796.	Th. prot. n. 80. } Till. pis. 92. }	<i>Id.</i> <i>Nova plantarum genera</i> . Dis. novem. 1781—1798.
Schr. mon. 83	Schranck (Fr. v. Paula). <i>Plantæ rariores Horti Monacensis</i> . Fol. Munich, 1817—1819.	Th. jap. 360. }	<i>Id.</i> <i>Flora Japonica</i> . 8vo. Lips. 1784.
Schreb. decad. 638.	Von Schreber (Joh. Christ. Dan.). <i>Icones plantarum minus cognitatum</i> . Decas 1. Fol. Halæ, 1766.	Th. prot. n. 80. } Till. pis. 92. }	<i>Id.</i> <i>Diss. de Protea</i> . 1781.
Schr. gram. 54. } Sch. gn. 43. } Schwægr. sup. 896. }	<i>Id.</i> Beschreibung der gräser. 2 vols. fol. Lips. 1769—1779.	Tode fun. meckl. 1038.	Tilli (Mich. Aug.). <i>Catalogus Horti Pisani</i> . Fol. Florence, 1723.
Scop. carn. 214	Scopoli (Joh. Ant.). <i>Lipsa Carniolica</i> . 8vo. Vienna, 1760.	Tode fun. meckl. 1038.	Tode (Henr. Jul.). <i>Fungi Mecklenburgenses Selecti</i> . 4to. Luneburg, 1790.
Scop. del. 24. } Sco. dl. ins. 92. } Scop. insub. } Seb. mu. 310. } Seb. th. 722. }	<i>Id.</i> <i>Delicia floræ Insubricæ</i> . 3 vols. fol. Ticini, 1786—1788.	Tourn. it. 134.	Tournefort (Joseph Pitton de). <i>Relation d'un Voyage du Levant</i> . 2 vols. 4to. Paris, 1717.
Seg. ver. 15.	Seguier (Joh. Franc.). <i>Plantæ Veronenses</i> . 3 vols. 8vo. Veronæ, 1745.	Tra. arc. 864.	Trattennick (Leop.). <i>Archiv der Gewächskunde</i> . 4to. Vienn. 1811—1812.
S. fl. i. oc. 870.	Swartz (Olof). <i>Flora Indiciæ occidentalis</i> . 3 vols. 8vo. Erlangæ, 1797—1806.	Tratt. thes. 544.	<i>Id.</i> <i>Thesaurus Botanicus</i> . Fol. Vienna, 1819.
Sloane, 68. } Slo. jam. 4. } Slo. hist. 28. } Sl. jm. 16. } Smit. ic. fas. 98. } Sm. ic. n. 316. }	Sloane (Hans). <i>A Voyage to Madeira, Barbadoes, Nevis, St. Christophers, and Jamaica</i> . 2 vols. fol. Lond. 1707.	Trew. chret. 144. } Tr. ehrt. 28. }	Trew (Christ. Jac.). <i>Plantæ selectæ ab Ehret pictæ</i> . Fol. 1750—1773.
Smith ic. pict. 526.	<i>Id.</i> <i>Icones pictæ plantarum rariorum</i> . Fol. London, 1790—1793.	Trew. pl. rar. 124. } Trium. obs. 680. } Tri. ob. 140. }	<i>Id.</i> <i>Plantæ rariores</i> . Ed. J. C. Keller. Fol. 1763.
Smith n. hol. 142. } Sm. N. H. 84. }	<i>Id.</i> A Specimen of the Botany of New Holland. 4to. London, 1793.	Trium. obs. 680. } Tri. ob. 140. }	Triumfetti (Joh. Bapt.). <i>Observationes de Ortu et Vegetatione plantarum</i> . 4to. Romæ, 1685.
Smith spic. 154. } Sm. spicil. 6. } Sole's mints, c. ic. 500. } Sonn. it. 4. }	<i>Id.</i> <i>Spicilegium Botanicum</i> . Fol. London, 1791—1792.	Turn. fuci, 938.	Turner (Dawson). <i>Historia fuorum</i> . 3 vols. fol. London, 1802, &c.
Sole's mints, c. ic. 500. } Sonn. it. 4. }	Sole (William). <i>Menthæ Britannicæ</i> . Fol. Bath, 1798.	Tur. mus. hi. 914.	<i>Id.</i> <i>Muscologia hibernicæ specimen</i> . 12mo. London, 1804.
Sowerby, 986.	Sonnerat (P.). <i>Voyage à la Nouvelle Guinée</i> . 4to. Paris, 1776.	Vah. symb. 96. } Va. sy. 100. } Vail. bot. par. 994. } Vail. par. 62. }	Vahl (Martino). <i>Symbola Botanica</i> . Fol. Hafn. 1790—1794.
Spreng. fl. hal. 622.	Sprengel (Kurt). <i>Floræ Halensis Tentamen novum</i> . 8vo. Halæ Sax. 1806.	Vail. bot. par. 994. } Vail. par. 62. }	Vaillant (Sebastien). <i>Botanicon Parisiense, operis majoris prodromus</i> , 8vo. L. Bat. 1725.
Spr. umb. 210.	<i>Id.</i> <i>Plantarum umbelliferarum Prodromus</i> . 4to. Halæ, 1813.	Vauch. conf. 934.	Vaucher (Jean Pierre). <i>Histoire des Conferves d'eau douce</i> . 4to. Geneve, 1803.
Stackhouse fuci, 942. } Sturm's Deuts. flor. 1034. } Stur. d. f. 374. } Sw. ob. 22. }	Stackhouse (John). <i>Nereis Britannica</i> . Fol. Bath, 1795—1797.	Vent. cels. } Ve. des. pl. n. 772. }	Ventemat (Etienne Pierre). <i>Description des plantes nouvelles ou peu connues du Jardin de J. M. Cels</i> . Fol. Paris, 1800.
Sw. syn. fil. 878.	Sturm (Jacob). <i>Deutschlands flora</i> . Many volumes 12mo. Nuremberg, 1798—1829.	Vent. choix, 12.	<i>Id.</i> <i>Choix des plantes</i> . Fol. Paris, 1805—1808.
Sweet fl. gard. 132.	Swartz (Olof). <i>Observationes Botanica</i> . 8vo. Erlangæ, 1791.	Vent. mal. 18.	<i>Id.</i> <i>Jardin de la Malmaison</i> . Fol. 1803—1805.
Sweet ger. 568.	<i>Id.</i> <i>Synopsis Filicum, earum genera et species complectens</i> . 8vo. Kilix, 1806.	Vill. dauph. 540. } Vill. delph. 202. } Vill. de. 524. }	Villars (D.). <i>Histoire des plantes du Dauphiné</i> . 3 vols. 8vo. Grenoble, 1786—1788.
		Vi. fragm. 64.	Viviani (Dominic). <i>Floræ Italicæ fragmenta</i> . 4to. Genue, 1808.
		Volck. nori. 700.	Volckemar (Joh. Georg.). <i>Flora Noribergensis</i> . 4to. Noribergæ, 1700.
		Voy. de lab. 86. } W. in Ro. et. 618. }	(See Labill. voy.) Willdenow in Römer's Archiv für der Botanik.
		Wah. lap. 544.	Wahlenberg (George). <i>Flora Laponica</i> . 8vo. Berlin, 1812.
		Wal. & Kit. 232. } W. & K. hung. 92. } W. & K. 16. }	Waldstein (Franc.) et Kitaibel (Paul). <i>Descriptiones et Icones plantarum rariorum Hungariæ</i> . 3 vols. fol. Vienn. 1802—1812.
		Walth. hort. 128.	Walther (Aug. Frid.). <i>Designatio Plantarum Horti ejus</i> . 8vo. Lipsiæ, 1735.
		W. am. 322.	Willdenow (Car. Lud.). <i>Historia Amaranthorum</i> . Fol. Turici, 1790.
		Weig. obs. 956.	Weigel (Christ. Ehrenb.). <i>Observationes Botanica</i> . 4to. Gryphie, 1772.

Weinm. 80.	}	Weinmann (J. Gul.). Phytan-	Will. ar. 422.	}	Willdenow (Car. Lud.). Berlinische
Wein. phy. 484.		thoza Iconographica. 4 vols.	W. arb. 464.		Baumzucht. 8vo. Berlin,
		fol. Regemb. 1737—1745.			1796.
Wendl. col. 98.	}	Wendland (Joh. Christ.). Col-	Willd. ber. 26.	}	<i>Id.</i> Hortus Berolinensis. Fol. Ber-
We. co. pl. 180.		lectio Plantarum tam exoti-	Will. hor. ber. 166.		lin, 1806—1810.
		carum quam indigenarum.	W. ho. br. 190.		
		4to. Hannoveræ, 1805, &c.	Willd. fl. berol.	}	<i>Id.</i> Floræ Berolinensis Prodro-
W. er. 504.	<i>Id.</i> Ericarum Icones et Descrip-	1032.	1032.		mus. 8vo. Berlin, 1787.
		tionones. 4to. 1798, &c.	Wil. phy. 138.	}	<i>Id.</i> Phytographia. Fol. Erlangæ,
Wendl. her. 570.	<i>Id.</i> Hortus Herrenhusanus. Fol.	1798, &c.	Wi. ph. 96.		1797.
		1798, &c.	Zanon hist. 124.		Zanon (Antonio). Isteria Bo-
Wer. trans. 900.	Transactions of the Wernerian		Zorn ic. 294.		tanica. Fol. Bologna, 1675.
	Society of Edinburgh. 8vo.				Zorn (Barthol.). Icones Planta-
Willd. ach. 696.	Willdenow (Car. Lud.). Tractatus				rum Medicinalium. 8vo. Nu-
	de Achilleis et Tanaceto. 8vo.				remb. 1779—1784.
	Halæ Magd. 1789.				

LIST OF AUTHORITIES

FOR

GENERIC AND SPECIFIC NAMES.

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

Forst. *Forster.* A traveller in the South Seas with Captain Cook.
Fr. *Fries.* A Swedish botanist, and writer upon Fungi
Fraz. *Frazer.* A gardener and collector of plants in North America.
Frol. *Fröblich.* A German writer upon Gentiana.
Funck. *Funck.* A German cryptogamic botanist.
Gac., Gärt. *Gärtner.* A celebrated German carpologist.
Gay. *Gay.* A French botanist.
Gleditsch. *Gleditsch.* A German botanist.
Gmel., Gm. *Gmelin.* A Russian botanist, and traveller in Siberia.
Gouan. *Gouan.* A French botanist.
Gr., Grev., Greville. *Greville.* An English botanist, and writer upon cryptogamic plants.
Hal. *Hales.* A distinguished English writer upon physiological botany.
Hänke. *Hänke.* A German botanical writer.
Haw. *Haworth.* An English writer upon succulent plants.
Hayne. *Hayne.* A German botanist.
Hedw. *Hedwig.* A German cryptogamic botanist.
Heist. *Heister.* A German botanist.
Herb. *Of the Herbarium.*
Herit. *Heritier.* A French botanist.
Hill. *Hill.* An English compiler of botanical matters.
H. K. *Hortus Kewensis.* A catalogue of the plants growing in the King's garden at Kew.
Hoff., Hoffm. *Hoffmann.* A German writer upon Umbelliferæ, &c.
Holmsk. *Holmskiöld.* A Danish botanist.
Hook. *Hooker.* An English botanist, and professor at Glasgow.
Hoppe. *Hoppe.* A German botanist, and collector of plants.
Horn., Hornem. *Hornemann.* A Danish botanist and professor.
Hort. *Of the gardens.*
Host. *Host.* An Austrian writer upon Grapes and European plants.
H. Par. *Of the Paris garden.*
Hud., Huds. *Hudson.* An English writer upon British plants.
Humb. *Humboldt.* A celebrated Prussian traveller and philosopher.
Jack., Jacks. *Jackson.* An English botanist.
Ja., Jac., Jacq. *Jacquin.* An Austrian traveller in South America, and botanist.
Jon. *Jones.* An accomplished writer upon Indian matters.
J., Juss. *Jussieu.* A celebrated French systematic botanist.
Kauf. *Kaufuss.* A German writer upon Ferns.
Ker. *Ker.* An English garden botanist.
Kit. *Kitaibel.* A Hungarian botanist.
Kn. Pr. *Knights' Proteæce.*
Kon. *König.* Several German naturalists of this name.
Kunth. *Kunth.* A Prussian botanist.
Kunze. *Kunze.* A German cryptogamic botanist.
Lag. *Lagasca.* A Spanish botanist and professor.
Lam. *Lamarck.* A French botanist.
La Peyr., Lap. *La Peyrouse.* A French writer upon the plants of the Pyrenees.
Lawr. *Lawrence (Miss).* An English flower painter.
Lax. *Laxmann.* A German writer upon Siberian plants.
Ledeb. *Ledebur.* A botanist, and traveller in Siberia.
Lehm. *Lehmann.* A German botanist.
L. fl. *Linnaeus the younger.* The son of the great Linnaeus.
L'Her. *L'Heritier.* A French botanist.
Lightf. *Lightfoot.* A writer upon the Scottish Flora.
Lind., Lindl. *Lindley.* An English botanist, and professor in London.
L. K. } *Link.* A Prussian botanist.
Lk., Link. } *Link.*
L., Linn. } *Linnaeus.* The celebrated Swedish reformer of natural history.
Lob. *Lobel.* An old writer upon plants.
Lodd. *Loddiges.* English nurserymen and botanists.
Loe. *Loesel.* An old Prussian botanist.

Lois. *Loiseleur Deslongchamps.* A French botanist.
Lour. *Loureiro.* A Portuguese traveller in Cochinchina.
L. T. *Linnæan Society's Transactions.*
Lynghb. *Lynghæ.* A Danish writer upon cryptogamic matters.
Marcg. *Marcgraan.* An old Dutch traveller in Brazil.
Mart. *Martius.* A Bavarian botanist, and traveller in Brazil.
Mass. *Masson.* A collector of plants at the Cape, and elsewhere.
Mayer. *Mayer.* Several German botanists of this name.
M. B. *Marschall v. Bieberstein.* A writer upon Russian botany.
Med. *Medicus.* A German botanist of the last century.
Menz. *Menzies.* A Scotch botanist, and traveller round the world with Vancouver.
Mert. *Mertens.* A German professor.
Mcy. *Meyer.* A German botanist.
Mi., Mich. *Michaux.* A French botanist, and traveller in North America.
Mik. *Mikan.* A German writer on Brazilian plants.
Mill. *Müller.* An English gardener and botanist.
Mir. *Mirbel.* A French physiological botanist.
Mohr. *Mohr.* A German cryptogamic writer.
Mol. *Molina.* An Italian writer upon the natural history of Chili.
Mönch. *Mönch.* A German botanist.
Morett. *Moretti.*
Moug. *Mougeot.* A German cryptogamic botanist.
Muhl., Mhl. *Muhlenberg.* A North American botanist.
Murr. *Murray.* A German botanist.
Mutis. *Mutis.* A Spanish botanist, resident in New Grenada.
Mx. *Michaux.* See above.
Neck. *Necker.* A German writer upon botanical affairs.
Necs. *Necs v. Escenbeck.* A German botanist.
Nois. *Noisette.* A French nurseryman.
Nor. *Noronha.* A Spanish botanist who visited Madagascar.
Nutt. *Nuttall.* A North American botanist.
Ort. *Ortega.* A Spanish botanist.
Othh. *Othh.* A French writer in Decandolle's Prodrum.
Otto. *Otto.* A Prussian gardener.
Pall. *Pallas.* A Russian traveller and naturalist.
Panz. *Panzer.* A German botanist.
P. de B., Pal. de Beauv. *Palisot de Beauvois.* A French botanist, and traveller in Africa.
Pers. *Persoon.* A German botanist.
Pet. *Petter.* An old English botanist.
Pet. Th. *Du Petit Thouars.* A French botanist, and traveller in Madagascar.
Ph., Psh. *Pursh.* A Prussian botanist, and traveller in North America.
P. L. *Paradisus Londinensis.*
Plin. *Pliny.* An ancient writer upon natural history.
Plu. *Plumier.* A French botanist, and traveller in the West Indies.
Poir. *Poiret.* A French botanical compiler.
Poit. *Poiteau.* A French botanist and draughtsman.
Poll. *Pollich.* A German writer on the plants of the Palatinate.
Pour. *Pourret.* A French botanist.
P. S. *Persoon's Synopsis.*
Raddi. *Raddi.* An Italian cryptogamic botanist, and traveller in Brazil.
Raf., Rafs. *Rafinesque Schmalz.* A modern writer upon botanical matters.
R. & S. *Römer and Schultes.* German editors of Linnaeus's Species Plantarum.
R. B., R. Br., R. Brown. *Robert Brown.* A distinguished English botanist, and traveller in New Holland.
Rchb. *Reichenbach.* A German botanist.
Rebent. *Rebentisch.* A Prussian botanist.
Red. *Redouté.* A French botanical draughtsman.
Relh. *Relhan.* A writer upon the Flora of Cambridgeshire.
Retz., Rtz. *Retzius.* A German botanist.
Rich. *Richard.* A French botanist.

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

T A B L E

OF

ABBREVIATIONS AND REFERENCES

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

COLUMN 3. *Habit.*

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

COLUMN 4. *Duration and Habitation.*

△	Perennial.
○	Biennial.
○	Annual.
□	Bark, or moist, stove.
□	Dry stove.
□	Green-house.
□	Frame.
⊠	Bark stove perennial.
⊠	Dry stove perennial.
⊠	Green-house perennial.
⊠	Frame perennial.
⊠	Bark stove biennial.
⊠	Dry stove biennial.
⊠	Green-house biennial.
⊠	Frame biennial.
⊠	Bark stove annual.
⊠	Dry stove annual.
⊠	Green-house annual.
⊠	Frame annual.

COLUMN 5. *Popular Character.*

ag	agricultural.
cl	clothing.
clt	cultivated.
cul	culinary.
dy	dying plant.
fr	fruit-tree.
m	medicinal.
or	ornamental.
p	poisonous.
tm	timber-tree.
w	weed.
spl.	splendid.

COLUMN 7. *Time of Flowering.*

ja	January.
f	February.
mr	March.
ap	April.
my	May.
jn	June.
jl	July.
au	August.
s	September.
o	October.
n	November.
d	December.

COLUMN 8. *Color of the Flower.*

Ap	apetalous, without petals.
B	blue.
Bk	black.
Br	brown.
D	dark.
F	flesh.
G	green.
L	light.
O	orange.
P	purple.
Pk	pink or rose.
R	red.
S	scarlet.
St	striped or variegated.
W	white.
Y	yellow.

COLUMN 9. *Native Country.*

C. G. H.	Cape of Good Hope.
E. Ind.	E. Indies.
N. Amer.	North America.
N. Eur.	North of Europe.
N. Holl.	New Holland.
N. S. W.	New South Wales.
S. Amer.	South America.
S. Eur.	South of Europe.
V. Di. L.	Van Dieman's Land.
W. Ind	West Indies.

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

al. bogs	alpine bogs.
al. b. p.	alpine bushy places.
al. hea.	alpine heaths.
al. lak.	alpine lakes.
al. ma.	alpine marshes.
al. me.	alpine meadows.
al. riv.	alpine rivers.
al. roc.	alpine rocks.
a. r. tr.	alpine rocks and trees.
ba.	banks.
bar. gr.	barren ground.
bar. he.	barren heaths.
bar. pa.	barren pastures.
ba. s. p.	barren sandy places.
bog. h.	boggy heaths.
bog. pl.	boggy places.
bo. m.	bogs on mountains.
bg. m.	boggy meadows.
bo. me.	boggy meadows.
bor. fi.	borders of fields.
br.	branches.
bu. fi.	bushy fields.
bu. hi.	bushy hills.
bu. pl.	bushy places.
cal. ba.	calcareous banks.

cal. ro.	calcareous rocks.
ch. ba.	chalky banks.
ch. cl.	chalky cliffs.
ch. fi.	chalky fields.
ch. hil.	chalky hills.
ch. pa.	chalky pastures.
ch. so.	chalky soil.
ch. wo.	chalky woods.
cl. f.	clover fields.
clt. gr.	cultivated ground.
cor. fi.	corn fields.
dit.	ditches.
dit. ba.	ditch banks.
d.m.pl.	dry mountainous places.
dr. co.	dry commons.
dr. fi.	dry fields.
dr. he.	dry heaths.
dr. pa.	dry pastures.
dr. wo.	dry woods.
d.st.pl.	dry stony places.
d. st. w.	dry stony woods.
dungh.	dunghills.
ed.of.d.	edges of ditches.
gra.ba.	gravelly banks.
gra.he.	gravelly heaths.
gra.pa.	gravelly pastures.
gra. so.	gravelly soil.
hea.	heaths.
hea. w.	heaths and woods.
hed.	hedges.
hed. b.	hedge banks.
hghl.v.	Highland valleys.
hil. pa.	hilly pastures.
ir. bog.	Irish bogs.
ir. mo.	Irish mountains.
ir. roc.	Irish rocks.
ir. sho.	Irish shores.
ir. thi.	Irish thickets.
lak.	lakes.
m.al.p.	moist alpine places.
mar.	marshes.
mar.la.	margins of lakes.
m.a.w.	moist alpine woods.
m. c. h.	moist chalky hills.
m.ch.s.	moist chalky soil.
mea.	meadows.
me. pa.	meadows and pastures.
m. h.	mountainous heaths.
m. he.	moist heaths.
m. hed.	moist hedges.
mic.ro.	micaceous rocks.
m. me.	moist meadows.
moi. fi.	moist fields.
moi.gr.	moist ground.
moi. h.	moist heaths.
moi. pl.	moist places.
moi.ro.	moist rocks.
moi.w.	moist woods.
mo. pl.	mountainous places.
mos. b.	mossy bogs.
moun.	mountains.
m. pas.	moist pastures.
ms. pas.	mountainous pastures.
m. r. h.	mountainous rocky heaths.
mrif. r.	maritime rocks.
m. r.tr.	moist rocks and trees.
m. s.pl.	moist shady places.
m. thi.	mountainous thickets.
m. wo.	mountainous woods.
mud.d.	muddy ditches.
mud. s.	muddy shores.
n. of e.	north of England.
n. of s.	north of Scotland.
old w.	old walls.
old wa.	old walls.
os.hol	osier holts.
pas.	pastures.
pea. d.	peaty ditches.
riv. ba.	river banks.

rivul. rivulets.
 ro. sid. road sides.
 rub. rubbish.
 sa. hea. sandy heaths.
 sal. m. salt marshes.
 sa. ma. sandy marshes.
 s.n. fi. sandy fields.
 san. gr. sandy ground.
 san. pl. sandy places.
 san. sh. sandy shores.
 sa. pas. sandy pastures.
 sa. w. d. salt water ditches.
 sa. w. p. sandy wet places.
 sc. alp. Scottish alps.
 sc. bog. Scottish bogs.
 sc. isl. Scottish islands.
 s. cliffs. sea cliffs.
 sc. ma. Scottish marshes.
 sc. mo. Scottish mountains.
 sc. pas. Scottish pastures.
 sc. roc. Scottish rocks.
 sc. sh. Scottish shores.
 sc. thi. Scottish thickets.
 sc. wds. } Scottish woods.
 sc. wo. }
 sea co. sea coast.
 sea sh. sea shore.
 sev. isl. Severn isles.
 sha. ba. shady banks.
 sha. bo. shady bogs.
 sha. la. shady lanes.
 sha. pl. shady places.
 sh. roc. shady rocks.
 s. m. pl. shady moist places.

so. co. south coast.
 so. ofs. south of Scotland.
 sp. bo. spongy bogs.
 sta. wa. stagnant water.
 st. in. w. stones in water.
 sto. hi. stony hills.
 sto. pa. stony pastures.
 sto. pl. stony places.
 sto. wa. stones and walls.
 sun. hi. sunny hills.
 sun. ro. sunny rocks.
 thick. thickets.
 tr. trees.
 tr. & st. trees and stones.
 tru. tr. trunks of trees.
 tur. bo. turfy bogs.
 tur. he. turfy heath.
 unc. gr. uncultivated ground.
 unc. pl. uncultivated places.
 wa. gr. waste ground.
 w. a. h. wet alpine heaths.
 w. alp. Welsh alps.
 wat. co. watery commons.
 wat. pl. watery places.
 w. bog. Welsh bogs.
 w. co. wet commons.
 w. gr. wet ground.
 w. lak. Welsh lakes.
 w. roc. Welsh rocks.
 w. sa. p. wet sandy places.
 w. s. gr. wet shady ground.
 w. sh. p. wet shady places.
 wy. sh. p. watery shady places.
 w. thi. wet thickets.

COLUMN 11. *Propagation.*

B by budding.
 C cuttings.
 D division of the plant.
 G grafting.
 I inarching.
 L layers.
 Ls. leaves.
 O offsets.
 R division of the root.
 S seeds.
 Sk suckers.

COLUMN 12. *Soil.*

aq watery places.
 co common garden earth.
 c. p. common peat, or bog.
 h heavy.
 h. l. heavy loam.
 l loam.
 l. p. loam and peat, most loam.
 lt light.
 lt. l. light loam.
 m. s. moist soil.
 p peat.
 p. l. peat and loam, most peat.
 r rich.
 r. m. rich mould.
 ru rubbish.
 s sand.
 s. l. sandy loam.
 s. p. sandy peat.
 s. p. l. sand, peat, and loam.

RULES FOR PRONOUNCING BOTANICAL NAMES.

IT might, perhaps, be sufficient to direct the gardener to pronounce Latin vowels as he would English, placing the accent as he may find it marked, and to treat the consonants, with the exception of *ch*, in the same manner; but as many gardeners may not be masters of the correct pronunciation of their mother tongue, for their information, we shall go more into detail.

SYLLABLES.

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

VOWELS.

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

Every accented penultimate vowel is pronounced long, when followed by a vowel or a single consonant, as *Achillæa tomentosa*; but it is shortened when followed by two consonants or a double one, as *Sórbus, Táxus*; except when the first consonant is a mute and the second a liquid, as *A'brus*.

Every accented antepenultimate vowel, except *u*, is pronounced short, as *Helléborus, Hùmulus*; but when succeeded by a single consonant, followed by *e* or *i* and another vowel, it is lengthened, as *Stellária*; except *ti*, which is short, as *Tília*.

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

E final, with or without a consonant preceding, always forms a distinct syllable, as *Silèné, A'loë*; also when the vowel is followed by a final consonant as *Tri-chó-ma-nes, not Tri-cho-manes*.

I unaccented, if final, sounds as if written *eye*, as *Spica vénti (eye)*; but, when it ends a syllable not final, it has the sound of *e*, as *Méspilus (Mespelus)*, *Smithiá (Smithé-eye)*.

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

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

CONSONANTS.

C and *g* are hard before *a, o*, and *u*, as *Córnus, Gálum*; soft before *e, i*, and *y*, as *Cetrària, Citrus*.

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

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

Cm, cn, ct, gn, gm, mn, tm, ps, pt, and other uncombinable consonants, when they begin a word, are pronounced with the first letter mute, as *Ptérís (teris)*, *Cnicus (nikus)*, *Gmellina (melina)*, *Gnidia (nidia)*; in the middle of a word they separate as in English, as *Lap-sána, Lém-na*.

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

Sch sounds like *sk*, as *Schœ'nus (skenus)*; in *ll* and *zm* both letters are heard.

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

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

GENERAL INTRODUCTION.

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

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

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

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

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

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

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

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

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

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

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

THE ENCYCLOPÆDIA OF PLANTS.

PART I.

LINNEAN ARRANGEMENT.

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

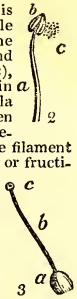
In the progress of artificial systems different organs have been fixed on by different botanists; but those which have been most extensively employed are the corollas by Tournefort, and the stamens and pistils, by Linnæus. The system of Tournefort has been a good deal employed in France, and may be considered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

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

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



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



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

The seed is contained in the pericarp, or seed-vessel, which is the germen when grown to maturity. The name of seed-vessel varies according to its form, substance, &c.; but the word pericarp (*peri*, about, *karpion*, a fruit) is applicable to all its varieties. The receptacle is the base or medium which connects the other parts of the fructification. (*Magazine of Natural History*, vol. i. p. 233.)

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

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

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

In the same flower, Male and female organs distinct, Stamens not united either above or below, Generally of equal length,		CLASSES.	ORDERS.	
Stamens and Pistils	In Number,	One, - { 1. Monándria (<i>monos</i> , one, <i>aner</i> , a man). Example, <i>Blitum capitatum</i> . 1	2. Monogýnia (<i>monos</i> , one, <i>gyne</i> , a woman), Digýnia (<i>dis</i> , twice, <i>gyne</i> , a woman).	
		Two, - { 2. Diándria (<i>dis</i> , twice, <i>aner</i> , a man). <i>Verónica Chamædrys</i> . 8	3. Monogýnia, Digýnia, Trigýnia (<i>tris</i> , thrice, <i>gyne</i> , a woman).	
		Three, - { 3. Triándria (<i>tris</i> , thrice, <i>aner</i> , a man). <i>Poa áun.</i> 30	5. Monogýnia, Digýnia, Trigýnia.	
		Four, - { 4. Tetrándria (<i>tetra</i> , four, <i>aner</i> , a man). <i>Córnu sanguinea</i> . 76	5. Monogýnia, Digýnia, Tetragýnia (<i>tetra</i> , four, <i>gyne</i> , a woman).	
		Five, - { 5. Pentándria (<i>penle</i> , five, <i>aner</i> , a man). <i>Lysináchia ephémere</i> . 108	6. Monogýnia, Digýnia, Trigýnia, Tetragýnia, Pentagýnia (<i>penle</i> , five, <i>gyne</i> , a woman), Polygýnia (<i>polys</i> , many, <i>gyne</i> , a woman).	
		Six, - { 6. Hexándria (<i>hex</i> , six, <i>aner</i> , a man). <i>Scilla bifolia</i> . 256	4. Monogýnia, Digýnia, Trigýnia, Polygýnia.	
		Seven, - { 7. Heptándria (<i>hepta</i> , seven, <i>aner</i> , a man). <i>Zésculus Hippocástanum</i> . 236	4. Monogýnia, Digýnia, Tetragýnia, Heptagýnia (<i>hepta</i> , seven, <i>gyne</i> , a woman).	
		Eight, - { 8. Octándria (<i>októ</i> , eight, <i>aner</i> , a man). <i>Fuchsia coccinea</i> . 300	4. Monogýnia, Digýnia, Trigýnia, Tetragýnia.	
		Nine, - { 9. Enneándria (<i>ennea</i> , nine, <i>aner</i> , a man). <i>Rhéum Rhapónticum</i> . 352	5. Monogýnia, Trigýnia, Hexagýnia (<i>hex</i> , six, <i>gyne</i> , a woman).	
		Ten, - { 10. Decándria (<i>deka</i> , ten, <i>aner</i> , a man). <i>Saxifraga umbrosa</i> . 4	5. Monogýnia, Digýnia, Trigýnia, Pentagýnia, Decagýnia (<i>deka</i> , ten, <i>gyne</i> , a woman).	
		Twelve, - { 11. Dodecándria (<i>dodeka</i> , twelve, <i>aner</i> , a man). <i>Sempervivum tectórum</i> . 392.	6. Monogýnia, Digýnia, Trigýnia, Tetragýnia, Pentagýnia, Dodecagýnia (<i>dodeka</i> , twelve, <i>gyne</i> , a woman).	
		Many, frequently attached to the calyx,	12. Icosándria (<i>ikosi</i> , twenty, <i>aner</i> , a man). <i>Cratægus Oxyacantha</i> . 408	5. Monogýnia, Di-pentagýnia (<i>dyo</i> , two, <i>penle</i> , five, <i>gyne</i> , a woman), Polygýnia.
		Many, generally upwards of twenty, not attached to the calyx,	13. Polyándria (<i>polys</i> , many, <i>aner</i> , a man). <i>Clémais erecta</i> . 456	5. Monogýnia, Digýnia, Trigýnia, Pentagýnia; Polygýnia.
		Stamens united,	Of unequal length,	Two long, and two short, - { 14. Didýnámia (<i>dis</i> , twice, <i>dyo</i> , two, <i>nenis</i> , a filament). <i>Teucrium lucidum</i> . 490	2. Gymnosperímia (gymnos, naked, sperma, seed), Angiosperímia (aggelion, a vessel, sperma, seed).
Four long, and two short, - { 15. Tetradýnámia (<i>tetra</i> , four, <i>dyo</i> , two, <i>nenis</i> , a filament). <i>Ráphanus sativus</i> . 556	2. Siliculosa (<i>silicula</i> , a silicle), Siliquosa (<i>siliqua</i> , a siliqua).			
by the filaments,	into one body,	16. Monadéphia (<i>monos</i> , one, <i>adelphos</i> , brother). <i>Málva fragrans</i> . 560	7. Triándria, Pentándria, Heptándria, Octándria, Decándria, Dodecándria, Polyándria.	
		17. Diadéphia (<i>dis</i> , twice, <i>adelphos</i> , a brother). <i>Onónis arvensis</i> . 598	4. Pentándria, Hexándria, Octándria, Decándria.	
		18. Polyadéphia (<i>polys</i> , many, <i>adelphos</i> , brother). <i>Hypéricum quadrán.</i> 650	4. Decándria, Dodecándria, Icosándria, Polyándria.	
	into many bodies	19. Syngenesía (<i>syn</i> , together, <i>genesis</i> , origin). <i>Cichórium l'nylus</i> . 660	5. Polygámia æqualis (equal), Polygámia supérflua (superfluous), Polygámia frustránea (<i>frustra</i> , in vain), Polygámia necessariá (necessary), Polygámia segregata (separated).	
by the anthers or tops, into a cylinder,	20. Gynándria (<i>gyne</i> , a woman, <i>aner</i> , a man). <i>Ophrys aptera</i> . 748	3. Monándria, Diándria, Hexándria.		
	Male organs (stamens) attached to, and standing upon the female (pistil),	In different flowers,	on the same plant, - { 21. Monœcia (<i>monos</i> , one, <i>oikos</i> , house). <i>Cucúrbita Pepo</i> . 768	8. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Polyándria, Monadéphia.
on different plants, - { 22. Dicœcia (<i>dis</i> , twice, <i>oikos</i> , house). <i>Cánnabis sativa</i> . 816			14. Monándria, Diándria, Triándria, Tetrándria, Pentándria, Hexándria, Octándria, Enneándria, Decándria, Dodecándria, Icosándria, Polyándria, Monadéphia, Gynándria.	
on the same or different plants along with hermaphrodite flowers, - { 23. Polygámia (<i>polys</i> , many, <i>gamos</i> , marriage). <i>Gleditschia triacanthos</i> . 852			2. Monœcia, Dicœcia.	

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

Reproductive organs scarcely visible, so that they have not been distinctly described,	}	24. Cryptogámia (<i>kryptos</i> , concealed, <i>gamos</i> , marriage), 874	11. Gonoptérides (<i>gonos</i> , seed, <i>ptéris</i> , fern), Stachyoptérides (<i>stachys</i> , a spike, <i>ptéris</i> , fern), Poroptérides (<i>poros</i> , a pore, <i>ptéris</i> , fern), Filices (<i>filix</i> , a fern), Hydroptérides (<i>hydor</i> , water, <i>ptéris</i> , fern), Schismatoptérides (<i>schisma</i> , a cleft, <i>ptéris</i> , fern), Músci (<i>muscus</i> , moss), Hepatíce (<i>hepar</i> , a liver), Algæ (<i>alga</i> , sea weed), Lichens (Greek name), Fúngi (<i>fungus</i> , a mushroom).
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To discover the particular species or variety of a plant it is necessary to become acquainted with the forms and different conditions of the leaves, stems, and other parts of the bodies of plants, as well as with their flowers, and this knowledge, as we have before stated (p. xix.), will be obtained with the greatest facility by turning to the Glossary (p. 1094.), and comparing the definitions with the engraved figures.



CLASS I.—MONANDRIA. 1 STAMEN.

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

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

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

Dignia. Lacistema, Leersia, Salsola, and many grasses.

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

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

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

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

§ 3. *Germen superior, corolla irregular.*

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

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

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

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

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

§ 6. *Apetalous.*

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

Order 2. DIGYNIA.  1 Stamen. 2 Styles.

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

Systematic Name and Authority.	English Name.	Habit.	Habitation in the Garden.	Popular Character.	Height in Feet.	Time of Flowering.	Color of the Flower.	Native Country.	Year of Introduction of Localities of British Species.	Propagation.	Soil.	Reference to Figures.
1. CAN'NA. W. INDIAN SHOT.												
1 <i>pátens</i> <i>Rosc.</i>	spreading	✓	□	or	2	my	R. Y.	Rio Jan.	1778.	R. r. m.	Bot. reg. 576	
2 <i>indica</i> <i>Rosc.</i>	common	✓	□	or	2	ja. d	R	India	1570.	R. r. m.	Red. lil. 201	
3 <i>maculáta</i> <i>Rosc.</i>	spotted	✓	□	or	2	ja. d	R. Y.	India	...	R. r. m.	Hook. ex. fl. 53	
4 <i>lútea</i> <i>Rosc.</i>	scarlet	✓	□	or	2	ja. d	S	S. Amer.	1731.	R. r. m.	Bot. mag. 452	
5 <i>Lambéрти</i> <i>Lind.</i>	yellow	✓	□	or	2	ja. d	Y	E. Indies	1629.	R. r. m.	Bot. mag. 2085	
6 <i>gigantéa</i> <i>R. L.</i>	Lambert's	✓	□	or	4	my	S	Trinidad	1819.	R. r. m.	Bot. reg. 470	
7 <i>occidentális</i> <i>Rosc.</i>	gigantic	✓	□	or	5	d. ja	R. Y.	S. Amer.	1809.	R. r. m.	Bot. reg. 206	
8 <i>limbáta</i> <i>Rosc.</i>	western	✓	□	or	3	s. d	R. Y.	W. Indies	1822.	R. r. m.	Bot. reg. 772	
9 <i>variábilis</i> <i>W.</i>	bordered	✓	□	or	3	ja. d	R	Brazil	1818.	R. r. m.	Bot. reg. 771	
10 <i>rúbra</i> <i>W.</i>	variable	✓	□	or	3	ja. d	R	India	1822.	R. r. m.		
11 <i>rubricáulis</i> <i>Lk.</i>	red	✓	□	or	3	ja. d	R. Y.	W. Indies	1820.	R. r. m.		
12 <i>édulis</i> <i>B. R.</i>	red-stemmed	✓	□	or	3	my	R	.....	1821.	R. r. m.	
13 <i>speciósá</i> <i>B. M.</i>	eatable	✓	□	or	3	s. d	R	Peru	1820.	R. r. m.	Bot. reg. 775	
14 <i>pedunculáta</i> <i>B. M.</i>	shewy	✓	□	or	3	a. s	R	.....	1820.	R. r. m.	Bot. mag. 2317
15 <i>flaccida</i> <i>Rosc.</i>	stalked	✓	□	or	6	s. d	O	.....	1820.	R. r. m.	Bot. mag. 2323
16 <i>glauca</i> <i>Rosc.</i>	flaccid	✓	□	or	5	jl	R	S. Carol.	1788.	R. r. m.	Sal. st. ra. 3. t. 2	
17 <i>rufa</i>	glaucous	✓	□	or	2	jn. au	Y	S. Amer.	1732.	R. r. m.	Ex. b. 2. t. 102	
18 <i>iridiflora</i> <i>Fl. Per.</i>	<i>rufous</i>	✓	□	or	2	jn. au	Br	S. Amer.	...	R. r. m.	Bot. mag. 2302	
19 <i>nodding-flow.</i>	nodding-flow.	✓	□	or	6	d. ja	R	Peru	1816.	R. r. m.	Bot. mag. 1968	
2. MARANTA. W. ARROW ROOT.												
18 <i>arundinácea</i> <i>W.</i>	Indian	✓	□	or	2	jl. au	W	S. Amer.	1732.	R. s. l	Bot. mag. 2307	
19 <i>obliqua</i> <i>Rudge.</i>	oblique	✓	□	or	2	d	R	Guiana	1803.	R. s. l	Ru. p. g. p. 8. t. 2	
20 <i>lútea</i> <i>Jacq.</i>	yellow	✓	□	or	2	jn. jl	Y. W.	Caraccas	1809.	R. s. l	Jac. ic. r. 2. 901	
21 <i>angustifolia</i> <i>B. M.</i>	narrow-leaved	✓	□	or	2	jl. au	R	W. Indies	1820.	R. s. l	Bot. mag. 2398	
22 <i>Póncbat</i> <i>L. K.</i>	ovate	✓	□	or	8	jl. au	R	E. Indies	1819.	R. s. l	Rumph. 4. t. 7	
23 <i>gibba</i> <i>L. K.</i>	gibbous	✓	□	or	4	au	O	E. Indies	1818.	R. s. l		
24 <i>comósa</i> <i>W.</i>	close-spiked	✓	□	or	2	jn. jl	Y. W.	Surinam	1812.	R. s. l		
3. CALATHEA. Mey. CALATHEA.												
25 <i>zebrina</i> <i>Lind.</i>	striped-leaved	✓	□	or	2	ja. d	R. Y.	Brazil	1815.	R. s. p	Bot. reg. 385	
26 <i>Maránta zebrina</i> <i>B. M.</i>												
4. THALIA. W. THALIA.												
26 <i>dealbata</i> <i>Rosc.</i>	mealy	✓	□	or	4	jl. au	W	S. Carol.	1791.	R. p. l	Bot. mag. 1690	
5. PHRYNIUM. W. PHRYNIUM.												
27 <i>capitatum</i> <i>W.</i>	headed	✓	□	or	5	jl. au	W	E. Indies	1807.	R. s. l	As. r. 11. t. 3	
28 <i>dichotomum</i> <i>Roxb.</i>	forked	✓	□	or	5	jl. au	W	E. Indies	1810.	R. s. l		
6. HEDYCHYUM. W. GARLAND FLOWERS.												
29 <i>coronarum</i> <i>Roxb.</i>	sweet-scented	✓	□	or	5	jn. s	Y	F. Indies	1791.	R. p. l	Bot. mag. 708	
30 <i>angustifolium</i> <i>Rox.</i>	scarlet	✓	□	or	5	jn. s	S	E. Indies	1815.	R. s. l	Bot. reg. 157	
31 <i>elatum</i> <i>Br.</i>	tall	✓	□	or	5	jn. d	Y	E. Indies	1818.	R. s. l	Bot. reg. 526	
32 <i>Gardnerianum</i> <i>Wall.</i>	Gardner's	✓	□	or	7	jn. au	Y	E. Indies	1819.	R. s. r	Bot. reg. 771	
33 <i>flavescens</i> <i>B. C.</i>	pale-yellow	✓	□	or	6	jn	Y	India	1822.	R. s. l	Bot. cab. 723	
34 <i>spicatum</i> <i>B. M.</i>	spiked	✓	□	or	3	jn	Y	E. Indies	1810.	R. co	Bot. mag. 2800	
35 <i>gracile</i> <i>Roxb.</i>	slender	✓	□	or	3	jn	W	Bengal	1823.	R. s. l		
36 <i>flavum</i> <i>Roxb.</i>	yellow	✓	□	or	3	jn. au	Y	Nepal	1822.	R. s. l	Bot. cab. 604	
37 <i>heteromallum</i> <i>B. R.</i>	variable	✓	□	or	3	jn. au	Y	India	1822.	R. s. l	Bot. reg. 767	



History, Use, Propagation, Culture,

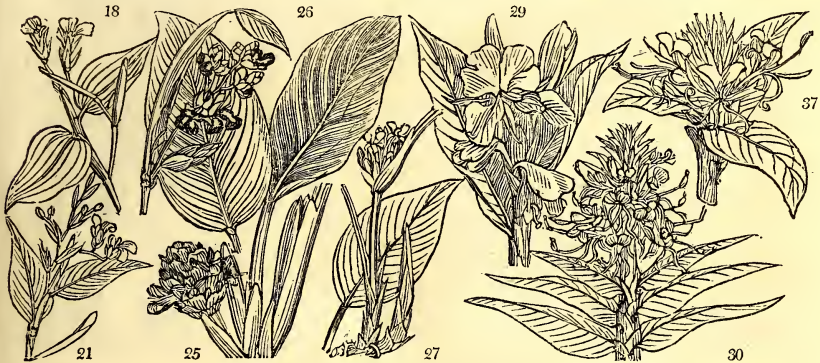
1. *Canna*. From a Celtic word signifying a cane or mat. *Le Balsier*, Fr. *Blumenrohr*, Ger. *Canna*, Ital. The first three species are found wild within the tropics on all the continents, and chiefly in moist woods, or spongy woody wastes: in America and the Brazils, they are known by the name of wild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

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

Essential specific Character.

- 1 Inner limb of the corolla 3-fid, Seg. ovate equal sprdg. with long claws, Lip bifid, rev. Leaves ovate lanc.
- 2 Inner limb of the corolla trifid, Segments lanceolate acuminate straight
- 3 Inner limb of the corolla trifid, Segments straight emarginate
- 4 Inner limb of the corolla bifid
- 5 Peduncle short inclosed in the upper leaf, Inner limb of the corolla trifid, Segments ovate lanceolate sub-erect, Lip erect spreading entire
- 6 Peduncles elong. Inner limb of corolla 3fid, Seg. lanceol. spathul. reflexed spreading, Lip oblong entire
- 7 Segments of cor. 2 entire ovate unequal, Lip bifid bent down
- 8 Segments of cor. 3 broad emarginate and crenate: the claws long, Lip. 2-fid bent down
- 9 Leaves of cal. lanceolate acute, Cor. 5 parted, Leaves ovate-obl. acute at both ends cordate
- 10 Leaves of cal. oblong obtuse, Cor. 6 parted, Leaves ovate-obl. acute at both ends cordate
- 11 Leaves sessile ovate with the sheaths and nerves very red, Inner limb 4 parted
- 12 Leaves smooth and stems colored at the base, Roots tuberous and large, Middle seg. of corolla very short
- 13 Flowers sessile in pairs, Segments of cor. 2 erect bifid, Lip spotted revolute
- 14 Flowers on stalks: outer segments reflexed, inner 3 erect, Leaves lanceolate pointed at each end
- 15 Inner limb of the corolla trifid, Segments flaccid
- 16 Inner limb of the corolla trifid, Segments ovate straight, Lip three-lobed fringed.
- 17 Stem and Leaves beneath downy, sheaths curled and colored at the edge, Flowers cernuous
- 18 Culm branched herbaceous, Leaves ovate lanceolate somewhat hairy underneath
- 19 Leaves ellipt. oblique at end, Spikes long. in fasc. Bract. erect, 2-fid. imbricate acute pubesc.
- 20 Culm branched knotty ovate smooth, Spikes terminal subternate, Bracteas colored
- 21 Stem knotty, Leaves lanc. narrow, Panicle wavy, Inner brats colored, Calyx ovate
- 22 Stem shrubby branching, Leaves ovate smooth
- 23 Leaves oblong lanc. pubesc. Fl. stalks 2-fid. Germ very hairy
- 24 Stemless, Scape naked, Spikes comose, Bracteas reflexed
- 25 Flowers in dense heads shorter than the leaves which are striped with purple
- 26 Calyx two-flowered, Culm reedy powdered, Leaves ovate revolute at the apex
- 27 Stemless, Leaves radical
- 28 Shrubby, dichotomous, Leaves cordate

- 29 Leaves lanceolate, Spikes compact imbricated, Segments of the cleft lip of the corolla lunulate
- 30 Leaves linear lanc. Spikes open, Fasc. of flowers subtern. Seg. of cleft lip obl. the other 5 segs. of cor. lin.
- 31 Leaves obl. lanc. smooth, Spikes loose, Fascic. tern. 3 fid. Inner segs. of the cor. linear-cuneate, Lip bifid
- 32 Spike many-fl. loose, Fascicles many-fl. distant, Lip obovate bifid, Filament colored longer than corolla
- 33 Leaves lanceolate, Spike loose ovate, Petals linear, Lip ovate 2-lob. Fil. the same length as petals
- 34 Spathes truncate 1-fl. Outer segments of cor. linear, Lip roundish 2-lobed longer than the style
- 35 Leaves lanceolate, Spike term. open, Flowers sol. scattered, Lip bifid sessile: stigm. $\frac{1}{2}$ -lanceol. Pet. linear
- 36 Leaves broad, Spike term. imbricate, Bract. 4-fl. Cor. with linear segm. Lip. obcordate retuse
- 37 Upper leaves wavy silky beneath, Spike loose conical, Filament much longer than corolla



and Miscellaneous Particulars.

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

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

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

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

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

7. ROSCOEA. <i>Sm.</i>	ROSCOEAE.				<i>Scitaminae.</i>	<i>Sp.</i>	1—5.						
38 purpúrea <i>Sm.</i>	purple	☞	☒	or	1	P	Nepal	1820.	R	s.l	Ex. b. t.	108	
8. ALPINIA. <i>W.</i>	ALPINIA.						<i>Scitaminae.</i>	<i>Sp.</i>	13—19.				
39 comósa <i>Jacq.</i>	close-spiked	☞	☒	or	1		Caraccas	1752.	R	s.l	Ja. ic. rar. v.	3	
40 Galánga <i>W.</i>	loose-flowered	☞	☒	clt	6	oc.f	W.Y	...	R	s.l	Ru. am. 5. t.	63	
41 racemósa <i>Ros.</i>	clustered	☞	☒	or	5	jl.s	W	W. Indies	1752.	R	s.l	Pl. ic. 11. t.	20
42 occidentális <i>Sw.</i>	occidental	☞	☒	or	6		W	Jamaica	1793.	R	s.l		
43 nútans <i>Ros.</i>	nodding	☞	☒	or	13	ap.jn	Pk	E. Indies	1792.	R	s.l	Ex. b. 2. t.	106
44 cénua <i>B.M.</i>	drooping	☞	☒	or	6	ap.jn	Pk	E. Indies	1804.	R	s.l	Bot. mag.	1900
45 calcaráta <i>Ros.</i>	upright	☞	☒	or	3	s	W	E. Indies	1800.	R	s.l	Bot. reg.	421
46 malaccénsis <i>Ros.</i>	petiolate	☞	☒	or	5	ap.my	W	E. Indies	1799.	R	s.l	Bot. reg.	328
47 mótica <i>Roxb.</i>	spardless	☞	☒	or	5	au	W	E. Indies	1811.	R	s.l		
48 Cardamómum <i>Roxb.</i>	cardamoms	☞	☒	clt	8	au	W.P	E. Indies	1815.	R	s.l	R. mal. 11. t.	4, 5
49 spicáta <i>Roxb.</i>	spiked	☞	☒	or	2			Sumatra	1822.	R	r.m		
50 tubuláta <i>B.R.</i>	tubular	☞	☒	or	2	jl.au	R	Demarara	1820.	R	s.l	Bot. reg.	777
51 Allúghas <i>W.</i>	Ceylon	☞	☒	or	2	f.m	R	E. Indies	1796.	R	s.l	Bot. reg.	501.
9. HELLENIA. <i>R.B.</i>	HELLENIA.						<i>Scitaminae.</i>	<i>Sp.</i>	1.				
52 cærúlea <i>Br.</i>	blue	☞	☒	or	2		B	N. Holl.	1820.	R	s.l		
10. ZINGIBER. <i>Rosc.</i>	GINGER.						<i>Scitaminae.</i>	<i>Sp.</i>	8—16.				
53 pandurátum <i>Roxb.</i>	fiddle-lipped	☞	☒	or	3	my.jn	Pk	E. Indies	1812.	R	s.l		
54 Mióga <i>Ros.</i>	Japanese	☞	☒	or	2	my.jn	Pk	Japan	1796.	R	r.m		
55 officináte <i>Ros.</i>	narrow-leaved	☞	☒	clt	2	jn.au	R	E. Indies	1605.	R	s.l	Jac. vin. 1. t.	75
56 Zerúmbet <i>Ros.</i>	broad-leaved	☞	☒	or	4	au	Y.g	E. Indies	1690.	R	s.l	Ex. b. 2. t.	112
57 Casumúnar <i>Roxb.</i>	downy-leaved	☞	☒	or	2	s.n	W.Y	E. Indies	1807.	R	r.m	Bot. mag.	1426
58 purpúreum <i>Rosc.</i>	purple-bracted	☞	☒	or	2	s	P	E. Indies	1796.	R	s.l		
59 róseum <i>Roxb.</i>	rosy	☞	☒	or	2	au	R.Y	E. Indies	1822.	R	s.l	Roxb. cor. 2.	126
60 squarrósum <i>Roxb.</i>	squarrose	☞	☒	or	2	au	Pk	E. Indies	1822.	R	s.l		
11. COSTUS. <i>Rosc.</i>	COSTUS.						<i>Scitaminae.</i>	<i>Sp.</i>	6—13.				
61 arábicus <i>L.</i>	Arabian	☞	☒	or	2	au	W	both Ind.	1752.	R	s.l		
62 spicátus <i>W.</i>	spiked	☞	☒	or	1	jn	Y	W. Indies	1793.	R	s.l	Jacq. am. t.	1
63 speciósus <i>Rosc.</i>	shewy	☞	☒	or	3	au	W	E. Indies	1799.	R	s.l	Jacq. ic. 1	
β angustifólius.	narrow-leaved	☞	☒	or	3	au	W	E. Indies	1799.	R	s.l	Bot. reg.	665
64 áfer <i>B. R.</i>	African	☞	☒	or	2	jn.jl	W	S. Leone	1822.	R	s.l	Bot. reg.	683
β hirsutus.	hairy	☞	☒	or	2	jn.jl	W	S. Leone	1822.	R	s.l		
65 spirális <i>Rox.</i>	spiral	☞	☒	or	4	n.d	Sc	St. Vinc.	...	R	s.l	Jacq. schb. 1. t.	1
66 villosíssimus <i>Jacq.</i>	villous	☞	☒	or	6	n.d	Y	St. Vinc.	1822.	R	s.l		
12. KEMPFERIA. <i>W.</i>	GALANGALE.						<i>Scitaminae.</i>	<i>Sp.</i>	6—8.				
67 rotúnda <i>L.</i>	round-rooted	☞	☒	or	1	jl.au	R.w	E. Indies	1764.	R	s.l	Bot. mag.	920
68 Galánga <i>L.</i>	official	☞	☒	clt	1	jn.s	W.P	E. Indies	1728.	R	s.l	Bot. mag.	850
69 angustifólia <i>Jacq.</i>	narrow-leaved	☞	☒	or	1	m.ap	W.B	E. Indies	1797.	R	s.l	Red. lil. 7. t.	389
70 panduráta <i>B. Reg.</i>	fiddle-shaped	☞	☒	or	1	ap.jn	P	E. Indies	1797.	R	s.l	Bot. reg.	173
71 latifólia <i>Donn.</i>	broad-leaved	☞	☒	or	1	ap.jn	W	E. Indies	1803.	R	s.l		
72 ovalifólia <i>Roxb.</i>	oval	☞	☒	or	1	jl	W.P	Malacca	1822.	R	s.l		
13. AMOMUM. <i>Rosc.</i>	AMOMUM.						<i>Scitaminae.</i>	<i>Sp.</i>	7—20.				
73 Afzélii <i>Ros.</i>	sweet-scented	☞	☒	or	3	my.jn	Pk	S. Leone	1795.	R	r.m	Ann. bot. 1. t.	13
74 randifórum <i>E. B.</i>	large-flowered	☞	☒	or	3	jn.jl	W	S. Leone	1795.	R	r.m	Ex. bot. t.	111
75 angustifólius <i>Rox.</i>	narrow-leaved	☞	☒	or	8	jn.jl	R	Madagasc.	...	R	r.m	Sonn. it. 2. t.	137
76 Grana Paradisi <i>W.</i>	grain of parad.	☞	☒	clt	1	f.mr	R	Madagasc.	...	R	r.m	Rh. mal. 11. t.	6
77 dealbatum <i>Roxb.</i>	inspid	☞	☒	or	3	mr.ap	W	Bengal	1819.	R	s.l		
78 sylvéstre <i>W.</i>	wild	☞	☒	or	1	mr.ap	W	E. Indies	1819.	R	s.l	Slo. jam. 1. t.	105
79 subulátum <i>Roxb.</i>	subulate	☞	☒	or	3	mr.ap	Y	Bengal	1822.	R	s.l		



History, Use, Propagation, Culture,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

49 Spike terminal oblong compactly imbricated with narrow sharp bractes

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

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

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

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

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

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

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

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

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

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

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

61 Nect. ovate entire, Leaves smooth on both sides

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

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

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

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

66 Leaves rounded and stem very hairy, Flowers crisp

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

68 Dorsal segments of nect. obtuse obsoletely 5 lobed : frontal 2-lobed wavy, Leaves ovate pale beneath

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

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

71 Leaves orbiculate ovate wavy woolly beneath

72 Leaves oval, Spike central, Anther crest jagged

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

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

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

76 Scape branching lax, Leaves ovate

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

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

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



and Miscellaneous Particulars.

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

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

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

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

14. CURCUMA. <i>W.</i>	TURNERIC.				<i>Scitamineæ.</i>	<i>Sp.</i>	16—18.								
80 Zedoária <i>Ros.</i>	broad-leaved	3	△	or	3	ap.au	R	E. Indies	1797.	R	r.m	Bot. mag.	1546		
81 Zerumbet <i>Roxb.</i>	Zedoary	3	△	or	3	ap.au	Y	E. Indies	1807.	R	r.m	Bot. mag.	2000		
82 æruginósa <i>Roxb.</i>	green-rooted	3	△	or	5	ap.au	R.Y	E. Indies	1807.	R	r.m				
83 rubescens <i>Roxb.</i>	reddish	3	△	or	3	my.s	Y	E. Indies	1805.	R	r.m				
84 casia <i>Roxb.</i>	casious	3	△	or	1	ap.jn	Y	Bengal	1819.	R	s.l				
85 comósa <i>Roxb.</i>	many-flowered	3	△	or	2	my	R.Y	E. Indies	1819.	R	s.l				
86 elata <i>Roxb.</i>	tall	3	△	or	3	my	Cr	E. Indies	1819.	R	s.l				
87 ferruginea <i>Roxb.</i>	sweet-rooted	3	△	or	1	my	Y	E. Indies	1819.	R	s.l				
88 leucorhiza <i>Roxb.</i>	white-rooted	3	△	or	1	my	R.Y	E. Indies	1819.	R	s.l				
89 xanthorhiza <i>Roxb.</i>	yellow-rooted	3	△	or	4	my	R	Amboyna	1819.	R	s.l				
90 rubricaulis <i>Lk.</i>	red-stemmed	3	△	or	1	my	R	E. Indies	1822.	R	s.l				
91 angustifolia <i>Roxb.</i>	narrow-leaved	3	△	or	3	jl	Y	E. Indies	1822.	R	s.l				
92 viridiflora <i>Roxb.</i>	green-flowered	3	△	or	2	jl.au	Y.G	Sumatra	1822.	R	s.l				
93 petiolata <i>Roxb.</i>	long-stalked	3	△	or	2	au	Y	Pegu	1822.	R	s.l				
94 Amada <i>Roxb.</i>	Mango-ginger	3	△	or	2	ap.jn	R.Y	Bengal	1819.	R	s.l				
95 lónga <i>Ros.</i>	long-rooted	3	△	or	2	au	Y	E. Indies	1759.	R	s.l	Jac. vind.	3. t. 4		
15. GLOBBA. <i>Ros.</i>	GLOBBA.							<i>Scitamineæ.</i>	<i>Sp.</i>	2—11.					
96 marantina <i>Ros.</i>	round-headed	1	△	or	1½	jl.au	Y	E. Indies	1800.	R	s.l	Ex. bot.	2. t. 103		
97 sessiliflora <i>B. M.</i>	sessile-flower'd	1	△	or	1½	au	Y	Pegu	1807.	R	s.l	Bot. mag.	1428		
98 Careyana <i>Roxb.</i>	Dr. Carey's	1	△	or	1½	au	Y	Pegu	1822.	R	s.l	Bot. cab.	691		
16. MANTISIA. <i>Sims.</i>	MANTISIA.							<i>Scitamineæ.</i>	<i>Sp.</i>	1.					
99 saltatoria <i>B. M.</i>	opera girls	1	△	or	1	jn	P	E. Indies	1808.	R	s.l	Bot. mag.	1320		
17. PHILYDRUM. <i>B. P.</i>	PHILYDRUM.							Related to Junceæ.	R. B.	<i>Sp.</i>	1—2.				
100 lanuginosum <i>B. P.</i>	woolly	1	△	or	3	jn.jl	Y	China	1801.	C	l.p	Bot. mag.	783		
18. LOPEZIA. <i>Cav.</i>	LOPEZIA.							<i>Onagrarieæ.</i>	<i>Sp.</i>	4—5.					
101 hirsuta <i>H.K.</i>	hairy	1	△	or	1½	s.n	R	Mexico	1796.	S	co	Jac. c.s.5. t.15. f.4			
102 racemosa <i>H.K.</i>	smooth	1	△	or	1½	au.o	R	Mexico	1792.	S	co	Bot. mag.	254		
103 coronata <i>H.K.</i>	coronet-flower.	1	△	or	1½	jl.s	R	Mexico	1805.	S	co	Bot. rep.	551		
104 cordata <i>Horn.</i>	cordate	1	△	or	1½	jl.s	P	Mexico	1821.	S	co				
19. BOERHAAVIA. <i>W.</i>	HOGWEED.							<i>Nyctagineæ.</i>	<i>Sp.</i>	5—25.					
105 erecta <i>W.</i>	upright	1	△	or	1½	jl.s	W	India	1733.	S	co	Jac. vind. 1. t. 5, 6			
106 diffusa <i>W.</i>	spreading	1	△	or	1	au.s	Cr	India	1690.	S	co				
107 hirsuta <i>W.</i>	scarlet-trailing	1	△	or	1	my.au	R	Jamaica	1733.	S	co	Jac. vind. 1. t. 7			
108 scan'dens <i>W.</i>	climbing	1	△	or	6	ap.s	G	Jamaica	1691.	S	co	Jac. vind. 1. t. 4			
109 viscosa <i>Lag.</i>	clammy	1	△	or	3	ap.s	Sc	Peru	1821.	C	co				
20. CENTRANTHUS. <i>Mich.</i>	CENTRANTHUS.							<i>Valerianeæ.</i>	<i>Sp.</i>	3—4.					
110 rúber <i>D. C.</i>	red	1	△	or	1½	my.jl	Cr	Britain	mea.	R	co	Eng. bot.	1531		
111 angustifolius <i>D. C.</i>	narrow-leaved	1	△	or	1½	my.jl	Cr	S. Europe	1759.	R	co	Fl. græc.	29		
112 calcitrapa <i>Dufr.</i>	cut-leaved	1	△	or	1	my.jl	P	Portugal	1683.	S	co	Fl. græc.	30		
21. POLLICHIA. <i>W.</i>	POLLICHIA.							<i>Chenopodeæ.</i>	<i>Sp.</i>	1.					
113 campéstris <i>W.</i>	short-leaved	1	△	or	6	s	Ap	C. B. S.	1780.	C	co	Sm. spicil.	1. t. 1		
22. SALICORNIA. <i>W.</i>	GLASSWORT.							<i>Chenopodeæ.</i>	<i>Sp.</i>	5—18.					
114 arábica <i>W.</i>	Arabian	1	△	or	1	jn.jl	Ap	Arabia	1758.	C	s.l	Mor. 2. t. 33. f. 7			
115 fruticosá <i>W.</i>	shrubby	1	△	or	1	au.s	Ap	Britain	sea sh.	S	s	Eng. bot.	2467		
116 radicans <i>E. B.</i>	rooting	1	△	or	1	s	Ap	Britain	sea sh.	S	s	Eng. bot.	1691		
117 herbácea <i>W.</i>	marsh	1	△	or	1	au.s	Ap	Britain	sea sh.	S	s	Eng. bot.	415		
118 procumbens <i>E. B.</i>	procumbent	1	△	or	1	au	Ap	England	sal. m. S	l		Eng. bot.	1691		
23. HIPPURIS. <i>W.</i>	MARESTAIL.							<i>Haloragææ.</i>	<i>Sp.</i>	1.					
119 vulgaris <i>W.</i>	common	1	△	or	1	my.jn	Ap	Britain	dit.	R	co	Eng. bot.	763		



History, Use, Propagation, Culture,

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

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

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

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

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

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

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

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

99 The only species

100 Flowers bright yellow, Leaves hairy

- 101 Leaves ovate villous, Stem round
 102 Leaves ovate attenuate at base, with the 4-cornered stem smooth
 103 Leaves shining, Stems angular, from the decurrent stalks, Corymbs leafy at the base
 104 Leaves roundish cordate ciliated smooth, Branches angular

- 105 Stem 4-cornered smooth, Joints clammy, Flowers paniced, Leaves angular dotted with black beneath
 106 Stem round pubescent, Flowers in capitate corymbs
 107 Stem roundish hairy, Leaves ovate acute sub-repand, Flowers in heads diandrous
 108 Stem climbing, Leaves all cordate, Flowers in umbels diandrous
 109 Villous viscid, Leaves ovate acute sub-repand, Stem procumbent, Flowers in heads triandrous

- 110 Leaves entire lanceolate, Stem $\frac{3}{4}$ -shrubby at base, Flowers corymbose, Stamens nearly twice as long as cor.
 111 Leaves linear, Stem herbaceous, Flowers corymbose, Stamens nearly thrice as long as corolla
 112 Rad. leaves ovate cauline pinnatifid, Stem upright smooth, Flowers paniced

113 Stems branching declining, Flowers minute sessile in axillary heads

- 114 Leaves alternate sheathing obtuse gaping on one side
 115 Stem erect shrubby, Joints of the young branches 2-sided, Scales of flowers truncate membranous
 116 Stem shrubby procumb. rooting, Joints compressed emarg. cylindr. Spikes obl. Style deeply divided, Stam. 2
 117 Herbaceous spreading, Joints emarginate compressed at end, Spikes axillary opp. stalked, Scales blunt
 118 Herbaceous procumbent, Joints obconic, Branches simp. Spikes fastigiate, Stamens 2

119 Leaves whorled 10-12 linear acute



and Miscellaneous Particulars.

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

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

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

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

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

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

DIGYNIA.

26. <i>CORISPERMUM W.</i> TICKSEED.					<i>Chenopodeæ.</i>	<i>Sp. 1.</i>					
124 <i>hyssópiifolium W.</i>	hyssop-leaved	○			1½	jl	Ap	Europe	1739.	S	co
125 <i>squarrosum W.</i>	rough-spiked	○			1	aus.	Ap	Russia	1759.	S	co
126 <i>Kedóvskii Fisch.</i>	Redowsky's	○			½	jl.au	Ap	Siberia	1822.	S	co
127 <i>intermediú Schw.</i>	intermediate	○			½	jl.au	Ap	Poland	1822.	S	co
27. <i>CALLITRICHÉ W.</i> WATER STARWORT.					<i>Haloragææ.</i>	<i>Sp. 1.</i>					
128 <i>aquática E. B.</i>	common	≅	○		½	ap.o	W	Britain	dit.	S	aq
28. <i>BLITUM W.</i> STRAWBERRY BLITE.					<i>Chenopodeæ.</i>	<i>Sp. 3.</i>					
129 <i>capitátum W.</i>	berry-headed	○	or		2	my.au	Ap	Austria	1633.	S	ru
130 <i>virgátum W.</i>	slender	○	or		2	my.s	Ap	S. Europe	1680.	S	ru
131 <i>chenopodioides Lam.</i>	goosefoot	○			2½	my.au	Ap	Crimea	1797.	S	co
29. <i>ASPICAR'PA Rich.</i> ASCICARPA.					<i>Malpighiaceæ.</i>	<i>Sp. 1.</i>					
132 <i>arens Rich.</i>	stinging	≡	△		5½	jn.jl	Ap	S. Amer.	1821.	C	co



History, Use, Propagation, Culture,

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

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

26. *Corispermum*. From *κορης*, a bug or tick, and *σπριγμα*, a seed. *Le Corrisperme*, Fr., and *Der Wansen*.



CLASS II. — DIANDRIA. 2 STAMENS.

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

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

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

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

Order I. MONOGYNIA.



2 Stamens. 1 Style.

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

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

120 Leaves entire somewhat 3-nerved, Stems nearly round

121 Spikes compound, Stem decumbent

122 Spike simple solitary, Stem upright

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

DIGYNIA.

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

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

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

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

128 A small floating plant resembling Lemna

129 Heads in terminal spikes

130 Heads lateral scattered

131 Heads axillary small not juicy, Stem very branching

132 A stinging twining perennial plant



and Miscellaneous Particulars.

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

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

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

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

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

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

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

35. *Notelaea*. Cal. 4-toothed. Cor. 4 short oval petals united by the base of the stamens. Filaments 4-horned. Style 0. Stigma bifid. Drupe with a papery putamen.

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

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

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

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

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

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

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

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

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

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

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

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

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

48. *Dicliptera*. Cal. 5-parted. Cor. bilabiate. Caps. with two elastic valves, $\frac{1}{2}$ 2-celled, the dissepiment retaining the seeds by its inflexed toothed edge.

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

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

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

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

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

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

§ 9. *Flowers complete, inferior, polypetalous.*

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

MONOGYNIA.

30. CODARIUM. Vahl. WILD TAMARIND.		Leguminosæ. Sp. 1—2.							
133 acutifolium Afz.	shining-leaved ♀	□	or 20	G	S. Leone	1800.	C 1p	Roe. arc.	1.31. t. 6
31. MAYTENUS. Mol. MAYTENUS.		Celastrinæ. Sp. 1.							
134 boaria Mol.	yellow-fruited ♀	┘	or 15	W	Chili	1822.	C co	Feuill. ch. 3.	t. 27
32. OLEA. W. OLIVE.		Oleinae. Sp. 8—12.							
135 oleaster Hoffm.	bastard	♂	or 5	jn. au	W	Portugal	1821.	C co	
136 europæa W.	European olive	♀	fr 15	jn. au	W	S. Europe	1570.	C r. m	Flora Græca t. 3
β longifolia	long-leaved	♀	fr 15	jn. au	W	S. Europe	...	C r. m	
γ latifolia	broad-leaved	♀	fr 15	jn. au	W	S. Europe	...	C r. m	
δ ferruginea	iron-colored	♀	fr 15	jn. au	W	S. Europe	...	C r. m	
ε ferruginea	twisted-leaved	♀	fr 15	jn. au	W	S. Europe	...	C r. m	
ζ obliqua	box-leaved	♀	fr 15	jn. au	W	S. Europe	...	C r. m	
η buxifolia	leathery-leaved	♂	or 5	jn. s	W	C. B. S.	1730.	C p. l	Bot. reg. 613
137 capensis W. en.	wave-leaved	♂	or 6	ap. my	W	C. B. S.	1730.	C p. l	Bot. cab. 379
138 undulata W. en.	warted	♂	or 6	ap. my	W	C. B. S.	1814.	C p. l	
139 verrucosa W. en.	American	♂	or 6	jn	W	N. Amer.	1758.	S s. p	Cat. car. 1. t. 61
140 americana W.	laurel-leaved	♂	or 15	my	W	Madeira	1784.	S p. l	
141 excelsa W.	fragrant	♂	or 4	jn. au	Y	China	1771.	L p. l	Bot. mag. 1552
142 fragrans W.									



History, Use, Propagation, Culture,

30. *Codarium*. So named by Dr. Afzelius, from *κωδάζιον*, a leathern pouch, in allusion to the pods of the tree. These are filled with an abundant pithy fecula, which is eaten by the inhabitants of the coast of Guinea, where the fruit is called wild tamarinds.

31. *Maytenus*. The barbarous name of the shrub, and applied as a generic name by Molina. It has the habit of a *Rhamnus*, and will probably form an hardy inhabitant of our gardens.

32. *Olea*. From *oleum*, the Greek name for the plant; a word derived in its turn, as De Théis conjectures, from the Celtic *oleu*, oil. *Olea* is commonly put for the tree; *oliva*, for the fruit; and *oleum*, for the juice of the fruit. *L'olivier*, Fr.; *Oelbaum*, Ger.; and *Ulivo*, Ital. The cultivated olive came originally from Asia, and grows abundantly about Aleppo and Lebanon; it is naturalised in different parts of the south of France, Spain, and Italy, and found in hedges and woods; but the fruit of that kind is small and of no use. *O. e. var. longifolia*, is the variety chiefly cultivated in the south of France and in Italy. *O. e. var. latifolia*, is chiefly cultivated in Spain; its fruit is near twice the size of the common olive of Provence or Italy, but the oil is so rank of flavor as to be too strong for most English palates. The oil and fruit, in a pickled state, are sent chiefly from Languedoc, Leghorn, and Naples to England; the best oil is from Leghorn, and the best pickles from Genoa and Marseilles. The tree seldom exceeds thirty feet in height, is branchy, glaucous, evergreen; and of so great longevity, that some plantations in Italy, as at Terni, are supposed to have existed from the time of Pliny. The tree delights in schistous, calcareous steeps, and does not thrive in elevated situations, or at a distance from the sea. The best oil is produced from fruit grown in calcareous soils. Olive oil may be said to form the cream and butter of Spain and Italy; and the tree has been celebrated in all ages as the bounteous gift of heaven, and as the emblem of peace and plenty.

Olive oil is made by crushing the fruit to a paste, then pressing it through a woollen bag, adding hot water as long as any oil is produced. The oil is afterwards skimmed off the water, and put in tubs, barrels, and bottles for use. The best olive oil is of a bright pale-amber color without smell, and bland to the taste. Kept warm, it becomes rancid, and it freezes at 38° Fah. It is of the same nature with all mild expressed vegetable oils; of these the most fluid are preferred, and hence the oils of olives and almonds are those chiefly used in medicine. Oily substances do not unite with the contents of acid stomachs; but to healthy patients they afford much

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

§ 10. *Flowers complete, superior.*

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

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

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

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

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

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

Order 2. DIGYNIA.



2 Stamens. 2 Styles.

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

76. *Anthoxanthum*. Glume membranous, 3-flowered. Lateral florets neuter with one palea bearded; intermediate floret hermaphrodite, much shorter than the lateral ones. Palea obtuse, beardless. Seed free.

Order 3. TRIGYNIA.



2 Stamens. 3 Styles.

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

MONOGYNIA.

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

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

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

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

β Leaves linear-lanceolate flat silky beneath

γ Leaves oblong flat hoary beneath

δ Leaves narrow acute at each end, rusty beneath

ε Leaves oblong bent obliquely pale beneath

ζ Leaves oblong ovate, Branches divaricate

137 Leaves oblong, Flowers racemose panicled terminal

138 Leaves elliptical wavy, Stalks of leaves green

139 Leaves lanceolate flat white beneath, Branches warted

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

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

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



and Miscellaneous Particulars.

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

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

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

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

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

33. PHILLYREA/A.	PHILLYREA.			<i>Oleinae.</i>	Sp. 9.										
143 angustifolia W. en.	narrow-leaved	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l	Lam. ill. t. 8. f. 3				
γ rosmarinifolia	rosemary-leav.	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l					
γ brachiata	brachiata	葉	or	8	my.jn	W	S. Europe	1597.	L	s.l					
144 media W. en.	twiggy	葉	or	15	my.jn	W	S. Europe	1597.	L	s.p					
β buxifolia	box-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.p					
145 virgata W. en.	privet-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l					
146 pendula W. en.	drooping	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l					
147 oleæfolia W. en.	olive-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l					
148 laevis W. en.	smooth-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l					
149 ilicifolia W. en.	holly-leaved	葉	or	15	my.jn	W	S. Europe	1597.	L	s.l					
150 latifolia W. en.	broad-leaved	葉	or	15	my.jn	W	S. Europe	1597.	C	r.m					
151 obliqua W. en.	oblique-leaved	葉	or	15	my.jn	W	S. Europe	1597.	C	r.m					
34. CHIONANTHUS.	W. FRINGE-TREE.						<i>Oleinae.</i>	Sp. 3.							
152 virginica W.	smooth-leaved	葉	or	30	my.jl	W	N. Amer.	1736.	L	p.l	Dend. brit. t. 1				
153 maritima Ph.	pubescent	葉	or	10	my.jl	W	N. Amer.	1736.	L	p.l					
154 axillaris Br.	axil-flowering	葉	or	7	my.jl	W	E. Indies	1810.	C	p.l					
35. NOTELÆA E. B. P.	NOTELEA.						<i>Oleinae.</i>	Sp. 3.							
155 longifolia E. B. P.	long-leaved	葉	or	3	mr.jl	W	N.S.W.	1790.	C	s.p	Bot. rep. t. 316				
156 ligustrina Vent.	privet-leaved	葉	or	3	jl.au	W	V. Di. L.	1807.	C	s.p	Vent. choix. 25. b				
157 rigida Desf.	rigid	葉	or	3	jl.au	W	V. Di. L.	1821.	C	s.p					
36. LIGUSTRUM W.	PRIVET.						<i>Oleinae.</i>	Sp. 2-4.							
158 lucidum H. K.	wax-tree	葉	or	8	jn.s	W	China	1794.	g.l	s.l					
β floribundum	flowering	葉	or	8	jn.s	W	China	1794.	g.l	s.l					
159 vulgare W.	common	葉	or	10	jn.jl	W	Britain	hedg.	S	co	Eng. bot. 764				
β sempervirens	evergreen	葉	or	8	jn.jl	W	Italy	...	L	co					
γ xanthocarpum	yellow-berried	葉	or	8	jn.jl	W	Italy	...	L	co					
37. SYRINGA W.	LILAC.						<i>Oleinae.</i>	Sp. 3-4.							
160 vulgaria W.	common	葉	or	8	my	B	Persia	1597.	Sk	co	Schk. han. 1. t. 2				
β violacea	purple	葉	or	8	my	P	Persia	...	Sk	co	Bot. mag. 183				
γ alba	white	葉	or	5	my	W	Persia	...	Sk	co					
161 chinensis W.	Chinese	葉	or	4	my.jn	V	China	1795.	L	p.l					
δ rothomagensis Turp.	hybrid	葉	or	4	mn.jn	V	China	...	L	p.l					
162 persica W.	Persian	葉	or	5	my	P	Persia	1640.	L	s.p	Bot. mag. 486				
β alba	white	葉	or	2	my	W	Persia	...	L	s.p					
γ laciniata	cut-leaved	葉	or	5	my	P	Persia	...	L	p.l	Schm. ar. 2. t. 79				
38. NYCTANTHES W.	NYCTANTHES.						<i>Jasminæ.</i>	Sp. 1.							
163 arbor tristis W.	square-stalked	葉	or	15	...	W	E. Indies	1781.	C	r.m	Bot. reg. 399				
39. JASMINUM W.	JASMINE.						<i>Jasminæ.</i>	Sp. 18-40.							
164 Sambac W.	single Arabian	葉	or	6	ja.d	W	E. Indies	1665.	C	r.m	Bot. reg. 1.				
β fl. pleno	double ditto	葉	or	6	ja.d	W	E. Indies	1700.	C	r.m	Bot. reg. 497				
γ trifoliatum	Tuscan	葉	or	6	ja.d	W	E. Indies	1730.	C	r.m	Bot. mag. 1785				
165 hirsutum E. B.	hairy Indian	葉	or	3	my.au	W	E. Indies	1759.	C	r.m	Ex. bot. 2. t. 118				
166 campanulatum Lk.	campanulate	葉	or	4	...	...	...	1822.	C	r.m					
167 laurifolium Rosb.	laurel-leaved	葉	or	4	mys	W	E. Indies	1819.	C	r.m	Bot. reg. 521				



History, Use, Propagation, Culture,

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

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

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

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

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

- 143 Leaves linear lanceolate entire
- 144 Leaves lanceolate entire or serrate in the middle, Leaves 3-nerved
- 145 Leaves oblong lanceolate sub-serrate in the middle obsolete veined, Branches erect
- 146 Leaves oblong lanceolate acute obsolete serrated at the point veiny, Branches veiny
- 147 Leaves oblong lanceolate nearly entire obtuse narrowed at the base veiny
- 148 Leaves elliptic oblong nearly entire veiny somewhat obtuse
- 149 Leaves ovate oblong rounded at the base veiny serrated, Serratures with stiff points
- 150 Leaves ovate rounded at the base serrated acute veiny
- 151 Leaves oblong serrated acute at each end veiny
- 152 Racemes terminal, Stalks 3-flowered, Petals linear lanceolate, Leaves coriaceous
- 153 Leaves obovate lanceolate membranaceous pubescent, Panicles very lax, Fruit elliptic
- 154 Spikes axillary very short, Leaves oblong elliptic acute
- 155 Leaves lanceolate pointed sub-reclinate, Racemes length of the leaf-stalks
- 156 Leaves lanceolate acute sub-erect, Racemes as long as the leaves
- 157 Leaves opposite rigid broad lanceolate entire, Bunches axillary
- 158 Leaves ovate oblong pointed shining above, Flowers spreading
- 159 Leaves ellipt-lanceolate smooth, Racemes compound dense
- 160 Leaves ovate cordate, Branches stiff white colored
- 161 Leaves ovate-lanceolate, Branches stiff mottled
- 162 Leaves lanceolate, Branches virgate mottled
- 163 A delightfully fragrant plant, Leaves cordate, Flowers paniced
- 164 Leaves opposite sub-sessile oblong or cordate, Calyx with subulate teeth, Berries globular
- 165 Leaves cordate downy, Umbels terminal sessile many-flowered
- 166 Branches round pubescent, Leaves ternate oval pointed, Calyx bell-shaped with very short teeth
- 167 Leaves opp. shining lanc. 3-nerv. Fl. 1.5 ax. and term. Cal. 6.7 toothed, Cor. 9.12 part. Seg. lin. the length of tube



and Miscellaneous Particulars.

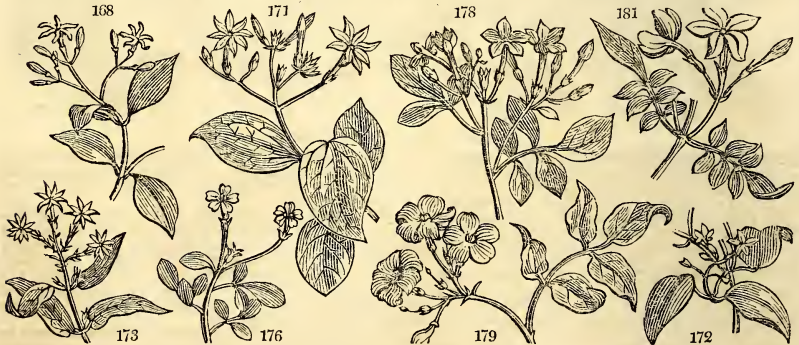
nerally deciduous. Sometimes the leaves grow by threes, are enlarged at the base and variegated. The regular number of stamens is two; but sometimes there are three or four in a flower. The berries are usually purple or black, but some have been seen of a white color; and a yellow fruited variety is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

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

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

39. *Jasminum*. From the Arabian jasmyn. Linnæus obtained a fancied etymology from $\iota\alpha$, a violet, and $\omicron\sigma\mu\eta$, smell. *Le Jasmine*, Fr. *Der Schasmine*, Ger., and *Il Gelsomino*, Ital. The flowers of *J. sambac* are of exquisite fragrance, and in high esteem both in the East and West Indies. It grew in the Hampton Court garden at the end of the 17th century; but being lost there, was known in Europe only in the garden of

168	<i>grácile B. P.</i>	slender	or	3	jad	W	Norfolk I.	1791.	C	a.p	Bot. rep. 127
169	<i>gláucum W.</i>	glaucous	or	3	au	W	C.B.S.	1774.	C	lp	Sal. st. ra. t. 8
170	<i>trinérve W.</i>	three-nerved	or	20	...	W	Sylhet	1804.	C	lp	Bot. mag. 960
171	<i>simplicifólium W.</i>	simple-leaved	or	3	jn.jl	W	S. Seas	1800.	C	r.m	Bot. cab. 469
172	<i>paniculátum Rozb.</i>	panicled	or	5	ja	W	China	1818.	C	r.m	Bot. reg. 436
173	<i>undulátum Vahl.</i>	wavy	or	5	ja	W	China	1819.	C	r.m	Bot. reg. 264
174	<i>auciculatum W.</i>	azuricated	or	10	mys	W	E. Indies	1790.	C	r.m	Bot. reg. 89
175	<i>azóricum W.</i>	Azorian	or	5	ap.n	Y	Madeira	1724.	C	r.m	Bot. mag. 461
176	<i>frúcticans W.</i>	comm. yellow	or	3	ap.o	Y	S. Europe	1570.	L	co	Bot. reg. 350
177	<i>humíle W.</i>	Italian	or	3	jn.s	Y	S. Europe	1656.	L	co	Bot. mag. 285
178	<i>odoratíssimum W.</i>	sweet-scented	or	3	my.n	W	Madeira	1812.	C	r.m	Bot. mag. 178
179	<i>revolútum B. R.</i>	curled flowered	or	12	m.o	Y	E. Indies	.....	C	co	Bot. mag. 31
180	<i>officinále W.</i>	common white	or	15	jn.o	W	.....	1548.	C	co	Bot. mag. 91
181	<i>grandiflórum W.</i>	Catalonian	or	15	jn.o	W	E. Indies	1829.	C	r.m	Bot. reg. 91
40. VERO'NICA. W.											
182	<i>sibirica W.</i>	Siberian	or	3	jl.au	B	Siberia	1779.	D	co	Am. rut. 20. t. 4
183	<i>virginica W.</i>	Virginian	or	5	jl.s	W	Virginia	1714.	D	co	Hoff got. 15. t. 1
	<i>β incarnáta</i>	flesh-colored	or	1	jl.s	F	.....	...	D	co	Wa. & K. 2. t. 102
184	<i>foliósá Schr.</i>	leafy	or	2	jl.s	B	Hungary	1805.	D	co	Hoff ph. t. E. f. 3
185	<i>crenuláta Vahl.</i>	notch-flowered	or	1½	jl.s	B	S. Europe	1814.	D	co	Sc. v. p. 29. t. 1. f. 1
186	<i>marítima Schr.</i>	sea-side	or	2	jl.s	B	Sweden	1570.	D	co	Gmel. it. 1. t. 39
187	<i>angustifólia Fisch.</i>	narrow-leaved	or	1½	jl.s	B	Siberia	1822.	D	co	.....
188	<i>spúria Schr.</i>	bastard	or	2	jl.s	L.B	Siberia	1731.	D	co	.....
189	<i>paniculáta</i>	panicled	or	1½	jn.jl	B	Russia	1797.	D	co	.....
190	<i>complicáta W. en.</i>	folded-leaved	or	2	s.o	B	S. Europe	1812.	D	sl	Hoff ph. t. E. f. 4
191	<i>azúrea Lk.</i>	sky-blue	or	3	jl.s	B	.....	1821.	D	co	.....
192	<i>polystáchyá Lk.</i>	many-spiked	or	2	jl.s	B	.....	1821.	D	co	.....
193	<i>glábra Schr.</i>	smooth	or	4	jl.s	B	S. Europe	1804.	D	co	Sc. v. p. 25. t. 1. f. 4
	<i>β álba</i>	white	or	4	jl.s	W	.....	...	D	co	.....
194	<i>amethýstina W. en.</i>	fine blue	or	4	jl.s	B	S. Europe	1812.	D	co	.....
195	<i>elátior W. en.</i>	tall	or	7	jl.s	B	S. Europe	1808.	D	co	.....
196	<i>acúta Mart.</i>	acute	or	5	jn.jl	B	.....	1822.	D	co	.....
197	<i>argúta Schr.</i>	sharp-notched	or	3	jl.s	B	S. Europe	1812.	D	co	Sc. v. p. 22. t. 2. f. 2
198	<i>média Schr.</i>	long-spiked	or	3	jl.s	B	Germany	1804.	D	co	Sc. v. p. 23. t. 1. f. 2
199	<i>persicifólia Schott.</i>	peach-leaved	or	2	jl.s	B	.....	1823.	D	co	.....
200	<i>austrálsis Schr.</i>	pubescent	or	1½	jl.s	B	S. Europe	1812.	D	co	Sc. v. p. 24. t. 2. f. 3
201	<i>longifólia Schr.</i>	long-leaved	or	3	jl.s	B	S. Europe	1731.	D	co	Sc. v. p. 24. t. 2. f. 1
	<i>β incarnáta</i>	.....	or	3	jl.s	F	.....	...	D	co	.....
	<i>β álba</i>	.....	or	3	jl.s	W	.....	...	D	co	.....
202	<i>gróssa Mart.</i>	short	or	2	jn.jl	B	Crimea	1821.	D	co	.....
203	<i>ambigua Mart.</i>	doubtful	or	3	jn.jl	B	Sweden	1823.	D	co	.....
204	<i>neglécta W. en.</i>	evanescent	or	1½	jl.au	D.B	Siberia	1797.	D	co	Wa. & K. 3. t. 244
205	<i>incána Schr.</i>	hoary	or	2	jl.s	B	Russia	1759.	D	co	Hoff got. 15. t. 6
206	<i>rigens Mart.</i>	stiff	or	2	my.jn	B	.....	1823.	D	co	.....
207	<i>élegans D. C.</i>	elegant	or	2	my.jn	Pk	S. France	1822.	D	co	.....
208	<i>brevifólia Lk.</i>	short-leaved	or	1	jn.jl	B	.....	1822.	D	co	.....
209	<i>spicáta Schr.</i>	spiked	or	1	jl.s	B	England	ch. pa.	D	co	Eng. bot. 2
210	<i>clúsú Schott.</i>	Ecluse's	or	1	jl.s	B	Hungary	1822.	D	co	.....
211	<i>menthaefólia Schott.</i>	mint-leaved	or	1	jl.s	B	Austria	1823.	D	co	.....
212	<i>barrelléri Schott.</i>	Barreliers	or	1	jl.s	B	S. Europe	1823.	D	co	.....
213	<i>orchidéa Crz.</i>	orchis-flowrd.	or	1	jl.s	B	Europe	1819.	D	co	Bot. mag. 2210
214	<i>hýbrida Schr.</i>	Welsh	or	1	jl.s	B	England	moun.	D	co	Eng. bot. 673
215	<i>crassifólia Kit.</i>	thick-leaved	or	2½	my.jn	V	Europe	1822.	D	co	.....
216	<i>ruthénica Jacq.</i>	Hungarian	or	2	my.jn	B	Hungary	1821.	D	co	.....
217	<i>Pónæ W.</i>	Pona's	or	2	my.jn	B	Pylenees	1822.	D	co	.....
218	<i>villósá Schr.</i>	villous	or	1½	jl.s	B	S. Europe	1804.	D	co	Sc. v. p. 31. t. 1. f. 3
219	<i>pinnáta Schr.</i>	wing-leaved	or	1	jn.au	B	Siberia	1776.	D	co	Hoff got. 15. t. 10
220	<i>incisa Schr.</i>	cut-leaved	or	2	jn.au	B	Siberia	1779.	D	co	.....
221	<i>laciniáta Schr.</i>	jagged-leaved	or	2	jn.au	B	Siberia	1780.	D	co	Jung. ic. rar. f. 2
222	<i>gentianoides W.</i>	gentian-leaved	or	2	my.jn	D.B	Levant	1748.	D	co	Bot. mag. 1002
223	<i>pállida Hornem.</i>	pale	or	2	my.jn	B	Tauria	1821.	D	co	.....
224	<i>bellidioides W.</i>	daisy-leaved	or	½	jn.jl	B	Switzerl.	1775.	D	co	Hall. hist. t. 15. f. 1



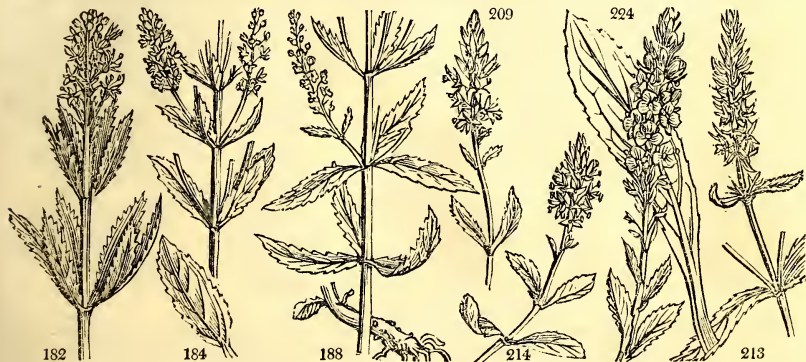
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the Grand Duke of Tuscany at Pisa, where Evelyn informs us (*Memoirs*, &c. by Bray), the plant was placed under guard that no cuttings might be pilfered. A plant sent to Miller in 1730 restored it to England, and it is now a common greenhouse shrub.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

- 168 Leaves opposite simple ovate ellipt. Calyx smooth campanulate : teeth very short
 169 Leaves lanceolate mucronate sub-coriaceous, Flowers 3 terminal
 170 Leaves polished 3-nerved pointed, Fl. sol. Cal. 6.7 toothed, Cor. 6.8 part. Seg. filif. longer than the long tube
 171 Spreading, Leaves obl. polished, Flowers 3 or many term. Cor. 6.8 part. Segm. linear acute equal to tube
 172 Erect every part polished, Leaves ternate oval obtusely acuminate, Panicles terminal
 173 Leaves simple cordate obl. shining, Branches and flower-stalks hairy, Racemes 3-flow. Calyx-teeth straight
 174 Leaves sub-ternate, Leaflets ovate the pair minute or wanting, Teeth of cal. 5 gland. Cor. 7 part. Berr. glob.
 175 Leaves compound ternate ovate and sub-cordate, Calyx campan. smooth, Segm. of corolla equal to its tube
 176 Leaves alternate ternate and simple, Leaflets sub-cuneate, Calyx-teeth subulate
 177 Leaves alternate acute ternate and pinnate, Branches angular, Calyx-teeth very short
 178 Leaves alternate obtuse ternate and pinnate, Branches slender, Calyx-teeth very short
 179 Leaves in about 3 pairs ovate lanc. on short stalks, Cym. term. few or many-fl. loose, Anth. mucr. partly exsert.
 180 Leaves pinnate acuminate, Buds upright
 181 Leaves opposite pinnate exterior 3 or 5 leaflets confluent, Flowers terminal, Buds horizontal
Racemes or Spikes terminal, Leaves whorled and opposite.
 182 Leaves 5 6 or 9 together lanceolate sessile
 183 Leaves 4 5 together lanceolate ovate stalked, Flowers cylindrical

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

- 194 Stem pubes. Leaves opp. and tern. lanc. rather fleshy simply and remotely serrate wedge-shaped at the base
 195 All over slightly pubes. Leaves 3 togeth. lanc. acumin. sub-cord. at base doubly serrate : serrat. of base deepest
 196 Leaves very long almost coriaceous opp. or 3 together on short stalks cordate at base acute and unequally
 dentate serrate hanging down
 197 Leaves lanceolate acute simply serrate entire at the end, Serratures distant simple equal
 198 Leaves opposite and 3 together lanceolate acute serrate with the stem downy, Serratures near unequal
 199 Leaves opp. and tern. lanc. very much lengthened out serrated to the very end, Bract. longer than fl.-stalk
 200 Leaves ovate lanceolate simply serrate entire at the end with the stem pubescent, Serratures near unequal
 201 Leaves opposite 3 or 4 together cordate lanceolate acuminate doubly serrated with the stem downy
 202 Leaves 3 or 4 tog. at base widely cord. lanc. deeply doubly acutely uneq. dent. serr. Serr. sprdg. lowest distant.
 203 Leaves 3 or 4 tog. ov. acum. cord. at base doubly acutely and uneq. serr. beneath and with the stem pubescent.
Racemes terminal, Leaves opposite.
 204 Hoary, Leaves lanceolate serrate acute at the base wedge-shaped and entire, Stem erect
 205 Hoary, Leaves lanceolate crenate and nearly entire obtuse, Stem erect
 206 Leaves on short stalks stiffish cordate at the base pointed closely acutely and doubly serrate, Stem pubescent
 207 Leaves ovate oblong crenate stalked obtuse with the stem pubescent, Spikes many, Bractes very small
 208 Stem simp. pub. Lvs. op. lan. obl. by deg. narr. fr. base point ser. ent. at end, up. ones sub-ser. Br. lon. than fl.-st.
 209 Slightly pub. Lvs. cren. the rad. ov. obl. running down into stalk, Caul. lanc. sess. Fl. spkd. Br. and cal. pilose
 210 Toment. with stkd. glands, Lvs. tooth. rad. ov. runn. down into st. Caul. lan. stkd. Fl. in spks. Br. & cal. cil.
 211 Villous, Leaves serr. rad. ovate, Caul. obl. acute stalkd. at base and end entire, Fl. in racemes, Bractes linear
 212 Villous, Leaves cren. rad. ov. Caul. obl. obtuse sub-sess. Flow. in racemose spikes, Br. and cal. smooth ciliate
 213 Slightly pubesc. Leaves crenulate radical oblong ovate running down into stalk, Cauline lanceol. acuminate
 sub-sessile, Flowers in close spikes
 214 Lvs. uneq. tooth serr. with stem pub. rad. stkd. ov. Caul. sub-sess. ellipt. obl. Fl. in spks. Br. lin. lon. than cal.
 215 Leaves opp. ov. lanc. runn. down into st. the lower cren. the upp. ent. Spks. term. or 3 tog. Fl. like an orchis
 216 Leaves ov. lan. uneq. ser. Br. lan. as long as cal. Cal. 4 part. uneq. Seg. ov. obl. Caps. smth. rather long. than cal.
 217 Leaves cordate ovate sessile very obtuse with the very simple stem hairy, Racemes few-fl. Calyx smooth
 218 Leaves oblong ovate cut and serrated with the stem somewhat villous
 219 Stem ascending, Leaves in fasc. the lower pinnate, the upper pinnatifid and simp. Leaf. and div. filif. sprdg.
 220 Leaves in fasc. stalked pinnatifid lanc. Segm. nearly entire, Racemes several, Seg. of the Calyx lanceolate
 221 Leaves in fasc. on short stalks linear pinnatifid : Seg. entire, Raceme nearly sol. Seg. of calyx oblong ovate
 222 Raceme corymbose term. Leaves radical obl. connate sheathing cartil. crenate or ent. Stem simp. ascending
 223 Stem ascend. feeble, Lvs. lanc. obt. sub-serr. : lower sheathing, Rac. loose, Up. seg. of cor. wider than side ones
 224 Leaves obov. cren. with simple ascend. stem pilose, Cauline lvs. remote, Rac. corymb. hairy about 5-flowered



and Miscellaneous Particulars.

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

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

225 fruticulosa W.	flesh-colored	xx	or	1	jn.au	F	Scotland	Sc. alp.	D	co	Eng. bot. 1028		
226 saxatilis W.	blue-rock	xy	Δ	or	1	jl	B	Scotland	Sc. alp.	D	co	Eng. bot. 1027	
227 alpina W.	alpine	xy	Δ	or	1	my	B	Scotland	Sc. alp.	D	co	Eng. bot. 484	
β integrifolia	entire-leaved	xy	Δ	or	1	my	jn	B	Silesia	1814.	D	co	Krock. ill. 28. t. 3
228 depauperata Kit.	impoverished	xy	Δ	or	1	ap.jl	B	Hungary	1823.	D	sp	W. & K. 3. 245	
229 serpyllifolia W.	smooth	xy	Δ	or	1	ap.jl	B	Britain	me. pa.	D	co	Eng. bot. 1075	
230 hirsuta Lk.	hairy	xy	Δ	or	1	ap.jl	W	.....	1820.	D	sp	
231 microphylla Kit.	small-leaved	xy	Δ	or	1	ap.jl	B	Hungary	1822.	D	sp		
232 decussata W.	cross-leaved	xx	┘	or	1	jn.au	B	Falkl. I.	1776.	C	r.m	Bot. mag. 242	
233 aphylla W.	naked-stalked	xy	Δ	or	1	my	B	Italy	1775.	D	co	Seg. ver. 1. t. 3. f. 2	
234 Beccabunga W.	Brook-lime	xy	Δ	clt	2	my.jn	B	Britain	rivul.	D	co	Eng. bot. 651	
235 anagallis W.	long-leav.-wat.	xy	Δ	or	2	jl	B	Britain	mar.	D	co	Eng. bot. 785	
236 scutellaria W.	marsh	xy	Δ	or	2	jn.au	F	Britain	mar.	D	co	Eng. bot. 782	
237 jacquini W.	various-leaved	xy	Δ	or	1	jn.au	L.B	Levant	1748.	D	co	Bot. cab. 419	
238 Jacquini Schott.	Jacquins	xy	Δ	or	1	my.n	B	Austria	1748.	D	co	Jac. aust. 4. t. 329	
239 austriaca Jac.	Austrian	xy	Δ	or	1	jn.au	L.B	Austria	1748.	D	co	M. his. 2. t. 23. f. 12	
240 multifida W.	fine-cut	xy	Δ	or	1	my.jl	L.B	Siberia	1748.	D	co	Bot. mag. 1679	
241 Allionii W.	various-leaved	xy	Δ	or	1	jn.au	L.B	S. Europe	1748.	D	co	All. ped. 1. t. 45. f. 3	
242 officinalis W.	official	xy	Δ	or	1	ap.jl	B	Britain	bar. gr.	D	co	Eng. bot. 765	
243 pratensis W.	trailing	xy	Δ	or	1	my.jn	B	Germany	1774.	D	co	Riv. mon. 95	
244 micrantha Hoff.	small-flowered	xy	Δ	or	1	my.jn	W	Portugal	1822.	D	co	Fl. port. t. 57	
245 latifolia W.	broad-leaved	xy	Δ	or	1	my.jn	W.B	Austria	1748.	D	co	Sw. f. gard. 23	
246 Teucrium P. S.	rugged-leaved	xy	Δ	or	2	jn.au	L.B	Germany	1566.	D	co	Bot. cab. 425	
247 crinita Kit.	long-bracted	xy	Δ	or	1	jl.au	B	Hungary	1822.	D	co		
248 Chamg'drys W.	Germaner	xy	Δ	w	1	jl.au	B	Britain	m. pas.	D	co	Eng. bot. 623	
249 urticifolia W.	nettle-leaved	xy	Δ	or	1	jn.jl	B	Austria	1776.	D	co	Jac. aust. 1. t. 59	
250 montana W.	mountain	xy	Δ	or	1	jl.au	B	Britain	1815.	D	co	Eng. bot. 766	
251 perfoliata B. P.	perfoliate	xx	┘	or	1	jl.au	B	N.S.W.	1815.	D	r.m	Bot. mag. 1936	
252 labiata B. P.	labiated	xx	┘	or	1	ap.jl	L.B	N. Holl.	1802.	C	r.m	Bot. mag. 1660	
253 polymorpha W. en.	variable	xy	Δ	or	1	jn.au	B	.....	1817.	D	co	
254 verna W.	vernal	xy	○	w	1	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 25	
255 digitata W.	digitated	xy	○	w	1	jl	B	S. Europe	1805.	S	co		
256 triphylos W.	fingered	xy	○	w	1	ap.my	B	Britain	san. fi.	S	s	Eng. bot. 26	
257 heterifolia W.	ivy-leaved	*x	○	w	1	mr.jn	B	Britain	clt. gr.	D	co	Eng. bot. 784	
258 cymbalaria Bertol.	twining	xy	○	or	2	au.my	W	S. Europe	1821.	S	co	Fl. græc. t. 9	
259 peregrina W.	knotgrass-leav.	xy	○	or	1	au.my	W	N. Europe	1680.	S	co	Fl. dan. 407	
260 filiformis W.	long-stalked	*x	○	or	1	my	L.B	Levant	1780.	S	co	B. cen. 1. t. 40. f. 1	
261 crista galli Stev.	cocks-comb	*x	○	or	1	ap.my	B	Caucasus	1813.	S	co	Linn. trans	
262 præcox All.	early	xy	○	or	1	mr	B	S. Europe	1775.	S	co	All. auc. 5. t. 1. f. 1	
263 acinifolia W.	basil-leaved	*x	○	or	1	ap.my	L.B	S. Europe	1775.	S	co	P. et T. fl. p. 1. t. 23	
264 arvensis W.	wall	*x	○	w	1	ap.jl	B	Britain	old w.	S	co	Eng. bot. 734	
265 agræstis W.	field	*x	○	w	1	mr.jl	B	Britain	clt. gr.	S	co	Eng. bot. 783	
41. GALIPEA A. Aub.	GALIPEA.	xy	□	or	4			Rutacæ. Sp. 1.					
266 trifoliata W.	three-leaved	xy	□	or	4			? ... G	Guiana	1803.	C	p.l	Aublet 662. t. 269
42. SCHWENCKIA W.	SCHWENCKIA.	xy	□	or	1			Primulacæ. Sp. 1-7.					
267 americana W.	American	xy	□	or	1	aus	Li	Guiana	1781.	C	sp	Sch. bs. p. 328. t. 1	
43. GRATIOLA W.	HEDGE-HYSSOP.	xy	□	or	1			Scrophularinæ. Sp. 4-45.					
268 officinalis W.	official	xy	Δ	m	1	my.au	L.B	Europe	1568.	D	co	Fl. dan. 363	
269 virginicifolia W.	speedwell-ld.	xy	Δ	or	1	jn.s	B	E. Indies	1798.	C	co	Rh. mal. 9. t. 58	
270 virginica W.	Virginian	xy	Δ	or	1	au	Y	Virginia	1759.	D	co		
271 quadridentata Mich.	four-toothed	xy	Δ	or	1	my.au	W	N. Amer.	1821.	D	co	Lam. ill. t. 16. f. 2	
44. SCHIZANTHUS Fl. per.	SCHIZANTHUS.	xy	□	or	2			Scrophularinæ. Sp. 2.					
272 pinnatus Fl. per.	pinnate	xy	□	or	2	jn.o	W.P	Chili	1822.	S	l.p	Hook. ex. fl. 73	
273 porrigen Hook.	spreading stalk	xy	□	or	2	jn.o	W.P	Chili	1822.	S	l.p	Hook. ex. fl. 86	



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

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

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

- 925 Upper leaves obl. sub-serr. Stems erect $\frac{1}{2}$ shrubby, Rac. many-fl. Caps. roundish ov. scarcely longer than calyx
 926 Upper leaves obl. obov. sub-serr. Caps. ovate larger than calyx, Stems shrubby diffuse, Corymb. term. few-fl.
 927 Leaves smth. ellip. ov. ent. or ser. Corymb. term. somew. spiked, Cal. cil. Caps. ob. Stems tufted herb. simple
 β Leaves elliptic ovate obtuse entire
 928 Peduncle axillary subracemose few-flow. Leaves obovate obtuse sub-serrated, Fl.-stalks and calyces pilose
 929 Leaves opp. oblong crenate with the calyces smooth, Racemes elongated, Flowers distant, Stem ascending
 930 Glandular hairy, Stem ascending, Leaves oblong acute sub-crenate, Raceme elongated
 931 Leaves opp. ovate irregularly crenate, Stem ascending, Bractes scarcely longer than flower-stalks
Racemes lateral.
 932 Racemes few-flowered, Leaves elliptical perennial entire, Stem shrubby
 933 Radical leaves roundish and oblong, Stem naked very short, Flower-stalk like a scape about 3-flowered
 934 Leaves elliptical obtuse on short stalks serrulate, Cal. 4-parted, Stem procumbent below rooting
 935 Leaves lanceolate serrate stem clasping, Cal. 4-parted, Stem erect
 936 Leaves linear lanceol. nearly entire, Flow.-stalks pendulous or spreading, Cal. 4-parted, Stem nearly erect
 937 Leaves lin. lanc. lower pectinate pinnatifid, upper entire, Cal. leaves unequal subulate, Stems procumbent
 938 Leaves sess. pinnatifid and bipinnatifid, Lower bracte 3-fid longer than fl.-st. Cal. 5-part. Stem nearly erect
 939 Leaves sess. lanceol. inciso serrate and pinnatifid, Bracte entire shorter than fl.-st. Cal. 4-part. Stem feeble
 940 Leaves bipinnatifid, Segm. lanceol. and lin. Cal. leaves unequal subulate, Stems procumb. woody at base
 941 Leaves oblong roundish stiff shining, with the procumbent creeping stem smooth, Flowers in close spikes
 942 Leaves obovate or roundish serrate, Cal. 4-parted, Stem rooting at the bottom
 943 Leaves sessile oblong obtuse serrate: the upper lanceol. flat, Cal. 4 or 5-part. Flowering stem ascending
 944 Stem erect hairy all over, Lvs. sub-sess. oval coarsely and acutely cren. hairy, Cal. 4-part. larger than corolla
 945 Leaves somewhat heart-shaped ovate sessile unequally obtusely serrate, Stem erect, Cal. 5-leaved
 946 Lower leaves oblong coarsely serrated with the stem villous
 947 Leaves sub-sessile ovate lanceolate unequally serrated, Cal. 5-parted, Segm. and bractea linear subulate
 948 Lvs. cut serr. the upp. cord. ovate sess. the low. ov. stalk. Cal. 4-part. Stem hairy in 2 rows, Rac. long. than stem
 949 Leaves sessile cordate ovate acute serrate, Cal. 4-parted, Stem erect
 950 Leaves cord. ovate obtuse coarsely serrated with the stem and stalks hairy, Cal. 4-part. Rac. elong. filiform
 951 Racemes lateral stalked many-flow. Leaves entire very smooth ovate acuminate joined together at the base
 952 Racemes very long, Leaves elongate lanceolate acuminate unequally serrate
 953 Fl.-stalks rather longer than bract. Lvs. lanc. wedge-shaped at base simply and doubly toothed, Stem prostrate
Flower-stalks one-flowered.
 254 Flowers sub-sess. Leaves finger-parted, the upper undivided, Fl.-stalks shorter than the calyx, Stem erect
 255 Flowers sessile, Leaves all finger-parted
 256 Lower leaves entire: middle finger-parted: upper trifid, Fl.-stalks longer than calyx, Stem erect spreading
 257 Leaves as long as stalk cord. rounded 5-lobed: the upper 3-lobed, Segm. of cal. cord. acute, Stem procumbent
 258 Leaves cord. rounded with 5 or 9 but generally 7 teeth obtuse a little fleshy, Cal. of fruit spread. Caps. hairy
 259 Flowers sessile, Leaves oblong a little serrate longer than calyx, Stem erect
 260 Leaves roundish cordate crenate, Flower-stalks very long, Calyx leaves lanceolate
 261 Flower-stalks as long as the leaves, Calyx 2-leaved, Leaflets 2-lobed serrate
 262 Low. lvs. stalk. cord. ov. serr. floral nearly sess. short. than fl.-st. Caps. obov. emarg. turgid, Stem rather upr.
 263 Flow. stalked, Low. lvs. stalked ov. serr. floral s.-sess. as long as fl.-st. Caps. obov. comp. Stem nearly simple
 264 Flow. nearly sess. Low. lvs. stalked cord. ov. serr. caul. cren. floral lanc. sess. longer than stalk, Cal. unequal
 265 Leaves stalked cord. ovate serr. Cal. leaves ovate, Stem procumb. Fl.-stalks scarcely shorter than the leaves

266 Leaves alternate stalked, lanceolate entire

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

- 268 Leaves lanceolate serrate somewhat 3-nerved, Flowers on stalks
 269 Leaves oblong acutely serrated, Stem creeping, Flowers racemose. [acuminate longer than the calyx
 270 Leaves obovate lanc. narrowed below remotely toothed nerved smooth, Fl.-stalk alternate very short, Caps.
 271 Leaves lin. lanc. with a few teeth, Fl.-stalks as long as the leaves, Caps. much shorter than the subulate calyx

272 Stalk of fruit on one side deflexed at base
 273 Stalk of fruit spreading all ways straightish



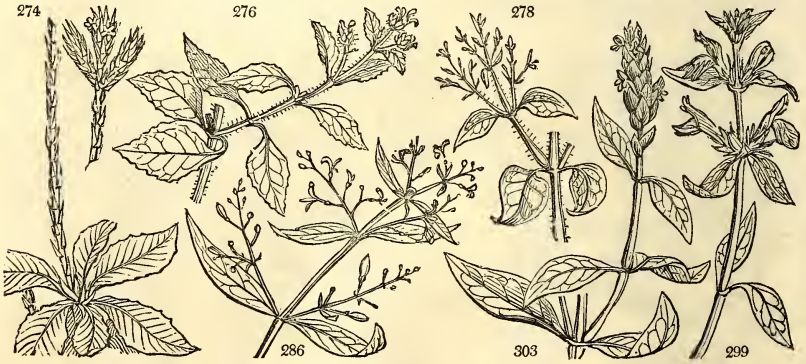
and Miscellaneous Particulars.

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

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

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

45. ELYTRARIA. <i>M.</i> ELYTRARIA.			<i>Acanthaceae.</i> Sp. 2-5.					
274 virgata <i>M.</i>	twiggy	½ Δ or	1 jl W	Carolina	1813.	D s.p	Mich. am. l. t. 1	
275 crenata <i>Vahl.</i>	stemless	½ Δ or	¼ jl W	E. Indies	1820.	D s.p	Roxb. cor. t. 127	
<i>Justicia acaulis</i> Roxb.								
46. HYPOESTES. <i>R. Br.</i> HYPOESTES.			<i>Acanthaceae.</i> Sp. 2-10.					
276 involucrata <i>Rozb.</i>	involucrated	or	1½ jlau W	E. Indies	1811.	C p.l		
277 purpurea <i>W.</i>	purple	or	2 my.jn P	China	1822.	C p.l		
47. JUSTICIA. <i>W.</i> JUSTICIA.			<i>Acanthaceae.</i> Sp. 28-137.					
278 bicalyculata <i>W.</i>	Malabar	or	3 au Li	E. Indies	1755.	S s.l	Retz. st. 1775. t. 9	
279 Ecbolium <i>W.</i>	long-spiked	or	3 mr.au B	E. Indies	1759.	C p.l	Bot. mag. 1847	
280 coccinea <i>W.</i>	scarlet	or	5 f S	S. Amer.	1770.	C p.l	Bot. mag. 432	
281 quadrifida <i>H. K.</i>	twiggy	or	3 mr.s S	Mexico	1795.	C p.l	Par. lon. 50	
282 nigricans <i>Lour.</i>	black-striped	or	6 mr.s, W.R	China	1819.	C p.l		
283 nitida <i>W.</i>	glossy	or	4 mr.s W	W. Indies	1790.	C p.l	Bot. rep. 570	
284 bracteolata <i>Jacq.</i>	small-bracted	or	6 jlau P	Caraccas	1823.	C p.l	Jacq. ic. t. 205	
285 picta <i>W.</i>	painted	or	8 jlau Cr	E. Indies	1780.	C p.l	Bot. mag. 1870	
286 paniculata <i>Vahl.</i>	panicked	or	1½ jlau Pk	E. Indies	1811.	C p.l	Rheed.mal.9.t.56	
287 secunda <i>Vahl.</i>	side-flowering	or	3 jn.jl R	W. Indies	1793.	C p.l	Bot. mag. 2060	
288 ciliaris <i>W.</i>	ciliated	or	1 jlau W	W. Indies	1780.	S s.l	Jacq. vin. 2. t.104	
289 lucida <i>Vahl.</i>	shining-leaved	or	3 jlau Sc	W. Indies	1795.	C p.l	Bot. mag. 1014	
290 Gendarussa <i>W.</i>	willow-leaved	or	3 jn.jl Li	E. Indies	1800.	C p.l	Bot. reg. 635	
291 carthaginensis. <i>W.</i>	Caribæan	or	1½ jn.jl Pu	Carthag.	1792.	C s.p.l	Bot. reg. 797	
292 pedunculosa <i>Mich.</i>	N. American	or	1½ jlau Li	N. Amer.	1759.	C s.p.l	Bot. mag. 2367	
293 procumbens <i>W.</i>	procumbent	or	½ jlau Pk	E. Indies	1798.	L s.p	Plk. al. t. 56. f. 3	
294 comata <i>W.</i>	balsam herb	or	2 jlau Jamaica	Jamaica	1795.	R s.p	Sl. jm. l. t. 103. f. 2	
295 eustachiana <i>W.</i>	Eus'achian	or	3 aus O	St. Eustac.	1799.	C s.p	Bot. reg. 309	
296 nasuta <i>W.</i>	white-flowerg.	or	2 f.o W	E. Indies	1790.	C p.l	Bot. reg. 325	
297 pectoralis <i>W.</i>	Garden-balsam	or	3 my.jn P	W. Indies	1787.	L s.p	Bot. reg. 796	
298 periploclifolia <i>W.</i>	periploca-leav.	or	1½ jn P	S. Amer.	1799.	C s.p	Jac. col. s. t. 7. f. 2	
299 furcata <i>Va.</i>	forked	or	5 ap.au P	Peru	1795.	C p.l	Bot. mag. 430	
300 lithospermifolia <i>W.</i>	gromwell-leav.	or	3 ap.au P	Peru	1796.	C p.l	Jac. schön. l. t. 4	
301 caracasana <i>Jacq.</i>	violet	or	5 my.jn V	Caraccas	1822.	C p.l	Jac. pl. r. 2. t. 206	
302 adhatoda <i>W.</i>	Malabar-nut	or	10 my.jl P	Ceylon	1699.	C sl.	Bot. mag. 861	
303 betonica <i>Va.</i>	betony-leaved	or	3 my.jl W	E. Indies	1737.	S p.l	Rheede 2. t. 21	
304 hyssopifolia <i>W.</i>	Snap-tree	or	2 mr.au Y	Canaries	1690.	C pl.	Mill. ic. 9. t. 13	
305 orchioides <i>W.</i>	broom-leaved	or	2 au	C.B.S.	1774.	C pl.	Vent. mal. 51	
48. DICLIPTERA. DICLIPTERA.			<i>Acanthaceae.</i> Sp. 5-25.					
306 hexangularis <i>W.</i>	chick-leaved	or	2 jl R	S. Amer.	1733.	S s.l	Pluk. t. 279. f. 6	
307 scorpioides <i>L.</i>	scorpion-like	or	3 jl	Vera Cruz	1802.	C p.l	R. Houst. p. 3. t. 1	
308 resupinata <i>W.</i>	resupinate	or	1½ jl W.P	S. Amer.	1805.	S p.l	Cav. ic. 3. t. 203	
309 pectinata <i>Vahl.</i>	small-flowered	or	1½ jn.jl B.	E. Indies	1798.	C p.l	Rox. cor. 2. t. 153	
310 retusa <i>Vahl.</i>	blunt	or	2 mr.ap P	W. Indies	1821.	C l.	Bot. cab. 724	
49. ERANTHEMUM. <i>B.P.</i> ERANTHEMUM.			<i>Acanthaceae.</i> Sp. 3-14.					
311 spinosum <i>B. P.</i>	thorny	or	2 jlau W.	W. Indies	1733.	C s.p	Jc. am. 2. t. 2. f. 1	
312 pulchellum <i>B. R.</i>	nervose	or	2 ja.o B	E. Indies	1796.	C s.p	Bot. rep. 88	
313 bicolor <i>B. M.</i>	two-coloured	or	2 mv.au W.R	Luconia	1802.	C s.p	Bot. mag. 1423	
50. WULFENIA. <i>W.</i> WULFENIA.			<i>Scrophularinac.</i> Sp. 1.					
314 carinthiaca <i>W.</i>	annual	or	1½ jlau B	Carinthia	1817.	S co	Jacq. ic. 1. t. 2	
51. CALCEOLARIA. <i>W.</i> SLIPPERWORT.			<i>Scrophularinac.</i> Sp. 7-55.					
315 pinnata <i>W.</i>	wing-leaved	or	2 jls Y	Peru	1773.	S s.p	Bot. mag. 41	
316 scabiosaefolia <i>R. & S.</i>	scabious-leav.	or	2 my.o Y	Chili	1822.	C co	Bot. mag. 2405	
317 rugosa <i>Fl. per</i>	rugose	or	2 aus Y	Chili	1822.	C co	Hooker fl. ex. 99	
318 integrifolia <i>L.</i>	entire-leaved	or	2 aus Y	Chili	1822.	C co	Bot. reg. 744	



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

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

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

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

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

Calyx double.

- 278 Panicles axillary dichotomous

Calyx simple, Flowers labiate.

- 279 Spikes terminal 4-sided imbricated, Bracteas oval, Leaves oblong ovate acuminate, Helmet linear
 280 Spikes terminal, Bracteas and leaves elliptical, Helmet lanceol. reflexed at the end, Stigma of two plates
 281 Leaves linear lanceolate, Flowers nearly solitary sessile tubular 4-cleft
 282 Spikes terminal 2-ranked, Bractes setaceous, Leaves linear lanceolate
 283 Racemes term. somewhat branched, Cal. whorled smooth, Leaves lanc. elliptic, sharp at both ends stalked
 284 Racemes term. comp. Pedunc. 3 or 4-flowered, Bract. lanc. Leaves oblong pointed, Branches square rough
 285 Racemes axillary and terminal, Flowers inflated at the throat whorled, Leaves elliptical variegated
 286 Stems 4-sided brachiate, Leaves sub-sess. lanc. Flowers 1-sided erect, Lip linear revolute, Flowers downy
 287 Racemes terminal compound 1-sided many-flowered, Bract. setaceous, Leaves ovate oblong, acuminate
 288 Flowers axillary solitary sessile opposite, Calyx hispid, Leaves lanceolate obtuse ciliated at the base
 289 Spikes terminal in heads, Leaves elliptic nerved blistered shining, Upper lip of corolla lanceolate
 290 Spikes terminal leafy, Flowers whorled, Leaves elongated
 291 Spikes axillary and terminal, Bractes oblong imbricate ciliate obtuse
 292 Spikes axillary, Flowers close, Flower-stalks elongated alternate, Leaves lanceolate
 293 Spikes lateral and terminal, Calyx 4-leaved linear hairy, Lower lip ovate, Leaves oblong
 294 Spikes axillary and terminal filiform, Spikelets whorled
 295 Spikes axillary and terminal, Flowers in pairs below single above, Bractes wedge-shaped
 296 Upper lip of corolla subulate, Flower-stalks axillary dichotomous, Leaves elliptical entire
 297 Panicle terminal dichotomous, Flowers spiked distant
 298 Upper lip emarg. reflexed, Flowers axillary solitary sub-sess. opposite: term. in spikes, Lvs. ovate lanceolate
 299 Lower lip 3-lob. Flow. axillary solitary and spiked, Lvs. ovate oblong narr. at each end, with stem pubescent
 300 Lower lip 3-lobed, Flowers axillary sessile whorled, Bractes linear lanceolate, Leaves lanceolate.
Calyx simple, Flowers ringent.
 301 Spikes axillary and term. Flowers opposite, Bract. shorter than cal. Stem. and branc. round 6-streak. Leaves
 302 Spikes axillary opposite, Bractes ovate acute nerved [ovate acuminate wavy-stalked
 303 Spikes terminal, Bract. ovate acuminate netted with veins, Leaves lanceolate ovate stalked
 304 Leaves lanceolate entire obtuse, Peduncles axillary 3-flowered 2-edged, Bractes shorter than the calyx
 305 Peduncles solitary axillary one-flowered, Leaves lanceolate acute at each end sessile

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

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

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

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



and Miscellaneous Particulars:

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

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

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

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

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

319 corymbosa Cav.	corybose	○ or	1	my.jn	Y	Chili	1822.	S co	Bot. reg. 723
320 paralia Cav.	sea-side	○ or	1	my.jn	Y	Chili	1822.	S co	Hook. fl. ex. 75 ?
321 Fothergillii W.	Fothergill's	△ or	½	my.au	O	Falkl. I.	1777.	D l.p	Bot. mag. 348
52. PINGUICULA W. BUTTERWORT.									
322 lusitánica W.	pale	≡ △ cu	½	jn.jl	Li	Britain	bogs	D m.s	Eng. bot. 145
323 vulgaris W.	common	≡ △ ec	½	my	Y	Britain	bogs	D m.s	Eng. bot. 70
324 alpina W.	alpine	≡ △ cu	½	ap	W	Germany	1794.	D l.p	Fl. dan. 453
325 grandiflora W.	large-flowered	≡ △ el	½	ap	Y	Britain	ir. bog.	D m.s	Eng. bot. 2184
326 lutea M.	yellow	○ or	½	jn.jl	Y	Carolina	1816.	S p.l	Bot. reg. 126
327 edéntula Hook.	toothless	≡ △ el	½	ap	Y	N. Amer.	1823.	D s.p	Hook. ex. fl. 16
53. UTRICULARIA. W. HOODED MILFOIL.									
328 vulgaris W.	common	≡ △ cu	½	jn.jl	Y	Britain	sta. wa.	D aq	Eng. bot. 253
329 minor W.	lesser	≡ △ cu	½	jl	Y	Britain	bogs	D aq	Eng. bot. 254
330 intermedia P. S.	intermediate	≡ △ cu	½	my.jn	Y	Britain	bogs	D aq	Eng. bot. 2489
54. STACHYTA RPHETA. Vahl. BASTARD VERVAIN. Verbenaceæ. Sp. 7—13.									
331 indica Vahl.	Indian	○ or	2	au.s	W	Ceylon	1732.	S s.p	
332 jamaicensis Vahl.	Jamaica	○ or	2	jn.s	B	W. Indies	1714.	C p.l	Bot. mag. 1860
333 orbíca Vahl.	Orubian	○ or	3	jn.au	V	Panama	1699.	C l.p	Ehr. pict. t. 5. f. 1
334 mutábilis Vahl.	chang-flower.	○ or	3	mr.s	O	S. Amer.	1801.	C p.l	Bot. mag. 976
335 prismática Vahl.	Germand.leav.	○ or	2	my.jn	B	W. Indies	1699.	C p.l	Jac. ic. 2. t. 208
336 cayennensis Rich.	Cayenne	○ or	3	my.jn	B	Cayenna	1822.	C p.l	
337 hirsutissima Lk.	hairy	△ or	1½	mr.ap	B	Brazil	1822.	D p.l	
55. LYCO PUS. W. WATER HOREHOUND. Labiate. Sp. 4—6.									
338 europæus W.	common	≡ △ ro	3	jl.au	W	Britain	riv. ba.	D m.s	Eng. bot. 1105
339 exaltátus W.	tall	≡ △ ro	6	jl.au	W	Italy	1739.	D m.s	Fl. græc. i. t. 12
340 virginicus W.	Virginian	≡ △ ro	3	au.s	W. P	Virginia	1760.	D m.s	
341 intermédius Sch.	intermediate	≡ △ ro	3	jl.au	W	Europe	1820.	D m.s	
56. AMETHYSTEA. W. AMETHYSTEA. blue-flowering. Labiate. Sp. 1.									
342 cærúlea W.		○ pr	1½	jn.jl	B	Siberia	1759.	S p.l	Bot. mag. 2448
57. ZIZIPHORA. W. ZIZIPHORA. Labiate. Sp. 8—12.									
343 capitata W.	oval-leaved	○ or	½	jl.au	R	Syria	1752.	S co	Fl. græc. i. t. 13
344 hispánica W.	Spanish	○ or	½	jn	R	Spain	1759.	S co	Lam. ill. t. 18. f. 1
345 tenúior W.	spear-leaved	○ or	½	jn.jl	Li	Levant	1752.	S co	Lam. ill. t. 18. f. 2
346 acinoídes W.	thyme-leaved	≡ △ rk	½	jl.au	R	Siberia	1786.	D s.l	
347 serpyllácea B. M.	sweet-scented	≡ △ rk	½	jl.au	R	Caucasus	1803.	C s.l	Bot. mag. 906
348 média Lk.	intermediate	≡ △ rk	½	jn.au	R	Caucasus	1822.	C co	
349 dasyántha W. en. Pouschkini B. M.	hairyflowering	≡ △ rk	½	jn.au	R	Siberia	1803.	C co	Bot. mag. 1093
350 taúrica W. en.	Taurian	○ or	½	jl.s	R	Tauria	1816.	S co	
58. CUNILA. P. S. CUNILA. Labiate. Sp. 2—5.									
351 mariána Ph.	mint-leaved	≡ △ or	1	jl.s	R	N. Amer.	1759.	D co	Mor. h. 3. t. 19. f. 7
352 capitata P. S.	headed	≡ △ or	1	jl.au	R	Siberia	1799.	D co	Mem. petr. 2. t. 11
59. HEDEOMA. P. S. HEDEOMA. Labiate. Sp. 2—3.									
353 pulegioides Ph.	pennyroy.-lvd.	○ or	½	jn.au	B	N. Amer.	1777.	S co	
354 thymoides P. S.	thyme-leaved	○ or	½	jn.au	R	France	1699.	S co	Mor. h. 3. t. 19. f. 6
60. MONARDA. W. MONARDA. Labiate. Sp. 13—16.									
355 fistulosa Ph.	hollow-stalked	≡ △ or	3	jn.au	P	N. Amer.	1656.	D r.m	Mill. ic. t. 183. f. 2
356 média W. en.	purple-bracted	≡ △ or	2	jn.s	P	N. Amer.	1656.	D r.m	
357 móllis Ph.	soft	≡ △ or	2	jn.s	Li	N. Amer.	1656.	D r.m	



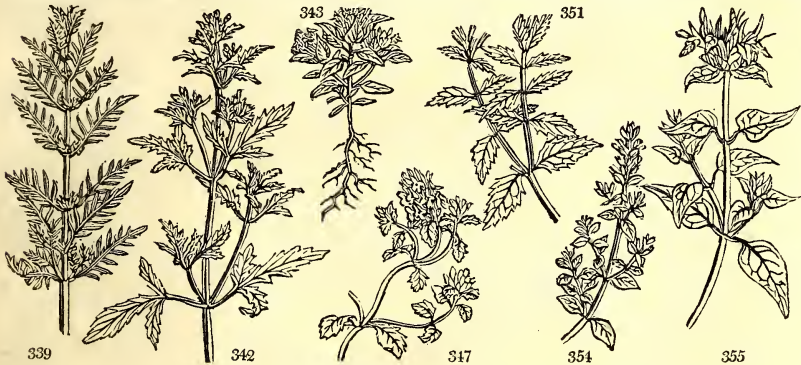
History, Use, Propagation, Culture,

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

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

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

- 319 Leaves radical ovate and cordate stalked twice-crenate, Cauline cordate half embracing the stem
 320 Leaves unequally toothed: the radical cuneate; upper oblong connate with the Capsules tomentose
 321 Leaves spatulate entire hairy above, Flower-stalks like a scape 1-flowered
- 322 Nectarium conical thick at the end, obtuse shorter than the flowers, Scape villous, Capsules globose
 323 Nectarium subulate nearly straight as long as the petals, Upper lip 2-lobed: lower 3-parted, Scape smooth
 324 Nectarium conical recurved shorter than the petals [dilated
 325 Nectarium subulate straight as long as the flower, Upper lip spreading emarg. very large: lower 3-lobed throat
 326 Nectarium subulate recurved shorter than the campan. flower, Throat bearded, Lips toothed, Scape villous
 327 Nectarium subulate recurved shorter than the campan. cor. 5-lobed: lobes entire, Palate prominent, [Scape pubescent
- 328 Nectarium conical, Upper lip entire equal to the palate, Leaves very finely divided
 329 Nectarium carinate, Upper lip emarg. equal to the palate, Lvs. dichotomously 3-part. Cor. with throat open
 330 Nectarium conical, Upper lip entire twice as long as the palate, Leaves dichotomously 3-parted
- 331 Leaves lanceol. obl. narrower at the base remotely toothed with stem very smooth, Bract. lin. lanceolate
 332 Leaves oblong ovate tooth-serrated smooth, Branches hairy, Bractes ovate shorter than calyx
 333 Leaves ovate serrate rough rugose, Stem shrubby, Bractes ovate larger than the calyx
 334 Leaves serrate ovate rugose with the stem hoary, Bractes lanceolate shorter than the calyx
 335 Leaves ovate obtuse serrate, Spikes lax, Bractes subulate shorter than the calyx
 336 Leaves ovate crenate serrate smooth very obtuse
 337 Leaves ovate acutely crenate with the stem very hairy, Spike very long, Bract. appressed smaller than the cal.
- 338 Leaves ovate lanceolate villous sinuate serrate
 339 Leaves pinnatifid hairy, Lobes oblong somewhat toothed
 340 Leaves lanceolate: the lower pinnatifid at the base: the upper remotely serrated, Stem smooth
 341 Leaves pubescent ovate pinnatifid, Segments lanceolate: lowest the shortest, deeply cut at the end
- 342 Leaves opposite stalked 3-parted coarsely serrated smooth
- 343 Bractes ovate acumin. ciliate, Leaves elliptic lanceolate
 344 Flowers in spiked racemes, Bractes obovate nerved acute, Leaves ovate
 345 Flowers lateral, Leaves lanceolate
 346 Leaves lanceolate naked nerved of one shape entire hoary, Flowers in spikes
 347 Heads term. oval, Leaves ovate sub-serrate: those of the flowers nearly of the same shape entire ciliated
 348 Leaves ovate acuminate nearly entire nerved, Flowers in heads, Calyx hairy pubescent at base
 349 Whorls terminal and axillary close hispid, Leaves ovate sub-ciliate, Stems procumbent hairy
- 350 Flowers lateral, Leaves lanceolate entire ciliated, Cor. with an inflated throat twice as long as calyx
- 351 Leaves ovate serrate sessile, Flowers axillary and terminal, Stems erect
 352 Leaves ovate acuminate, Flowers in heads, Stem decumbent
- 353 Pubescent, Leaves oblong serrated, Flowers axillary whorled, Lower lip of calyx with 2 ciliated bristles
 354 Leaves oval entire, Flowers whorled, Stem square
- 355 Leaves obl. lanc. cord. pubesc. remotely and closely ser. Flowers in heads, Involucr. purple stem swollen
 356 Leaves ovate oblong cordate pubesc. coarsely serrated, Flowers in heads, Involucr. purple, Stem fistular
 357 Leaves obl. cord. pub. remotely serrate: upper entire, Flow. in heads, Invol. pale, Upper lip of cor. bearded



and Miscellaneous Particulars.

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

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

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

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

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

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

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

358 oblongáta Ph.	long-leaved	Δ	or	2	jl.s	P	N. Amer.	1761.	D	r.l
359 clinopodia Ph.	wild-basil-leaf	Δ	or	2	jl	P,w	N. Amer.	1771.	D	r.l
360 purpurea Ph.	crimson	Δ	or	3	jn.au	P	N. Amer.	1789.	D	r.l
361 altis'sima W.	tall	Δ	or	4	jn.au	Li	N. Amer.	1821.	D	r.l
362 rugosa Ph.	white	Δ	or	1	jl.s	W	N. Amer.	1761.	D	r.l
363 kalmiána Ph.	pub. flowered	Δ	or	4	jn.au	P	N. Amer.	1813.	D	p.l
364 didyma W.	Oswego tea	Δ	or	3	jn.au	R	N. Amer.	1752.	D	r.l
365 ciliata Ph.	blue flowered	Δ	or	1	jl	B	N. Amer.	1798.	D	r.l
366 hirsuta Ph.	hairy	Δ	or	1	jl.s	P	N. Amer.	1798.	D	r.l
367 punctata Ph.	spotted	Δ	or	2	jn.o	Br	N. Amer.	1714.	S	sp
61. ROSMARI'NUS. W.	ROSEMARY.									
368 officinális W.	common	Δ	or	4	ja.ap	P	S. Europe	1548.	C	co
β variegata	variegated	Δ	or	4						
369 chilénsis W.	Chile	Δ	or	4	jl	P	Chile	1795.	C	s.l
62. SA'L'VIA. W.	SAGE.									
370 pomifera W.	apple-bearing	Δ	or	2	jl.au	B	Candia	1699.	C	p.l
371 calycina Sm.	large calyxed	Δ	or	1	jl.au	Pk	Levant	1823.	C	co
372 canariénsis W.	canary	Δ	or	4	jn.s	P	Canaries	1697.	C	lp
373 aërea W.	gold.-flowered	Δ	or	3	ap.n	Y	C. G. H.	1731.	C	p.l
374 dentata W.	tooth-leaved	Δ	or	4	d.ja	B	C. G. H.	1774.	C	p.l
375 interrupta Va.	ash-leaved	Δ	or	1	ap.s	B	Barbary	1798.	C	s.l
376 pilántha Lk.	hairy-flowered	Δ	or	2	jl.au	B	.....	1823.	C	co
377 pinnata Vahl.	winged-leaved	○	or	1	jl	P	Levant	1731.	C	s.l
378 habitziána W.	Siberian	Δ	or	1½	au	B	Siberia	1795.	C	co
379 lanceolata W. en.	lanceolate	○	or	1	my.s	B	.....	1813.	S	co
380 hirsuta W. en.	hirsute	○	or	1	my.jn	B	.....	1801.	S	co
381 angustifolia Ca.	narrow-leaved	Δ	or	2	jn.jl	B	Mexico	1806.	C	co
382 azurea Ph.	azure-flowered	Δ	or	6	au	B	Carolina	1806.	C	co
383 pseudo-coccinea W.	pale scarlet	Δ	or	3	jn.au	P,r	S. Amer.	1797.	C	sp
384 boosiána Jacq.	blue Peruvian	Δ	or	3	mr.ap	B	Peru	1821.	C	co
S. amœna B. R. 446.										
385 mexicána W.	Mexican	Δ	or	2	my.jl	S	Mexico	1724.	C	p.l
386 chamaedryoides Va.	germander	Δ	or	1½	jn.s	B	Mexico	1795.	C	p.l
387 casia W. en.	grey	Δ	or	2	jn.s	B	S. Amer.	1813.	C	p.l
388 hispánica W.	Spanish	○	or	1½	jn.au	Pr.B	Spain	1739.	D	p.l
389 serotina W.	late-flowering	Δ	or	1½	au	B	Ohio	1803.	C	s.l
390 dominica W.	Dominica	Δ	or	1	jl	W	W. Indies	1759.	C	sp
391 tilliaefolia W.	lime-leaved	Δ	or	4	jn.au	B,c	S. Amer.	1793.	C	p.l
392 polystachya W.	many-spiked	Δ	or	5	o.d	B	Mexico	1822.	C	co
393 micrantha Vahl.	small-flowered	Δ	or	1	my.jn	B	Cuba	1823.	C	co
394 formosa W.	shining-leaved	Δ	or	4	ap.o	S	Peru	1783.	C	p.l
395 coccinea W.	scarlet-flower'd	Δ	or	2	ap.o	S	S. Amer.	1774.	C	p.l
396 pulchella Dec.	pretty	Δ	or	2	o.f	S	S. Amer.	1821.	C	co
397 amarissima H. K.	bitter	Δ	or	2	jl.au	B	Mexico	1803.	C	sp
398 glutinosa W.	glutinous	Δ	or	3	jn.s	Y	Germany	1796.	C	co
399 lineatifolia Lag.	lime-leaved	Δ	or	3	au	B	Mexico	1823.	C	co
400 ægyptiaca W.	Egyptian	○	or	½	jn.jl	W	Egypt	1770.	S	co
401 cretica W.	Cretan	Δ	or	6	jn.au	V	Crete	1760.	C	co
402 paniculata W.	panicked	Δ	or	6	jn.au	V	C. G. H.	1758.	C	p.l
403 africána W.	African	Δ	or	2	ap.jn	V	C. G. H.	1731.	C	p.l
404 colorata W.	colored calyx	Δ	or	6	jl.au	B	C. G. H.	1758.	C	sp
405 officinális W.	garden	Δ	or	2	cul	2	jn.jl	R.c	S. Europe	1597.



History, Use, Propagation, Culture,

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

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

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

- 358 Leaves oblong lanceolate rounded and narrowed at the base villous flat, Cor. dotted
 359 Leaves ovate lanc. rounded and unequal at the base pubesc. remotely serr. Flowers in heads, Bractes pale
 360 Smooth, Heads large leafy, Calyx unequal bearded, Cor. long smooth, Lvs. ov. obl. coarsely serr. Stem smooth
 361 Leaves ovate acuminate rounded at base and equal hairy coarsely serrated, Flowers in heads, Bractes pale
 362 Leaves ovate lanceolate cordate smooth rugose [bright crimson
 363 Leaves obl. pointed stalked ovate, Flowers in heads, Bract. small acute, Stem square pilose, Flowers very long
 364 Leaves ovate acum. sub-cordate closely serrated smoothish, Flowers in headed whorls, Involucres purple
 365 Leaves ovate attenuated, Stems and whorls hairy, Bractes ovate as long as the calyx
 366 Very hairy all over, Flowers small in whorls, Leaves ovate acuminate serrate on long stalks, Stem square
 367 Leaves lanceolate remotely serrated smooth, Flowers in whorls, Bractes pale

368 Leaves sessile

369 Leaves on stalks

Calyx 3-lobed, enlarged.

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

Calyx 3-toothed, sub-cylindrical.

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

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

Calyx 5-toothed, generally 3-2.

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



and Miscellaneous Particulars.

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

406 Spielmanni <i>W. en.</i>	Spielman's	Δ	or	2	jn.jl	B	S. Europe	1813.	C	s.l	Scop. del. 3. t. 15
407 spléndens <i>Ker.</i>	splendid	Δ	or	2	o.ja	Sc	Mexico	1822.	C	s.l	Bot. reg. 687
408 phlomisoides <i>W.</i>	nettle-like	Δ	or	2	my.jn	L.B	Spain	1805.	C	co	R. pl. h. 1. t. 1. f. 1
409 urticifolia <i>W.</i>	nettle-leaved	Δ	or	2	jn.au	R	N. Amer.	1799.	C	p.l	Mor. h. 3. t. 13. f. 31
410 bullata <i>W. en.</i>	blistered	Δ	or	2	jn.au	B	Portugal	1804.	C	co	
411 rugosa <i>W.</i>	wrinkle-leaved	Δ	or	2	jl.au	W	C. G. H.	1775.	C	co	
412 verticillata <i>W.</i>	whorl-flower'd	Δ	or	2	jn.s	R	Germany	1658.	D	s.l	Barr. ic. 199
413 indica <i>W.</i>	Indian	Δ	or	2	my.jl	B	India	1731.	D	co	Bot. mag. 395
414 Tenorii <i>Spr.</i>	Tenore's	Δ	or	2	my.jn	B	Italy	1821.	D	co	Sw. fl. gard. t. 26
415 verbascifolia <i>Bieb.</i>	mullein-leaved	Δ	or	2	my.jn	Y	Iberia	1823.	D	co	
416 odorata <i>W. en.</i>	sweet-scented	Δ	or	2	jn.jl	W	Bagdad	1804.	C	s.l	
417 compressa <i>Vahl.</i>	compressed	Δ	or	2	my.jn	W	East	1822.	D	co	
418 mollis <i>Donn.</i>	soft	Δ	or	2	jn.s	L.B	S. Europe	1616.	D	co	Jacq. ecl. 4. t. 37
419 grandiflora <i>W.</i>	great-flowered	Δ	or	2	jn.jl	R	S. Europe	1804.	D	co	Jacq. ecl. 4. t. 36
420 crassifolia <i>Desf.</i>	thick-leaved	Δ	or	2	my.n	V	England	dr. pa.	D	co	Eng. bot. 153
421 pratensis <i>W.</i>	meadow	Δ	or	4	my.n	P	Hungary	1814.	D	co	
422 variegata <i>W. en.</i>	variegated	Δ	or	2	jl.au	P	Italy	1699.	D	co	Mor. h. 3. t. 14. f. 15
423 hematodes <i>W.</i>	bloody-veined	Δ	or	1	my.jn	C	Italy	1773.	C	p.l	Jac. ic. 1. t. 5
424 viscosa <i>W.</i>	clammy	Δ	or	1	jl	W	Syria	1773.	C	p.l	Ard. spec. 1. t. 1
425 sermas <i>W.</i>	long-spiked	Δ	or	2	jn.au	V	Russia	1780.	C	co	Bot. mag. 2436
426 nutans <i>W.</i>	nodding	Δ	or	2	jn.au	V	Russia	1804.	C	co	
427 betonicifolia <i>W.</i>	betony-leaved	Δ	or	1	jl.s	B	Levant	1813.	D	co	Jac. aust. 2. t. 112
428 amplexicaulis <i>W. en.</i>	stem-clasping	Δ	or	1	jn.jl	L.V	Austria	1776.	C	co	Bauh. prod. t. 114
429 austriaca <i>W.</i>	Austrian	Δ	or	1	jl	W	Levant	1759.	C	p.l	Murray. 1778. t. 3
430 syriaca <i>W.</i>	Syrian	Δ	or	2	jn.jl	B	Africa	1784.	C	co	Jac. schön. 1. t. 57
431 núbia <i>W.</i>	Nubian	Δ	or	2	jn.n	W	Armenia	1758.	D	co	
432 virgata <i>W.</i>	long-branched	Δ	or	2	jn.jl	B	Tauria	1813.	D	co	
433 campéstris <i>W. en.</i>	field	Δ	or	2	jn.o	B	Germany	1759.	D	co	Jac. aus. 3. t. 212
434 sylvestris <i>W.</i>	spotted-stalk'd	Δ	or	2	jn.o	B	Germany	1758.	D	co	
435 nemorosa <i>W.</i>	spear-leaved	Δ	or	3	my.jl	Pk	Portugal	1805.	C	s.l	
436 pántula <i>W. en.</i>	spreading	Δ	or	3	jl	W	Barbary	1796.	C	s.l	Riv. mon. t. 62
437 tingitana <i>W.</i>	Tangier	Δ	or	3	jl	L.B	Italy	1562.	S	s.l	Fl. græc. 1. t. 25
438 Scárea <i>W.</i>	common Clary	Δ	or	4	jl.s	W	Egypt	1789.	C	s.l	Jac. ic. 1. t. 7
439 spinosa <i>W.</i>	thorny-calyx	Δ	or	3	my.jn	W	Austria	1570.	C	s.l	Jac. aus. 3. t. 211
440 æthiops <i>W.</i>	woolly	Δ	or	3	my.jl	W	Crete	1759.	D	co	Fl. græc. 1. t. 27
441 argentea <i>W.</i>	silvery	Δ	or	3	jn.jl	P	Crete	1821.	D	co	
442 applanata <i>W.</i>	flattened	Δ	or	1	jn.jl	W	S. Europe	1596.	S	co	Fl. græc. 1. t. 20
443 Hornimin <i>W.</i>	annual clary	Δ	or	1	jn.jl	Pk	Italy	1759.	S	co	
α violácea	purple-topped	Δ	or	1	jn.jl	R	.....	...	S	co	
β rubra	red-topped	Δ	or	1	jn.jl	Pk	.....	...	S	co	
444 viridis <i>W.</i>	green-topped	Δ	or	1	jl.au	Pk	Italy	1759.	S	co	Fl. græc. 1. t. 19
445 truncata <i>W. en.</i>	truncated	Δ	or	1	my.jn	Pk	S. Europe	1800.	S	co	
446 pyramidalis <i>Pet.</i>	pyramidal	Δ	or	2	jn.o	V	Naples	1823.	D	co	
447 verbenaca <i>W.</i>	wild-clary	Δ	or	6	jn.o	B	Britain	pas.	R	co	Eng. bot. 154
448 oblongata <i>Vahl.</i>	oblongate	Δ	or	1	jn.o	R	.....	1820.	D	co	Jacq. ecl. 2. t. 14
449 triloba <i>W.</i>	three-lobed	Δ	or	2	jn.jl	B	S. Europe	1596.	C	co	Fl. græc. 1. t. 17
450 lyrata <i>W.</i>	lyre-leaved	Δ	or	1	jn.jl	L.B	N. Amer.	1728.	C	co	Mor. 3. t. 13. f. 27
451 abyssinica <i>W.</i>	Abyssinian	Δ	or	1	jn.jl	P	Africa	1775.	S	s.p	Jac. ic. 1. t. 6
452 nilotica <i>W.</i>	Nile	Δ	or	1	jn.au	Bk	Egypt	1780.	C	l.p	Jac. vind. 3. t. 92
453 Forskóhli <i>W.</i>	Forskóhl's	Δ	or	1	jn.au	Bk	Levant	1800.	C	co	Bot. mag. 988
454 napifolia <i>W.</i>	rape-leaved	Δ	or	2	jn.jl	D.P	Italy	1776.	D	co	Jac. vind. 2. t. 152
455 aurita <i>W.</i>	ear-ed-leaved	Δ	or	2	my.jn	V.W	C. G. H.	1795.	C	p.l	
456 bicolor <i>W.</i>	two-coloured	Δ	or	2	jn.jl	V.W	Barbary	1793.	D	co	Bot. mag. 1774
457 Barreliéri <i>Ettl.</i>	Barreliers	Δ	or	3	ap.my	B	Spain	1821.	D	co	Ten. fl. nap. t. 2
458 laciniata <i>W.</i>	torn	Δ	or	2	ap.my	B	.....	1822.	D	co	
459 runcinata <i>W.</i>	rough-leaved	Δ	or	2	aps	B	C. G. H.	1774.	C	p.l	Jac. schön. 1. t. 8
460 polymórpha <i>Lk.</i>	various	Δ	or	1	my.jl	B	Portugal	1821.	D	co	Barr. ic. 220
461 clandestina <i>W.</i>	cut-leaved	Δ	or	1	ap.jl	B	Italy	1739.	S	co	Fl. gr. 1. p. 18. t. 24
462 ceratophýlla <i>W.</i>	horn-leaved	Δ	or	1	jl.au	V	Persia	1699.	C	s.l	Flk. al. t. 194. f. 5
463 ceratophylloides <i>W.</i>	branchy	Δ	or	3	jn.au	V	Egypt	1771.	C	s.l	Ard. spec. 2. t. 2
464 bracteata <i>W.</i>	long-bracted	Δ	or	3	jn.jl	P	Russia	1821.	D	co	Bot. mag. 2320

63 COLLINSONIA. *W. COLLINSONIA.*

Labiatae, Sp. 5-6.

465 canadensis <i>W.</i>	nettle-leaved	Δ	or	3	au.o	L.B	N. Amer.	1735.	D	p.l	Hort. cliff. t. 5
466 cordata <i>W.</i>	cordate	Δ	or	3	au.o	L.B	N. Amer.	...	D	p.l	
γ ovata	ovate	Δ	or	3	au.o	L.B	N. Amer.	...	D	p.l	
466 scabrituscula <i>W.</i>	rough-stalked	Δ	or	2	jl.s	R	E. Florida	1776.	D	p.l	



History, Use, Propagation, Culture.

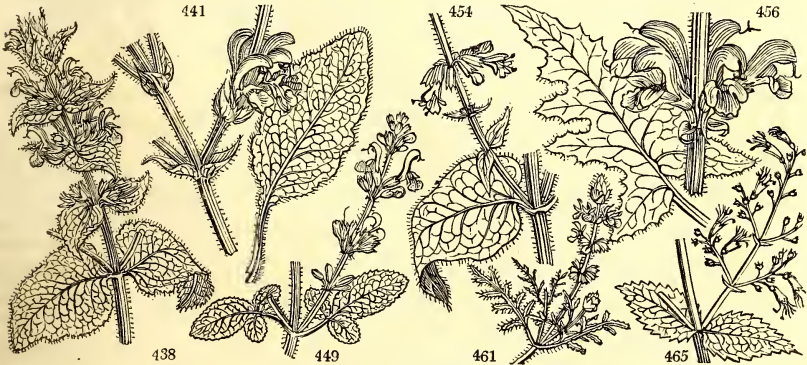
eye or clary. The flowers of *S. glutinosa* are used in Holland to give a flavor to the Rhenish wines. *S. Scárea* has a very strong scent, and was formerly used in medicine. A wine is made from the herb or flower, boiled with sugar, which has a flavor not unlike Frontignac. *S. indica* is a magnificent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

- 406 Leaves radical obl. sub-cord. bluntly tooth. : cauline tooth cren. Whorls 6-fl. Fl. horizon. a sing. fl.-st. term.
 407 Leaves stalked ovate lanceolate flat smooth beneath, Corolla and coloured calyx downy, Style exerted
 408 Leaves lanceolate nearly entire with the stem woolly clammy
 409 Villous viscid, Leaves ovate oblong toothed running down the stalk
 410 Leaves cordate oblong crenated toothed eroded, Stem twiggly, Whorls remote, Helmet linear
 411 Leaves cordate oblong lanceolate eroded crenated rugose hairy, Stamens shorter than corolla
 412 Leaves cordate crenate toothed, Whorls nearly naked, Style lying on the lip of the corolla
 413 Leaves cordate rather lobed at the side : the upper sessile, Whorls nearly naked very distant
 414 Leaves sub-cordate oblong crenate naked on each side, Helmet pilose
 415 Leaves cord. ovate doubly serr. rugose woolly, Upper whorls sess. Bract. cord. mucronate shorter than calyx
 416 Leaves hoary on each side rep. and uneq. tooth. : low. cord. upp. ov. Fl. in panic. Style twice as long as helmet
 417 Rather woolly, Leaves toothed : radical cordate-oblong, Bract. roundish cordate unarmed : the upper sessile
 418 Leaves cordate ovate acute rugose doubly crenate smooth above pubescent beneath, Branches in bundles
 419 Leaves cordate oblong crenate, Whorls many-flowered, Cal. acute shorter than the bracte
 420 Stem woolly, Leaves cord. crenulate hoary beneath, Upper whorls dense sessile, Upper lip of cor. abbreviate
 421 Lvs. cord. obl. cren. or cut : the upper stem clasping, Bract. nearly as long as cal. Helm. visc. long. than lip
 422 Lvs. cord. obl. rugose tooth cren. : cauline stalked, Spikes twiggly, Bract. short as cal. Hairs of cal. gland.
 423 Leaves cordate ovate rugose tomentose, Cal. hisp. Root tuberous
 424 Villous viscid, Leaves cordate oblong rugose acutish crenulate, Bract. cordate roundish acuminate
 425 Leaves cordate oblong eroded, Leaf-stalks edged, Stam. as long as corolla
 426 Leaves obl. cordate, Stem simple without leaves, Racemes in flowers pendulous
 427 Leaves cord. lanc. uneq. cren. Stem 4-corn. Rac. comp. term. nearly naked cernuous, Bract. coloured ciliate
 428 Leaves cord. lanc. $\frac{1}{2}$ stem embracing uneq. cren. Bract. cord. acum. shorter than the calyx, Flowers spiked
 429 Leaves cordate oblong eroded sinuated, Stem nearly without leaves, Whorls very hairy, Stam. very long
 430 Leaves cordate toothed lower repand, Bract. short acute, Cal. tomentose
 431 Leaves oblong sub-cordate unequal-sided rugose crenated with a little auricle at the base
 432 Leaves oblong cordate rugose crenated, Hairs of the calyx and stem glandular at the end
 433 Leaves cord. obl. doubly cren. somewhat repand hairy, Rac. twiggly, Bract. shorter than cal. Fl.-sts. toment.
 434 Leaves cord. rugose biserr. Bract. coloured pointed shorter than the flower, Hairs of stem and calyx simple
 435 Leaves cordate lanceolate equally serrate, Bract. the length of calyx, Lower lip of corolla reflexed
 436 Clammy, Radical leaves cordate toothed sinuated : cauline sessile oblong, Bract. as long as calyx
 437 Leaves cordate oblong eroded toothed very rugose, Bract. cordate mucronate ciliated, Cal. spiny
 438 Leaves rugose cordate obl. serrate villous, Bract. coloured longer than calyx
 439 Leaves oblong repand, Cal. spiny, Bract. cordate mucronate concave
 440 Leaves oblong eroded with the whorls woolly, Bract. recurved somewhat spiny
 441 Leaves oblong toothed angular woolly, Upper whorls sterile, Bract. concave
 442 Lvs. sub-cord. obl. obtuse with spread. teeth, Stem clammy with hairs, Bract. cord. entire equal to spiny cal.
 443 Leaves obtuse crenated, Upper bract. sterile large and coloured

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

465 Leaves ovate and stem smooth

466 Leaves sub-cordate a little hairy, Stem roughish



and Miscellaneous Particulars.

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

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

467 ovális Ph.	oval-leaved	△	or	2	au	Y	Carolina	1812.	D p.l
468 tuberosa Ph.	tuberous	△	or	2	au	Y	Carolina	1806.	R p.l
469 anisáta B. M.	anise-scented	△	or	3	o	Y	Carolina	1806.	D p.l Bot. mag. 1213
64. CATALPA. Juss.	CATALPA.	<i>Bignoniaceae.</i> Sp. 2.							
470 syringifolia H. K.	common	△	or	20	jn.au	W	N. Amer.	1726.	S p.l Bot. mag. 1094
471 longissima H. K.	wave-leaved	□	or	20			W. Indies	1777.	L s.p Plum. ic. t. 57
65. GHINIA. W.	GHINIA.	<i>Verbenaceae.</i> Sp. 1—2.							
472 spinosa W.	thorny-fruited	□	cu	2	au	Pl	W. Indies	1733.	S s.l Bnks. r. hous. t. 2
66. FONTANESIA. W.	FONTANESIA.	<i>Jasminaceae.</i> Sp. 1—2.							
473 phylliroides W.	phillyrea-leav.	□	or	12	au	Y	Syria	1787.	C s.l Lab. syr. 1. t. 1
67. LINOCIERA. B.P.	LINOCIERA.	<i>Oleaceae.</i> Sp. 1—7.							
474 compacta B. P.	Caribean	■	or				W. Indies	1793.	C l.s.p Jac. col. 2. t. 6. f. 1
68. ANCISTRUM. J.	ANCISTRUM.	<i>Sanguisorbeae.</i> Sp. 8—15.							
475 latebrösium Vahl.	hairy	△	cu	1	ap.jn	G	C. G. H.	1774.	C l.p.s
476 pinnatifidum Fl. per.	pinnatifid	△	cu	1	my.jn	G	Chile	1822.	D l.p.s Fl. per. 1. t. 104
477 ovalifolium Vahl.	creeping	△	cu	1	my.jn	G	Peru	1802.	D l.p.s
478 ascēdens Vahl.	ascending	△	cu	1	my.jn	G	Magellan	1822.	D l.p.s
479 sanguisorbæ Vahl.	Burnet-leaved	△	cu	1	jn	G	N. Zeal.	1796.	D l.p.s Lam. ill. t. 12. f. 1
480 lácidum Vahl.	shining	△	cu	1	my.jn	G	Falklandl.	1777.	D l.p.s Lm. ill. 1. t. 22. f. 3
481 argenteum Fl. per.	silky	△	cu	2	my.jn	G	Chile	1822.	D l.p.s Fl. per. 1. t. 103
482 levigatum H. K.	smooth	△	cu	1	jn.au	G	Magellan	1790.	D l.p.s
69. ORNUS. P. S.	FLOWERING ASH.	<i>Oleaceae.</i> Sp. 3.							
483 europæa P. S.	European	△	or	30	my.jn	W	Italy	1810.	G co Fl. græc. 1. t. 4
484 rotundifolia P. S.	manna	△	or	30	ap	W	Italy	1697.	G co Willd. bm. t. 2. f. 1
485 floribunda Wall.	many-flowered	△	or	30			W. Nepal.	1822.	G co
70. MORINA. W.	MORINA.	<i>Dipsacaceae.</i> Sp. 1.							
486 persica W.	Persian	△	or	3	jl.au	Rw	Persia	1740.	C s.p Fl. græc. 1. t. 28
71. CIRCEA. W.	ENCHANTER'S NIGHTSHADE.	<i>Onagrarieae.</i> Sp. 3.							
487 lutetiana W.	common	△	or	1	jn.au	R	Britain	sha. pl.	D co Eng. bot. 1056
488 intermedia W.	intermediate	△	or	1	jn.au	R	Europe	1821.	D co Fl. dan. t. 256
489 alpina W.	mountain	△	or	1	jn.s	R	Britain	moun.	D co Eng. bot. 1057
72. FEDIA. D. C.	FEDIA.	<i>Valerianeae.</i> Sp. 1—2.							
490 cornucopiae D. C.	red	○	or	1	jn.jl	R	S. Europe	1796.	S co Fl. græc. t. 32
73. PIMELEA. B. P.	PIMELEA.	<i>Thymelæae.</i> Sp. 4—39.							
491 linifolia B. P.	flax-leaved	△	or	2	f.au	W	N. S. W.	1793.	C s.p Bot. mag. 801
492 rosea B. P.	rose-coloured	△	or	2	mr.s	Pk	N. Holl.	1800.	C s.p Bot. mag. 1458
493 drupacea Br.	fleshy-fruited	△	or	2	my	W	N. Holl.	1817.	C s.p Bot. cab. 540
494 pauciflora B. P.	few-flowered	△	or	3	my	W	V. Di. L.	1812.	C l.p Bot. cab. 179
74. CLADIUM. Schr.	CLADIUM.	<i>Cyperaceae.</i> Sp. 1—14.							
495 germanicum	prickly-sedge	△	w	3	jl.au	Ap	Britain	mar.	D m.s Eng. bot. 950
75. GUNNERA. W.	GUNNERA.	<i>Urticeae.</i> Sp. 1—3.							
496 perpensa W.	common	△	cu	1½	jl.au	P	C. G. H.	1688.	D m.s Bot. mag. 2376



History, Use, Propagation, Culture,

respondent of Linnæus: he died in 17—. *Horse-weed*, Amer. The species are American plants of easy cultivation.

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

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

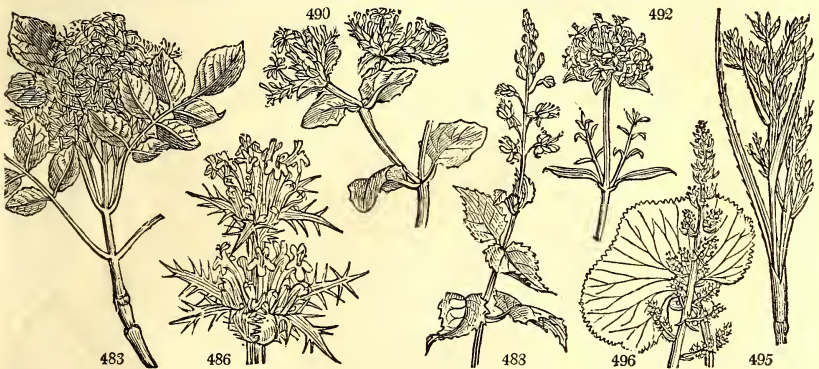
66. *Fontanesia*. So named by Billardiére, in honor of M. Desfontaines, the excellent professor of botany at the Jardin du roi at Paris. It is rather a tender shrub, requiring shelter in severe weather. It grows in common garden soil, and is increased by layers or by cuttings in sand under a hand-glass.

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

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

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

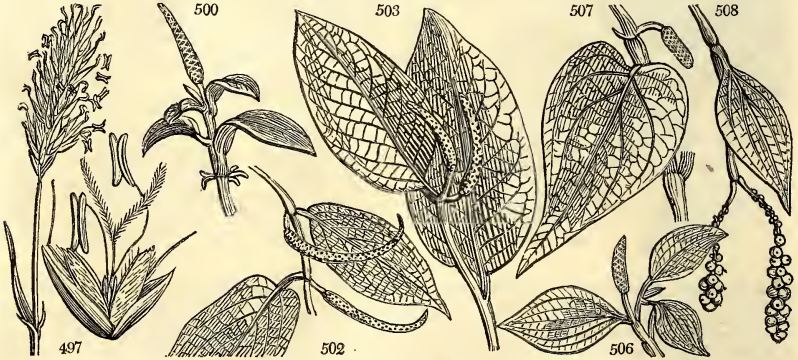
75. *Gunnera*. After Ernest Gunner, bishop of Norway, of which country he published a Flora. A singular plant, cultivated merely as an object of curiosity. It likes a moist peat soil, and the temperature of a cool greenhouse.

DIGYNIA.

76. ANTHOXANTHUM. <i>W.</i>	SPRING-GRASS.	<i>Gramineæ.</i>	Sp. 3—6.							
487 odoratum <i>Bro.</i>	sweet-scented	△	ag	1	my	Ap	Britain	me. pa.	S h.l	Eng. bot. 647
498 amarum <i>Bro.</i>	sweet	△	cu	1	jl	Ap	Morocco	1810.	S co	
499 ovatum <i>Lag.</i>	ovate	○	cu	1	jl	Ap	Spain	1821.	S co	

TRIGYNIA.

77. PIPER. <i>W.</i>	PEPPER.									
500 coriaceum <i>Vahl.</i>	leathery	△	cu	4	my.jn	Ap	E. Indies	1815.	C r.m	Bot. cab. 128
501 nitidum <i>W.</i>	shining-leaved	△	cu	3	my.jn	Ap	Jamaica	1793.	C r.m	
502 aduncum <i>W.</i>	hooked	△	cu	5	my	Ap	Jamaica	1748.	C r.m	Jac. ic. 2. t. 210
503 macrophyllum <i>W.</i>	broad-leaved	△	cu	12	...	Ap	W. Indies	1800.	C r.m	Slo. jam. 88. f. 1
504 geniculatum <i>W.</i>	swollen-joint'd	△	cu	2	...	Ap	Jamaica	1823.	C r.m	
505 hispidum <i>W.</i>	hairy-leaved	△	cu	6	jl	Ap	Jamaica	1793.	C r.m	
506 Amalago <i>W.</i>	rough-leaved	△	cu	6	jl.au	Ap	Jamaica	1759.	C r.m	Slo. hist. 1. t. 87. f. 1
507 Bétel <i>W.</i>	betle	△	clt			Ap	E. Indies	1804.	C r.m	Rheede. 7. t. 15
508 nigrum <i>W.</i>	black	△	clt	6		Ap	E. Indies	1790.	C r.m	Lat. ill. 79. t. 23
509 discolor <i>W.</i>	discoloured	△	cu	4	jl.au	Ap	W. Indies	1821.	C r.m	Bot. cab. 610
510 reticulatum <i>W.</i>	netted	△	cu	6	au	Ap	W. Indies	1748.	C r.m	Plumier. 57. t. 75
511 decumanum <i>W.</i>	the great	△	cu	6		Ap	Carthag.	1768.	C r.m	Jacq. ic. 2. t. 215
512 Siriboa <i>W.</i>	Siriboa	△	cu	6		Ap	E. Indies	1768.	C r.m	Rumph. 5. t. 117
513 longum <i>P. S.</i>	long	△	clt	6	jn	Ap	E. Indies	1788.	C r.m	Rump. 5. t. 116. f. 2
514 peltatum <i>W.</i>	peltated	△	cu	2		Ap	W. Indies	1748.	C r.m	Plumier. 56. t. 74
515 umbellatum <i>W.</i>	umbelled	△	cu	3	my.jl	Ap	W. Indies	1748.	C l.p	Plumier. 53. t. 73
516 laurifolium <i>Mill.</i>	laurel-leaved	△	cu	10		Ap	W. Indies	1768.	C r.m	
517 tomentosum <i>Mill.</i>	downy	△	cu	14	my.jn	Ap	W. Indies	1768.	C r.m	
518 glabrum <i>Mill.</i>	smooth	△	cu	10		Ap	Campeac.	1768.	C r.m	
519 racemosum <i>Mill.</i>	great racemose	△	cu	10		Ap	Campeac.	1768.	C r.m	
520 brachyphyllum <i>W.</i>	short-leaved	△	cu	1	jn.s	Ap	S. Amer.	1818.	C r.m	
521 amplexicaule <i>W.</i>	stem-clasping	△	cu	1	jn.s	Ap	W. Indies	1793.	C r.m	
522 magnoliaefolium <i>Va.</i>	magnolia-ld.	△	cu	1	ja.mr	Ap	W. Indies	1793.	C r.m	Jac. ic. 2. t. 213
523 obtusifolium <i>W.</i>	obtuse-leaved	△	cu	1	ap.jl	Ap	W. Indies	1739.	C r.m	Tr. ehrt. 54. t. 96
524 cuneifolium <i>W. en.</i>	wedge-leaved	△	cu	1	jn.jl	Ap	Caraccas	1809.	C r.m	Jac. ic. 2. t. 214
525 alatum <i>P. S.</i>	winged	△	cu	1	mr.ap	Ap	S. Amer.	1812.	C r.m	Fl. per. 31. t. 48
526 acuminatum <i>W. en.</i>	acuminate	△	cu	1	jn.jl	Ap	W. Indies	1812.	C r.m	Bot. mag. 1882
527 distachyon <i>P. S.</i>	two-rowed	△	cu	1	jn.jl	Ap	S. Amer.	1793.	C r.m	Plumier. 51. t. 67
528 maculosum <i>W.</i>	spot-stalked	△	cu	1	s	Ap	St. Domin.	1790.	C r.m	Plumier. 60. t. 66
529 pellucidum <i>W.</i>	pellucid	△	cu	1	ap.s	Ap	S. Amer.	1748.	C r.m	Plumier. 54. t. 72
530 pubescens <i>H. S.</i>	pubescent	△	cu	1	jl.o	Ap	S. Amer.	1809.	C r.m	
531 humile <i>Vahl.</i>	low	△	cu	1	jn.jl	Ap	W. Indies	1768.	C r.m	
532 trifolium <i>P. S.</i>	three-leaved	△	cu	1	jn.au	Ap	S. Amer.	1802.	C r.m	Plumier. 52. t. 68
533 pulchellum <i>W.</i>	small-leaved	△	cu	1	jl.o	Ap	Jamaica	1778.	C r.m	Bot. cab. 574
534 pereskiaefolium <i>W.</i>	cactus-leaved	△	cu	1	my.jn	Ap	S. Amer.	1820.	C r.m	Hook. ex. fl. 67
535 blandum <i>W.</i>	villous	△	cu	1	my.n	Ap	Caraccas	1802.	C r.m	Hook. ex. fl. 21
536 rubricaulis <i>Nees.</i>	red-stemmed	△	cu	1	my.jn	Ap	.....	1822.	C r.m	Hor. phys. br. t. 8
537 polystachion <i>W.</i>	many-spiked	△	cu	1	jn.jl	Ap	Jamaica	1775.	C r.m	Hook. ex. fl. 23
538 quadrifolium <i>W.</i>	four-leaved	△	cu	1	jn.jl	Ap	S. Amer.	1818.	C r.m	Hook. ex. fl. 22
539 inaequalifolium	unequal-leav'd	△	or	1	jl.au	Ap	Peru	1800.	C r.m	Fl. per. 1. t. 46. a
540 stellatum <i>P. S.</i>	starry	△	cu	1	my.jl	Ap	Jamaica	1802.	C r.m	Jac. vind. 2. t. 217
541 incanum <i>Haw.</i>	great-downy	△	cu	1	f	Ap	Brazil	1815.	C r.m	Bot. cab. 503
542 subrotundum <i>Haw.</i>	sm. clusia-ld.	△	cu	1	f	Ap	.....	1812.	C r.m	
543 rubellum <i>Haw.</i>	red	△	cu	1	mr.ap	Ap	W. Indies	1820.	C r.m	Hook. ex. fl. 58



History, Use, Propagation, Culture,

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

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

DIGYNIA.

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

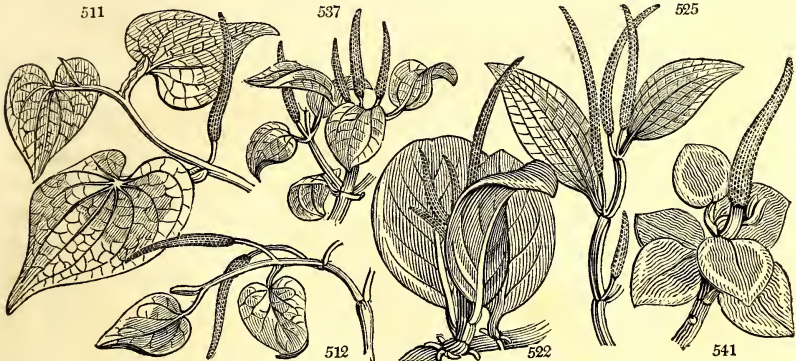
TRIGYNIA.

Shrubby.

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

Stem fleshy.

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

*and Miscellaneous Particulars.*

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

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

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

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



CLASS III. — TRIANDRIA. 3 STAMENS.

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

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

Paleæ *Corolla*.
Scale *Nectary*.

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

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

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

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

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

Order 1. MONOGYNIA.



3 Stamens. 1 Style.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. *Flowers glumaceous.*a, Leaves with an entire Sheath. *Sedges.*

119. *Schenus*. Spikelets few-flowered, distichous: the lower scales empty, the upper enclosing flowers. No bristles under the ovarium.
120. *Rhynchospora*. Spikelets few-flowered, slender: the lower nearly empty, the upper enclosing flowers. Bristles under the ovarium.
121. *Fimbristylis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Style jointed at the base, and deciduous. No bristles under the ovarium.
122. *Isolepis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. No bristles under the ovarium. Style not jointed at the base, and deciduous.
123. *Scirpus*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style not jointed at the base, and deciduous.
124. *Eleocharis*. Spikelets imbricated in all directions, many-flowered, none of the scales empty. Bristles under the ovarium. Style jointed at the base, and deciduous.
125. *Eriophorum*. Glumes chaffy imbricated in all directions. Seed surrounded by very long dense wool.
126. *Trichophorum*. Spikelets nearly ovate, imbricated in all directions. Bristles about the seed usually six, capillary, finally very much lengthened and exerted.
127. *Cyperus*. Spikelets in two ranks, imbricated; nearly all the scales enclosing flowers. No bristles under the ovarium. Style deciduous, not bulbous.
128. *Papyrus*. Spikelets many-flowered. Glumes imbricated in two rows, 1-flowered. Style 3-fid. Scales 2, membranous, contrary to the glumes. No bristles beneath the ovarium. Seed 3-cornered.
129. *Kyllinga*. Spikelets 1-flowered. Glumes 4, imbricated in two rows, compressed: the 2 lower which are smaller and the upper one empty; the intermediate similar to the upper, and including a naked hermaphrodite flower. Style bifid. No bristles under the ovarium. Seed lenticular.
130. *Mariscus*. Spikelets few-flowered. Glumes imbricated in two rows, the lower empty. Stamens sometimes 2. Style trifid. Neither scales nor bristles below the ovarium. Seed triangular.
- β . Leaves with a split sheath, and a membranous ligule. *True grasses.*
131. *Remirea*. Spikelets 1-flowered, with imbricated scales; the outer ones nerved, the upper which bears the flower enclosed in them and unlike them. No bristles beneath the ovarium. Seed oblong, enclosed in the uppermost scale become thickened and corky.
132. *Lageum*. Flowers 2 or 3 together, with two valved glumes, at the base united into a 2-celled villous pericarpium. Involucrum a convolute spatha.
133. *Cornucopiae*. Involucre 1-leaved, cup-shaped or funnel-shaped, many-flowered. Glumes 2-valved, united at base, mitre-formed, equal. Palea 1, bladder-like, split on one side, with a beard below the middle. Stigmas long. Seed not furrowed. Flowers in a head.
134. *Cenchrus*. Involucrum 1-3-flowered, many parted, bristly without, finally hardened. Glume 2-flowered, 2-valved: the outer valve smallest. Florets dissimilar: the outer male or neuter, the inner hermaphrodite. No scales.
135. *Pennisetum*. Involucrum double, composed of many bristles: the outer unequal, the inner pinnated, bearded. Spikelets 2-3-5. Glume 2-valved, unequal. Lower floret male, upper hermaphrodite, both sessile. Palea nearly cartilaginous. Spike compound, with sessile spikelets.
136. *Spartina*. Glume 3-valved, 1-flowered, unequal, keeled, very acute. Palea 2, beardless, bifid, emarginate and toothed, shorter than the glumes. Scales fringed. Style very long. Seed loose, covered with the palea. Spikelets 1-sided, inserted in a double row. Spike compound.
137. *Nardus*. Glume 1-valved, 1-flowered. Palea 1. Stigma simple. Seed covered by the palea.
138. *Oryzopsis*. Glume 2-valved, 1-flowered, membranous, a little longer than the hardened palea. Palea 2, the lower villous at the end with a jointed beard, the upper entire. Scales 2, linear, the length of the ovarium. Panicle nearly simple and loose.

Order 2. DIGYNIA.



3 Stamens. 2 Styles.

1. *Inflorescence spiked or paniced. Spikelets either solitary, in pairs, or several together, one or more usually 2-flowered, one of the flowers being sterile or of only one sex. Glumes usually of a thinner texture than the Palea, which are more or less cartilaginous, the lower one half enclosing the upper, and either beardless or occasionally bearded; neither of them with a keel. (PANICEA.)*
139. *Paspalum*. Glume 2-valved, 1-flowered, closely pressed to the two plano-convex palea. Seed coated with the palea. Flowers spiked, attached to one side of the toothed rachis.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MONOGYNIA.

78. VALERIA'NA. W. VALERIAN.		<i>Valeriana</i> . Sp. 12-47.							
544 dioica W.	diœcious	3/4	Δ or 1	my.jl	F	Britain	mar.	D co	Eng. bot. 628
545 officinalis W.	great wild garden	3/4	Δ m 3	jn.jl	F	Britain	mar.	D co	Eng. bot. 698
546 Phu W.	three-leaved	3/4	Δ or 3	my.jl	W	Germany	1597.	D co	Blackw. t. 250
547 tripteris W.	mountain	3/4	Δ or 1	mr.my	W	Switzerl.	1752.	D co	Jac. aus. 3. t. 268
548 montana W.	celtic	3/4	Δ or 1	jn.jl	L.R	Switzerl.	1748.	D co	Bot. cab. 317
549 celtica W.	tuberous-root.	3/4	Δ or 1	jn	W	Switzerl.	1748.	D co	Jac. coll. 1. t. 1
550 tuberosa W.	rock	3/4	Δ or 1	my.jn	L.R	S. Europe	1629.	D co	Mor.h.3.t.15.f.20
551 saxatilis W.	elongated	3/4	Δ or 1	jl	W	Austria	1748.	D co	Jac. aus. 3. t. 267
552 elongata Ja.	heart-leaved	3/4	Δ or 3	jn.jl	Y	Austria	1812.	D co	Jac. aus. 3. t. 219
553 pyrenaica W.	elder-leaved	3/4	Δ or 1	my.jn	Pk	Scotland	sc.wo.	D co	Eng. bot. 1591.
554 sambucifolia Mik.	prostrate	3/4	Δ or 1	my.jn	Pk	Germany	1819.	D co	
555 supina Vahl.		3/4	Δ or 1	my.jn	Pk	S. Europe	1822.	D co	Jac. ml.2.t.17.f.2
9. PATRI'NIA.		<i>Valeriana</i> . Sp. 2.							
556 sibirica W.	Siberian	○	or 1	my.jn	Y	Siberia	1759.	S co	Bot. mag. 714
557 ruthenica W.	Russian	○	or 1	jn	Y	Siberia	1801.	D co	Bot. mag. 2325
80. VALERIANE'LLA. LAMB'S LETTUCE.		<i>Valeriana</i> . Sp. 11-26.							
558 echinata W.	prickly capsul.	○	cul 1	jl.au	Pk	S. Europe	1807.	S co	Col. ceph. 1.t.206
559 olitoria W.	common	○	cul 1/2	ap.my	Bk	Britain	cor. fi.	S co	Eng. bot. 811.
560 dentata W.	oval-fruited	○	w 1	ap.jn	B	Britain	cor. fi.	S co	Eng. bot. 1370
561 vesicaria W.	bladdery	○	w 1/2	ap.my	W	Candia	1739.	S co	Fl. grac. 1. t. 34
562 coronata W.	crowned	○	w 1/2	ap.jn	Pk	Portugal	1731.	S co	Col. ceph. 1.t.209
563 discoida W.	discoid	○	w 1/2	ap.jl.	B	Italy	1731.	S co	Mor.h.3.t.16.f.29
564 carinata D. C.	keeled	○	w 1/2	ap.my	B	France	1819.	S co	
565 eriocarpa D. C.	woolly-fruited	○	w 1	ap.my	Li	France	1821.	S co	Mor.h.3.t.16.f.33
566 radiata Vahl.	radiate	○	w 1	ap.my	Pk	N. Amer.	1821.	S co	
567 dasycarpa M. B.	thick-fruited	○	w 1	ap.my	Li	Crimea	1821.	S co	
568 uncinata M. B.	hook-fruited	○	w 1	my.jn	Li	Tauria	1822.	S co	



History, Use, Propagation, Culture,

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

8. *Inflorescence paniced. Spikelets solitary, 1-flowered. Lower palæ cartilaginous, compressed, keeled. Stamens frequently more than 3.* (ORYZA.)

217. *Leersia.* Spikelets 1-flowered. Glumes O. Paleæ 2, beardless, keeled, compressed. Scales 2. Stamens 3-6. Stigmas very finely cut. Seed loose, inclosed in the paleæ.

9. *Shrubby. Inflorescence paniced. Spikelets many-flowered. Upper palca with two keels.* (RAMBUSACEA.)

218. *Diarrhena.* Glume 2-valved: valves navicular, rigid, the lower smaller, shorter than the florets. Lower palea navicular, rigid, upper membranous, the edges broad, folded back. Scales 2, ovate, entire. Ovarium with a hood. Seed furrowed, hardened, shining, loose.

219. *Arundinaria.* Glume 5-7-flowered. Valves unequal, with stalked florets. Lower palea very acute, upper bifid-toothed. Scales 3, smooth. Stigmas 3, feathery. Styles 3.

Order 3. TRIGYNIA.  3 Stamens. 3 Styles.

220. *Holosteum.* Cal. 5-leaved. Petals 5. Caps. sub-cylindrical, 1-celled, opening at the end, 6-va.ved, many-seeded.

221. *Polycarpon.* Cal. 5-leaved, 5-cornered. Petals 5, very small, ovate. Caps. 1-celled, 3-4-valved: valves lanceolate, twisted inwards. Seeds many.

222. *Lechea.* Cal. 3-leaved. Petals 3, linear. Caps. 3-celled, 3-valved, and as many inner valves. Seed 1.

223. *Eriocaulon.* Common calyx an imbricated head. Petals 3, equal. Stamens above the ovarium.

224. *Montia.* Cal. 2-3-leaved. Cor. monopetalous, irregular, 5-parted. Caps. 1-celled, 3-valved, 3-seeded.

225. *Mollugo.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved.

226. *Minuartia.* Cal. 5-leaved. Cor. O. Caps. 3-celled, 3-valved. Seeds a few.

227. *Quercia.* Cal. 5-leaved or 5-parted. Cor. O. Caps. 1-celled. Seed 1.

228. *Königia.* Cal. 3-leaved. Cor. O. Seed 1, ovate, naked.

MONOGYNIA.

544 Radical leaves spatulate ovate undivided; cauline pinnatifid, Stem erect, Flowers paniced diceous

545 Leaves all pinnate: pinnæ lanceolate-toothed, Stem hollow furrowed, Flowers corymbose

546 Cauline leaves pinnate, radical undivided, Stem smooth slender, Flowers corymbose

547 Leaves toothed radical cordate simple, cauline ternate ovate oblong, Leaflets lateral lanceol. Stem erect

548 Leaves oblong rather toothed; lower obtuse, upper acute, Stem erect, Flowers paniced

549 Leaves undivided entire obt. radical cuneate obl. cauline linear, Stem smooth ascending, Flowers racemose

550 Radical leaves lanceolate oblong entire, cauline pinnatifid, Stem smooth, Flowers pink corymbose

551 Leaves undivided, radical elliptical 3-nerv. entire and toothed, caul. linear, Stem erect, Corymbs racemose

552 Radical leaves ovate, cauline cordate sessile cut halbert shaped, Flowers racemose

553 Leaves cord. uneq. toothed: lower simple, upper ternate and pinnate, Stem striated, Flowers corymbose

554 Radical lvs. pinnated, Leaflets ovate coarsely toothed, caul. pinnated downwards, Segm. lanceol. toothed

555 Leaves simple ciliated, radical obovate, cauline lanceolate, Flowers paniced

556 Leaves membranous pinnatifid, Segm. lanceol.: the terminal very large, Stem smooth, Flowers corymbose

557 Leaves rather fleshy pinnatifid, Segm. entire obt. of nearly one shape, Stem hairy in 2 rows, Flowers corymb.

558 Caps. linear 3-toothed: the outer larger recurved, Stem smooth, Flowers in dichotomous spikes

559 Caps. naked globose compressed, Stem weak, Flowers in heads

560 Caps. polished ovate, Limb of the calyx short 3-5-toothed crowned, Stem smooth, Flowers corymbose

561 Caps. ovate villous, Limb of the calyx bladdered crowned, Stem a little villous, Flowers nearly in heads

562 Caps. villous, Limb of cal. 6-10-tooth. crowned, Crown camp. Teeth long straight, Stem pubesc. Fls. in heads

563 Caps. vill. Limb of cal. 10-12-rayed crowned, Crown rotate, Teeth long acute, Stem smooth, Flow. in heads

564 Caps. naked smooth cleft-keeled elongated, Stem weak, Flowers nearly in heads

565 Caps. ovate angular hairy irregularly toothed, Stem angular, Flowers corymbose

566 Caps. pubescent naked at the end, Leaves spatulate oblong nearly entire

567 Stem scabrous, Fruit ovate acute 1-toothed at the end pubescent

568 Caps. linear 6-toothed, Teeth hooked loose, Stem and radical leaves spatulate, cauline pinnatifid pubescent



and Miscellaneous Particulars.

Phu is the Arabic name of the species so called.

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

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

81. CALYME'NIA.	UMBRELLA-WORT.			<i>Nyctagineæ.</i>	<i>Sp. 3-7.</i>					
569 viscosa <i>W.</i>	viscid	☐	cu	6	my.s	P	Peru	1793.	C l p Bot. mag. 434	
570 aggregata <i>Cav.</i>	aggregate	☐	cu	1	jl.au	Pk	N. Spain	1811.	S s.l Cav. ic. t. 437	
571 glabrifolia <i>W. en.</i>	smooth-leaved	☐	cu	3	jl.au	P	N. Spain	1811.	C s.l Cav. ic. t. 379	
82. LÆFLINGIA. <i>W.</i>	LÆFLINGIA.						<i>Caryophylleæ.</i>	<i>Sp. 1-3.</i>		
572 hispánica <i>W.</i>	Spanish	○	w	¼	jn	G	Spain	1770.	S s.l Cav. ic. 1. t. 94	
83. HIPPOCRATE'A.	HIPPOCRATEA.						<i>Acerinæ.</i>	<i>Sp. 1-10.</i>		
573 volubilis <i>W.</i>	climbing	☐	or	20			W. S. Amer.	1739.	C p.l Jac. amer. t. 9.	
84. CNEORUM. <i>W.</i>	WIDOW-WAIL.						<i>Terebintaceæ.</i>	<i>Sp. 2.</i>		
574 tricoccum <i>W.</i>	smooth	☐	or	6	ap.s	Y	S. Europe	1793.	C p.l Lam. ill. t. 77	
575 pulverulentum <i>Ven.</i>	powdery	☐	or	6	ap.s	Y	Madeira	1822.	C p.l Vent. cels. 77	
85. COMOCLA'DIA. <i>W.</i>	MAIDEN-PLUM.						<i>Terebintaceæ.</i>	<i>Sp. 3-4.</i>		
576 integrifolia <i>W.</i>	entire-leaved	☐	tm	15		W	Jamaica	1778.	C p.l Slo. ja.2.t.222. f.1	
577 dentata <i>W.</i>	tooth-leaved	☐	tm	30	jl	W	W. Indies	1790.	C p.l J. am.13.t.173.f.4	
578 ilicifolia <i>W.</i>	holly-leaved	☐	tm	15		W	Caribee Is.	1789.	C p.l Plum. t. 118. f. 1	
86. XY'RIS. <i>L.</i>	XYRIS.						<i>Junceæ.</i>	<i>Sp. 3-26.</i>		
579 operculata <i>B. P.</i>	rush-leaved	☐	pr	1	jn.jl	Y	N. S. W.	1804.	S s.p Bot. mag. 1158	
580 brevifolia <i>P. S.</i>	short-leaved	☐	pr	½	jn.au	Y	Carolina	1812.	S s.p	
581 laevis <i>Br.</i>	smooth	☐	pr	1½	jn.au	Y	N. Holl.	1819.		
87. CALLY'SIA <i>W.</i>	CALLISIA.						<i>Commelineæ.</i>	<i>Sp. 1-3.</i>		
582 repens <i>W.</i>	creeping	☐	pr	½	jn.jl	B	W. Indies	1776.	R s.p Jac. am. 11. t. 11	
88. COMMELI'NA. <i>B. P.</i>	COMMELINA.						<i>Commelineæ.</i>	<i>Sp. 10-60.</i>		
583 communis <i>W.</i>	common	○	or	2	jn.jl	P.B	America	1732.	S co Red. lil. 206	
584 caroliniana <i>W.</i>	Carolina	○	or	2	jn.jl	P.B	America	1732.	D r.m	
585 africana <i>W.</i>	African	○	or	1	my.o	Y	C. G. H.	1759.	R r.m Bot. mag. 1431	
586 bengalensis <i>W.</i>	Bengal	○	or	3	jn	B	Bengal	1794.	R s.p Mur. got.p.18.t.5	
587 erecta <i>W.</i>	upright	○	or	1	au.s	B	Virginia	1732.	R s.p Di. el.94.t.77.f.88	
588 virginica <i>W.</i>	Virginian	○	or	½	jn	B	Virginia	1779.	R s.p P.al.135.t.174.f.4	
589 longicaulis <i>W.</i>	long-stalked	○	or	3	au	B	Caraccas	1806.	R s.p Jac. ic. 2. t. 294	
590 mollis <i>W.</i>	soft	○	or	2	au	B	Caraccas	1804.	R s.p Jac. ic. 2. t. 293	
591 tuberosa <i>W. en.</i>	tuberous-root.	○	or	1	jn.jl	B	Mexico	1732.	R r.m Bot. rep. 399	
592 cœlestis <i>W.</i>	sky-blue	○	or	1½	jn.jl	B		1813.	R r.m Bot. mag. 1695.	
89. ANELLE'MA. <i>B. P.</i>	ANELLEMA.						<i>Commelineæ.</i>	<i>Sp. 3-12.</i>		
593 biflorum <i>Br.</i>	creeping	○	or	1	jl.au	B	N. Holl.	1820.	R co	
594 ambiguum <i>Beauv.</i>	doubtful	○	or	3		V	S. Leone	1822.	D r.m Beauv. Ow. t. 15	
595 sinicum <i>Ker.</i>	Chinese	○	or	1	my.jn	P.B	China	1820.	D r.m Bot. reg. 659	
90. CARTONE'MA.	CARTONEMA.						<i>Commelineæ.</i>	<i>Sp. 1.</i>		
596 spicatum	spear-leaved	☐	or	½	jl.au	B	E. Indies	1783.	S s.p	
91. ORTE'GIA. <i>W.</i>	ORTEGIA.						<i>Caryophylleæ.</i>	<i>Sp. 2.</i>		
597 hispanica <i>W.</i>	Spanish	☐	Δ	w	jn.jl	Ap	Spain	1768.	D l.p Cav. ic. 1. t. 47	
598 dichotoma <i>W.</i>	forked	☐	Δ	w	½	au.s	Ap	Italy	1781.	D l.p All.taur.3.t.4.f.1
92. POLYCNEMUM. <i>W.</i>	POLYCNEMUM.						<i>Chenopodeæ.</i>	<i>Sp. 2-12.</i>		
599 arvense <i>W.</i>	trailing	○	w	½	jl	Ap	S. Europe	1640.	S s.l Jac. aus. 4. t. 365	
600 recurvum <i>Lois.</i>	recurved	○	w	½	jl	Ap	France	1820.	S s.l	
3. CRO'CUS. <i>Ker.</i>	CROCUS.						<i>Irideæ.</i>	<i>Sp. 17.</i>		
601 vernus <i>E. B.</i>	spring	☐	Δ	or	½	f.ap	P	England	mea. O co Eng. bot. 344	
602 albiflorus <i>Kt.</i>	Austrian vern.	☐	Δ	or	½	f.mr	W	Austria	... O co	



History, Use, Propagation, Culture,

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

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

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

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

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

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

1. *Vernal.*

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



and Miscellaneous Particulars.

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

603 <i>minimus</i> Red.	least	♂	△	or	$\frac{1}{2}$	f.mr	P	.....	1629.	O	co	
604 <i>versicolor</i> H. K.	party-colored	♂	△	or	$\frac{1}{2}$	f.mr	Li	S. Europe	1629.	O	co	Bot. mag. 1110
605 <i>biflorus</i> H. K.	Scotch	♂	△	or	$\frac{1}{2}$	f.mr	W	Crimea	1629.	O	co	Bot. mag. 845
606 <i>pusillus</i> Ten.	Neapolitan	♂	△	or	$\frac{1}{2}$	f.mr	W.br	Naples	1824.	O	co	
607 <i>susianus</i> H. K.	cloth of gold	♂	△	or	$\frac{1}{2}$	f.mr	Y	Turkey	1605.	O	co	Bot. mag. 652
608 <i>reticulatus</i> M. B.	netted vernal	♂	△	or	$\frac{1}{2}$	f.mr	B	Crimea	...	O	co	
609 <i>striatus</i> Lk.	striped vernal	♂	△	or	$\frac{1}{2}$	f.mr	W	.....	1820.	O	co	
610 <i>sulphureus</i> H. K.	sulphur-colored	♂	△	or	$\frac{1}{2}$	f.mr	Y	S. Europe	1629.	O	co	Bot. mag. 938
<i>β flavus</i>	pale-yellow	♂	△	or	$\frac{1}{2}$	f.mr	P.y	S. Europe	1629.	O	co	Bot. mag. 1384
611 <i>luteus</i> Lam.	common-yell.	♂	△	or	$\frac{1}{2}$	f.mr	Y	Turkey	1629.	O	co	Bot. mag. 45
612 <i>lagenæforus</i> Satish.	golden	♂	△	or	$\frac{1}{2}$	f.mr	D.y	Greece	...	O	co	Fl. grac. l. t. 35
<i>β flavus</i>	pale	♂	△	or	$\frac{1}{2}$	f.mr	P.y	Greece	...	O	co	Bot. mag. 1111
<i>γ penicillatus</i>	pendicelled	♂	△	or	$\frac{1}{2}$	f.mr	P.y	.....	...	O	co	
613 <i>stellaris</i> Haw.	starry-yellow	♂	△	or	$\frac{1}{2}$	f.mr	Y	.....	...	O	co	Hor. trans. 1. t. 6

614 <i>sativus</i> W.	saffron	♂	△	or	$\frac{1}{2}$	s.o	V	England	mea.	O	s.l	Eng. bot. 343
615 <i>serotinus</i> H. K.	late autumnal	♂	△	or	$\frac{1}{2}$	s.n	V	S. Europe	1629.	O	co	Bot. mag. 1267
616 <i>nudiflorus</i> H. K.	naked autumn.	♂	△	or	$\frac{1}{2}$	o.n	V	England	mea.	O	co	Eng. bot. 491
617 <i>Pallásii</i> M.B.	Russian autumn.	♂	△	or	$\frac{1}{2}$	s.o	Li	Crimea	1821.	O	co	

94. WITSEŃIA. Ker. WITSEŃIA. *Irideæ.* Sp. 2-4.

618 <i>maura</i> H. K.	downy-flowered	♂	△	or	4	n.ja	Y.B	C. G. H.	1790.	C	s.p	Bot. reg. 5
619 <i>corymbosa</i> H. K.	corymbose	♂	△	or	$\frac{1}{2}$	aps	P.B	C. G. H.	1803.	C	s.p	Bot. mag. 895

95. IXIA. Ker. IXIA. *Irideæ.* Sp. 20-30.

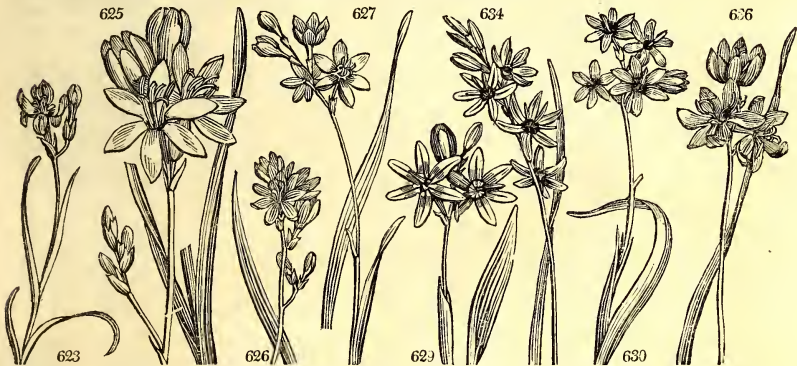
620 <i>linearis</i> H. K.	slender	♂	△	or	$\frac{1}{2}$	ap.my	W	C. G. H.	1796.	O	s.p.l	Bot. mag. 570.
621 <i>capillaris</i>	capillary	♂	△	or	$\frac{1}{2}$	ap.my	V	C. G. H.	1774.	O	s.p.l	Bot. mag. 617
622 <i>adlica</i> W.	rose-colored	♂	△	or	2	ap.my	Pk	C. G. H.	1774.	O	s.p.l	Bot. mag. 1013
623 <i>fucata</i> Ker.	painted	♂	△	or	$\frac{1}{2}$	jn.jl	Pk	C. G. H.	...	O	s.p.l	Bot. mag. 1379
624 <i>pätens</i> W.	spreading-flow.	♂	△	or	1	ap	P	C. G. H.	1779.	O	s.p.l	Bot. mag. 522
625 <i>leucantha</i> P. S.	white-flowered	♂	△	or	$\frac{1}{2}$	my	W	C. G. H.	1779.	O	s.p.l	Jac. ic. 2. t. 378
626 <i>flexuosa</i> H. K.	bending-stalked	♂	△	or	2	ap.my	Pk	C. G. H.	1757.	O	s.p.l	Bot. mag. 624
627 <i>hybrida</i> Ker.	spurious	♂	△	or	1	ap.my	W	C. G. H.	1757.	O	s.p.l	Bot. mag. 127
628 <i>conica</i> H. K.	orange-colored	♂	△	or	1	ap.my	O	C. G. H.	1757.	O	s.p.l	Bot. mag. 539
629 <i>monadelphæ</i> H. K.	monadelphous	♂	△	or	$\frac{1}{2}$	ap.my	O	C. G. H.	1792.	O	s.p.l	Bot. mag. 607
<i>β curta</i> Andr.	short	♂	△	or	$\frac{1}{2}$	ap.my	O	C. G. H.	1792.	O	s.p.l	Bot. mag. 1378
630 <i>columellaris</i> H. K.	variegated	♂	△	or	$\frac{1}{2}$	au	St	C. G. H.	1790.	O	s.p.l	Bot. mag. 630
631 <i>amaena</i> Lk.	pretty	♂	△	or	1	ap.my	R	C. G. H.	1822.	O	s.p.l	
632 <i>maculata</i> W.	spotted	♂	△	or	1	my.jn	W.br	C. G. H.	1780.	O	s.p.l	Bot. rep. 196
<i>β ochroleuca</i>	cream-colored	♂	△	or	1	my.jn	P.y	C. G. H.	1780.	O	s.p.l	Bot. mag. 1285
633 <i>capitata</i> P. S.	headed	♂	△	or	2	my.jn	Lm	C. G. H.	1780.	O	s.p.l	Bot. rep. 159
634 <i>viridiflora</i> P. S.	green-flowered	♂	△	or	1	my.jn	G	C. G. H.	1780.	O	s.p.l	Bot. mag. 549
635 <i>erecta</i> H. K.	upright	♂	△	or	$\frac{1}{2}$	my.jn	Va	C. G. H.	1757.	O	s.p.l	Bot. m. 623. 1173
636 <i>crateroides</i> H. K.	crimson	♂	△	or	$\frac{1}{2}$	my.jn	D.R	C. G. H.	1778.	O	s.p.l	Bot. mag. 594



History, Use, Propagation, Culture,

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

- 603 Segments of flower acute, Stigmas small, Flowers small late, Mouth of throat closed by hairs
 604 Stigmas convolute hooded lobed as long as the anthers
 605 Leaves longer than flowers, Stigmas but little longer than the anthers [membranous
 606 Stigma inclosed trifid longer than stamens, Lobes filiform cucullate crisp, Lvs. setaceous, Tunic of the bulbs
 607 The three outer segments of flower revolute
 608 Stam. as long as the truncate torn stigmas, Leaves supporting the flowers, Bulbs coated with net-work
 609 Leaves longer than the flowers, Spathes 2 inner narrowest, Limb of cor. funnel-shaped, Stigma length or
 610 Stigmas unequal much longer than the anthers [anthers flattish jagged
- 611 Filaments hairy, Anthers longer than the stigma
 612 Stigma enclosed trifid, Lobes somewhat linear toothed, Coat of the roots membranous
 β Pale cream-coloured flowers
 γ Pale cream-coloured flowers, with 3 sky-blue lines on the tube
 613 Leaves upright-spreading: their keel blunt: sides nerveless, Flower in the sun campanulate stellate
 2. Autumnal.
- 614 Stigmas very long reflexed crenate at the end
 615 Stigmas erect much divided, Leaves coming out with the flowers
 616 Stigmas erect much divided, Leaves later than the flowers
 617 Bulbs with a thready skin, Leaves later than the fl. Stam. as long as the truncate stigmas, Flower large
- 618 Flowers spiked, Outer segments of flower downy without
 619 Flowers corymbose smooth
- 620 Leaves linear very narrow convex, Scape simple erect
 621 Leaves with a cartilaginous edge, Racemes 1-7-flowered
 622 Leaves ensiform, Tube of the flower turbinate [Anthers diverging
 623 Leaves grassy, Spike 1-2-flowered, Flower hypocrateriform, Tube clavate straight, Filaments columnar
 624 Tube filiform, Limb bell-shaped spreading, Stigmas longer than the anthers
 625 Leaves linear ensiform, Flowers 1-sided, Spathes toothed shorter than the tube
 626 Tube slender a little enlarged, Limb below bell-shaped contracted, Segments spreading
 627 Leaves slender, Raceme flexuose many-flowered
 628 Limb spreading spotted at base, Stigmas not divided lower than the base of the anthers
 629 Filaments united in a tube
- 630 Filaments united at base
 631 Leaves lanceolate, Spathe toothed much shorter than the filiform tube, Segments lanceolate
 632 Limb campanulate spreading spotted at base, Stigmas divided as low as the tube
- 633 Smooth with stalked bulbs, Leaves linear ensiform, Flowers in spiked heads, Tube shorter than segments
 634 Leaves linear ensiform edged, Scape many-spiked many-flowered, Flowers spotted at base
 635 Limb spreading not spotted, Stigmas divided as low as the tube
 636 Limb hemispherical campanulate, Stigmas longer than anthers



and Miscellaneous Particulars.

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

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

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

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

637	retúsa <i>H. K.</i>	sweet-scented	♂	Δ	or	1	ja.f	Lv.	C. G. H.	1793.	O	s.pl	Bot. mag.	629
638	scállaris <i>H. K.</i>	quill-flowered	♂	Δ	or	1	ja.f	Va	C. G. H.	1787.	O	s.pl	Bot. mag.	542
639	crispa <i>H. K.</i>	curled-leaved	♂	Δ	or	1	ap.my	B	C. G. H.	1787.	O	s.pl	Bot. mag.	599
96.	TRICHONE'MA. <i>Ker. TRICHONEMA.</i>						<i>Iridee.</i>		<i>Sp. 6.</i>					
640	bulboóidium <i>H. K.</i>	channel-leaved	♂	Δ	or	1	mr.ap	R	S. Europe	1739.	O	s.pl	Bot. mag.	265
641	cruciátum <i>H. K.</i>	square-leaved	♂	Δ	or	1	my	B	C. G. H.	1758.	O	s.pl	Bot. mag.	575
642	caulésens <i>B. M.</i>	caulescent	♂	Δ	or	1	jn.jl	Y	C. G. H.	1810.	O	s.pl	Bot. mag.	1392
643	puóicum <i>B. M.</i>	blush	♂	Δ	or	1	au	R	C. G. H.	1808.	O	s.pl	Bot. mag.	1244
644	speciósum <i>B. M.</i>	crimson	♂	Δ	or	1	mr.ap	R	C. G. H.	1808.	O	s.pl	Bot. mag.	1476
645	róseum <i>B. M.</i>	rose-coloured	♂	Δ	or	1	jl	Pk	C. G. H.	1808.	O	s.pl	Bot. mag.	1225
97.	GEISSORHYZA. <i>Ker. TILE-ROOT.</i>						<i>Iridee.</i>		<i>Sp. 7.</i>					
646	rochénsis <i>H. K.</i>	plaid	♂	Δ	or	1	my	V	C. G. H.	1790.	R	s.pl	Bot. mag.	598
647	júncea <i>Lk.</i>	rushy	♂	Δ	or	1	jn.jl	Wu	C. G. H.	1822.	O	s.pl		
648	setácea <i>B. M.</i>	bristle-leaved	♂	Δ	or	1	jn.jl	Su	C. G. H.	1809.	O	s.pl	Bot. mag.	1255
649	obtusáta <i>H. K.</i>	yellow-flowered	♂	Δ	or	1	my	Y	C. G. H.	1801.	O	s.pl	Bot. mag.	672
650	secúnda <i>H. K.</i>	one-sided	♂	Δ	or	1	my	W	C. G. H.	1795.	O	s.pl	Bot. m.	597, 1105
651	excísa <i>H. K.</i>	short-leaved	♂	Δ	or	1	ap.my	W	C. G. H.	1789.	O	s.pl	Bot. mag.	584
652	ciliáris <i>Sal.</i>	ciliated	♂	Δ	or	1	ap.my	W	C. G. H.	...	O	s.pl		
98.	HESPERA'NTHA. <i>Ker. EVENING-FLOWER.</i>						<i>Iridee.</i>		<i>Sp. 5.</i>					
653	radiáta <i>H. K.</i>	nodding-flower.	♂	Δ	or	1	ap.jn	V	C. G. H.	1794.	O	s.pl	Bot. mag.	573
654	píllosa <i>B. M.</i>	hairy	♂	Δ	or	1	ap.my	V	C. G. H.	1811.	O	s.pl	Bot. mag.	1475
655	graminifólia <i>Sweet.</i>	grass-leaved	♂	Δ	or	1	aus.	V	C. G. H.	1808.	O	s.pl	Bot. mag.	1254
656	falcáta <i>H. K.</i>	sickle-leaved	♂	Δ	or	1	ap.my	V	C. G. H.	1787.	O	s.pl	Bot. mag.	566
657	cinnamómea <i>H. K.</i>	curled-leaved	♂	Δ	or	1	ap.my	V	C. G. H.	1787.	O	s.pl	Bot. mag.	1094
99.	SPARA'XIS. <i>Ker. SPARAXIS.</i>						<i>Iridee.</i>		<i>Sp. 4.</i>					
658	tricolor <i>H. K.</i>	three-colored	♂	Δ	or	1	my	O	C. G. H.	1789.	O	s.pl	Bot. mag.	381
	<i>β</i> sanguineo-purpurea	various-colored	♂	Δ	or	1	ap.my	R.P	C. G. H.	1811.	O	s.pl	Bot. mag.	1482
	<i>γ</i> violaceo-purpurea	dark-colored	♂	Δ	or	1	ap.my	V.P	C. G. H.	1811.	O	s.pl	Bot. m.	1482, f. 2
	<i>δ</i> roseo-alba	light-colored	♂	Δ	or	1	ap.my	Pk	C. G. H.	1811.	O	s.pl	Bot. m.	1482, f. 3
659	bicolor <i>H. K.</i>	two-colored	♂	Δ	or	1	mr.ap	B.V	C. G. H.	1786.	O	s.pl	Bot. mag.	548
660	grandiflóra <i>H. K.</i>	purple-flowered	♂	Δ	or	1	ap	P	C. G. H.	1758.	O	s.pl	Bot. mag.	541
	<i>β</i> striata	streak-flowered	♂	Δ	or	1	ap	St	C. G. H.	1758.	O	s.pl	Bot. mag.	779
	<i>γ</i> liliago	lily-flowered	♂	Δ	or	1	ap	W	C. G. H.	1758.	O	s.pl	Bot. reg.	252
661	bulbífera <i>H. K.</i>	bulb-bearing	♂	Δ	or	1	my.jn	V	C. G. H.	1758.	O	s.pl	Bot. mag.	545
100.	TRITON'IA. <i>Ker. TRITONIA.</i>						<i>Iridee.</i>		<i>Sp. 15.</i>					
662	crispa <i>H. K.</i>	curled-leaved	♂	Δ	or	1	ap.my	F	C. G. H.	1787.	O	s.pl	Bot. mag.	678
663	viridís <i>H. K.</i>	green-flowered	♂	Δ	or	1	jl	Pk	C. G. H.	1788.	O	s.pl	Bot. mag.	1275
664	rósea <i>H. K.</i>	rosy	♂	Δ	or	1	jn.jl	G	C. G. H.	1793.	O	s.pl	Bot. mag.	618
665	capénsis <i>B. M.</i>	Cape	♂	Δ	or	1	au.o	Y	C. G. H.	1811.	O	s.pl	Bot. mag.	1531.
666	longiflóra <i>H. K.</i>	long-flowered	♂	Δ	or	1	ap.jn	W	C. G. H.	1774.	O	s.pl	Bot. mag.	256
667	tenuiflóra <i>Vahl.</i>	slender-tubed	♂	Δ	or	1	ap.jn	Y	C. G. H.	1811.	O	s.pl	B. m.	1502, f. maj.
	<i>β</i> cóncolor <i>Sweet.</i>	self-colored	♂	Δ	or	1	ap.jn	Y	C. G. H.	1811.	O	s.pl	B. m.	1502, f. min.
	<i>γ</i> rochénsis <i>B. M.</i>	bending-flower.	♂	Δ	or	1	au	Y	C. G. H.	1811.	O	s.pl	Bot. mag.	1503
	<i>δ</i> pállida <i>Ker.</i>	pale-flowered	♂	Δ	or	1	au	Y	C. G. H.	1806.	O	s.pl	Jac. ic. r. 2. t. 262	
668	lineáta <i>H. K.</i>	pencilled	♂	Δ	or	2	my	Str	C. G. H.	1774.	O	s.pl	Bot. mag.	487
669	securigera <i>H. K.</i>	copper-colored	♂	Δ	or	1	my	Br	C. G. H.	1774.	O	s.pl	Bot. mag.	383
670	fláva <i>H. K.</i>	yellow	♂	Δ	or	1	f.mr	Y	C. G. H.	1780.	O	s.pl	Bot. reg.	747
671	squálda <i>H. K.</i>	sweet-scented	♂	Δ	or	1	my	Ru	C. G. H.	1774.	O	s.pl	Bot. mag.	581
672	fenestráta <i>H. K.</i>	open-flowered	♂	Δ	or	1	my.jn	Y	C. G. H.	1801.	O	s.pl	Bot. mag.	704
673	crocáta <i>H. K.</i>	crocus-flowered	♂	Δ	or	1	my.jn	O	C. G. H.	1758.	O	s.pl	Bot. mag.	184
674	deústa <i>H. K.</i>	spotted	♂	Δ	or	1	my	Ful	C. G. H.	1774.	O	s.pl	Bot. mag.	622
675	miniáta <i>H. K.</i>	late-flowered	♂	Δ	or	1	au	Ful	C. G. H.	1795.	O	s.pl	Bot. mag.	609
676	refrácta <i>Ker.</i>	reflexed	♂	Δ	or	1	my.jn	Y	C. G. H.	1815.	O	s.pl	Bot. reg.	135
101.	WATSON'IA. <i>Ker. WATSONIA.</i>						<i>Iridee.</i>		<i>Sp. 12.</i>					
677	spiciáta <i>H. K.</i>	hollow-leaved	♂	Δ	or	1	my	Pk	C. G. H.	1791.	O	s.pl	Bot. mag.	523
678	plantagínea <i>H. K.</i>	fox-tail	♂	Δ	or	2	jn.jl	W	C. G. H.	1774.	O	s.pl	Bot. mag.	553
679	punctáta <i>H. K.</i>	dotted-flowered	♂	Δ	or	1	ap.my	P	C. G. H.	1800.	O	s.pl	Bot. rep.	177
680	róseo-álba <i>B. M.</i>	two-colored	♂	Δ	or	1	jl.au	Pk	C. G. H.	...	O	s.pl	Bot. mag.	537
	<i>β</i> variegata	variegated	♂	Δ	or	1	jl.au	St	C. G. H.	...	O	s.pl	Bot. mag.	1193
681	margináta <i>H. K.</i>	broad-leaved	♂	Δ	or	3	jn	Pk	C. G. H.	1774.	O	s.pl	Bot. mag.	638
	<i>β</i> minor	shining-leaved	♂	Δ	or	3	o	Pk	C. G. H.	1812.	O	s.pl	Bot. mag.	1530



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

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

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

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

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



and Miscellaneous Particulars.

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

682 strictiflora B. M.	upright-flower.	♂	Δ	or	1	jn	R	C. G. H.	1810.	O	s.p.l	Bot. mag. 1406
683 rosea H. K.	pyramidal	♂	Δ	or	2	jl.au	P	C. G. H.	1803.	O	s.p.l	Bot. mag. 1072
684 brevifolia H. K.	short-leaved	♂	Δ	or	1	my	Pk	C. G. H.	1794.	O	s.p.l	Bot. mag. 601
685 iridifolia Jacq.	iris-leaved	♂	Δ	or	2½	my	F	C. G. H.	1795.	O	s.p.l	Jac. ic. 2. t. 234
β fulgida Sal.	scarlet	♂	Δ	or	4	my	R	C. G. H.	1795.	O	s.p.l	Bot. mag. 600
686 meriana H. K.	red-flowered	♂	Δ	or	1½	my.jn	P	C. G. H.	1750.	O	s.p.l	Bot. m. 418.1194
687 humilis H. K.	lake-colored	♂	Δ	or	2	my.jl	L	C. G. H.	1754.	O	s.p.l	Bot. m. 631.1195
688 aletroides H. K.	aletris-like	♂	Δ	or	1½	my.jl	S	C. G. H.	1774.	O	s.p.l	Bot. mag. 441
β variegata	variegated-flow.	♂	Δ	or	1½	my.jl	St	C. G. H.	1774.	O	s.p.l	Bot. mag. 533
102. BABIANA. Ker.	BABIANA.							<i>Irideae.</i>	<i>Sp. 11.</i>			
689 Thunbergii H. K.	many-spiked	♂	Δ	or	1	ap	P	C. G. H.	1774.	O	s.p.l	
690 ringens H. K.	gaping-flowered	♂	Δ	or	1	my.jn	P	C. G. H.	1752.	O	s.p	Com. hor. 1. t. 41
691 tubiflora W.	tubing-flowered	♂	Δ	or	1	jn	Y.R	C. G. H.	1774.	O	s.p	Bot. mag. 847
β tubata W.	long-tubed	♂	Δ	or	1	jn	Y.W	C. G. H.	1774.	O	s.p	Bot. mag. 680
692 spathacea H. K.	stiff-leaved	♂	Δ	or	1	jn	L.B	C. G. H.	1801.	O	s.p	Bot. mag. 638
693 sambucina H. K.	elder-scented	♂	Δ	or	1	ap.my	B	C. G. H.	1799.	O	s.p	Bot. mag. 1019
694 disticha B. M.	two-ranked	♂	Δ	or	1	jn.jl	B	C. G. H.	1774.	O	s.p	Bot. mag. 626
695 plicata H. K.	sweet-scented	♂	Δ	or	1	my.jn	P	C. G. H.	1774.	O	s.p	Bot. mag. 576
696 stricta H. K.	upright	♂	Δ	or	1	my.jn	B.W	C. G. H.	1757.	O	s.p	Bot. m. 621. 637
697 sulphurea H. K.	pale-flowered	♂	Δ	or	1	my.jn	Y	C. G. H.	1795.	O	s.p	Bot. mag. 1053
698 villosa H. K.	dark-red	♂	Δ	or	1	au	D.R	C. G. H.	1778.	O	s.p	Bot. mag. 583
699 rubro-cyanea H. K.	red and blue	♂	Δ	or	1	ap.jn	B.R	C. G. H.	1794.	O	s.p	Bot. mag. 410
103. LAPEYROUSIA. Ker. LAPEYROUSIA.								<i>Irideae.</i>	<i>Sp. 2.</i>			
700 corymbosa H. K.	level-topped	♂	Δ	or	1	my.jn	B	C. G. H.	1791.	O	s.p	Bot. mag. 595
701 fissifolia B. M.	leafy-spiked	♂	Δ	or	1	aus	V	C. G. H.	1809.	O	s.p	Bot. mag. 1246
104. MELASPHERULA. Ker. MELASPHERULA.								<i>Irideae.</i>	<i>Sp. 2.</i>			
702 graminea D. C.	grass-leaved	♂	Δ	or	1	ap.au	Y.G	C. G. H.	1787.	O	s.p	Red. lil. 163
703 iridifolia D. C.	iris-leaved	♂	Δ	or	1	ap.au	G	C. G. H.	1787.	O	s.p	Bot. mag. 615
105. GLADYOLUS. Ker. CORN-FLAG.								<i>Irideae.</i>	<i>Sp. 28-35.</i>			
704 Cunonia H. K.	scarlet-flowered	♂	Δ	or	2	my.jn	S	C. G. H.	1756.	O	s.p.l	Bot. mag. 343
705 Watsonii H. K.	Watson's	♂	Δ	or	1	f.ap	D.R	C. G. H.	1791.	O	s.p.l	Bot. m. 450. 569
706 quadrangularis H. K.	four-channelled	♂	Δ	or	2	mr.ap	Y	C. G. H.	1799.	O	s.p.l	Bot. mag. 567
707 viperatus H. K.	perfumed	♂	Δ	or	1	ap.my	Br.y	C. G. H.	1787.	O	s.p.l	Bot. mag. 688
708 elatus H. K.	winged-flower.	♂	Δ	or	1	my.jn	O.g	C. G. H.	1795.	O	s.p.l	Bot. mag. 586
709 namaquensis H. K.	helmet-flower.	♂	Δ	or	1	my.jn	O.g	C. G. H.	1800.	O	s.p.l	Bot. mag. 592
710 brevifolius H. K.	short-leaved	♂	Δ	or	1½	d.ja	Pk	C. G. H.	1802.	O	s.p.l	Bot. m. 727. 992
711 hirsutus H. K.	hairy	♂	Δ	or	1	ap.jn	Pk	C. G. H.	1795.	O	s.p.l	Bot. mag. 574
712 versicolor H. K.	various-colored	♂	Δ	or	1½	my.jn	Br	C. G. H.	1794.	O	s.p.l	Bot. mag. α 1042
β binervis B. M.	two-nerved	♂	Δ	or	1	my.jn	Pk	C. G. H.	1806.	O	s.p.l	Bot. mag. ε 1042
713 edulis Ker.	eatable	♂	Δ	or	1½	my.jn	W	C. G. H.	1816.	O	s.p.l	Bot. reg. 169
714 hastatus B. M.	spade-spotted	♂	Δ	or	1	ap.my	F	C. G. H.	1816.	O	s.p.l	Bot. mag. 1564
715 tristis B. M.	square-leaved	♂	Δ	or	1	my.jn	Br.y	C. G. H.	1745.	O	s.p.l	Bot. mag. 272
β cōcolor Sal.	self-colored	♂	Δ	or	1	my.jn	Y	C. G. H.	1790.	O	s.p.l	Par. lond. 8
716 trichonemifolius B. M.	violet-scented	♂	Δ	or	1	my.jn	Y	C. G. H.	1810.	O	s.p.l	Bot. mag. 1483
717 gracilis H. K.	slender	♂	Δ	or	2	mr.ap	F.W	C. G. H.	1800.	O	s.p.l	Bot. mag. 562
718 recurvus H. K.	spotted-sheath.	♂	Δ	or	2	ap.my	Sl	C. G. H.	1758.	O	s.p.l	Bot. mag. 578
719 carneus H. K.	flesh-colored	♂	Δ	or	2	my.jn	E	C. G. H.	1796.	O	s.p.l	Bot. mag. 591
720 cuspidatus H. K.	tall	♂	Δ	or	1½	ap.my	W.Br	C. G. H.	1795.	O	s.p.l	Bot. mag. 582
721 blandus H. K.	blush	♂	Δ	or	1½	jn	L.F	C. G. H.	1774.	O	s.p.l	Bot. mag. 625
722 campanulatus P. S.	bell-flowered	♂	Δ	or	1	my	L.P	C. G. H.	1794.	O	s.p.l	Bot. rep. 188
723 angustus H. K.	narrow-leaved	♂	Δ	or	2	my.jn	L.V	C. G. H.	1757.	O	s.p.l	Bot. mag. 602
724 involutus Ker.	involute	♂	Δ	or	1½	my.jn	Pk	C. G. H.	1757.	O	s.p.l	Roche. diss. 2. t. 3
725 undulatus H. K.	wave-flowered	♂	Δ	or	1	ap.my	Pk	C. G. H.	1760.	O	s.p.l	Bot. mag. 538
726 floribundus H. K.	large-flowered	♂	Δ	or	1	my.jl	Ci	C. G. H.	1788.	O	s.p.l	Bot. mag. 610
727 Milleri H. K.	Miller's	♂	Δ	or	1½	ap.my	V	C. G. H.	1751.	O	s.p.l	Bot. mag. 632
728 cardinalis H. K.	superb	♂	Δ	or	2	jl.au	D.R	C. G. H.	1789.	O	s.p.l	Bot. mag. 155
729 byzantinus H. K.	Turkish	♂	Δ	or	2	jn.jl	R	Turkey	1629.	O	s.p	Bot. mag. 874
730 communis H. K.	common	♂	Δ	or	2	jn.jl	R	S. Europe	1596.	O	s.p.l	Bot. mag. 86
731 segetum H. K.	round-seeded	♂	Δ	or	2	jn.jl	P	S. Europe	1596.	O	s.p.l	Bot. mag. 710
106. ANOMATHECA. Ker. ANOMATHECA.								<i>Irideae.</i>	<i>Sp. 1.</i>			
732 juncæ H. K.	cut-leaved	♂	Δ	or	1	ap.my	Li	C. G. H.	1791.	O	s.p.l	Bot. mag. 606



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

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

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

- 682 Stem upright many spikd, Leaves linear-lanceolate smooth edged with red
 683 Leaves ensiform thickened at the edge, Spikelets several close together, Limb campanulate, Throat naked
 684 Leaves ensiform very short, Limb spreading; inner segments widest
 685 Flowers recurved, Tube the length of the spathe, Segments of limb acute
- 686 Flowers recurved, Tube longer than the spathe, Limb with obtuse segments
 687 Flowers recurved, Tube the length of the spathe, Limb with acute segments
 688 Flowers recurved, Throat nearly 4 times as long as the segments of the limb
- 689 Leaves villous, Flowers ringent
 690 Leaves smooth, Flowers ringent
 691 Tube filiform clavate three times as long as the irregular limb: Upper segment divaricating
- 692 Tube filiform twice as long as the regular limb; Segments obtuse alternate with a point
 693 Segments longer than the throat marked with a darker linear longitudinal spot
 694 Leaves stiffish subvillous plaited, Flowers distichous, Segments alternately curved
 695 Segments length of the tube nearly equal, the alternate ones wavy: the upper convolute at the end
 696 Flowers funnel-shaped, regular; Segments scarcely longer than the tube, flat
 697 Segments of flower thrice as long as the tube
 698 Tube filiform the length of the regular campanulate limb: alternate segments obtuse with a point
 699 Limb much spreading, Segments rhomboidal spotted at the base
- 700 Flowers corymbose, Stamens much spreading
 701 Flowers solitary
- 702 Tube very short, Segm. nearly equal aristate, Scape panicled, Leaves linear rather shorter than the scape
 703 Many spikd, Scape weak, Spikes capil. flexuose, Leaves sword-shaped smooth dist. shorter than scape
- 704 Leaves linear ensiform, Upper segment of flower very long, lower very small
 705 Leaves linear ensiform with 3 ribs on each side, Throat of the flower cylindrical, longer than segm. of limb
 706 Leaves 4-cornered 4-furrowed, Upper segment of flower very long, lower very small subulate
 707 Upper segm. of flower spat. divar. incurv. lat. rhomb-shaped ovate spread. lower spat. acute hanging down
 708 Upper segm. of fl. obov. recurved, lateral rhomb-shaped ovate spread. lower spat. acumin. hanging down
 709 Upper segm. of fl. vaulted, lat. rhomb-shaped ovate spread. lower hanging down spat. obtuse with a point
 710 Sterile bulb with a single linear pubescent leaf, Flowering bulb leafless, Flowers subringent
 711 Leaves linear-ensiform pubescent, Flowers nearly regular
 712 Leaves linear-ensiform 3-ribbed on each side, Segments of flower longer than the throat
- 713 Leaves very long linear glaucous: nerves prominent on both sides, Segments of flower cordate
 714 Tube of the campan. fl. shorter than the spatha, Segments ovate obtuse: the 3 lower with a hastate spot
 715 Leaves 4-cornered 4-furrowed, Segments of flower nearly equal
- 716 Leaves 3 slender upright 4-cornered, Spike 2-3 fld. 1-sided, Fl. funnel-shaped nearly equal somewhat nodd.
 717 Leaves linear the edge on each side ribbed, middle nerve nearly obsolete
 718 Leaves linear with a rib on each side in the middle, Sheaths radical spotted
 719 Tube lngr. than spathe, Up. seg. wider than rest, convol. and recurv. at end; lowest very narrow hang. down
 720 Tube twice as long as the segments of the limb which are acuminate wavy and reflexed
 721 Flowers shorter than the spatha, Limb campan. subringent: upper segm. concave; the lower narr. spotted
 722 Leaves lanceolate smooth, Scape about 3-flowered longer than the leaves, Flower nearly campanulate
 723 Leaves linear with a rib on each side in the middle, Tube longer than the spatha, the lower segments with a stalked 3-angular spot
 724 Flowers ringent remote in two rows, Tube shorter than spatha, Segm. lanc. the lat. rolled inwards at edge
 725 Flowers erect funnel-shaped, Segments wavy, three lower nearly half as short as the others
 726 Flowers erect turbinate campanulate, Segments equal in length, upper widest
 727 Flowers erect campanulate, Segments equal in length: upper narrower than the lateral ones
 728 Spikes several one-sided, three lower segments marked with a white lanceolate spot
 729 Spike 2-rowed, Upper seg. covered by lateral ones; the 3 lower marked by a white edged linear lanc. spot
 730 Spike 1-sided, Upper seg. covered by lat. ones; 3 lower marked by a white lin.-lanc. spot, lowest very large
 731 Spike 1-sided, Upper segm. divaricating, 3 lower nearly equal, marked with a white edged lin.-lanc. spot

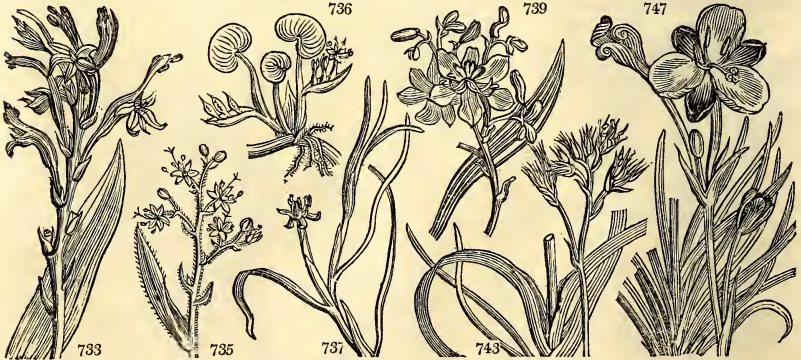
732 Leaves broad lanceolate rather wavy



and Miscellaneous Particulars.

104. *Melaspheerula*. From *μῆλας*, black, and *σφαῖρα*, a globe. In allusion to the colour and figure of the bulbets figured by Jacquin in his representation of the plant.
105. *Gladiolus*. From the Latin *gladius*, a sword, in allusion to the shape of the leaves. *G. communis* is a shewy border flower, of which there are several varieties in general cultivation. *G. cardinalis* is a splendid plant, with scarlet flowers spotted with white.
106. *Anomatheca*. From two Greek words (*ἀνομιος* and *θήκη*) signifying a singular capsule. The capsule of the genus is remarkable for being, as it were, frosted.

107. ANTHOLYZA. Ker	ANTHOLYZA.				<i>Irideæ. Sp. 1—4.</i>							
733 æthiópica H. K.	flag-leaved	♂	△	or	3	my.jn	O	C. G. H.	1759.	O	s.p.l	Bot. mag. 561
β vittigera	ribband	♂	△	or	2	ja.f	O	C. G. H.	...	O	s.p.l	Bot. mag. 1172
108. XIPHIDIUM. W	XIPHIDIUM.							<i>Hæmodoraceæ. Sp. 2.</i>				
734 álbum W.	white	♀	△	or	1½	...	W	W. Indies	1787.	R	s.p	
735 cæruleum W.	blue	♀	△	or	1½	...	B	Guiana	1793.	R	s.p	Aub. gui. 1. t. 11
109. LEPTANTHUS. Mich.	LEPTANTHUS.							<i>Fluviales. Sp. 2—3.</i>				
736 renifórmis M.	kidney-leaved	♀	△		¼	jn.jl	G	N. Amer.	1812.	D	aq	Fl. per. 1. t. 71
737 gramineus Vahl.	grassy	♀	△		1	jn.au	Y	N. Amer.	1823.	D	aq	Hook. ex. fl. t.
110. WACHENDORFIA. Ker.	WACHENDORFIA.							<i>Hæmodoraceæ. Sp. 5—6.</i>				
738 thyriflóra W.	tall-flowered	♀	△	or	2	my.jn	Y	C. G. H.	1759.	D	r.m	Bot. mag. 1060
739 paniculáta W.	panicked	♀	△	or	2	f	Y	C. G. H.	1700.	D	r.m	Bot. mag. 616
740 graminea W.	grass-leaved	♀	△	or	1	jn	Y	C. G. H.	...	D	r.m	
741 hirsúta W.	hairy	♀	△	or	1½	jn	V	C. G. H.	1687.	D	r.m	Bot. mag. 614
742 brevifólia H. K.	short-leaved	♀	△	or	1	mr.ap	P	C. G. H.	1795.	D	r.m	Bot. mag. 1166
111. HÆMODO'RUM. Sm.	HÆMODO'RUM.							<i>Hæmodoraceæ. Sp. 1—6.</i>				
743 planifólium B. P.	plain-leaved	♀	△	or	1½	jl.n	O	N. S. W.	1810.	S	s.p	Bot. mag. 1610
112. ARISTEA. Ker.	ARISTEA.							<i>Irideæ. Sp. 5.</i>				
744 cyána H. K.	woolly-headed	♀	△	or	¾	ap.jn	B	C. G. H.	1759.	S	s.p	Bot. mag. 458
745 capitáta H. K.	tallest	♀	△	or	3	jl.au	B	C. G. H.	1790.	C	s.p	Bot. mag. 605
746 spirális H. K.	spiral-flowered	♀	△	or	1	ap.my	P.Bl	C. G. H.	1795.	C	s.p	Bot. mag. 520
747 melaleúca H. K.	three-colored	♀	△	or	1	my.jn	P.Bl	C. G. H.	1786.	C	s.p	Bot. mag. 1277
748 pusilla B. M.	flat-stemmed	♀	△	or	¼	jn.jl	B	C. G. H.	1806.	C	s.p	Bot. mag. 1231
113. DILA'TRIS. Ker.	DILATRIS.							<i>Hæmodoraceæ. Sp. 3—4.</i>				
749 corymbósa W.	broad-petalled	♀	△	or	1	my	P	C. G. H.	1790.	S	s.p	Ex. bot. 1. t. 16
750 viscósá W.	clammy	♀	△	or	¾	...	B	C. G. H.	1795.	S	s.p	Lam. ill. t. 34
751 Heritiéra Pers.	dyers	♀	△	dy	1½	jl.au	Pk	N. Amer.	1812.	S	s.p	Mich. am. 4
114. BRODLE'A. Sm.	BRODLEA.							<i>Irideæ. Sp. 1—4.</i>				
752 ixioleis Sims.	Ixia-like	♂	△	or	1	o	Lí	Chili	1822.	O	s.p	Bot. mag. 2382
115. IRIS. Ker.	IRIS.							<i>Irideæ. Sp. 63—92.</i>				
753 susiána W.	Chalcedonian	♀	△	or	2	mr.ap	St	Levant	1596.	R	s.l	Bot. mag. 91
754 florentína W.	Florentine	♀	△	or	2	my.jn	W	S. Europe	1596.	R	p.l	Bot. mag. 671
755 germánica W.	German	♀	△	or	3	my.jn	B	Germany	1573.	R	co	Bot. mag. 670
756 pállida W.	pale Turkey	♀	△	or	1½	my.jn	Lv	Turkey	1596.	R	co	Bot. mag. 685
757 flavescens Red.	reddish	♀	△	or	2	my.jn	Y	.....	1818.	R	co	Red. ill. 375
758 orientális W.	red-leaved	♀	△	or	1	my.jn	L.B	China	1790.	R	co	Bot. mag. 1604
759 sambucína W.	elder-scented	♀	△	or	4	jn	L.B	S. Europe	1658.	R	co	Bot. mag. 187
760 lárida W.	dingy	♀	△	or	2	ap	Br	S. Europe	1758.	R	co	Bot. mag. 669, 986
761 squáles W.	brown-flowered	♀	△	or	2	jn	St	S. Europe	1768.	R	co	Bot. mag. 787
762 variegáta W.	variegated	♀	△	or	2	my.jn	St	Hungary	1597.	R	s.l	Bot. mag. 16
763 neglectá Horn.	neglected	♀	△	or	2	my.jn	P.Bl	.....	.....	R	co	Bot. mag. 2435
764 Swértii Lam.	Swert's	♀	△	or	1½	ep.my	W	.....	1819.	R	co	Bot. mag. 870
765 biflóra W.	two-flowered	♀	△	or	½	ap.my	P	S. Europe	1596.	R	co	
766 sub-biflóra H. K.	double-bearing	♀	△	or	½	ap.my	V	Portugal	1596.	R	p.l	Bot. mag. 1130
767 cristáta W.	crested	♀	△	or	¾	my	St	N. Amer.	1756.	R	p.l	Bot. mag. 412
768 chinénsis W.	Chinese	♀	△	or	¾	my.jn	P.B	China	1792.	R	co	Bot. mag. 373
769 arenária W. en.	sand	♀	△	or	¾	jn	Br	Hungary	1802.	R	co	Bot. reg. 549
770 lutescens W.	pale-yellow	♀	△	or	¾	ap.my	Y	Germany	1748.	R	p.l	Red. ill. t. 263
771 flavíssima W.	bright-yellow	♀	△	or	¾	ap.my	Y	Siberia	1814.	R	co	Jac. ic. 3. t. 220
772 pámila H. K.	dwarf	♀	△	or	¾	ap.my	P	Austria	1596.	R	p.l	Bot. mag. 6, 1209
773 dichotoma W.	forked	♀	△	or	¾	au	L.P	Dauria	1784.	R	p.l	Bot. reg. 246
774 hungárica W. en.	Hungarian	♀	△	or	1	my	V	Hungary	1815.	R	co	W. et. k. h. 3. t. 226
775 ibérica St.	reflexed	♀	△	or	¾	ap.my	Br	Iberia	1821.	R	co	
776 pseud-ácorus W.	yellow-water	♀	△	or	3	jn	Y	Britain moi. pl.		R	p.l	Eng. bot. 578
777 foetidíssima W.	Gladwyn	♀	△	or	1½	jn	Ld	Britain sha. pl.		R	p.l	Eng. bot. 596
778 versicolor W.	various-colored	♀	△	or	1	my.jn	St	N. Amer.	1732.	D	s.l	Bot. mag. 21



History, Use, Propagation, Culture,

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

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

734 Leaves smooth, Petals linear-lanceolate

735 Leaves hairy, Petals ovate

736 Leaves roundish reniform, Spathes oblong acuminate many-flowered

737 Leaves all linear

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

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

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

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

742 Leaves elliptic sword-shaped hairy

743 Corymbs compound, Branches spreading, Leaves flat

744 Flowers headed, Spathes many-parted torn

745 Heads of flowers alternate, Spathes entire

746 Flowers alternate, Segments of flower equal

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

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

749 Petals ovate oblong, Corymb level-topped hairy

750 Petals linear, Corymb level-topped villous viscid

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

752 Leaflets of the crown subulate

1. *Flowers bearded.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

768 Scape compressed many-flowered, Stigmas jagged

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

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

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

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

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

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

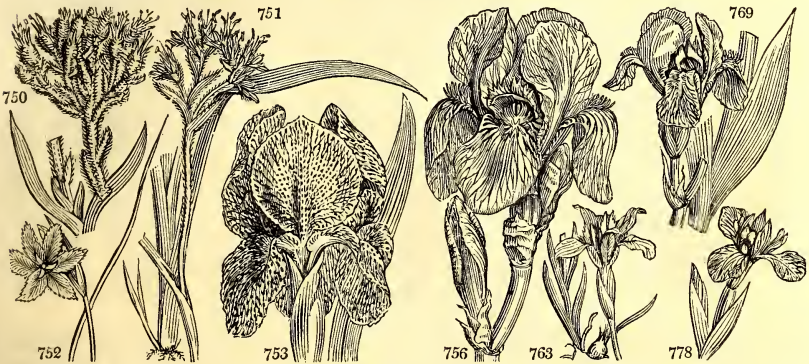
775 Leaves ensiform falcate smooth, Scape 1-flowered, Petals obovate

2. *Flowers beardless.*

776 Leaves flat, Inner petals less than the stigma

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

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



and Miscellaneous Particulars.

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

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

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

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

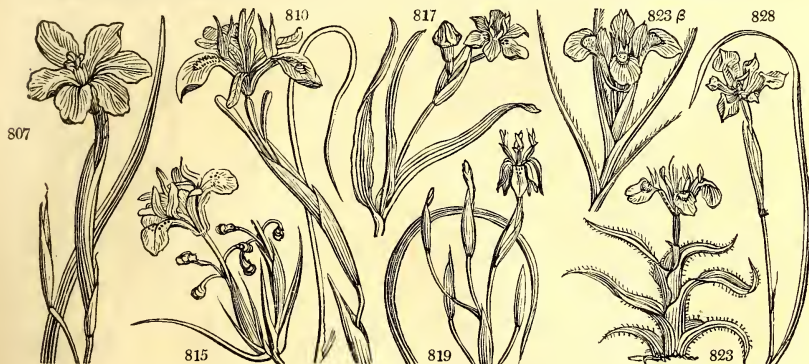
779 cúprea Ph.	copper-colored	Δ	or	2	jn.jl	O	N. Amer.	1812.	R	p.l	Bot. mag. 1496
780 virginica W.	virginian	Δ	or	1	jn.jl	B	N. Amer.	1758.	R	s.l	Bot. mag. 703
781 spúria W.	spurious	Δ	or	1	jl	Sl	Siberia	1759.	R	co	Bot. mag. 875
782 ochroleuca W.	sulphur-colored	Δ	or	4	jl	L.v	Levant	1757.	R	co	Bot. mag. 1515
<i>stenogyna</i> B. Mag.											
783 Guldenstádtii W. en.	Guldenstadt's	Δ	or	4	ap.my	Y	Siberia	1757.	R	co	Bot. mag. t. 61
784 halóphila W.	long-leaved	Δ	or	3	jl.s	B	Siberia	1780.	R	co	Bot. mag. 1131
785 alata Lam.	long-tubed	Δ	or	1	jn	B	Algiers	1801.	O	co	Desf. atl. 1. t. 6
786 xiphium W.	small-bulbous	Δ	or	1	jn	B.v	Spain	1596.	O	co	Bot. mag. 686
787 xiphoides W.	great-bulbous	Δ	or	1	jn	B.v	Spain	1571.	O	co	Bot. mag. 687
788 lusitánica H. K.	Portuguese	Δ	or	2	ap	B	Portugal	1796.	O	co	Bot. mag. 679
789 tenuifolia W.	slender-leaved	Δ	or	2	my	L.B	Dauria	1796.	D	co	Pall. it. 3. t. c. f. 2
790 persica W.	Persian	Δ	or	3	mr	B.v	Persia	1629.	O	co	Bot. mag. 1
791 vérna W.	spring	Δ	or	1	ap.my	P	Virginia	1748.	D	co	Pl. alm. t. 196. f. 6
792 ventricosa W.	bellied	Δ	or	1	jn	P.B	Dauria	1800.	D	co	Pall. it. 3. t. b. f. 1
793 sibírica W.	Siberian	Δ	or	2	my.jn	L.B	Siberia	1596.	R	co	Bot. mag. 50. 1163
794 prismática Ph.	New-Jersey	Δ	or	1	my.jn	P	N. Amer.	1812.	R	p.l	Bot. mag. 1504
795 gramínea W.	grass-leaved	Δ	or	1	jn	St	Austria	1597.	R	co	Bot. mag. 681
796 húmilis Bieb.	low	Δ	or	1	ap.my	B	Caucasia	1812.	R	co	Bot. mag. 1123
797 ruthénica Ker.	pigmy	Δ	or	1	my	B	Siberia	1804.	D	co	Bot. mag. 1393
798 tuberósa W.	snake'-head	Δ	or	3	mr.ap	G.B	Levant	1597.	O	s.p	Bot. mag. 531
799 reticuláta Ad.	netted	Δ	or	1	mr.ap	B	Iberia	1821.	R	co	
800 spathuláta	spathulate-flow.	Δ	or	1	jl.au	P.B	Germany	1759.	R	co	Bot. mag. 58
801 caucásica Hoffm.	Caucasian	Δ	or	1	mr	Y	Caucasia	1821.	R	co	
802 furcáta Bieb.	forked	Δ	or	1	mr	B	Tauria	1822.	R	co	Bot. mag. 2361
803 triflóra W.	three-flowered	Δ	or	1	jn.jl	B	Italy	1821.	R	co	
804 brachycáspis B. M.	short-petalled	Δ	or	1	jn.jl	P	Siberia	1819.	R	co	Bot. mag. 2326
805 Pallásii B. M.	Pallas's	Δ	or	2	jn.jl	B	Tartary	1820.	R	co	Bot. mag. 2331
116. MORÉA. Ker.											
806 flexuosa H. K.	flexuose	Δ	or	1	ap.my	Y	C. G. H.	1803.	D	s.p	Bot. mag. 695
807 collina H. K.	equal-flowered	Δ	or	2	my	P	C. G. H.	1768.	D	s.p	Bot. mag. 1033
β <i>miniata</i> B. R.	spot-flowered	Δ	or	2	my.jn	P	C. G. H.	1768.	D	s.p	Bot. rep. 404
808 pavónia H. K.	Pheasant	Δ	or	1	my.jn	R.B	C. G. H.	1790.	D	s.p	Bot. mag. 1247
809 tripétala H. K.	three-petalled	Δ	or	1	ap.my	V	C. G. H.	1802.	D	s.p	Bot. mag. 702
810 angosta B. M.	narrow-leaved	Δ	or	1	my.jn	Fu	C. G. H.	1790.	D	s.p	Bot. mag. 1276
811 tricáspis H. K.	trident-petalled	Δ	or	1	jn	G	C. G. H.	1776.	D	s.p	Bot. mag. 696. 772
812 ténuis H. K.	brown-flowered	Δ	or	1	my.jn	P	C. G. H.	1807.	D	s.p	Bot. mag. 1047
813 unguiculáta H. K.	long-clawed	Δ	or	1	my.jn	Va	C. G. H.	1802.	D	s.p	Bot. mag. 593
814 édulis H. K.	long-leaved	Δ	cul	4	my.jn	Li	C. G. H.	1792.	D	s.p	B. mag. 613. 1238
815 longiflóra H. K.	long-flowered	Δ	or	1	my.jn	Y	C. G. H.	1801.	D	s.p	Bot. mag. 712
816 spicáta B. M.	spiked	Δ	or	1	my.jn	Y	C. G. H.	1785.	D	s.p	Bot. mag. 1283
817 tristis H. K.	dull-colored	Δ	or	1	my.jn	Br	C. G. H.	1768.	D	s.p	Bot. mag. 577
818 crispá H. K.	short-spathed	Δ	or	1	my.jn	B	C. G. H.	1803.	D	s.p	Bot. mag. 1284
819 bituminosa H. K.	clammy	Δ	or	1	ap.my	Y	C. G. H.	1787.	D	s.p	Bot. mag. 1045
820 viscária H. K.	bird-limbed	Δ	or	1	jn	Li	C. G. H.	1800.	D	s.p	Bot. mag. 587
821 ramosa H. K.	branching	Δ	or	3	my.jn	Y	C. G. H.	1789.	D	s.p	Bot. mag. 771
822 villósa H. K.	villous	Δ	or	1	ap.my	P	C. G. H.	1789.	D	s.p	Bot. mag. 571
823 ciliáta H. K.	fringed-leaved	Δ	or	1	ap.jn	P	C. G. H.	1587.	D	s.p	Bot. mag. 1061
β <i>barbigerá</i> Sal.	bearded	Δ	or	1	ap.my	Y	C. G. H.	...	D	s.p	Bot. mag. 1012
824 sisyrinchium H. K.	Spanish-nut	Δ	cul	1	my.jn	B	S. Europe	1597.	D	s.p	Bot. mag. 1407
825 papilionácea H. K.	butterfly	Δ	or	1	my.jn	Va	C. G. H.	1795.	D	s.p	Bot. mag. 750
826 spathácea W.	sheathed	Δ	or	1	jl	Y	C. G. H.	1798.	D	s.p	Thunb. diss. t. 1
827 iridioides H. K.	sword-leaved	Δ	or	1	my.jn	W	C. G. H.	1758.	D	s.p	Bot. mag. 693
828 lúrida B. R.	lurid	Δ	or	1	jn	Cr	C. G. H.	1817.	D	s.p	Bot. reg. 312
117. MA'RICA. Ker.											
829 Northiána H. K.	broad-stemmed	Δ	or	4	ap.au	Y.B	Brazil	1789.	D	s.p	Bot. mag. 654



History, Use, Propagation, Culture,

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

- 779 Stem round flexuose as long as leaves, Petals all emarginate obovate, the inner shortest, Capsules very large
 780 Stem 2-edged many-flowered longer than the leaves
 781 Leaves linear, Scape round, Germens 6-cornered, Stigmas acute, Petals rounded
 782 Leaves linear, Scape about 3-flowered round, Germens hexagonal, Petals ovate longer than their claw
 783 Leaves ensiform, Scape nearly round, Germens hexagonal, Petals erect oblong
 784 Radical leaves very long, Stem higher than the leaves, Germens hexagonal
 785 Stemless, leaves channelled, Three erect petals very small, Tube very long
 786 Leaves channelled subulate, Stem 2-flowered, Petals nearly as narrow as stigmas, Germen round
 787 Leaves channelled subulate, Stem 2-flowered, Petals much wider than stigmas, Germen acutely angular
 788 Leaves channelled, Scape 2-flowered, Inner petals emarginate
 789 Stemless, Leaves filiform very long, Scape very short 2-flowered, Tube of the corolla filiform
 790 Leaves linear subul. channelled longer than the very short 1-flow. scape, Inner petals very short spreading
 791 Leaves flat, Scape 1-flowered shorter than the leaves, Petals nearly equal
 792 A little caulescent, Stem about 2-flowered shorter than the leaves, Spathes ventricose, Germens 3-angular
 793 Stem about 3-flowered fistulous longer than the leaves, Germens 3-angular
 794 Stem solid round as long as the leaves, Leaves very narrow long, Capsules long pointed at each end
 795 Stem about 2-flowered 2-edged shorter than the leaves, Germens hexangular
 796 Leaves linear-ensiform very much longer than the 2-flowered very short scape, Petals acuminate
 797 Leaves linear longer than the 1-flowered scape, Alternate petals smaller
 798 Leaves 4-cornered
 799 Scape 1-flowered shorter than the 4-cornered leaves, Tube filiform, Root bulbous
 800 Outer petals spatulate, Stem branched at the base shorter than the leaves
 801 Leaves lanceolate falcate edged, Stem about 2-flowered
 802 Leaves ensiform shorter than the 3-flowered 2-forked scape, Germen 3-angular 3-cornered
 803 Leaves linear acute length of the 3-fl. scape, Spathes withered with a long point, Flowers close together
 804 Leaves linear-lanceolate very long, Inner petals very short, Stigmas spirally revolute
 805 Leaves ensiform doubled together striated incurved at end, Ovaries very long cylindrical, Stigmas keeled serrated at end
 806 Segments of the flower nearly equal oblong spreading, Filaments united at base
 807 Segments nearly equal obovate very spreading, Filaments united in a cylinder
 808 Segments spotted and dotted at base, The three inner half as short as the others and much narrower erect
 809 Inner segments linear, sometimes absent
 810 Leaf filiform erect with 1-flowered scape smooth, Spathes obtuse
 811 Outer segments very spreading bearded, Inner small 3-toothed at the end: the middle tooth the longest
 812 Outer segm. deflexed bearded, Inner very small 3-toothed at end: the middle tooth longest and involute
 813 Outer segments beardless; Inner very small 3-toothed at the end
 814 Lower leaf longest of all, All the segments of the flower very spreading: the alternate ones small
 815 Tube filiform very long: All the segments reflexed
 816 Beardless, Flower uniform nearly equal, Stigmas petal shaped
 817 Leaves very smooth, Stem branches and peduncles villous
 818 Leaves about the length of the scape, All the segments of the flower spreading; the alternate ones smaller
 819 Lower leaf spirally twisted, Stem smooth, Branches viscid
 820 Leaves straightish, Stem and branches viscid
 821 Stem panicled much branching, Segments nearly equal deflexed
 822 Bearded, Leaves on the inside villous in lines, Stem pubescent, Invol. very smooth, Alternate segments of flower very small 3-toothed
 823 Leaves ciliated, Inner segments erect
 824 Tube filiform very long, Segments alternate erect
 825 Leaves pubescent, all the segments spreading
 826 Leaves slender dependent, Flowers terminal in close heads
 827 Leaves perennial equitant, Segments of flower spreading: alternate ones much the largest
 828 One-flowered a little bearded, Leaves about 3 linear, Stem simple, Outer segments of flowers rounded: inner very narrow entire
 829 Scape winged sword-shaped, Common spathe 2-leaved, partial 2-flowered, Flower stalks simple



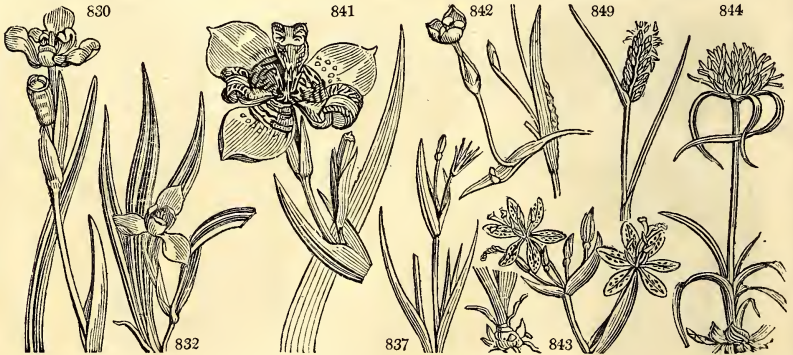
and Miscellaneous Particulars.

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

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

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

830	<i>martiniensis</i> H. K.	Martinico	☽ ☒ or	2	jn	Y	Martinico	1782.	D s.p	Bot. mag. 416
831	<i>gladiata</i> B. Reg.	Cape	☽ ☒ or	2	jn.jl	Y	C. G. H.	1816.	D s.p	Bot. reg. 229
832	<i>paludosa</i> H. K.	marsh	☽ ☒ or	1	jl.au	W	Guiana	1792.	Sk s.p	Bot. mag. 646
833	<i>californica</i> B. M.	yellow	☽ ☒ or	1	mys	Y	California	1796.	Sk s.p	Bot. mag. 983
834	<i>palmitifolia</i> W.	palm-leaved	☽ ☒ or	2	f.mr	W	Brazil	1779.	Sk s.p	Bot. mag. 655
	<i>M. plicata</i> B. M.									
835	<i>striata</i> B. M.	streaked	☽ Δ or	2	ap.s	Y	Mexico	1788.	Sk s.p	Bot. mag. 701
836	<i>inceps</i> W.	two-edged	☽ Δ or	1	jn.jl	B	N. Amer.	1693.	D co	Bot. mag. 464
837	<i>mirantha</i> Cav.	small-flowered	☽ Δ or	1	jn.jl	Y	S. Amer.	1815.	D co	Cv. diss. t. 191. f.2
838	<i>Bermudiána</i> W.	Iris-leaved	☽ Δ or	1	jn.jl	B	Bermudas	1732.	D co	Bot. mag. 94
839	<i>convoluta</i> W.	convolute	☽ Δ or	1	my.jn	Y	S. Amer.	1816.	D co	Red. lil. t. 47
840	<i>tenuifolia</i> Red.	slender-leaved	☽ Δ or	1	my.jn	Y	S. Amer.	1816.	D co	Bot. mag. 2313
841	<i>cærúlea</i> Ker.	blue	☽ Δ or	1	my.jn	B	Brazils	1818.	D co	Bot. reg. 713
842	<i>semi-aperta</i> Lodd.	half-open	☽ Δ or	1	my.jn	Y	Brazils	1820.	D co	Bot. cab. 685
118.	PARDANTHUS.	<i>Ker.</i> PARDANTHUS.					<i>Iridææ.</i> Sp. 1.			
843	<i>chinensis</i> H. K.	Chinese	☽ Δ or	2	jn.jl	O	China	1759.	R p.l	Bot. mag. 171
119.	SCHÆ'NUS. Vahl.	<i>Bog.-RUSH.</i>					<i>Cyperaceæ.</i> Sp. 7-79.			
844	<i>mucronatus</i> W.	clustered	☽ Δ w	1	ap.my	Ap	S. Europe	1781.	D co	Fl. græc. 1. t. 43
845	<i>nigricans</i> W.	black	☽ Δ w	1	jl	Ap	Britain	sp. bo.	D co	Eng. bot. 1121
846	<i>rufus</i> E. B.	brown	☽ Δ w	1	jl	Ap	Scotland	sc. bog.	D co	Eng. bot. 1010
847	<i>monocius</i> E. B.	monocious	☽ Δ w	1	jl.au	Ap	England	bogs.	D co	Eng. bot. 1410
848	<i>ferrugineus</i> Schr.	rusty	☽ Δ w	1	ap.my	Ap	Europe	1781.	D co	Sch. gm. 1. t. 1. f. 4
849	<i>compressus</i> Sm.	compressed	☽ Δ w	1	ap.my	Ap	Britain	bogs.	D co	Eng. bot. 791
850	<i>stellatus</i> W.	star-headed	☽ Δ pr	2	s.d	Ap	W. Indies	1822.	D co	
120.	RHYNCHOSPORA. Va.	RHYNCHOSPORA.					<i>Cyperaceæ.</i> Sp. 3-26.			
851	<i>alba</i> H. K.	white-headed	☽ Δ w	1	au	Ap	Britain	bogs.	D co	Eng. bot. 985
852	<i>fusca</i> H. K.	brown-headed	☽ Δ w	1	au	Ap	Britain	bogs.	D co	Eng. bot. 1575
853	<i>comata</i> Lk.	leafy-headed	☽ Δ cu	1	1/2	Ap	Brazil	1820.	D co	
121.	FIMBRISTYLIS.	<i>Vahl.</i> FIMBRISTYLIS.					<i>Cyperaceæ.</i> Sp. 1-65.			
854	<i>dichotoma</i> V.	dichotomous	☽ ☒ w	1	jn.jl	Ap	E. Indies	1819.	D co	Rotth.gr. t. 13. f. 1
122.	SOLE'PIS. R. Br.	<i>ISOLEPIS.</i>					<i>Cyperaceæ.</i> Sp. 3-46.			
855	<i>fluitans</i> R. Br.	floating	☽ Δ w	fl.	jl.au	Ap	Britain	dit.	D co	Eng. bot. 216
856	<i>setacea</i> R. Br.	bristle-like	☽ ○ w	1	1/4 jl.au	Ap	Britain	bogs.	S co	Eng. bot. 1693
857	<i>Holoschœ'nus</i> Sm.	cluster-headed	☽ Δ w	3	jl	Ap	England	sea sh.	Sk co	Eng. bot. 1612
	<i>β românis</i> L.	<i>Roman</i>	☽ Δ w	3	jl	Ap	Austria	...	Sk co	Jacq. aust. 5. 448
	<i>γ australis</i> W.	<i>southern</i>	☽ Δ w	3	jl	Ap	S. Europe	...	Sk co	Plk. ph. t. 40. f. 5
123.	SCIR'PUS. R. Br.	<i>CLUB-RUSH.</i>					<i>Cyperaceæ.</i> Sp. 11-96.			
858	<i>multicaulis</i> E. B.	many-stalked	☽ Δ w	1	1/2 jl	Ap	Britain	tur. bo.	Sk co	Eng. bot. 1187
859	<i>cæpitosus</i> W.	scaly-stalked	☽ Δ w	1	1/2 jl	Ap	Britain	tur. he.	Sk co	Eng. bot. 1029
860	<i>pauciflorus</i> E. B.	chocolate-head.	☽ Δ w	1	1/4 au	Ap	Britain	bgs. m.	Sk co	Eng. bot. 1122
861	<i>lacustris</i> W.	tall	☽ Δ ec	6	jl.au	Ap	Britain	rivers.	Sk co	Eng. bot. 666
862	<i>glauces</i> E. B.	glaucous	☽ Δ w	2	jl.au	Ap	England	sal. m.	Sk co	Eng. bot. 2321
863	<i>triqueter</i> W.	triangular	☽ Δ w	3	au	Ap	England	mar.	Sk co	Eng. bot. 1634
864	<i>mucronatus</i> W.	sharp-pointed	☽ Δ w	2	au	Ap	Eur. Asia		Sk co	
865	<i>carinatus</i> E. B.	blunt-edged	☽ Δ w	3	jl.au	Ap	England	riv. ba.	Sk co	Eng. bot. 1983
866	<i>maritimus</i> W.	salt-marsh	☽ Δ w	2	jls	Ap	Britain	sal. m.	Sk co	Eng. bot. 542
867	<i>Lúzula</i> W.	clustered	☽ Δ w	1	1/2 jls	Ap	E. Indies	1776.	Sk co	P. m. 27. t. 417. f. 3
868	<i>sylvaticus</i> W.	wood	☽ Δ w	1	1/2 jls	Ap	Britain	m. s. p.	Sk co	Eng. bot. 919
124.	ELEO'CHARIS.	<i>R. Br.</i> SPIKE-RUSH.					<i>Cyperaceæ.</i> Sp. 3-94.			
869	<i>palustris</i> R. Br.	marsh	☽ w	1	1/4 jl	Ap	Britain	mar.	Sk co	Eng. bot. 131
870	<i>acicularis</i> R. Br.	needle	☽ Δ w	1	1/2 jl	Ap	Britain	mar.	Sk co	Eng. bot. 749
871	<i>ovata</i> W.	ovate	☽ w	1	1/2 jn.jl	Ap	Germany	1818.	Sk co	



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

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

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

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

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

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

- 830 Beardless, leaves linear, Petals with glandular spots, Ovaries 3-cornered
 831 Flower-stalks lateral nearly equal to the one-leaved involucrem
 832 Leaves linear-lanceolate, Scape round shorter than the plaited leaves
 833 Leaves linear-ensate flat, Scape simple leaf-like winged, Flowers opened out, Fil. united at base
 834 Scape 2-edged, Flowers in spikes, Leaves sword-shaped nerved-plaited
- 835 Scape 2-edged leafy, Flowers in spikes, Petals roundish ovate acute, Leaves linear sword-shaped
 836 Scape 2-edged simple nearly leafless, Spathe about 4-flowered unequal longer than the flowers, Pet. muc.
 837 Scape 2-edged branchy leafy, Spathe about 3-flow. unequal, Pet. linear acuminate, Leaves grassy channelled
 838 Scape 2-edged branched leafy, Spathe about 4-flow. shorter than the flowers, Pet. muc. Leaves sword-shaped
 839 Scape 2-edged branched leafy, Spathe 3-flowered shorter than the flower, Leaves sword-shaped
 840 Scape 2-edged ascending leafy, Spathe 3-flowered, Caps. hairy, Leaves capillary
 841 Stigmas united petal shaped, Scape many-flowered erect, Spathe not viviparous
 842 Leaves linear-lanc. nerved a little wavy at back, Fl.-stalks nearly as long as spathe, Flowers campanul.
- 843 Flowers spotted with orange
- 844 Culm round naked, Spikelets bundled in a roundish head, Involucr. 3, 6-leaved very long reflexed
 845 Culm naked round, Spikelets in headed bundles, Invol. 2-leaved longer than the valves, Setæ none
 846 Culm round leafy, Leaves channelled, Spike compound 2-ranked longer than the bractea
 847 Culm round naked, Spike compound, Flower monœcious, Leaves channelled rough
 848 Culm round, Spikelets 2-3, Outer valve of involucrem as long as spikelets, Setæ several
 849 Spike distichous, Spikelets many-flowered, Involucre 1-leaved, Culm roundish
 850 Involucres very long white. (*Dichromena, Vahl.*)
- 851 Culm leafy 3-angular, Leaves linear keeled, Root creeping
 852 Culm 3-angular, Leaves bristly channelled, Root creeping
 853 Leaves flat glaucous with hairy sheaths, Invol. longer than the contracted panicle, Spikelets oblong, Scales oblong carinate mucronate
- 854 Spikes ovate oblong, Involucre about 3-leaved decompound longer than the umbel
- 855 Culms branched leafy flaccid, Spikelets few-flowered, Floating
 856 Culm bristle-shaped, Spikelets lateral sessile
 857 Culm round naked, Heads terminal globose clustered, Leaves channelled
- 858 Stem round sheathing at the base, Spike ovate terminal, Glumes obtuse equal, Root fibrous
 859 Stigmas 3, Spike enclosed in a 2-leaved involucrem, Lower glumes very large as big as the spike, Culm round, Sheaths bearded
- 860 Glumes unequal obt. ovate, one larger but shorter than the 2-valved spike, Culm round, Sheaths not bearded
 861 Culm round, Inner sheaths ending in a short leaf, Cyme terminal decompound with 2-4-leaved involucrem
 Spikelets ovate smooth
- 862 Top of the 3-angular stem straight, Upper sheaths leafy, Panic. lateral under the end, Spikel. sess. & stalked
 863 Culm straight naked pointed, Lateral spikes sessile or stalked, Stigma bifid
 864 Top of the 3-cornered culm bent down at end, Sheaths leafless, Spikel. lateral sess. clustered naked, Stigmas 3
 865 Culm naked, upwards 3-cornered, Panicle cymose terminal, Bract. pungent, Stigma bifid
 866 Panicle globose terminal, Glumes mucronate torn bifid
 867 Spikes roundish headed, Heads umbelled globose proliferous, Invol. many-leaved, Culm 3-angular
 868 Culm 3-cornered leafy, Cyme term. supra-decompound surrounded with a many-leaved invol. Gl. mucronate
- 869 Spike oval naked, Scales lanceol. acute, Culms roundish, Sheaths leafless beardless lanceol. acute, Stigmas 2
 870 Spike ovate naked, Two lower scales scarcely larger than the rest, Culms 4-cornered setaceous
 871 Spike ovate naked, Scales oblong obtuse, Stigmas 2, Culms sub-compressed, Sheaths leafless, Root fibrous



and Miscellaneous Particulars.

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

124. *Eleocharis*. A name not explained by Mr. Brown, its author, the meaning of which is not obvious.

125. ERIOPHORUM. P. S.	COTTON-GRASS.				<i>Cyperaceæ.</i>	<i>Sp. 6—7.</i>			
872 vaginatum W.	Hare's-tail	III Δ pr	1/2	mr.ap	Ap	Britain	moors.	D co	Eng. bot. 873
873 polystachion W.	broad-leaved	III Δ pr	1	jn.jl	Ap	Britain	bogs.	D co	Eng. bot. 563
874 angustifolium W.	narrow-leaved	III Δ pr	1/2	ap	Ap	Britain	bogs.	D co	Eng. bot. 564
875 virginicum W.	Virginian	III Δ pr	1	my.au	Ap	N. Amer.	1802.	D co	Pk. alm. t. 299. f. 4
876 gracile P. S.	slender	III Δ pr	1	jl.au	Ap	Scotland	sc. mo.	D co	Eng. bot. 2402
877 capitatum E. B.	round-headed	III Δ pr	1/2	aus.ap	Ap	Scotland	sc. mo.	D co	Eng. bot. 2387
126. TRICHOPHORUM. P. S.	TRICHOPHORUM.				<i>Cyperaceæ.</i>	<i>Sp. 2.</i>			
878 cyperinum P. S.	cyperine	III Δ cu	6	my.s	Ap	N. Amer.	1802.	D co	Plk. mt. t. 419. f. 3
879 alpinum P. S.	Alpine	III Δ cu	1/2	jl	Ap	Scotland	bogs.	D co	Eng. bot. 311
127. CYPERUS. W.	CYPERUS.				<i>Cyperaceæ.</i>	<i>Sp. 22—250.</i>			
880 dubius W.	bulbous-rooted	III ✕ cu	1/2	jl	Ap	E. Indies	1802.	S co	Rot. gr. 20. t. 4. f. 5
881 tenellus Vahl.	slender	III ○ cu	1	my.jn	Ap	C. G. H.	1819.	S co	Pk.al. t. 300. f. 4. 5
882 conglomeratus Rotb.	many-flowered	III Δ cu	1	my.s	Ap	Arabia	1820.	D co	
883 pannonicus W.	dwarf	III ○ cu	1	jl.au	Ap	Hungary	1781.	Sk co	Host. gr. 3. t. 20
884 Lúzula W.	compact-flower.	III Δ cu	2	my.s	Ap	W. Indies	...	Sk co	Rott. gr. t. 13. f. 3
885 distans Vahl.	distant	III Δ cu	2	jl.au	Ap	W. Indies	1820.	D co	Jacq. ic. t. 299
886 viscosus W.	clammy	III Δ cu	2	my.au	Ap	Jamaica	1781.	Sk co	Jac. ic. 2. t. 295
887 fastigiatus W.	lofty	III Δ cu	1	my.au	Ap	E. Indies	1800.	Sk co	Rt. gm. 32. t. 7. f. 2
888 erubescens Lk.	pink	III Δ cu	1	my.jn	Ap	.....	1820.	D co	
889 paniculatus Vahl.	panicked	III Δ cu	1	my.jl	Ap	E. Indies	1804.	D co	
890 glomeratus W. en.	round-headed	III ○ cu	2	my.au	Ap	Italy	1804.	S co	
891 elegans W.	elegant	III ○ cu	1 1/2	my.s	Ap	Jamaica	1801.	S co	Slo. ja. 1. t. 75. f. 1
892 flavescens W.	yellow	III ○ cu	1	jn.s	Ap	Germany	1776.	S co	Host. gra. 3. t. 72
893 fuscus W.	brown	III ○ cu	1 1/2	jl.s	Ap	Europe	1777.	S co	Host. gra. 3. t. 73
894 strigosus W.	bristle-spiked	III Δ cu	1 1/2	jl.s	Ap	W. Indies	1786.	Sk co	Rt. g. 40. t. 11. f. 3
895 vegetus W.	smooth	III Δ cu	1 1/2	my.s	Ap	America	1790.	Sk co	Jac. vind. 3. t. 12
896 esculentus W.	Rush-nut	III ✕ cul	1	jl	Ap	S. Europe	1597.	Sk co	Host. grm. 3. t. 75
897 longus W.	sweet	III Δ cu	3	jl	Ap	England	mar.	Sk co	Eng. bot. 1309
898 Yria W.	tall	III Δ cu	1 1/2	jl	Ap	E. Indies	1802.	Sk co	Rheede. 12. t. 56
899 alopecuroides P. S.	fox-tail	III Δ cu	2	my.au	Ap	C. G. H.	1804.	Sk co	Rott. g. 38. t. 8. f. 2
900 badius P. S.	brown	III Δ cu	2 1/2	jl	Ap	Algiers	1800.	Sk co	Desf. at. 1. t. 7. f. 2
901 alternifolius W.	alternate-leaf'd	III Δ cu	2	f.mr	Ap	Madagasc.	1781.	Sk co	Jac. ic. 2. t. 298
128. PAPHYRUS Lk.	PAPHYRUS.				<i>Cyperaceæ.</i>	<i>Sp. 1—3.</i>			
902 antiquorum Lk.	ancient	III ✕ or	10	jl.s	Ap	Egypt	1803.	D co	Mic. gen. 44. t. 19
129. KYLLINGA W.	KYLLINGA.				<i>Cyperaceæ.</i>	<i>Sp. 4—12.</i>			
903 monocéphala W.	one-headed	III Δ w	1/2	jn.jl	Ap	India	1793.	Sk co	Rott. gr. t. 4. f. 4
904 polycéphala Lk.	many-headed	III Δ w	1	jl.au	Ap	Brazil	1820.	D co	
905 uncinata Lk.	hooked	III Δ w	1/2	jl.au	Ap	Brazil	1820.	D co	
906 triceps W.	three-headed	III Δ w	1/2	s.n	Ap	India	1776.	Sk co	Rott. gr. t. 4. f. 6
130. MARISCUS Vahl.	MARISCUS.				<i>Cyperaceæ.</i>	<i>Sp. 4—58.</i>			
907 umbellatus W. en.	umbelled	III Δ cu	1 1/2	jn.au	Ap	E. Indies	1789.	Sk co	Rott. gr. t. 4. f. 2
908 elatus W. en.	tall	III Δ cu	3	jn.au	Ap	E. Indies	1805.	Sk co	Jac. ic. 2. t. 300
909 confexus Lk.	contracted	III Δ cu	1 1/2	jl	Ap	Brazil	1819.	D co	
910 aggregatus W.	aggregated	III Δ cu	1	jn.jl	Ap	.....	1822.	D co	
131. REMIREA Aub.	REMIREA.				<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
911 maritima Aub.	sea	III Δ cu	1/2	jl.au	Ap	Florida	1822.	D co	Aub. gui. t. 16



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

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

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

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

- 872 Spike solitary, Culm very smooth, Sheaths inflated
 873 Spikes several, Culms 3-cornered, Leaves broadish keeled
 874 Spikes several, Culms 3-cornered, Leaves very narrow setaceous
 875 Spikes several, Culms round leafy, Spikes sessile clustered shorter than the involucrem
 876 Spikes several, Culms 3-cornered, Leaves nearly filiform 3-cornered, Peduncles rough, Flowers erect
 877 Spike solitary, Culms round spongy soft, Sheaths not inflated

- 878 Umbel compound, Culm branched
 879 Spike solitary, Culms simple 3-cornered roughish

- 880 Head globose, Spikelets oblong convex about 8-flowered, Involucr. 4-leaved, Leaves channelled lax
 881 Spikelets solitary and in pairs sessile, Involucr. 1-leaved, Culm setaceous
 882 Spikelets ovate much clustered, Culm rather 3-cornered, Leaves channelled
 883 Stem 3-cornered leafless ascending or decumbent, Spikelets about 5 oblong ovate very shortly stalked
 884 Heads simple and clustered ovate, Spikelets oblong, Involucr. very long
 885 Spikes distichous, Spikelets spreading filiform, Florets distant, Umbel upright
 886 Spikelets aggregate ovate rather squarrose in heads, Involucr. longer than umbel, Lvs. and involucr. rough
 887 Umbels many rayed compound, Spikes elongate, Spikelets linear-lanceolate, Involucr. 4-leaved long
 888 Lvs. linear shorter than the 3-cornered culm, Invol. 3-leaved, outer leaf very long, Spikel. lanc. Scales obtuse
 889 Spikelets linear-lanceolate, Umbels corymbose fasciated, Involucr. about 6-leaved
 890 Culm 3-cornered naked, Umbel 3-leaved supra-decompound, Spikes clustered rounded, Spikelets subulate
 891 Spikelets about 3 linear, Valves obovate mucronate distinct spreading, Umbel loose
 892 Spikelets linear-lanc. alternate clustered, Glumes obtuse, Involucr. 3-leaved longer than the trifold umbel
 893 Spikelets linear-lanc. alternate very close, Valves acute, Invol. about 3 or 5-leaved very long, Umbel 3-5-fid.
 894 Spikes oblong loose, Spikelets subulate alternate capitate, Invol. very long spreading, Rays of umbel altern.
 895 Spikelets lanceolate roundish headed compact, Valves ovate 1-nerved, Involucr. longer than the umbel
 896 Spikelets lin.-lanc. distant acute, Rays of the umbel about 7 terminal shorter than the 3-5-leaved involucrem
 897 Spikes corymb. Spikel. lin.-lanc. flattened, Invol. and rays of umbel very long corymbose with leafy stem
 898 Spikes corymbose, Spikelets linear, Valves remote obtuse obovate spreading in fruit, Umbels loose
 899 Spikes nearly sessile imbricated round, Spikelets ovate oblong spreading
 900 Spikelets in corymbose fascicles, Spikelets linear-lanceolate dense, Invol. 3-leaved, Leaves very rough
 901 Umb. 6-7-rayed compound, Heads many-spiked, Spikel. lin. many-flowered, Invol. 3-leaved reflexed rough

- 902 Stem tall terminated by a reflexed involucrem of many very long narrow leaves

- 903 Head globose sessile solitary, Involucr. very long
 904 Umbel rather contracted, Invol. very long, Spikelets clustered, Valves ovate carinate acute
 905 Head 1 or 3 sessile round, Invol. many leaved long, Valves carinate hooked
 906 Heads about 3 sessile clustered, Spikelets very dense rather imbricated

- 907 Umbel compound, Spikes cylindrical imbricated backwards, Involucres many-leaved
 908 Umbel compound, Spike cylindrical, Spikelets very spreading, Bractes longer than the spikelets
 909 Leaves shorter than the 3-cornered culm rough at edge, Umb. contracted, Invol. many-leaved, Spikel. sub-reflexed, Scales keeled striated
 910 Spikes cylindrical sessile, Spikelets oblong, Bract setaceous longer than spikelets, Invol. many-leaved

- 911 Common peduncle shorter than the spikes



and Miscellaneous Particulars.

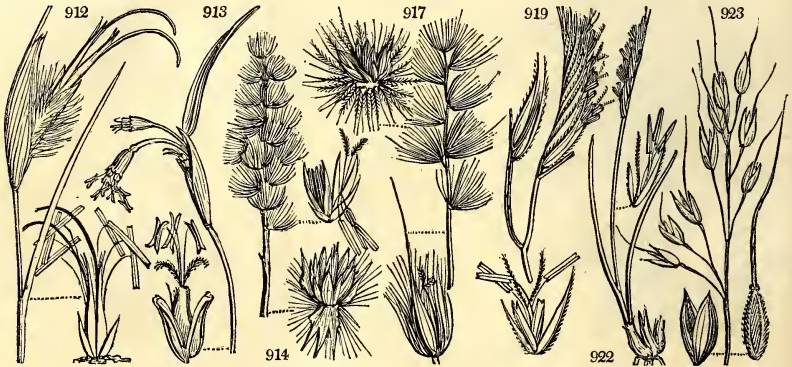
of a brown color. The ancients made their paper from the pellicle found between the flesh and bark of the thick part of the stalk; ribbons of which were united till they formed the size required, and then pressed and dried in the sun. The top of the stalk, with the umbel of flowers, adorned the temples,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

129. *Kyllinga*. In memory of P. Kylling, a Danish botanist, who died in 1696.
 130. *Mariscus*. A word derived from the Celtic *mar*, a marsh, in allusion to the situations in which it is found.
 131. *Remirea*. The Guiana name of the plant.

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

DIGYNIA.

139. <i>PASPALUM</i> <i>W.</i>	PASPALUM.										
924 <i>scrobiculatum</i> <i>W.</i>		punctured	♣ [] cu	1½	jl.s	Ap	E. Indies	1778.	S	co	H. n. h. 13. t. 89. f. 3
925 <i>paniculatum</i> <i>W.</i>		panicled	♣ [] cu	3	jl.s	Ap	Jamaica	1782.	S	co	Sl. hist. 1. t. 72. f. 2
926 <i>stoloniferum</i> <i>W.</i>		purple	♣ [] cu	2	jl.s	Ap	Peru	1794.	S	co	Jacq. ic. 2. t. 302
927 <i>distichum</i> <i>W.</i>		two-spiked	♣ [] cu	1½	jl	Ap	Jamaica	1776.	S	co	Sw. obs. 35. t. f. 1
928 <i>serotinum</i> <i>Fl.</i>		decumbent	♣ ○ cu	1½	jl.au	Ap	N. Amer.	1804.	S	co	
140. <i>AXONOPUS</i> <i>P. de B.</i>	AXONOPUS.										
929 <i>cimicinus</i> <i>P. de B.</i>		spotted	♣ ○ cu	1	jl.s	Ap	India	1788.	S	co	
141. <i>MILTIUM</i> <i>W.</i>	MILLET-GRASS.										
930 <i>effusum</i> <i>W.</i>		common	♣ △ w	3	jn.jl	Ap	Britain	m. s. p.	S	m.s	Eng. bot. 1106
931 <i>paradoxum</i> <i>W.</i>		black-seeded	♣ ○ cu	3	jn.jl	Ap	France	1771.	S	co	Host. gr. 3. t. 23
932 <i>multiflorum</i> <i>W. en.</i>		many-flowered	♣ △ cu	1½	jn.jl	Ap	S. Europe	1778.	S	co	Host. gr. 3. t. 45
933 <i>carulæscens</i> <i>Desf.</i>		blueish	♣ △ cu	1½	jn.jl	Ap	Barbary	1819.	S	co	Desf. atl. 1. t. 12
934 <i>frutæscens</i> <i>Lk.</i>		shrubby	♣ △ cu	1	...	Ap	Crimea	1822.	S	co	
142. <i>KNAPPÏA</i> <i>E. E.</i>	KNAPPÏA.	small	♣ ○ cu	½	mr.ap	Ap	Wales	san. pl.	S	s	Eng. bot. 1127
935 <i>agrostidea</i> <i>E. B.</i>											
143. <i>DIGITARIA</i> <i>P. S.</i>	FINGER-GRASS.										
936 <i>sanguinalis</i> <i>P. S.</i>		slender-spiked	♣ ○ ag	2	au	Ap	Britain	fields.	S	co	Eng. bot. 849
937 <i>villôsa</i> <i>P. S.</i>		villous	♣ ○ w	1½	jl.s	Ap	N. Amer.	1781.	S	co	
938 <i>ægyptiaca</i> <i>W. en.</i>		Egyptian	♣ ○ w	1½	jl	Ap	Egypt	1794.	S	cr	Jac. obs. 3. t. 70
939 <i>ciliaris</i> <i>P. S.</i>		ciliated	♣ ○ w	1½	jl.au	Ap	China	1804.	S	co	Host. gr. 4. t. 15
940 <i>marginâta</i> <i>Lk.</i>		divaricate	♣ ○ w	½	jl	Ap	Brazil	1822.	S	co	
144. <i>PANICUM</i> <i>B. P.</i>	PANIC-GRASS.										
941 <i>colônium</i> <i>W.</i>		purple	♣ ○ ag	½	jl.au	Ap	E. Indies	1699.	S	co	Ehr. pic. t. 3. f. 3
942 <i>brizoides</i> <i>W.</i>		Briza-like	♣ [] cu	1	jn.jl	Ap	E. Indies	1801.	S	co	Pl. alm. t. 191. f. 1
943 <i>fasciculatum</i> <i>W.</i>		fascicled	♣ ○ cu	2	jn.jl	Ap	Jamaica	1801.	S	co	
944 <i>proliferum</i> <i>Lam.</i>		proliferous	♣ △ cu	¾	jn.au	Ap	N. Amer.	1820.	S	co	



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

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

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

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

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

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

912 The only species

913 The only species

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

915 Spikelets approximated, Involucres 10-parted villous

916 Spike with alternate spikelets, Involucres entire spiny

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

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

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

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

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

922 Spike bristly straight one-sided

923 The only species

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

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

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

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

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

929 Panicles umbelled, Racemes about 4, One glume fringed

930 Panicles diffuse, Florets beardless ovate dispersed

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

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

933 Flowers panicled bearded, Beard shorter than glume

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

935 The only species. The least of grasses

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

937 Sheaths many setaceous, Leaves and sheaths very hairy

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

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

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

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

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

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

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



and Miscellaneous Particulars.

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

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

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

140. *Axonopus*. From $\acute{\alpha}\xi\omega\nu$, axis, and $\pi\omega\varsigma$, a foot, because the chief difference between this genus and *Paspalum* consists in the spikes being separately placed, as it were, upon little stalks or feet.

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

142. *Knappia*. Named after Mr. Knapp, an author of an illustrated work upon British grasses, not much esteemed. A minute plant, resembling an agrostis.

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

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

945 hispidulum <i>W.</i>	hispid	♂	○	w	2	jl.au	Ap	E Indies	1804.	S	co	
946 coloratum <i>W.</i>	coloured	♂	○	w	2	jls	Ap	Egypt	1771.	S	co	Jac. ic. 1. t. 58
947 repens <i>W.</i>	slender	♂	○	w	1	jls	Ap	S. Europe	1777.	S	co	Fl. græc. 1. t. 61
948 miliaceum <i>W.</i>	millet	♂	○	ag	1½	jls	Ap	E. Indies	1596.	S	co	Host. gr. 2. t. 20
949 muricatum <i>W.</i>	prickly	♂	○	cu	1½	jls	Ap	E. Indies	1805.	S	co	
950 capillare <i>W.</i>	hair-panicked	♂	○	w	2	jn.au	Ap	America	1758.	S	co	Host. gr. 4. t. 16
951 latifolium <i>W.</i>	broad-leaved	♂	△	w	5	au.s	Ap	N. Amer.	1765.	S	co	Mor. h. 3. t. 5. f. 4
952 clandestinum <i>W.</i>	hidden-flower'd	♂	△	w	1½	jl	Ap	N. Amer.	1802.	S	co	
953 arborescens <i>W.</i>	tree	♂	△	w	50	mr.ap	Ap	E. Indies	1776.	S	co	
954 virgatum <i>W.</i>	long-panicked	♂	△	w	1	au.s	Ap	N. Amer.	1781.	S	co	
955 patens <i>P. S.</i>	spreading	♂	○	w	1	jl.au	Ap	India	1804.	S	co	
956 brevifolium <i>W.</i>	short-leaved	♂	○	w	1½	jl.au	Ap	E. Indies	1800.	S	co	Pl. al. 176. t. 189
957 divaricatum <i>W.</i>	straddling	♂	△	w	5	jl.au	Ap	Jamaica	1800.	S	co	Jac. schen. 1. t. 25
958 palmifolium <i>W.</i>	Palm-leaved	♂	△	w	6	jl.au	Ap	E. Indies	1804.	S	co	
145. SETA'RIA. <i>P. de B.</i>	SETARIA.							Gramineæ.	Sp. 11—24.			
959 verticillata <i>P. de B.</i>	rough	♂	○	w	1½	jl.au	Ap	England moi. fi.	S	co		Eng. bot. 874
960 glauca <i>P. de B.</i>	glaucous	♂	○	w	1½	jl.au	Ap	S. Europe	1771.	S	co	Host. gr. 2. t. 16
961 viridis <i>P. de B.</i>	green	♂	○	w	1½	jl.au	Ap	England san. fi.	S	co		Eng. bot. 875
962 italica <i>P. de B.</i>	Italian	♂	○	ec	1½	jl.au	Ap	India	1816.	S	co	Rump. 5. t. 76. f. 2
963 setosa <i>P. de B.</i>	setose	♂	○	w	2½	jl.au	Ap	W. Indies	1804.	S	co	
964 sericea <i>P. de B.</i>	silky	♂	○	w	1½	my.s	Ap	W. Indies	1780.	S	co	
965 germanica <i>P. de B.</i>	German	♂	○	ag	1½	jl	Ap	S. Europe	1548.	S	co	Host. gr. 2. t. 15
966 geniculata <i>Horn.</i>	knee-jointed	♂	○	w	1½	jl.au	Ap	.....	1805.	S	co	
967 pumila <i>Lk.</i>	dwarf	♂	○	w	1	jl.au	Ap	.....	1819.	S	co	
968 macrochaeta <i>Lk.</i>	long-spiked	♂	○	w	2	jl.au	Ap	.....	1819.	S	co	
969 aspera <i>Lk.</i>	rough	♂	△	w	2	jl.au	Ap	C. G. H.	1820.	S	co	
146. ECHINOCHLOA. <i>P. de B.</i>	PRICKLY-GRASS.							Gramineæ.	Sp. 3—15.			
970 stagnina <i>P. de B.</i>	pond	♂	○	w	3	jl.au	Ap	E. Indies	1802.	S	co	Host. gr. 3. t. 51
971 crus corvi <i>P. de B.</i>	crow's-foot	♂	○	w	1	jl.au	Ap	E. Indies	1781.	S	co	
972 crus galli <i>P. de B.</i>	loose	♂	○	w	1½	jl.au	Ap	Britain	moi. fi.	S	co	Eng. bot. 876
	<i>Panicum</i> E. B.											
147. ORTHOPOGON. <i>E. P.</i>	ORTHOPOGON.							Gramineæ.	Sp. 2—3.			
973 hirtellus <i>B. P.</i>	hairy	♂	○	ag	1	jn.jl	Ap	W. Indies	1795.	S	co	
974 undulatifolius <i>R. & S.</i>	wavy-leaved	♂	○	w	1	jn.jl	Ap	S. Europe	1795.	S	co	Host. gr. 3. t. 52
148. PENICILLARIA. <i>P. de B.</i>	PENICILLARIA.							Gramineæ.	Sp. 2.			
975 ciliata <i>W.</i>	fox-tail	♂	○	w	2	jls	Ap	Jamaica	1748.	S	co	Pl. al. t. 92. f. 5
976 spicata <i>W.</i>	Bull-rush	♂	○	w	2	jn.jl	Ap	India	1592.	S	co	Pl. al. t. 32. f. 4
149. LAPPA'GO. <i>W.</i>	LAPPA'GO.							Gramineæ.	Sp. 1.			
977 racemosa <i>W.</i>	branching	♂	○	cu	1½	jl.au	Ap	S. Europe	1771.	S	co	Host. gr. 1. t. 36
150. STY'PA. <i>W.</i>	FEATHER-GRASS.							Gramineæ.	Sp. 6—37.			
978 pennata <i>W.</i>	common	♂	○	or	2	jl.au	Ap	Britain	al. roc.	D	s1	Eng. bot. 1356
979 humilis <i>Cav.</i>	low	♂	○	cu	½	jl.au	Ap	S. Amer.	1802.	S	co	C. ic. 5. t. 466. f. 1
980 juncea <i>W.</i>	rush-leaved	♂	○	cu	3	jl	Ap	France	1772.	D	co	Fl. græc. 1. t. 85
981 sibirica <i>P. S.</i>	Siberian	♂	△	cu	3.	jl.au	Ap	Siberia	1777.	D	co	Gmel. sib. 1. t. 22
982 capillata <i>W.</i>	capillary	♂	△	cu	2	jl.au	Ap	Europe	1815.	D	co	Host. gr. 3. t. 5
983 tenacissima <i>W.</i>	tough	♂	△	cu	2½	jl.au	Ap	Spain	1817.	D	co	Desf. atl. 1. t. 30
151. MUHLENBERGIA. <i>Schr.</i>	MUHLENBERGIA.							Gramineæ.	Sp. 1.			
984 diffusa <i>Schr.</i>	spreading	♂	△	w	½	my.jn	Ap	N. Amer.	1816.	S	co	Schr. gram. t. 51
152. CHETURUS. <i>Lk.</i>	CHETURUS.							Gramineæ.	Sp. 1—2.			
985 fasciculatus <i>Lk.</i>	bundled	♂	○	w	½	jls	Ap	Spain	1816.	S	co	
153. LAGURUS. <i>W.</i>	HARE'S-TAIL-GRASS.							Gramineæ.	Sp. 1.			
986 ovatus <i>W.</i>	oval-spiked	♂	○	cu	1	jn	Ap	Guernsey bor. fi.	S	co		Eng. bot. 1334



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

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

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

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

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

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

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

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

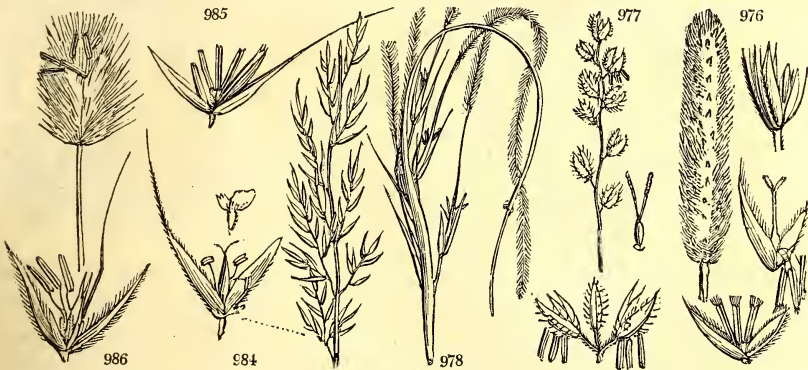
977 The only species

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

984 Panicles branched compressed, Leaves linear smooth, Stem diffuse

985 The only species. A plant looking like a Polypogon

986 The only species



and Miscellaneous Particulars.

147. *Orthopogon*. Ορθος, straight, and πωγων, a beard, because the beards of the flower are straight, and not jointed. This plant is cultivated in the low and marshy lands of Jamaica as fodder.
 148. *Penicillaria*. From *penicillus*, a pencil, in allusion to the soft hairy appearance of the spikes.
 149. *Lappago*. The flowers are rough, with little prickles like Lappa or Burdock.
 150. *Stipa*. From στυπη, silky or feathery material. *S. pennata* has beautifully feathered beards which distinguish it from all other grasses. Gerarde says, they were worn in his time by "sundry ladies instead of feathers." *S. tenacissima* is used in Spain for the same purposes as *Lygeum spartum*, and like it, is called Esparto. It is supposed by some to be the plant so called by the ancients.
 151. *Muhlenbergia*. Named in honor of Dr. Muhlenberg, an eminent North American botanist. A North American genus of grasses.
 152. *Chaeturus*. From χαιτα, a head of hair, and ουρα, a tail. So named by Link, from the silky appearance of the panicles.
 153. *Lagurus*; λαγος, a hare, and ουρα, a tail; hare's-tail, which its heads resemble.

154. POLYPOGON. <i>W. en.</i> POLYPOGON.	<i>Gramineæ.</i>	Sp. 1—8.						
987 monspeliensis Desf. panic-grass-like	▲ w	1 jl.au	Ap	Britain	ways. S	co	Eng. bot.	1704
155. GASTRIDIVM. <i>P. de B.</i> GASTRIDIVM.	<i>Gramineæ.</i>	Sp. 2.						
988 lenticerum yellow	○ ag	½ jl.au	Ap	Britain	san. fi. S	co	Eng. bot.	1107
<i>Milium</i> E. B.								
989 müticum Spr. beardless	○ w	lin jl.au	Ap	Siçily	1819.	S	co	
156. AGROS'TIS. <i>W.</i> BENT-GRASS.	<i>Gramineæ.</i>	Sp. 10—110.						
990 Spica-vénti <i>W.</i> silky	○ w	4 jn.jl	Ap	England	san. fi. S	s.1	Eng. bot.	951
991 retrofrácta <i>W. en.</i> broad-leaved	▲ w	2 jl.au	Ap	N. Holl.	1806.	S	s.1	
992 littorális <i>E. B.</i> sea-side	▲ w	1 au	Ap	England	sal. m. S	l	Eng. bot.	1261
993 vulgáris <i>E. B.</i> fine	▲ w	1½ jl.au	Ap	Britain	me. pa. S	l	Eng. bot.	1671
994 hispida <i>W.</i> hispid	▲ w	1 jl.au	Ap	Europe	1805.	S	co	Lers. hrb. t. 4. f. 3
995 stolonifera <i>W.</i> Fiorin	▲ ag	1 jl	Ap	Britain	moi. m. C	h.1	Eng. bot.	1532
996 álba <i>W.</i> marsh	▲ w	1½ jl	Ap	Britain	mar. S	m.s	Eng. bot.	1189
997 verticilláta <i>W.</i> whorl-flowered	▲ w	1 jn.jl	Ap	S. Europe	1800.	S	co	
998 sylvática <i>L.</i> wood	▲ w	½ jn.jl	Ap	Britain	woods S	m.s	Lers. hrb. t. 4. f. 3	
999 calamagrostis <i>W.</i> reedy	▲ w	2 jl	Ap	Britain	dit. S	co		
157. TRICHODIVM. <i>Mi.</i> TRICHODIVM.	<i>Gramineæ.</i>	Sp. 5—16.						
1000 decumbens <i>Mi.</i> decumbent	▲ ag	2 jn.jl	Ap	N. Amer.	1786	S	co	Fras. mo. cu. ic.
1001 caninum <i>W. en.</i> brown	▲ w	1½ jl.au	Ap	Britain	pas. S	co	Eng. bot.	1856
1002 rupéstre <i>Schr.</i> rock	▲ w	1 jl	Ap	S. Europe	1815	S	co	Schr. ger. i. t. 3. f. 5
1003 setáceum <i>R. & S.</i> bristly	▲ w	1 jl.au	Ap	Britain	dr. he. S	co	Eng. bot.	1188
1004 laxiflórum <i>Mich.</i> loose-flowered	○ w	2 jl.au	Ap	N. Amer.	1818.	S	co	Mich. am. i. t. 8
158. TRISTEGIS. <i>Nees.</i> TRISTEGIS.	<i>Gramineæ.</i>	Sp. 1.						
1005 glutinósa <i>Nees</i> clammy	▲ cu	½ jn.jl	Ap	.....	1822.	S	co	Hor. ber. t. 7
159. SPOROBOLUS. <i>B. P.</i> SPOROBOLUS.	<i>Gramineæ.</i>	Sp. 2—10.						
1006 índicus <i>B. P.</i> Indian	○ cu	2 au.o	Ap	India	1773.	S	co	Slo. jam. i. t. 73. f. 1
1007 tenacíssimus <i>W.</i> tough	▲ cu	½ au.s	Ap	E. Indies	1801.	S	co	Jacq. ic. rar. t. 16
160. AIROP'SIS. <i>Desv.</i> AIROP'SIS.	<i>Gramineæ.</i>	Sp. 1—6.						
1008 involuocráta <i>Cav.</i> involucred	○ w	1 jn	Ap	Spain	1820.	S	co	Cav. ic. t. 44. f. 1
161. CIN'NA. <i>P. de B.</i> CINNA.	<i>Gramineæ.</i>	Sp. 2.						
1009 mexicána <i>W.</i> Mexican	▲ w	1 jn.s	Ap	America	1780.	S	l.p	
1010 arundinácea <i>L.</i> reedy	▲ w	3 jn.s	Ap	Canada	1799.	S	m.s	Schr. b. gram. t. 49
162. PSAMA. <i>P. de B.</i> MAT-GRASS.	<i>Gramineæ.</i>	Sp. 1—2.						
1011 arenárium <i>Arundo</i> E. B. sea	▲ w	2 jn.jl	Ap	Britain	sea co. S	s	Eng. bot.	520
163. CRYP'SIS. <i>W.</i> CRYP'SIS.	<i>Gramineæ.</i>	Sp. 2—8.						
1012 aculeáta <i>W.</i> prickly	○ w	½ au	Ap	S. Europe	1783.	S	co	Host. gra. i. t. 31
1013 schenóides <i>Lam.</i> rush-like	○ w	½ au	Ap	S. Europe	1783.	S	co	Host. gra. i. t. 30
164. ALOPECURUS. <i>W.</i> FOX-TAIL-GRASS.	<i>Gramineæ.</i>	Sp. 8—21.						
1014 bulbósus <i>W.</i> bulbous	▲ w	1 jl	Ap	England	sal. m. S	m.s	Eng. bot.	1249
1015 praténsis <i>W.</i> meadow	▲ ag	2 my	Ap	Britain	mea. S	h.1	Eng. bot.	759
1016 alpinus <i>E. B.</i> Alpine	▲ w	½ my.jn	Ap	Scotland	sc. mo. S	s.1	Eng. bot.	1126
1017 agréstis <i>W.</i> slender	○ w	1½ jl.au	Ap	Britain	ro. sid. S	s.1	Eng. bot.	848



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

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

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

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

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

989 Flowers beardless

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1005 A little agrostis-like plant. The only species

1006 Panicle contracted beardless, Racemes lateral erect alternate

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

1008 Panicle spreading, with a setaceous involucre, Florets beardless

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

1010 Panicle much branched oblong close, Branches erect, Paleæ bearded, Ligula torn

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

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

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

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

1015 Stem erect smooth, Pan. subspiked cylindrical obtuse thick, Glumes fringed connate below the middle

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

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



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157. *Trichodium*. Named from *θειξ* *τριχος*, hair, on account of its capillary inflorescence. *T. decumbens* is the famous *Agrostis cornucopiæ* of Frazer, respecting which so much was said some years ago; but which upon trial did not prove so valuable an agricultural grass as it was represented to be.

158. *Tristegis*. From *τριεις*, three, and *στιγη*, a covering, on account of the three glumes or valves of the calyx.

159. *Sporobolus*. From *σπαρος*, a seed, and *βαλλω*, to cast forth. Its grains are loose, and easily fall out of their husks.

160. *Airopsis*. A word formed by M. Desvaux, from *Aira*, and *οψις*, like. The genus resembles *Aira* in appearance.

161. *Cinna*. An ancient name used by Dioscorides, who ascribes heating and stimulating qualities to this grass when eaten by cattle, whence the name (from *κειν*, to heat). Linnæus applied it to this genus of American grasses.

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

163. *Crypsis*. From *κρυπτω*, to conceal; the heads of flowers being at one time concealed in the sheaths of the leaves.

164. *Alopecurus*. *Αλωπηξ*, a fox, and *ουρα*, a tail: fox-tail. *A. pratensis* is one of the best of meadow-grasses, possessing the three great requisites of quantity, quality, and earliness, in a superior degree to any other. It is

1018 geniculatus <i>W.</i>	floating	♂ Δ w	1	my.au	Ap	Britain	mea.	S	m.s	Eng. bot. 1250
1019 fulvus <i>E. B.</i>	orange-spiked	♂ Δ w	1	ju	Ap	England	ponds.	S	m.s	Eng. bot. 1467
1020 utriculatus <i>Pers.</i>	bladdered	♂ Δ w	1	jl.au	Ap	Italy	1777.	S	co	Host. gram. 3. t.7
1021 nigricans <i>Horn.</i>	blackish	♂ Δ w	4	jn.jl	Ap	Europe	1815.	S	co	Jac. ecl. gra. t.13
165. PHLEUM <i>W.</i>	CAT'S-TAIL-GRASS.					<i>Gramineæ.</i>	<i>Sp. 5-8.</i>			
1022 pratense <i>W.</i>	common	♂ Δ ag	2	jl	Ap	Britain	me. pa.	S	m.s	Eng. bot. 1076
1023 alpinum <i>W.</i>	Alpine	♂ Δ w	1	jl	Ap	Scotland	sc. alp.	S	h.l	Eng. bot. 519
1024 nodosum <i>W.</i>	knotted	♂ Δ w	1½	jl.s	Ap	Britain	Wales.	S	co	Flor. dan. t. 580
1025 felinum <i>Sm.</i>	smooth-spiked	♂ Δ w	1	jl	Ap	Greece	1819.	S	co	
1026 Michéii <i>W. en.</i>	slender-spiked	♂ Δ w	1	jn.jl	Ap	Scotland	al. roc.	S	co	Eng. bot. 2265
166. ACHNODONTON <i>P. de B.</i>	ACHNODONTON.					<i>Gramineæ.</i>	<i>Sp. 2.</i>			
1027 Bellardi <i>P. de B.</i>	bulbous	♂ Δ w	1	jn.jl	Ap	Spain	1798.	S	co	
1028 tenue <i>R. & S.</i>	slender	♂ Δ w	1	jn.jl	Ap	Mesopota.	1804.	S	co	Barr. ic. t.14. f.1
167. CHILOCHLOA <i>P. de B.</i>	CHILOCHLOA.					<i>Gramineæ.</i>	<i>Sp. 3-6.</i>			
1029 Boehmeri <i>Schr.</i>	Phalaris-like	♂ Δ w	1½	jl.s	Ap	England	plains.	S	co	Eng. bot. 459
1030 arenaria <i>Schr.</i>	sea	♂ Δ w	½	jl.au	Ap	England	sea co.	S	co	Eng. bot. 222
1031 aspera <i>Schr.</i>	rough	♂ Δ w	1	jl.au	Ap	England	hea.	S	co	Eng. bot. 1077
	<i>Phleum paniculatum</i> <i>E. B.</i>									
168. PHALARIS <i>W. en.</i>	CANARY-GRASS.					<i>Gramineæ.</i>	<i>Sp. 8-23.</i>			
1032 arundinæa <i>P. S.</i>	reed-like	♂ Δ w	4	jl	Ap	Britain	dit.	S	co	Eng. bot. 402
1033 canariensis <i>P.</i>	common	♂ Δ ag	2	jn.au	Ap	Britain	unc. pl.	S	r.m	Eng. bot. 1310
1034 aquatica <i>W.</i>	water	♂ Δ w	1½	jn.jl	Ap	Egypt	1778.	S	co	Host. gra. 2. t. 39
1035 capensis <i>W.</i>	cape	♂ Δ w	1	jn.jl	Ap	C. G. IL	1804.	S	co	
1036 cærulescens <i>Desf.</i>	blue	♂ Δ w	1	jn.jl	Ap	Spain	1818.	S	s.l	Buxb. cent. 4. t. 53
1037 paradóxa <i>W.</i>	bristle-spiked	♂ Δ w	1	jn.jl	Ap	Levant	1687.	S	co	Host. gra. 2. t. 40
1038 seminéutra <i>R. & S.</i>	half-barren	♂ Δ w	2	jn.jl	Ap	Hungary	1813.	S	co	
1039 bulbósa <i>W.</i>	bulbous	♂ Δ w	1	jn.jl	Ap	Spain	1798.	S	co	Cav. ic. 1. t. 64
169. CORYNEPHORUS <i>P. de B.</i>	CLUB-GRASS.					<i>Gramineæ.</i>	<i>Sp. 1-2.</i>			
1040 canescens <i>P. de B.</i>	grey	♂ Δ w	½	jl.au	Ap	England	san. sh.	S	s.l	Eng. bot. 1190
	<i>Aira E. B.</i>									
170. AYRA <i>W.</i>	HAIR-GRASS.					<i>Gramineæ.</i>	<i>Sp. 8-25.</i>			
1041 aquatica <i>W.</i>	water	♂ Δ w	1½	my.jn	Ap	Britain	pools.	S	m.s	Eng. bot. 1557
1042 cæspitosa <i>W.</i>	turfy	♂ Δ w	3	au	Ap	Britain	m. s. p.	S	m.s	Eng. bot. 1453
1043 truncata <i>L. T.</i>	smooth-sheath.	♂ Δ w	1	jn.jl	Ap	Scotland	sc. alp.	S	s	Eng. bot. 2102
1044 Pennsylvanica <i>W.</i>	Pennsylvanian	♂ Δ w	1	jn.jl	Ap	N. Amer.	1819.	S	s	Act. petr. 11. t. 7
1045 média <i>Gouan.</i>	intermediate	♂ Δ w	1	jn.jl	Ap	S. Europe	1820.	S	s	
1046 pulchella <i>W.</i>	pretty	♂ Δ w	1½	jn	Ap	Spain	1820.	S	s	
1047 flexuosa <i>W.</i>	waved	♂ Δ w	1	jl.au	Ap	Britain	hea.	S	s.l	Eng. bot. 1519
1048 caryophyllæa <i>W.</i>	silver	♂ Δ w	½	jl	Ap	Britain	sa. pas.	S	s.l	Eng. bot. 812
171. AVE'NA <i>P. S.</i>	OAT-GRASS.					<i>Gramineæ.</i>	<i>Sp. 9-34.</i>			
1049 brevis <i>W.</i>	short	♂ Δ w	3	jn.jl	Ap	Germany	1804.	S	co	Host. gra. 3. t. 42
1050 orientalis <i>W.</i>	Tartarian	♂ Δ ag	3	jn.jl	Ap	1798.	S	co	Host. gra. 3. t. 44



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

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

166. *Achnodonton*. From *αχνη*, a chaff or husk, and *δενς*, a tooth, in allusion to the toothed paleæ or inner valves of the flower.

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

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

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

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

- 1029 Panicle spiked cylindrical smooth, Glumes lanceolate mucronate obtuse roughish

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

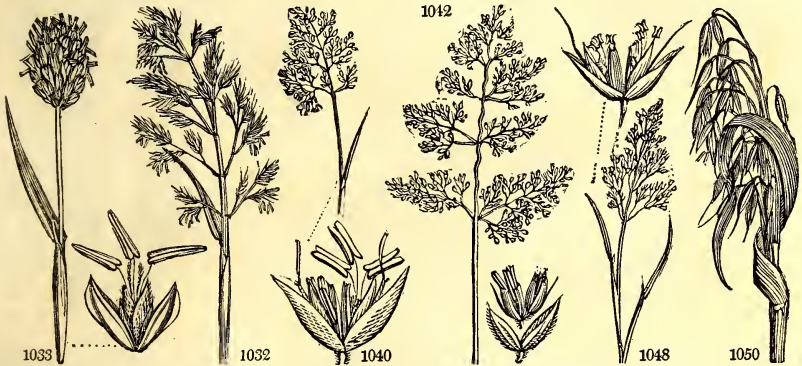
- 1031 Panicle spiked cylindrical, Glumes wedge-shaped mucronate rough

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

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

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

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



and Miscellaneous Particulars.

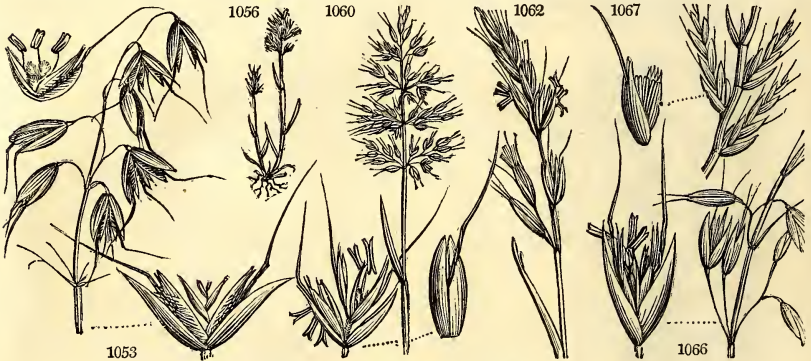
168. *Phalaris*. An ancient name said to have arisen out of φαλος, brilliant, because the plant had shining grains. *P. canariensis* is cultivated for the seeds, which are given to singing birds, and more especially the canary. It requires a loamy soil, well manured, clean, and in good tilth. The grain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

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

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

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

1051 sativa <i>W.</i>	common	♣ ○ ag	3 jn.jl	Ap	.....	...	S	r.m	Host. gra. 2. t. 59
1032 nuda <i>W.</i>	naked	♣ ○ ag	2 jn.jl	Ap	.....	...	S	r.m	Host. gra. 3. t. 43
1053 fátua <i>W.</i>	wild	♣ ○ w	4 au	Ap	Britain	cor. fi.	S	co	Host. gra. 2. t. 58
1054 stérilis <i>W.</i>	Animal-oat	♣ ○ cu	4 jl.au	Ap	Barbary	1640.	S	co	Host. gra. 2. t. 57
1055 praténsis <i>W.</i>	meadow	♣ △ ag	1 jn.jl	Ap	Britain	me. pa.	S	h.l	Eng. bot. 1204
1056 præcox <i>P. de B.</i>	early	♣ ○ w	$\frac{1}{2}$ my.jn	Ap	Britain	hea.	S	co	Eng. bot. 1296
<i>Aira E. B.</i>									
1057 hirsúta <i>Roth.</i>	hirsute	♣ ○ w	3 jn.s	Ap	Barbary	1798.	S	co	
172. TRISETUM. <i>P. S.</i>	TRISETUM.				<i>Gramineæ.</i>	<i>Sp. 8—30.</i>			
1058 stríatum <i>P. S.</i>	striated	♣ ○ w	1 $\frac{1}{2}$ jl.au	Ap	S. Europe	1804.	S	co	Lrs. herb. t. 9. f. 3
1059 Löflingánum <i>W.</i>	Löfling's	♣ ○ w	1 jn.jl	Ap	Spain	1770.	S	co	Cav. ic. 1. t. 45. f. 1
1060 flavéscens <i>R. & S.</i>	yellowish	♣ △ w	1 $\frac{1}{2}$ jn.jl	Ap	Britain	...	S	co	Eng. bot. 952
<i>Avéna E. B.</i>									
1061 pensylvánic. <i>P. de B.</i>	Pennsylvanian	♣ ○ w	6 jl	Ap	N. Amer.	1785.	S	co	
1062 pubescens <i>R. & S.</i>	downy	♣ △ w	1 $\frac{1}{2}$ jl.au	Ap	Britain	ch. pa.	D	s.l	Eng. bot. 1640
<i>Avéna E. B.</i>									
1063 planicólme	flat-stalked	♣ △ w	1 $\frac{1}{2}$ jn.s	Ap	Britain	sc. alp.	D	co	Eng. bot. 2141
<i>Avéna E. B.</i>									
1064 distichophýllum <i>Sc.</i>	fan-leaved	♣ △ w	1 $\frac{1}{2}$ jn.s	Ap	Switzerl.	1796.	D	co	Host. gra. 2. t. 53
1065 airoides <i>P. de B.</i>	Aira-like	♣ ○ w	$\frac{1}{2}$ jn.jl	Ap	Switzerl.	1800.	S	co	Host. gra. 2. t. 45
173. DANTHONIA. <i>P. de B.</i>	DANTHONIA.				<i>Gramineæ.</i>	<i>Sp. 1—15.</i>			
1066 strigósa <i>P. de B.</i>	meagre	♣ ○ w	3 jn.jl	Ap	Britain	hed.	S	co	Eng. bot. 1266
<i>Avéna E. B.</i>									
174. GAUDYNIA. <i>P. de B.</i>	GAUDYNIA.				<i>Gramineæ.</i>	<i>Sp. 1.</i>			
1067 fragilis <i>P. de B.</i>	brittle	♣ △ w	1 $\frac{1}{2}$ jn.au	Ap	Spain	1778.	D	co	Host. gra. 2. t. 54
175. ARUNDO. <i>With.</i>	REED.				<i>Gramineæ.</i>	<i>Sp. 5—33.</i>			
1068 epigjos <i>W.</i>	wood	♣ △ w	2 jl	Ap	Britain	moi. w.	S	m.s	Eng. bot. 403
1069 stricta <i>E. B.</i>	upright	♣ △ w	1 $\frac{1}{2}$ jl.au	Ap	Scotland	sc. ma.	S	m.s	Eng. bot. 2160
1070 sylvática <i>Schr.</i>	wild	♣ △ w	3 jl.au	Ap	Germany	1813.	S	m.s	Host. gra. 4. t. 49
1071 Dónax <i>W.</i>	cultivated	♣ △ ec	10 jl.au	Ap	S. Europe	1648.	S	co	Host. gra. 4. t. 38
<i>β versicolor</i>	striped	♣ △ or	3 jl.au	Ap	S. Europe	1648.	S	co	Mor. h. 3. t. 8. f. 9
1072 phragmites <i>W.</i>	common	♣ △ ec	6 jl.s	Ap	Britain	dit.	S	m.s	Eng. bot. 401
176. CHRYSURUS. <i>P. S.</i>	CHRYSURUS.				<i>Gramineæ.</i>	<i>Sp. 2—4.</i>			
1073 aéreus <i>P. de B.</i>	golden-spiked	♣ ○ w	$\frac{1}{2}$ jl	Ap	Levant	1770.	S	co	Host. gra. 3. t. 4
1074 echinátus <i>P. de B.</i>	rough	♣ ○ w	2 au	Ap	England	san. fi.	S	s.l	Eng. bot. 1333
177. SESLERIA. <i>P. de B.</i>	SESLERIA.				<i>Gramineæ.</i>	<i>Sp. 4—11.</i>			
1075 longáta <i>Host.</i>	long-spiked	♣ △ w	1 $\frac{1}{2}$ jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t. 97
1076 cœrulea <i>Schr.</i>	blue	♣ △ w	1 my.jn	Ap	Britain	fields.	S	co	Eng. bot. 1613
<i>Cynosurus E. B.</i>									
1077 tenélla <i>Host.</i>	weak	♣ △ pr	$\frac{1}{4}$ ap.my	Ap	Switzerl.	1819.	S	co	Host. gra. 2. t. 100
1078 sphærocéphala <i>Ard.</i>	round-headed	♣ △ pr	$\frac{1}{4}$ ap.my	Ap	Switzerl.	1819.	S	co	Host. gra. 2. t. 99



History, Use, Propagation, Culture,

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

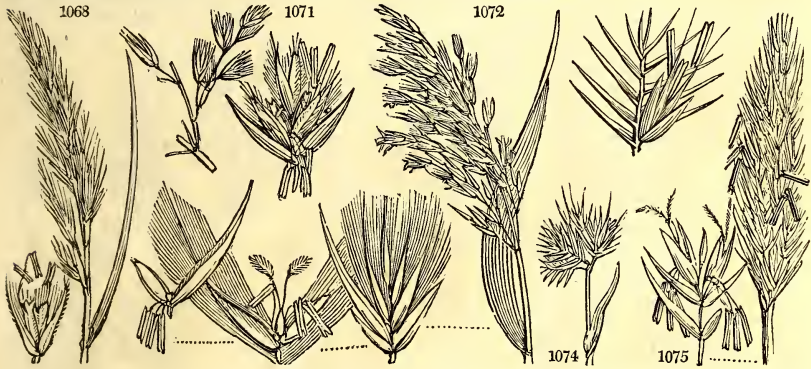
The oat, in an agricultural point of view, is a grain only calculated for cold climates. In Italy and France, and even in the southern counties of England, the ears are small and husky, and afford little meal; the panicle is open, and the foot-stalks of the ears small; and in July and August the heat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

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

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

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

- 1073 Stems erect, Sheaths very smooth, Ligulas large elongated, Panicle close many-flowered
 1074 Pan. contr. ovate, Spikelets bearded, Leaves lanceolate, Bractes pinnate scarious with very long beards
 1075 Raceme spiked cylindrical, Spikelets 3-flowered, Outer palea 3-5-bearded, Root stoloniferous
 1076 Raceme spiked subovate oblong, Bractes entire, Spikelets 2-3-flow. Outer palea 3-5-bearded, Leaves flat
 1077 Raceme spiked ovate nearly naked, Spikelets 2-flowered, Bractes toothletted, Outer palea 5-bearded
 1078 Raceme in a round head, Outer palea with one beard, Leaves fine leaved



and Miscellaneous Particulars.

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

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

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

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

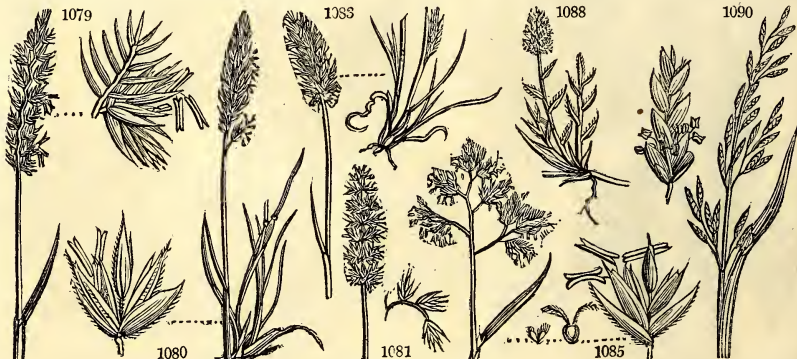
175. *Arundo*. An ancient name of doubtful origin; perhaps, as a recent author conjectures, from *aru*, the Celtic word for water. *Phragmites* is derived from *φραγμος*, a hedge or separation. *A. donax*, *Canne*, Fr., *Rohr*, Ger., and *Canni di Giardini*, Ital. is common in the south of France and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

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

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

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

178. CYNOSURUS. P. S.	DOG'S-TAIL-GRASS.					<i>Gramineæ.</i>	Sp. 1—8.						
1079 cristatus W.	crested	♣	△	ag	2	au	Ap	Britain	pas.	S	s.l	Eng. bot.	316
179. KÆLERIA. P. S.	KÆLERIA.							<i>Gramineæ.</i>	Sp. 5—13.				
1080 cristata P. S.	crested	♣	△	w	1	jn.au	Ap	Britain	pas.	S	co	Eng. bot.	648
1081 tuberosa P. S.	tuberous	♣	△	w	1	jl.au	Ap	Europe	1802.	S	co	Lam. ill. t. 45.	f. 4
1082 pubescens P. de B.	pubescent	♣	○	w	1	jn.jl	Ap	S. Europe	1800.	S	co	Ger. prov. t. 1	
1083 phleoides P. S.	cat's-tail	♣	○	w	1	jl.au	Ap	Portugal	1802.	S	co	Desf. atl. 1. t. 23	
1084 hispida D. C.	hispid	♣	○	w	2	jl.au	Ap	Mediterr.	1819.	S	co	Savi. pis. t. 1. f. 5	
180. DACTYLIS. W. en.	COCK'S-FOOT-GRASS.							<i>Gramineæ.</i>	Sp. 5—19.				
1085 glomerata W.	rough	♣	△	ag	2	jn.jl	Ap	Britain	mea.	S	h.l	Eng. bot.	335
1086 hispánica W. en.	Spanish	♣	△	w	2	jn.jl	Ap	Spain	1814.	S	co		
1087 glauca Rth.	glaucous	♣	△	w	2	jn.jl	Ap	Saxony	1800.	S	co		
1088 repens Desf.	creeping	♣	△	w	2	jn.jl	Ap	Barbary	1821.	S	co	Desf. atl. 1. t. 15	
1089 patens H. K.	spreading	♣	△	w	2	aus.	Ap	N. Amer.	1781.	S	co		
181. GLYCERIA. R. Br.	GLYCERIA.							<i>Gramineæ.</i>	Sp. 1.				
1090 fluitans B. P.	floating	♣	△	w	1½	my.au	Ap	Britain	ponds.	S	m.s	Eng. bot.	1520
182. FESTUCA. W.	FESTUCE-GRASS.							<i>Gramineæ.</i>	Sp. 27—65.				
1091 tenella Ph.	slender	♣	○	w	½	jl.au	Ap	N. Amer.	1804.	S	co		
1092 ovina W.	sheep's	♣	△	ag	½	jn	Ap	Britain	dr. pa. S.	s.l		Eng. bot.	585
1093 vivipara E. B.	viviparous	♣	△	ag	½	jl	Ap	Britain	sc. mo. S.	s.l		Eng. bot.	1355
1094 rubra W.	creeping	♣	△	w	1	jl	Ap	Britain	me. pa. S.	h.l		Eng. bot.	2056
1095 durifolia W.	hard	♣	△	ag	1	jn	Ap	Britain	me. pa. S.	s.l		Eng. bot.	470
1096 amethystina W.	blue	♣	△	w	1½	jn.jl	Ap	S. Europe	1804.	S	co	Host. gra. 2. t. 89	
1097 cæsia E. B.	grey	♣	△	w	1	jn.jl	Ap	England	bar. he. S.	co		Eng. bot.	1917
1098 dumetorum W.	bushy	♣	△	w	1	jn.jl	Ap	Europe	...	S	co	Fl. dan. t. 700	
1099 calamaria E. B.	reed-like	♣	△	w	3	jl.au	Ap	Scotland	m. w. o. S.	m.s		Eng. bot.	1005
1100 triflora E. B.	three-flowered	♣	△	w	2	jl.au	Ap	Britain	woods. S.	m.s		Eng. bot.	1373
1101 spadicea W.	brown	♣	△	w	2	ap.my	Ap	Italy	1775.	S	co	Host. gra. 3. t. 20	
1102 pratensis E. B.	meadow	♣	△	ag	1½	jn.jl	Ap	Britain	me. pa. S.	h.l		Eng. bot.	1592
1103 vaginata W. en.	sheathed	♣	△	w	1½	jn.jl	Ap	Hungary	1804.	S	co		
1104 mexicana Donn.	Mexican	♣	△	w	1½	jl	Ap	Mexico	1805.	S	co		
1105 pubescens W. en.	downy	♣	△	w	1	jn.jl	Ap	Hungary	1822.	S	co		
1106 flavescens Bell.	yellowish	♣	△	w	2	jn.jl	Ap	Savoy	1804.	S	co		
1107 pannonica Wulf.	Hungarian	♣	△	w	1	jn.jl	Ap	Hungary	1804.	S	co	Host. gra. 4. t. 62	
1108 decidua E. B.	deciduous	♣	△	w	2	jn.jl	Ap	England	m. w. o. S.	m.s		Eng. bot.	2266
1109 elatior W.	tall	♣	△	ag	½	jn.jl	Ap	Britain	m. me. S.	m.s		Eng. bot.	1593
1110 diandra Ph.	dianthrous	♣	△	w	2	jn.jl	Ap	N. Amer.	1810.	S	co	Mich. amer. t. 10	
1111 loliacea W.	spiked	♣	△	ag	3	jn.jl	Ap	England	moi. p. S.	in.s		Eng. bot.	1821
1112 grandiflora Ph.	large-flowered	♣	△	w	3	jn.jl	Ap	N. Amer.	1812.	S	co		
1113 rubens P. S.	Spanish	♣	△	w	1	jn	Ap	S. Europe	1776.	S	co	Fl. grac. t. 83	
1114 glauca P. S.	glaucous	♣	△	ag	1	jn.jl	Ap	S. Europe	...	S	co	Lam. ill. 1. t. 46. f. 3	
1115 ciliata P. S.	ciliated	♣	△	w	½	jl.au	Ap	Portugal	1802.	S	co	Host. gra. 4. t. 65	
1116 nutans P.	nodding	♣	△	w	3	jn.jl	Ap	N. Amer.	1805.	S	co		
1117 heterophylla P. S.	various-leaved	♣	△	w	3	jn.jl	Ap	France	1812.	S	co	Vaill. par. t. 19. f. 6	



History, Use, Propagation, Culture,

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

178. *Cynosurus*. *Κυν κυνης*, a dog, and *σφα*, a tail : dog's-tail.
 179. *Kæleria*. Named after M. Kohler, a professor of natural history at Mayence, and author of some works upon grasses. A pretty genus of grasses, with elegant silky heads.
 180. *Dactylis*. (*Δακτύλος*, a finger : finger-grass). The divisions of its heads may be fancied to resemble the fingers, and the large cluster at the bottom the thumb of an animal. *D. glomerata* is a coarse grass of early and rapid growth, and considered valuable as a pasture grass on light soils from the quantity of herbage it affords. It comes in from the time turnips are over, till the meadows are fit for grazing; but old and dry, or made into hay, neither horses nor cattle are fond of it. To reap the full benefit of this grass, it must be kept closely cropped. It has been of late strongly recommended by Mr. Coke of Holkham.
 181. *Glyceria*. (From *γλυκυσ*, sweet, in allusion to the herbage). This is the *Festuca fluitans* of L. : it is found in stagnant water, and its long narrow leaves float on the surface. Horses, cattle, and swine are fond of this grass, which produces abundance of seeds, which are eaten greedily by geese, ducks, and fish, especially the trout (*Salmo fario*). These seeds are very nourishing, and are collected in some parts of Germany and Poland, under the name of manna seeds, and used in soups and gruels. The plant will not thrive unless on land that is constantly under water.
 182. *Festuca*. In Celtic, the word *fest* signifies pasture, food. We may be satisfied with this explanation in want of a better. This genus affords some valuable hay and pasture grasses. *F. ovina* has a fine short sweet foliage, well adapted to the masticating organs of sheep, and for producing delicate mutton: it is totally unfit for hay, and according to Sir H. Davy's experiments, it does not possess the nutritive powers generally ascribed to it. It is an excellent grass for lawns, requiring little mowing, and forming so thick a turf as to suffer few intruding plants. It should be sown about the middle of August, on ground nicely prepared, open, and not too light or dry. The same remarks will apply to *F. rubra* and *amethystina*.

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

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

1085 Panicle one-sided heaped, Leaves keeled

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

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

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

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

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

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

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

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

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

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

1096 Pan. sprdg. Spikel. obl. nearly beards. Outer valve of glume and paleæ ciliated, Lvs. setac. rigid, Lig. 2-eared

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

1098 Panicle spike-shaped pubescent, Leaves filiform

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

1100 Panicle spreading, Spikelets 3-flowered with long beards

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

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

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

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

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

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

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

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

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

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

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

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

1113 Panicle fasciated, Spikelets subsessile villous, Beard erect

1114 Panicle one-sided spike-shaped, Spikelets 5-fl. smooth somewhat bearded, Leaves glaucous rigid subulate

1115 Culm ascending, Leaves subconvolute, Spike racemose, One glume very small, Outer paleæ fringed

1116 Panicle one-sided erect nodding at the end, Spikelets 5-flowered obtuse beardless

1117 Panicle loose spreading nodding, Radical leaves very slender and long, Root creeping



and Miscellaneous Particulars.

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

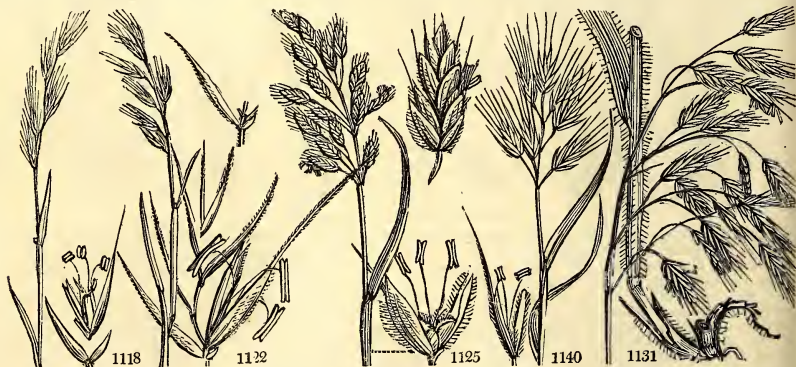
F. pratensis is one of the six grasses (*Anthoxanthum odoratum*, *Alopecurus pratensis*, *Poa pratensis* and *trivialis*, *Cynosurus cristatus*, and the *F. pratensis*) which Curtis recommends before all others for laying down meadows or pastures, on soil either moist or moderately dry. According to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

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

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

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

183. MYGALURUS. <i>Lk.</i>	MOUSE-TAIL.				<i>Gramineæ.</i>	<i>Sp. 5.</i>							
1118 caudatus <i>Lk.</i>	wall	☉	○	w	½ jn	Ap	Britain	ways.	S	co	Eng. bot.	1412	
<i>Festuca Myurus</i>	E. B.												
1119 bromoides <i>Lk.</i>	barren	☉	○	w	½ my.jn	Ap	Britain	walls.	S	co	Eng. bot.	1411	
<i>Festuca</i>	E. B.												
1120 stipoides <i>Lk.</i>	fine-leaved	☉	○	w	1 jn.jl	Ap	Majorca	1793.	S	co	Barr. ic. t.	76. f.1	
1121 delicatulus <i>Lk.</i>	delicate	☉	○	w	½ jn.jl	Ap	Spain	1817.	S	co	Eng. bot.	1430	
1122 uniglumis <i>Lk.</i>	single-husked	☉	○	w	½ jn	Ap	Britain	sea co.	S	co	Eng. bot.	1430	
<i>Festuca</i>	E. B.												
184. BROMUS. <i>W.</i>	BROME-GRASS.				<i>Gramineæ.</i>	<i>Sp. 19-66.</i>							
1123 secalinus <i>W.</i>	smooth-rye	☉	○	w	2 jn.au	Ap	England	cor. fi.	S	co	Eng. bot.	1171	
1124 multiflorus <i>W. en.</i>	downy-rye	☉	○	w	2 jn.au	Ap	Britain	...	S	co	Eng. bot.	1884	
1125 mollis <i>W.</i>	soft	☉	○	w	2 jn.au	Ap	Britain	walls.	S	co	Eng. bot.	1078	
1126 lanceolatus <i>W.</i>	spear-leaved	☉	○	w	3 jn.au	Ap	Crimea	1798.	S	co	Eng. bot.	1885	
1127 squarrosus <i>W.</i>	corn	☉	○	w	3 jn.au	Ap	England	cor. fi.	S	co	Desf. atl. i. t.	25	
1128 Alopecurus <i>W.</i>	Fox-tail	☉	○	w	2 jn.au	Ap	Barbary	1799.	S	co	Eng. bot.	1984	
1129 purgans <i>W.</i>	purging	☉	○	w	1½ jn.au	Ap	Canada	1793.	S	co	Host. gra. i. t.	9	
1130 inermis <i>W.</i>	awless	☉	○	w	2 jn.au	Ap	Germany	1794.	S	co	Eng. bot.	1172	
1131 asper <i>W.</i>	hairy wood	☉	○	w	4 jn.au	Ap	England	m. s. p.	S	co	Eng. bot.	920	
1132 pratensis <i>E. B.</i>	meadow	☉	○	w	2 jn.au	Ap	England	cor. fi.	S	co	Eng. bot.	1030	
1133 sterilis <i>W.</i>	barren	☉	○	w	2 jn.au	Ap	Britain	rub.	S	co	Eng. bot.	1984	
1134 arvensis <i>E. B.</i>	field	☉	○	w	3 jn.au	Ap	Britain	cor. fi.	S	co	Eng. bot.	471	
1135 erectus <i>E. B.</i>	upright	☉	○	w	3 jn.au	Ap	England	ch. pa.	S	co	Host. gra. i. t.	15	
1136 tectorum <i>W.</i>	nodding	☉	○	w	1 jn.au	Ap	Europe	1776.	S	co	Eng. bot.	1079	
1137 altissimus <i>Ph.</i>	tallest	☉	○	w	8 jn.au	Ap	N. Amer.	1812.	S	co	Desf. atl. i. t.	26	
1138 racemosus <i>W.</i>	smooth	☉	○	w	2 jn.au	Ap	England	me. pa.	S	h.1	Eng. bot.	1006	
1139 maximus <i>Roth.</i>	great	☉	○	w	3 jn.au	Ap	Morocco	1804.	S	h.1	Eng. bot.	1820	
1140 madritensis <i>W.</i>	wall	☉	○	w	1½ jn.au	Ap	Britain	walls.	S	h.1	Eng. bot.	1820	
1141 giganteus <i>Schr.</i>	giant	☉	○	w	3 jl.au	Ap	Britain	mea.	D	co	Eng. bot.	1820	
<i>Festuca</i>	E. B.												
185. BRACHYPODIUM. <i>P. de B.</i>	BRACHYPODIUM.				<i>Gramineæ.</i>	<i>Sp. 9-25.</i>							
1142 ciliatum <i>W.</i>	ciliated	☉	○	w	2 jn.au	Ap	Canada	1802.	S	co	Eng. bot.	729	
1143 sylvaticum <i>R. & S.</i>	wood	☉	○	w	2 jn.au	Ap	Britain	hed.	S	co	Eng. bot.	730	
<i>Bromus</i>	E. B.												
1144 pinnatum <i>P. de B.</i>	spiked heath	☉	○	w	3 jn.au	Ap	Britain	hea.	S	co	Eng. bot.	730	
<i>Bromus</i>	E. B.												
1145 distachyon <i>R. & S.</i>	two-spiked	☉	○	w	1 jn.au	Ap	S. Europe	1772.	S	co	Host. gra. i. t.	90	
1146 tenellum <i>W.</i>	slender	☉	○	w	½ jl.au	Ap	S. Europe	1781.	S	co	Vi. fragm. t. 26.	f.1	
1147 lolium <i>R. & S.</i>	Darnel-like	☉	○	w	1 jn.jl	Ap	Britain	sea co.	S	co	Eng. bot.	221	
<i>Triticum</i>	E. B.												
1148 unioloides <i>Lk.</i>	Uniola-like	☉	○	w	½ jl.au	Ap	Italy	1758.	S	co	Jacq. ic. 2. t.	303	
1149 obtusifolium <i>Lk.</i>	blunt-leaved	☉	○	w	1½ jl.au	Ap	Spain	1818.	S	co	Eng. bot.	1820	
1150 unilaterale <i>R. & S.</i>	one-sided	☉	○	w	½ jn.jl	Ap	S. Europe	1800.	S	co	Eng. bot.	1820	
186. UNIOLA. <i>W.</i>	SEA-SIDE-OAT.				<i>Gramineæ.</i>	<i>Sp. 4-7.</i>							
1151 latifolia <i>Ph.</i>	broad-leaved	☉	○	w	4 jn.jl	Ap	N. Amer.	1809.	S	co	Cates. car. i. t.	32	
1152 paniculata <i>Ph.</i>	paniced	☉	○	w	4 jn.jl	Ap	N. Amer.	1793.	S	co	Eng. bot.	1820	
1153 spicata <i>W.</i>	spiked	☉	○	w	½ jn.jl	Ap	N. Amer.	1790.	S	co	Eng. bot.	1820	
1154 distichophylla <i>R. & S.</i>	two-ranked	☉	○	w	¾ jn.jl	Ap	N. Amer.	1789.	S	co	Eng. bot.	1820	
187. TRICUSPIS. <i>P. de B.</i>	TRICUSPIS.				<i>Gramineæ.</i>	<i>Sp. 1-3.</i>							
1155 quinquefidia <i>P. de B.</i>	five-cleft	☉	○	w	2 jn.jl	Ap	N. Amer.	1820.	S	r.m	Jac. gr. ecl. t.	16	
188. DIPLACHNE. <i>P. de B.</i>	DIPLACHNE.				<i>Gramineæ.</i>	<i>Sp. 1-2.</i>							
1156 fascicularis <i>P. de B.</i>	bundled	☉	○	w	2 jl.au	Ap	N. Amer.	1823.	S	co	Eng. bot.	1820	



History, Use, Propagation, Culture,

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

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

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



and Miscellaneous Particulars.

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

185. *Brachypodium*. From $\beta\rho\alpha\chi\upsilon\varsigma$, short, and $\pi\upsilon\varsigma$, a foot, in allusion to the short stalks of the spikelets. An artificial genus, made up of various species of *Bromus*, *Festuca*, and *Triticum* of former writers.

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

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

188. *Diplachne*. $\Delta\iota\pi\lambda\omicron\varsigma$, divided, $\alpha\chi\upsilon\eta$, chaff. The outer palea is divided at the end, and bearded between the divisions.

189. CERATOCHELO' A. <i>P. de B.</i>	HORN-GRASS.	<i>Gramineæ.</i>	<i>Sp. 1—2.</i>							
1157 uniloides <i>P. de B.</i>	large-spiked	♣ ○ w	1½ jl	Ap	N. Amer.	1788.	S	co	Hort. ber. 1. t. 3	
190. SCHISMUS. <i>P. de B.</i>	SCHISMUS.	<i>Gramineæ.</i>	<i>Sp. 1.</i>							
1158 marginatus <i>P. de B.</i>	marginated	♣ ○ w	½ jn. jl	Ap	Spain	1781.	S	co	Lam. ill. t. 46. f. 1	
191. TRIO'DIA. <i>R. Br.</i>	TRIODIA.	<i>Gramineæ.</i>	<i>Sp. 1—10.</i>							
1159 decumbens <i>R. Br.</i>	decumbent	♣ △ w	1 jl. au	Ap	Britain	...	S	co	Eng. bot. 792	
192. BECKMANN'IA. <i>Host.</i>	BECKMANNIA.	<i>Gramineæ.</i>	<i>Sp. 1.</i>							
1160 eruceformis <i>W. en.</i>	linear-spiked	♣ ○ w	2 jl	Ap	Europe	1773.	S	co	Host. gra. 3. t. 6	
193. MELICA. <i>W.</i>	MELIC-GRASS.	<i>Gramineæ.</i>	<i>Sp. 7—24.</i>							
1161 ciliata <i>W.</i>	ciliated	♣ △ or	3 jl	Ap	Europe	1771.	S	s.l	Host. gra. 2. t. 12	
1162 Bauhini <i>W. en.</i>	Italian	♣ △ w	2 jn. jl	Ap	Italy	1806.	S	co	Host. gra. 4. t. 23	
1163 nutans <i>W.</i>	mountain	♣ △ or	1½ jn. jl	Ap	Britain	moun.	S	s.l	Eng. bot. 1059	
1164 uniflora <i>W.</i>	wood	♣ △ w	1½ jn. jn	Ap	Britain	groves.	S	m.s	Eng. bot. 1058	
1165 pyramidalis <i>P. S.</i>	pyramidal	♣ △ w	3 jn. jl	Ap	Barbary	1804.	S	co	Barr. ic. t. 96. f. 1	
1166 glabra <i>Ph.</i>	smooth	♣ △ w	3 jn. jl	Ap	N. Amer.	1812.	S	co	Mor. h. 3. t. 7. f. 51	
1167 altissima <i>W.</i>	tallest	♣ △ or	4 jl. au	Ap	Siberia	1770.	S	co	Host. gra. 2. t. 9	
194. MOLY'NIA. <i>P. de B.</i>	MOLINIA.	<i>Gramineæ.</i>	<i>Sp. 1.</i>							
1168 cærulea <i>P. de B.</i>	purple	♣ △ w	1 au	Ap	Britain	bogs.	S	p.m	Eng. bot. 750	
	<i>Melica E. B.</i>									
195. BRI'ZA. <i>W.</i>	QUAKING-GRASS.	<i>Gramineæ.</i>	<i>Sp. 4—9.</i>							
1169 minor <i>W.</i>	small	♣ ○ or	½ jl. au	Ap	England	cor. fi.	S	co	Eng. bot. 1316	
1170 virens <i>W.</i>	green	♣ ○ or	1½ jl. au	Ap	Spain	1800.	S	co	Hay. trm. t. 95. f. 6	
1171 média <i>W.</i>	common	♣ △ or	1½ my. jn	Ap	Britain	pas.	S	co	Eng. bot. 340	
1172 máxima <i>W.</i>	greatest	♣ ○ or	1½ jn. jl	Ap	S. Europe	1633.	S	co	Host. gra. 2. t. 30	
196. PO' A. <i>W.</i>	MEADOW-GRASS.	<i>Gramineæ.</i>	<i>Sp. 34—142.</i>							
1173 aquatica <i>W.</i>	water	♣ △ w	6 jl	Ap	Britain	dit.	S	m.s	Eng. bot. 1315	
1174 alpina <i>W.</i>	Alpine	♣ △ w	½ jn. jl	Ap	Scotland	sc. alp. S.	s.l		Eng. bot. 1003	
1175 flexuosa <i>E. B.</i>	zigzag	♣ △ w	½ jn. jl	Ap	Scotland	sc. alp. S.	h.l		Eng. bot. 1123	
1176 laxa <i>W.</i>	loose-spiked	♣ △ w	¾ jn. jl	Ap	Germany	1800.	S	co	Host. gra. 3. t. 1	
1177 cæ'sia <i>E. B.</i>	sea-green	♣ △ w	½ jn. jl	Ap	Scotland	sc. mo. S.	s.l		Eng. bot. 1719	
1178 vivipara <i>W. en.</i>	viviparous	♣ △ w	½ jn. jl	Ap	Switzerl.	1800.	S	co	Fl. dan. t. 807	
1179 trivialis <i>W.</i>	common	♣ △ ag	2 jn. au	Ap	Britain	me. pa. S.	h.l		Eng. bot. 1072	
1180 pratensis <i>W.</i>	smooth-stalked	♣ △ ag	1½ my. jn	Ap	Britain	me. pa. S.	s.l		Eng. bot. 1073	
	<i>β angustifolia W.</i>	narrow-leaved	♣ △ ag	2 jn. au	Ap	Britain	...	S	co	Leers, t. 6. f. 3
1181 hómilis <i>E. B.</i>	short-blueish	♣ △ w	¾ my. jn	Ap	Britain	me. pa. S.	s.l		Eng. bot. 1004	
1182 ænuua <i>W.</i>	annual	♣ ○ w	¾ mr. o	Ap	Britain	pas. S.	h.l		Eng. bot. 1141	
1183 badensis <i>W.</i>	turfy	♣ △ w	¾ jl	Ap	Baden	1800.	S	co	Host. gra. 2. t. 66	
1184 sudética <i>W.</i>	broad-leaved	♣ △ w	3 jl. au	Ap	Germany	1802.	S	co	Host. gra. 3. t. 13	
1185 cenisia <i>W. en.</i>	soft	♣ △ w	½ jl. au	Ap	Mt. Cenis	1791.	S	co	Host. gra. 3. t. 16	
1186 flava <i>W.</i>	pale-yellow	♣ △ w	1½ jl. au	Ap	N. Amer.	1804.	S	co		
1187 serotina <i>W. en.</i>	late-flowering	♣ △ w	2 jls	Ap	Germany	1800.	S	co	Lers. her. t. 6. f. 4	
1188 festucaformis <i>W. en.</i>	Festuca-like	♣ △ ag	2 jls	Ap	Dalmatia	1800.	S	co	Host. gra. 3. t. 17	
1189 abyssinica <i>W.</i>	smooth-upright	♣ ○ w	1½ au. o	Ap	Abyssinia	1775.	S	co	Jac. ic. 1. t. 17	
1190 capillaris <i>W.</i>	hair-panicked	♣ ○ w	1½ o. n	Ap	N. Amer.	1781.	S	co	Mor. h. 3. t. 6. f. 33	
1191 Molinéri <i>Balb.</i>	dwarf-glaucous	♣ △ w	1 jn. jl	Ap	Italy	1807.	S	co	Bal. mis. t. 5. f. 1	



History, Use, Propagation, Culture,

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

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

191. *Triodia*. *Tegus*, three, *odous*, teeth, on account of the three teeth of the palea.

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

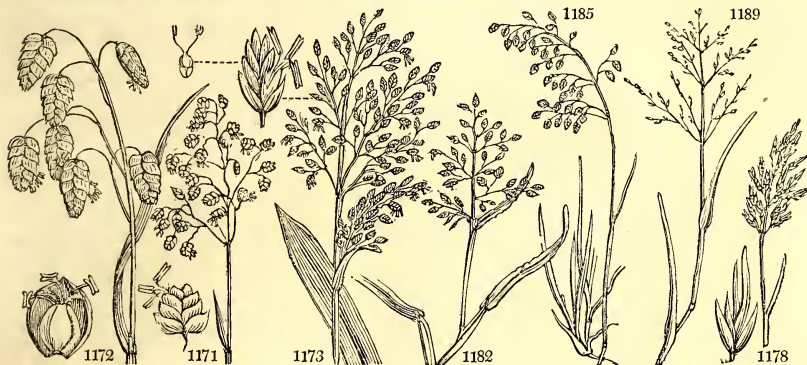
193. *Melica*. A name applied in Italy to the *Holcus* sorghum, *L.*, the pith of which is like *mel*, and honey. *M. ciliata* and nutans are curious grasses, deserving a place in botanic parterres.

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

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

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

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



and Miscellaneous Particulars.

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

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

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

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

1192	<i>stérilis M. B.</i>	barren	♂ Δ w	1	jn.jl	Ap	Tauria	1821.	S	co	
1193	<i>angustata R. Br.</i>	narrow-spiked	♂ w	½	ja.f	Ap	Melv. Isld.	1823.	S	co	
1194	<i>ténax Lk.</i>	fough	♂ Δ w	2	jl.au	Ap	.....	1817.	S	co	
1195	<i>maritima W.</i>	sea	♂ Δ w	1	jn.jl	Ap	Britain	sal. m.	S	co	Eng. bot. 1140
1196	<i>compressa W.</i>	flat-stalked	♂ Δ w	1	jn.au	Ap	Britain	walls.	S	s.l	Eng. bot. 365
1197	<i>glauca E. B.</i>	glaucous	♂ Δ w	2	jn.au	Ap	Britain	moun.	S	s.l	Eng. bot. 1720
1198	<i>memoralis W.</i>	wood	♂ Δ w	2	jn	Ap	Britain	woods.	S	co	Eng. bot. 1265
1199	<i>ambuinensis W.</i>	upright	♂ Δ w	1	jn.jl	Ap	E. Indies	1800.	S	co	Rumph. 6. t. 7. f. 3
1200	<i>bulbosa W.</i>	bulbous	♂ Δ w	1	jl	Ap	England	pas.	S	co	Eng. bot. 1071
1201	<i>distans W.</i>	distant	♂ Δ w	1½	jl.au	Ap	Britain	pas.	S	co	Eng. bot. 586
1202	<i>retroflexa E. B.</i>	reflexed	♂ Δ w	1	jl.au	Ap	Britain	pas.	S	co	Eng. bot. 1532
1203	<i>egyptiaca W. en.</i>	Egyptian	♂ Δ w	1½	jl.au	Ap	Egypt	1812.	S	co	
1204	<i>peruviana W.</i>	Peruvian	♂ Δ w	½	jl.au	Ap	Peru	1802.	S	co	Jac. ic. 1. t. 18
1205	<i>nervata W.</i>	nerved	♂ Δ w	1½	jl.au	Ap	N. Amer.	1812.	S	co	
1206	<i>digitata R. Br.</i>	fingered	♂ Δ w	1½	jl.au	Ap	N. S. W.	1800.	S	co	
197.	ERAGROSTIS. <i>P. de B.</i>	LIVE-GRASS.					Gramineæ.	Sp. 3-10.			
1207	<i>pilosa P. de B.</i>	pilose	♂ Δ w	1½	jl.au	Ap	Italy	1804.	S	co	Host. gra. 2. t. 68
1208	<i>tenella P. de B.</i>	small	♂ Δ w	1	jl.au	Ap	E. Indies	1781.	S	co	Bur. zey. t. 47. f. 3
1209	<i>purpurascens Spr.</i>	purple	♂ Δ w	1½	jl.au	Ap	.....	1817.	S	co	
198.	MEGASTACHYA. <i>P. de B.</i>	MEGASTACHYA.					Gramineæ.	Sp. 5-29.			
1210	<i>Eragrostis P. de B.</i>	Love-grass	♂ Δ w	2	jl	Ap	Italy	1699.	S	co	Host. gra. 2. t. 69
1211	<i>amabilis P. de B.</i>	purple	♂ Δ w	1	jl	Ap	E. Indies	1802.	S	co	Lam. ill. t. 45. f. 2
1212	<i>rigida P. de B.</i>	hard	♂ Δ w	½	jn.jl	Ap	England	san. pl.	S	s.l	Eng. bot. 1371
	<i>Poa E. B.</i>										
1213	<i>elongata P. de B.</i>	long-panicled	♂ Δ w	2	jl.au	Ap	E. Indies	1812.	S	s.l	Jac. ecl. gra. t. 3
1214	<i>ciliaris P. de B.</i>	ciliated	♂ Δ w	1½	jl.au	Ap	Jamaica	1776.	S	s.l	Jacq. ic. 2. t. 304
199.	SCLEROCHLOA. <i>P. de B.</i>	HARD-GRASS.					Gramineæ.	Sp. 3.			
1215	<i>divaricata P. de B.</i>	divaricate	♂ Δ w	½	jl.au	Ap	S. Europe	1802.	S	co	Gou. ill. 4. t. 2. f. 1
1216	<i>procumbens P. de B.</i>	procumbent	♂ Δ w	½	jl.au	Ap	Britain	sea co.	S	h.s	Eng. bot. 532
	<i>Poa E. B.</i>										
1217	<i>dura P. de B.</i>	coarse	♂ Δ w	½	jn.jl	Ap	Europe	1822.	S	co	Host. gra. 2. t. 73
200.	ELEUSINE. <i>R. Br.</i>	ELEUSINE.					Gramineæ.	Sp. 2-4.			
1218	<i>coracana P. S.</i>	thick-spiked	♂ Δ w	4	jls	Ap	India	1714.	S	co	Schr. gra. 2. t. 35
1219	<i>indica P. S.</i>	Indian	♂ Δ w	2	jls	Ap	India	1714.	S	co	Rheed. 12. t. 69
201.	DACTYLOCTENIUM. <i>P. de B.</i>	DACTYLOCTENIUM.					Gramineæ.	Sp. 1-2.			
1220	<i>egyptiacum P. de B.</i>	creeping	♂ Δ w	1½	jls	Ap	Egypt	1770.	S	co	
202.	LEPTOCHLOA. <i>P. de B.</i>	LEPTOCHLOA.					Gramineæ.	Sp. 4-5.			
1221	<i>virgata P. de B.</i>	slender-spiked	♂ Δ w	3	jl.au	Ap	W. Indies	1727.	S	co	Sloane. 1. t. 70. f. 2
1222	<i>tenerrima R. & S.</i>	very-slender	♂ Δ w	1½	jn	Ap	China	1820.	S	co	
1223	<i>domingensis Lk.</i>	close-spiked	♂ Δ w	3	jn	Ap	W. Indies	1820.	S	co	Jacq. ic. t. 22
1224	<i>filiformis P. de B.</i>	Chinese	♂ Δ w	2	jl.au	Ap	China	1820.	S	co	Jacq. ecl. gra. t. 4
	<i>Poa chinensis</i>										
203.	CYNODON. <i>P. S.</i>	CYNODON.					Gramineæ.	Sp. 2-10.			
1225	<i>Dactylon P. S.</i>	creeping	♂ Δ w	1	jl	Ap	England!	...	S	co	Eng. bot. 850
1226	<i>linearis W. en.</i>	linear-leaved	♂ Δ w	½	jl.au	Ap	E. Indies	1796.	S	co	
204.	DINEBRA. <i>P. de B.</i>	DINEBRA.					Gramineæ.	Sp. 2-5.			
1227	<i>arabica Jacq.</i>	reflexed	♂ Δ w	½	jn.jl	Ap	E. Indies	1804.	S	co	Jac. frag. t. 121. f. 1
1228	<i>Lima P. de B.</i>	imbricated	♂ Δ w	½	jl.au	Ap	Spain	1776.	S	co	Cav. ic. 1. t. 91
205.	ECHINARIA. <i>Desv.</i>	ECHINARIA.					Gramineæ.	Sp. 1.			
1229	<i>capitata Desv.</i>	headed	♂ Δ w	½	my.au	Ap	S. Europe	1771.	S	co	Host. gra. 3. t. 8
206.	TRITICUM. <i>W.</i>	WHEAT.					Gramineæ.	Sp. 16-28.			
1230	<i>astivum W.</i>	summer	♂ Δ w	4	jn.jl	Ap	Baschkiros	...	S	r.m	Host. gra. 3. t. 26
1231	<i>hybernum W.</i>	Lammas	♂ Δ w	4	jn.jl	Ap	S	r.m	Host. gra. 3. t. 50



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

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

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

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

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

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

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

- 1210 Panicle equal spreading, Lower branches at base and ramifications hairy, Spikelets 15-25-flowered
 1211 Panicle spreading, Spikelets 18-flowered linear
 1212 Pan. distichous one-sided contr. hard, Spikelets linear acute 5-11-fl. Florets smooth obsolete 5-nerved

- 1213 Pan. elong. Branc. sprdg. distant abbrev. Spik. lin. 7-11-fl. close press. Flor. smooth acute 3-nerv. Lvs. glauc.
 1214 Panicle closely spiked, Spikelets ovate oblong 6-10-flowered, Florets smooth acute, Inner palea fringed

- 1215 Panicle divaricating, Flower-stalks thickened, Spikelets 4-flowered, Leaves filiform
 1216 Panicle lanceolate contracted one-sided rough, Rachis round, Florets obtuse nerved

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

- 1218 Spikes about 7 digitate at length incurv. Rachis membranac. Stem compr. erect, Leaves close together
 1219 Spikes digitate erect 5-9 on a linear rachis, Stem compressed declining branching at bottom

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

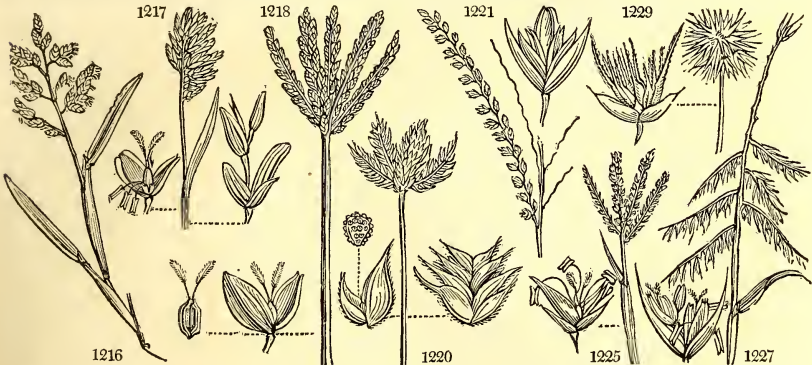
- 1221 Panicle with simple branches, Flowers sessile 6-flowered, the last sterile, lower bearded
 1222 Spike alternate very slender, Spikel. distich. beardless, Leaves rather hairy, Sheaths compressed smooth
 1223 Pan. branched fringed, Branches simple, Spikelets 5-fl. subsess. Florets all bearded (*Rhabdocoloa*. P.)
 1224 Panicle much branched contracted, Branches simple filiform, Spikelets alternate 2-4-flowered beardless

- 1225 Stolones creeping, Glume much spreading rough, Leaves fringed at edge
 1226 All over hoary, Spikes digitate 4, Glume erect, Leaves naked rough at edge

- 1227 Spikes altern. 1-sided panicled, Glumes equal, Spik. 2-fl. Flor. stalked beardl. herm. Stem^s prost. Lvs. flat
 1228 Spike one-sided simple, Spikelets many-flowered

- 1229 The only species

- 1230 Spike paral. compr. bearded, Glumes gibbous bearded trunc. at base contr. with a nerve runn. thinner upw.
 1231 Spike par. compr. nearly beardl. Glumes gibb. trunc. mucron. at base contr. with a nerve runn. thinner upw.



and Miscellaneous Particulars.

201. *Dactyloctenium*. The spikes are digitate, or disposed like one's fingers (*δακτυλος*, a finger).
 202. *Lepochloa*. From *λεπτες*, slender, and *χλωη*, grass, on account of its heads.
 203. *Cynodon*. *Κυνον*, *κυνος*, a dog, and *οδον*, a tooth; wherefore we know not. *Cynodon linearis*, the *Agrostis linearis* of König^s, is the famous *duruva* grass of the Hindoos, for which, see Lambert in the Linn. trans. vii. No. 92.
 204. *Dinebra*. Its Arabic name.
 205. *Echinaria*; *εχινος*, a hedge-hog: the prickly round heads may be fancied to resemble little hedge-hogs.
 206. *Triticum*. According to Varro, was so named from its grain being originally worn down (*tritum*) in making it eatable. This is by far the most important genus of the Gramineæ, as including the wheats, the flour of which is universally allowed to make the best bread in the world. For what is man upon rice or potatoes?

1232	compósitum <i>W.</i>	Egyptian	☉	ag	3	jn.jl	Ap	Egypt	1799.	S	r,m	Mor. h. 3. t. 1. f.7
1233	túrgidum <i>W.</i>	turgid	☉	ag	3	jn.jl	Ap	.....	...	S	r,m	Host. gra. 3. t.28
1234	polónicum <i>W.</i>	Polish	☉	ag	4	jn.jl	Ap	.....	1692.	S	r,m	Host. gra. 3. t.31
1235	Spélta <i>W.</i>	Spelt	☉	ag	3	jn.jl	Ap	.....	...	S	r,m	Host. gra. 3. t.30
1236	monocóccum <i>W.</i>	one-grained	☉	ag	3	jn.jl	Ap	.....	1648.	S	r,m	Host. gra. 3. t.32
1237	squarrósum <i>Roth.</i>	Porcupine	☉	w	1	jn.jl	Ap	Egypt	1800.	S	co	Host. gra. 3. t.32
1238	júnceum <i>W.</i>	rushy	☉	w	1½	jn.jl	Ap	England sea. sh.	S	co	Eng. bot. 814	
1239	répens <i>W.</i>	Couch-grass	☉	w	2	jl.au	Ap	Britain	rub.	S	ms	Eng. bot. 909
1240	caninum <i>E. B.</i>	bearded	☉	w	½	jl.au	Ap	Britain	ch. wo.	S	sl	Eng. bot. 1372
1241	rigídum <i>W. en.</i>	rigid	☉	w	1	jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t.22
1242	crístatum <i>Schr.</i>	crested	☉	w	1	jl.au	Ap	Britain	hed.	S	co	Eng. bot. 2267
1243	Zéa <i>Host.</i>	maize-like	☉	ag	4	jn.jl	Ap	Austria	1815.	S	r,m	Host. gra. 3. t.29
1244	villósum <i>P. de B.</i>	villous	☉	w	3	jn.jl	Ap	S. Europe	1790.	S	co	Fl. grac. 1. t. 97
1245	elongátum <i>Host.</i>	long-spiked	☉	w	5	jn.jl	Ap	Germany	1805.	S	co	Host. gra. 2. t.23
207.	LO'LIIUM. <i>W.</i>	DARNEL.	☉	ag	3	my.jn	Ap	Britain	me. pa.	S	co	Eng. bot. 315
1246	peréne <i>W.</i>	Rye-grass	☉	ag	3	jl.au	Ap	S. Europe	1590.	S	co	
1247	ténue <i>W.</i>	slender	☉	w	4	jl.au	Ap	Britain	cor. fi.	S	co	Eng. bot. 1194
1248	temuléntum <i>W.</i>	bearded	☉	p	4	jl.au	Ap	Britain	cor. fi.	S	co	Eng. bot. 1194
1249	arvése <i>E. B.</i>	beardless	☉	ag	4	jl	Ap	England	cor. fi.	S	co	Eng. bot. 1195

Gramineæ. Sp. 4-10.



History, Use, Propagation, Culture.

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

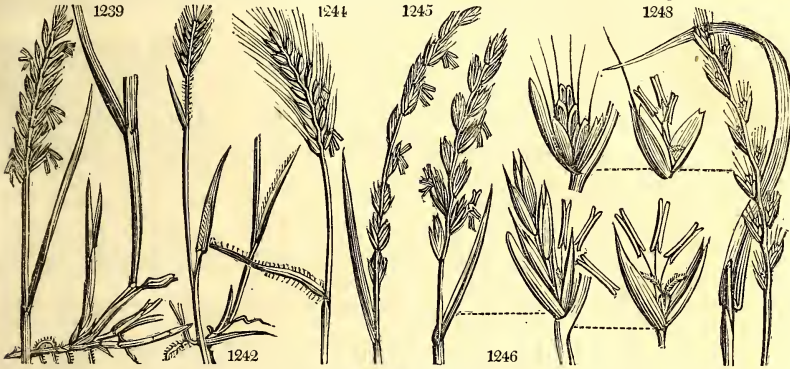
T. spelta appears a distinct species, and more hardy than common wheat; it has a stout straw almost solid, with strong spikes and chaff adhering firmly to the grain. The grain is light, yields but little flour, and makes but indifferent bread. It is grown in Switzerland in elevated situations, where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

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

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

- 1232 Spike compound at the base, Spikelets 3-flowered ventricose imbricated, Terminal floret beardless neuter
 1233 Spikelets 4-flowered ventricose pubescent imbricated bearded, Terminal floret barren, Glumes obtuse
 1234 Spikelets 4-flowered ventricose roughish, Two middle florets sterile, Paleæ unequal outer fringed
 1235 Spikelets 3-flowered ventricose roughish, Intermediate floret barren, Glumes ovate
 1236 Spikel. 2-fl. ventr. imbr. bearded, Barren floret with a short, fertile with a very long beard, Glumes 3-toothed
 1237 Spike distich. Spikelets 4-flowered approx. Two middle florets sterile, Glumes lin. lanc. Stem ascending
 1238 Glumes 9-nerved obtuse 4-5-flowered, Florets beardless, Rachis smooth, Root creeping
 1239 Root creeping white jointed proliferous
 1240 Glumes shortly bearded 3-nerved 5-flowered, Florets bearded, Root fibrous
 1241 Spike interrupted, Rachis hispid, Leaves rolled in at edge, Root creeping
 1242 Glumes 4-flowered bearded, Spikes lanceolate imbricated, Stems pubescent
 1243 Spikelets 4-flowered remote, Two joints of the hairy rachis longer than the spikelet
 1244 Spikelets 3-flowered, Ribs of glumes fringed in tufts, Leaves downy
 1245 Spikelets lanceolate 8-flowered beardless, Glumes truncate naked, Leaves nerved

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



and Miscellaneous Particulars.

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

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

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

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

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

T. repens, couch, white couch, twitch, dog-grass, quickens, &c. is common in most parts of Europe, and even in Siberia. It is one of the worst weeds in arable lands and gardens, and in the former is only to be destroyed by fallowing or fallow crops, or laying down to grass; and the latter by hand-picking or very deep trenching. The roots are sweet and nourishing, and are greedily eaten by horses and cattle. Sir H. Davy found them to contain nearly three times the nourishment of the stalks and leaves.

207. *Lolium*. *Lolæa* is the Celtic name of this grass. *L. perenne* is the *fausse ivraie* (see *L. temulentum*) of the French, from which our term ray-grass is derived, the *Dauerende Lolch*, Ger., and *Loglio vivace*, Ital. This appears to be the first grass which was taken into cultivation in Europe, but when is uncertain. Gerarde, Parkinson, Plattes, and even Blythe in Cromwell's time, take no notice of it. It is first mentioned by Dr. Plott in 1677. "They have lately sown," he says "ray-grass, Gramen loliacæ, to improve cold sour clayey weeping ground unfit for saint-foin." It was first sown in the Chiltern parts of Oxfordshire, and afterwards by one Eustace at Islip in the same county. There are two varieties of this grass; the perennial, which is of shorter growth than the other, and on sound dry soils will last four or five years, and on rich soils longer; and the annual, or rather biennial, which is tall and larger in all its parts than the perennial, and after producing one bulky crop dies at the root, or, at least, sends up no latter math. After all that has been affirmed of other grasses, none appear so well adapted as the annual rye-grass for producing a bulky crop of hay, with or without red clover; or better adapted than the perennial variety for sowing down with white clover, to afford three or more years pasture in the rotations of what is called convertible husbandry, or the alternate corn and grass culture. Cock's-foot grass and woolly grass (*Holcus*) may afford a greater lulk on poor soils, but are far inferior to the ray-grass in regard to nutritive qualities. Sir H. Davy found the value which

208. ELYMUS. W.	LYME-GRASS.				<i>Gramineæ.</i>	Sp. 16-24.								
1250 arenarius W.	upright-sea	▲	△	ag	4	ap,jn	Ap	Britain	sea co.	S	s	Eng. bot.	1672	
1251 gonicalatus E. B.	pendulous	▲	△	w	4	jl	Ap	England	sea sh.	S	s	Eng. bot.	1586	
1252 sabulosus W. en.	glaucous	▲	△	w	4	jn,jl	Ap	Siberia	1806.	S	co			
1253 giganteus W.	gigantic	▲	△	or	5	jl.au	Ap	Mexico	1790.	S	co			
1254 sibiricus W.	Siberian	▲	△	w	6	jn,jl	Ap	Siberia	1758.	S	co	Sch.gra.2.t.21.f.1		
1255 tener W.	tender	▲	△	w	2	jn,jl	Ap	Siberia	1801.	S	co			
1256 philadelphicus W.	Philadelphian	▲	△	w	4	jl.au	Ap	N. Amer.	1790.	S	co			
1257 canadensis W.	Canadian	▲	△	w	4	jl.au	Ap	N. Amer.	1693.	S	co	Mor. h.3.t.2.f.10		
1258 virginicus W.	Virginian	▲	△	w	2½	jn,jl	Ap	Virginia	1781.	S	co			
1259 striatus W.	striated	▲	△	w	2	jn,jl	Ap	N. Amer.	1790.	S	co			
1260 villosus Ph.	villosus	▲	△	w	2	jn,jl	Ap	N. Amer.	1802.	S	co			
1261 europæus W.	wood	▲	△	w	2	jn,jl	Ap	England	woods.	S	s.l	Eng. bot.	1317	
1262 crinitus Sch.	long-awned	▲	△	w	1	jn,jl	Ap	Smyrna	1806.	S	co	Schr. gr. t.24. f.3		
1263 Caput-Medusæ W.	Portuguese	▲	△	w	1	jn,jl	Ap	Portugal	1784.	S	co	Schr. gr. t.24. f.2		
1264 juncus Fisch.	rush	▲	△	w	2	jn,jl	Ap	Siberia	1806.	S	co	Mem. msq. 1.p.45		
1265 hystrix L.	Porcupine	▲	△	w	2	jn,jl	Ap	Crimea	1770.	S	co	Jacq. ic. 2. t. 305		
209. SECA'LE. W.	RYE.						<i>Gramineæ.</i>	Sp. 2.						
1266 cerale W.	common	▲	○	ag	3	jn,jl	Ap	Crimea	...	S	s.l	Host. gra. 2. t. 48		
1267 orientale W.	hairy-spiked	▲	○	ag	3	jn,jl	Ap	Levant	1807.	S	co	N.ac.ber.2.t.4.f.3		
210. HOR'DEUM. W.	BARLEY.						<i>Gramineæ.</i>	Sp. 9-12.						
1268 vulgare W.	spring	▲	○	ag	3	jl	Ap	Sicily	...	S	r.m	Host. gra. 3. t. 34		
1269 hexastichon W.	winter	▲	○	ag	3	jl	Ap	.....	...	S	r.m	Host. gra. 3. t. 35		
1270 distichon W.	common	▲	○	ag	3	jl	Ap	Tartary	...	S	r.m	Host. gra. 3. t. 36		
1271 Zeocriton W.	battledore	▲	○	ag	2	au	Ap	.....	...	S	r.m	Host. gra. 3. t. 37		
1272 bulbosum W.	bulbous	▲	△	w	3	jl	Ap	Italy	1770.	S	co	Fl. grac. 1. t. 98		
1273 murinum W.	wall	▲	△	w	1½	ap.au	Ap	Eritan	sal.m.	S	s.l	Eng. bot.	1971	
1274 pratense Roth.	meadow	▲	△	w	2	jn	Ap	Britain	m. me. S	h.l		Eng. bot.	409	
1275 maritimum W.	sea	▲	△	w	1	jn,jl	Ap	Britain	sal. m. S	m.s		Eng. bot.	1205	
1276 jubatum H. K.	long-bearded	▲	○	w	1	jl.au	Ap	N. Amer.	1782.	S	co			
211. MICROCHLO'A. R. Br.	MICROCHLOA.						<i>Gramineæ.</i>	Sp. 1.						
1277 setacea R. Br.	setaceous	▲	○	w	½	jl	Ap	E. Indies	1806.	S	co	Rox. cor. t. 132		
212. OPHIURUS. P. de B.	HAARD-GRASS.						<i>Gramineæ.</i>	Sp. 3-4.						
1278 incurvatus P. de B.	sea	▲	○	w	½	jl	Ap	Britain	sea co.	S	m.s	Eng. bot.	760	
1279 filiformis P. de B.	filiform	▲	△	w	½	jl	Ap	Portugal	1860.	S	co	Barr. ic. t. 117. f. 1		
1280 pannonicus P. de B.	two-flowered	▲	○	w	½	jl	Ap	Hungary	1804.	S	co	Host. gra. 1. t. 24		
213. MONER'MA. P. de B.	MONERMA.						<i>Gramineæ.</i>	Sp. 2-3.						
1281 monandrum P. de B.	monandrous	▲	○	w	½	jl	Ap	Spain	1804.	S	co	Cav. ic. t. 39. f. 1		
1282 subulatum P. de B.	subulate	▲	○	w	1	jl	Ap	S. Europe	1806.	S	s.l	Barr. ic. t. 5		



History, Use, Propagation, Culture.

this grass cut at the time it is coming into flower bears to that when the seed is ripe, to be as 10 to 11. Pacey's perennial ray-grass, a variety raised in Staffordshire, has long been in repute, and there has lately been a new variety raised in Bedfordshire, known as the Russel ray-grass.

208. *Elymus*. Linnæus derives the name from *ελυσα*, to cover, because the leaves of his *Elymus maritimum* are formed into a coarse sort of fabric. The *Elymus* of the ancients was evidently a sort of corn. *E. arenarius* is a strong rough glaucous plant common on sandy shores, and like *Calamagrostis arenaria* and others, which have been mentioned (genus *Lygeum*, *Stipa*, *Arundo*), prevents, by its matted roots, the shifting of loose sand thrown up by the tides. In analyzing the soluble matter afforded by this grass, Sir H. Davy found it to contain more than one-third of its weight of sugar. It is not, however, eaten by any of our domestic animals.

209. *Secale*. An ancient name, supposed to have been derived from *seco*, to cut, which word is said to have been formed from the Celtic *sega*, a sickle. This grain, of which there is probably only one species, affords a grain next in value to the wheat for making bread, and is generally used for this purpose, alone or mixed with wheat, throughout Germany and the north of Europe. It is harder and earlier than wheat. Like it, it will ripen if sown in spring, but better if treated like a winter-wheat. In Britain it is little sown. Its grain yields 732-1000 parts of soluble matter, of which 645 are mucilage, 190 gluten, and 38 sugar.

210. *Hordeum*. *Bodeus* à *Stapel* derives this word from *hordus*, heavy, because bread made with barley is very heavy. *Bara* is the Celtic for bread, whence the English words barn and barley; as beer is a slight alteration of the appellation of barley in that tongue, *Bere*. *Hexastichon* (ἕξ, six, σιῶξ, σιῶξ, row) signifies grain growing in six rows; *distichon*, in two rows. *Zeocriton* is derived from *ζεα*, which is supposed to have been Spelt, and *κεῖρα*, barley; that is to say, barley resembling spelt wheat. The four first species, or, more probably, sub-species, are cultivated as barleys. *H. vulgare* or two rowed barley, is that in general cultivation, and of this the rath-ripe and Thanet are preferred as varieties. *H. hexastichon* is the bear or bigg chiefly cultivated in the north of Scotland, and in Denmark and Sweden. *H. distichon* has thin husks, and is preferred for malting. *H. zeocriton* or sprat barley has short broad awns, long awns, and short coarse straw, and is not much cultivated. The native country of barley is unknown. It was cultivated by the Romans as a horse-corn, and also for the army, and the gladiators were called *Hordiarii* from their feeding on this grain. In the south of Europe they have sometimes two crops in one season; one sown in autumn and cut in May, and another

- 1250 Spike erect close, Spikel. 3-f. pubesc. Lower and upper in pairs middle in 3s rather shorter than fring. glume
 1251 Spike loose erect, Spikel. 3-f. pubesc. lower remote shorter than the smooth glumes, Leaves involute rigid
 1252 Spike erect close, Spikel. 4-f. from middle to base pubesc. shorter than smooth glume, Leaves involute rigid
 1253 Spike erect close, Spikel. 6-7-f. pub. in 6s upper in 3s or pairs shorter than smooth glumes, Lvs. invol. rigid
 1254 Spike pendulous close, Spikelets 2 together longer than the glumes
 1255 Spike pendulous, Spikelets 3-flowered bearded in pairs, Leaves flat
 1256 Spike pendulous spreading, Spikelets 6-flowered bearded in threes, Leaves flat
 1257 Spike nodding spreading, Spikelets 6-flowered bearded the lower in threes upper in pairs, Leaves flat
 1258 Spike erect, Spikelets 3-f. bearded smooth in pairs, Glumes lanceol. nerved as long as spikelets, Leaves flat
 1259 Sp. erect, Spt. 2-f. beard. hispid in pairs, Gls. lin. nerv. beard. as long as spikel. Lvs. flat and sheaths smooth
 1260 Spike erect, Spikel. 3-f. villous bearded in threes, Glumes bearded longer than spikel. Leaves flat
 1261 Spike erect, Spikel. in 3s 1-2-f. bearded rough, Gls. linear subul. bearded as long as spikel. Sheaths hairy,
 1262 Spikelets 1-f. rough, Involucres erect [Leaves flat
 1263 Spikelets 2-f. Involucres setaceous spreading
 1264 Lvs. short involute curved, Spike erect rough, Spikel. in 3s 2-f. longer than the bearded very narrow invol.
 1265 Spike erect, Spikelets spreading, Involucr. none [Outer glume with a short beard

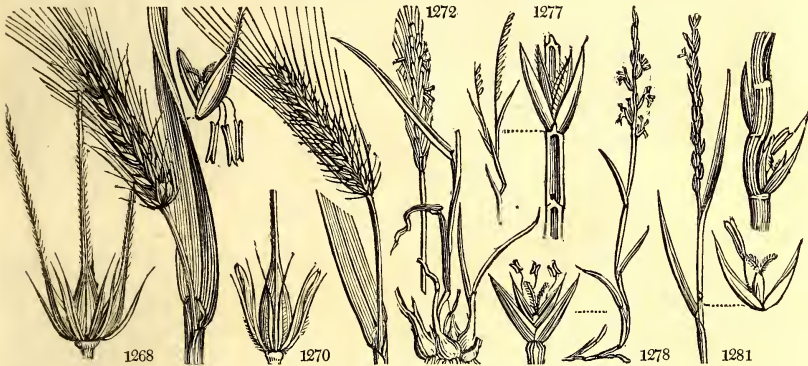
- 1266 Glumes and beard rough, Paleæ smooth toothed at the end
 1267 Stem procumbent at base, Uppermost leafsheath tumid, Glumes and paleæ subulate bearded

- 1268 All florets hermaphrodite bearded, Seeds in 4 rows, Stems erect
 1269 All florets hermaphrodite bearded, Seeds in 6 rows
 1270 Lateral florets male beardless hermaphrodite in 2 rows bearded
 1271 Lateral florets male beardless hermaphrodite in 2 rows, Spike short, Seeds angular spreading
 1272 All florets fertile in threes bearded, Involucres setaceous ciliated at base
 1273 Intermediate glumes linear lanceolate ciliated outer setaceous rough
 1274 Lateral florets male with a short beard, All the glumes setaceous rough
 1275 All the glumes rough, Inner glume of the lateral florets semi-lanceolate the rest setaceous
 1276 Beards and involucres setaceous very long

1277 The only species

- 1278 Spike slender subulate incurved
 1279 Spike subulate somewhat compressed erect, Leaves channelled
 1280 Spike subulate erect, Leaves flat

- 1281 Spike subulate erect, Glume minute, Florets bearded
 1282 Spike subulate erect, Glume ensiform acuminate appressed



and Miscellaneous Particulars.

sown in spring and cut in autumn. In Lapland two months, and in England nine weeks elapse between the sowing and cutting of this grain.

Malt is the chief purpose for which barley is cultivated in Britain, but it is also made into flour, and pot and pearl barley. In order to understand the process of malting, it may be necessary to observe, that the cotyledons of a seed before a young plant is produced, are changed by the heat and moisture of the earth into sugar and mucilage. Malting is only an artificial mode of effecting this object, by steeping the grain in water, and fermenting it in heaps, and then arresting its progress towards forming a plant by kiln drying, in order to take advantage of the sugar in distillation for spirit, or fermentation for beer. The chemical constituents of mucilage and sugar are very nearly alike: in the process of malting a part of the mucilage or starch is converted into sugar, so that the total quantity of sugar, and consequently the source of spirit, is increased.

Of pot-barley there are two sorts, pearl and Scotch, both produced by grinding off the husk, and the former variety by carrying the operation so far as to produce roundness in the kernel. It is used in soups, gruels, and medicinal drinks.

Barley-flour is ground like flour, and forms a light pudding or pottage, which, spread out in thin cakes and slightly toasted, forms a breakfast bread much esteemed in some parts of Scotland. It is brought to table hot from the baking plate, and eaten with butter and honey, or cream and sugar.

H. murinum, squirrel-tail-grass, is common by way-sides, and its awns or heads are so injurious to the gums of horses in the isle of Thanet, that one of the greatest recommendations of an inn is having "hay without any mixture of squirrel-grass."

H. pratense resembles rye, and to this, Professor Martyn observes, the name of rye-grass belongs, and not to Lolium perenne, which is ray (from *ivraye*, Fr.) grass.

211. *Microchloa*. From *μικρος*, small, *χλον*, grass, on account of its size.

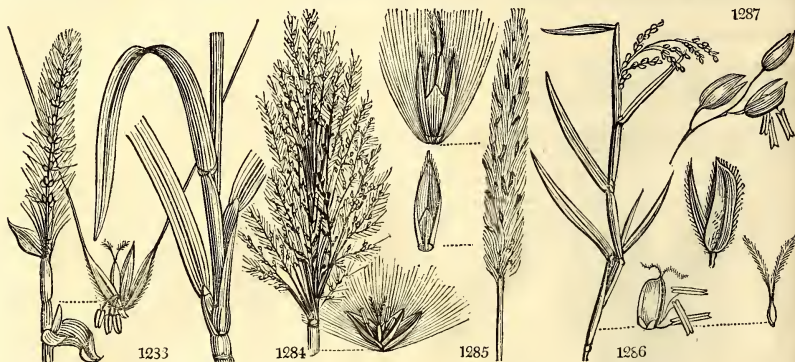
212. *Ophiurus*. A name constructed by Gertner from *ὄφεις*, a snake, and *ουρα*, a tail, from a fancied resemblance in the spikes of the genus to the tail of a viper. This is the genus *Rottböllia* of English botanists: but no true species of that genus have yet been cultivated in this country.

213. *Monerma*. From *μονος*, one, and *ερεμια*, support; there is only one glume, which by its rigidity acts as a support to the flower.

214. PERO'TIS. <i>H. K.</i>	PEROTIS.	♣	□	cu	2	aus.	Ap	<i>Gramineæ.</i>	Sp. 1—2.				
1283 latifolia <i>W.</i>	spiked								E. Indies	1777.	S s.p	Rheede. 12. t. 62	
215. SAC'CHARUM. <i>W.</i>	SUGAR-CANE.	♣	□	clt	12	...	Ap	<i>Gramineæ.</i>	Sp. 1—14.				
1284 officinarum <i>W.</i>	common								India	1597.	Sk r.m	Sloan. jam. 1. t. 66	
216. IMPERA'TA. <i>Cyr.</i>	IMPERATA.	♣	△	ec	2½	jl.au	Ap	<i>Gramineæ.</i>	Sp. 1—5.				
1285 arundinacea <i>Cyr.</i>	reedy								S. Europe	1817.	S co	Cvrril. ic. 2. t. 11	
217. LEER'SIA. <i>R. Br.</i>	LEERSIA.	♣	△	w	2	jl.au	Ap	<i>Gramineæ.</i>	Sp. 2.				
1286 oryzoides <i>W.</i>	rough								Levant	1793.	S co	Host. gra. 1. t. 35	
1287 virginica <i>W.</i>	Virginian					½ jl.au	Ap		N. Amer.	1770.	S co	Jac. ic. 2. t. 305	
218. DIARRHE'NA. <i>Mich.</i>	DIARRHENA.	♣	△	w	2	jn. jl	Ap	<i>Gramineæ.</i>	Sp. 1.				
1288 americana <i>M.</i>	American								N. Amer.	1810.	S co	Mich. am. t. 10	
219. ARUNDINA'RIA. <i>Mich.</i>	CANE-BRAKE.	♣	△	or	10	jn	Ap	<i>Gramineæ.</i>	Sp. 1—2.				
1289 macrospërma <i>Mich.</i>	long-seeded								N. Amer.	1809.	S co		

TRIGYNIA.

220. HOLO'STEUM. <i>W.</i>	HOLOSTEUM.	○	pr	¼	jl.au	Pk		<i>Caryophyllæ.</i>	Sp. 2—5.				
1290 umbellatum <i>W.</i>	umbelliferous								England old wa.		S co	Eng. bot. 27	
1291 cordatum <i>W.</i>	cordate	□	pr	¼	jn	W			Jamaica	1814.	S co	Lam. ill. t. 51. f. 2	
221. POLYCAR'PON. <i>W.</i>	ALL SEED.	○	w	½	jl	W		<i>Caryophyllæ.</i>	Sp. 1—3.				
1292 tetraphyllum <i>W.</i>	four-leaved								England san. pl.		S co	Eng. bot. 1031	
222. LECHE'A. <i>W.</i>	LECHEA.	¾	△	w	3	jl.au	W	<i>Caryophyllæ.</i>	Sp. 2.				
1293 major <i>W.</i>	greater								Canada	1780.	D co	Lam. ill. 1. t. 52. f. 2	
1294 minor <i>W.</i>	lesser	¾	△	w	½	jl.au	W		Canada	1802.	D co	Lam. ill. t. 52. f. 1	



History, Use, Propagation, Culture,

214. *Perotis*. From *περος*, deficient, some parts of the flower being absent.

215. *Saccharum*. From its Arabic name *soukar*, from which the Greeks formed *σακχαρ*, and modern European nations sugar. *Sucre*, Fr. *Sucker*, Ger., &c. This grass or reed, though unknown to the ancients, has become of immense importance in modern times. There are many varieties or species both wild and cultivated, natives of the banks of rivers and meadows in both the Indies, China, Africa, the South Sea islands, and South America. It is cultivated in a zone extending from 35 to 40 degrees on each side of the equator. Where it was first cultivated is unknown; in all probability, in India, for the Venetians imported it from thence by the Red Sea prior to 1148. It is supposed to have been introduced into the islands of Sicily, Crete, Rhodes, and Cyprus by the Saracens, as abundance of sugar was made in these islands previously to the discovery of the West Indies in 1492 by the Spaniards, and the East Indies and Brazil by the Portuguese in 1497 and 1500. It was cultivated afterwards in Spain, in Valencia, Granada, and Murcia by the Moors, and sugar is still made in these provinces. (*Townsend and Jacob*.) In the 15th century the cane was introduced to the Canary islands by the Spaniards, and to Madeira by the Portuguese, and hence to the West India islands and the Brazils. The Dutch began to make sugar in the island of St. Thomas, under the line, in 1610, and the English in Barbadoes in 1643, and in Jamaica in 1644. The culture of the cane has since become general in warm climates, and the use of sugar being universal, it forms one of the first articles of commerce throughout the world. Sugar is described by Pliny and Galen as a sweet salt, and from the former it appears to have been used only in medicine. Actuarius, a physician, who wrote in the 10th century, or later, was the first to substitute sugar for honey in medicinal compositions. It was called Indian salt, and a small piece was recommended to be kept in the mouth to moisten it in fevers. Different medical men have written for and against the use of sugar, as they have against tea, coffee, wine, and all with similar success. The enjoyment derived from these articles to all mankind who enjoy them, is too great to be left off in deference to the opinions of a few. Dr. Mosely is the greatest advocate for sugar. For the last two centuries it has been an ingredient in the popular diet of Europe. It was in use in England in 1466, but chiefly in feasts and as a medicine, till it was brought from the Brazils about 1580 to Portugal, and imported from thence. The quantity consumed in Britain has always kept increasing; the consumption of England alone in 1790 amounted to 166,573,341 lbs.; which, taking the population at eight millions, gives each individual at an average about 20 lbs. a-year.

The cane, as a stove plant, is of easy culture in soft moist soil with a good heat; it grows seven or eight feet high, but it never flowers. It was grown in abundance in the stoves of the Paris gardens, and a small sugar loaf was made from the canes, and presented to the Empress Josephine. In the botanic gardens of Toulon and Naples it stands the winter in the open air.

The cane in the West Indies is propagated by cuttings from the root end, planted in hills or trenches in spring or autumn, something in the manner of hops. The cuttings root at the joints under ground, and from those above send up shoots, which in eight, twelve, or fourteen months are from six to ten feet long, and fit to cut down for the mill. A plantation lasts from six to ten years. Sugar mills are merely iron rollers placed vertically or horizontally, between which the canes are passed and repressed. The juice thus squeezed out, is collected and boiled with quick-lime, which being an alkali, imbibes the superfluous acid, which would otherwise impede crystallization: impurities are skimmed off, and the boiling is continued till a thick syrup is pro-

1283 Culm simple, Leaves very smooth, Joints smooth

1284 Flowers panicled, Leaves flat

1285 Pan. spiked cylindrical, Leaves convolute, Joints smooth, Flowers generally diandrous

1286 Pan. diffuse sheathed, Florets 3-androus spreading, Keel of the glumes fringed

1287 Pan. diffuse, Branches horizontally spreading, Florets 3-androus, Keel of the glumes fringed

1288 The only species

1289 Smooth, Leaves linear-lanceolate distichous, Flowers panicled

TRIGYNIA.

1290 Leaves elliptical glaucous smooth, Flowers umbelled, Common peduncle viscid

1291 Leaves cordate

1292 Stem branched 4-leaved prostrate

1293 Leaves ovate lanceolate, Flowers lateral scattered

1294 Leaves linear-lanceolate, Flowers panicled



and Miscellaneous Particulars.

duced, when the whole is cooled and granulated in shallow vessels. It is now the raw or Muscovado sugar of commerce. A further purification is effected by dissolving it in water, boiling, skimming, adding lime, and clarifying from the oily or mucilaginous parts, by adding blood or eggs, which incorporate with them and form a scum. When boiled to a proper consistency it is put into unglazed earthen vessels of a conical shape, with a hole at the apex, but placed in an inverted position, and the base, after the sugar is poured in, covered with clay. When thus drained of its impurities, it is taken out of the mould, wrapped in paper, and dried or baked in a close oven. It is now the loaf sugar of the shops, and according to the number of operations it undergoes, is called single or double refined. The operation of refining is seldom or never performed by the growers; but in Europe, at least, generally forms a separate branch in the mother country of the colony.

Sugar candy, *Shukur* and *khand*, Indian names for sugar in general, is formed by dissolving loaf sugar in water over a fire, boiling it to a syrup, and then exposing it to crystallize in a cool place. This is the only sugar esteemed in the east.

Barley sugar is a syrup from the refuse of sugar candy, hardened in cylindrical moulds.

Rum is distilled from the fermented juice of sugar and water.

Sugar as a chemical compound is described as a neutral salt, consisting of the acetic acid, united to a small quantity of oil and charcoal, carbonated hydrogen, and carbonic acid gas. Besides its use in medicine, dietetics, and distillation, it is employed to preserve animal and vegetable substances from putrefaction, and to communicate a gloss to ink, varnishes, and pigments. When very cheap, it has been successfully employed to fatten cattle. Most plants contain sugar, and it has been extracted in considerable quantities from the beet, parsnip, maple, birch, grape, &c., but the cane is preferred as affording it in greater abundance.

216. *Imperata*. The derivation or application of the idea not explained. The plants resemble in their noble port and waving silky heads the plumes of a cap of state.

217. *Leersia*. Named after J. D. Leers, an author of the *Flora Herborenensis*, the first edition of which, in 1789, is very valuable on account of its rarity: but its merits have been extolled much beyond reality by Sir James Smith. One species, *L. lenticularis*, which has not yet been introduced to this country, has the power of catching flies by the singular structure of its corolla, which resembles the leaves of *Dionæa muscipula*.

218. *Diarrhena*. A word signifying diandrous; *dis*, two, *ἀερον*, male.

219. *Arundinaria*. An alteration of the word *Arundo*, to which genus this may be compared with reference to its large size.

220. *Holosteum*. A name derived from *ὅλος*, all, and *ὀστρον*, bone, all-bone, and applied by antiphrasis to this plant, which is no-bone, being very soft and delicate. This species of wit is not uncommon even at the present day, but applied to men, not plants. The abuse of M. Decandolle in the *Botanical Register*, p. 729, must be considered a modern instance of the use of this figure of speech; for we find the gentle editor eating his words a few months afterwards, p. 791, in a most satisfactory and complacent manner.

221. *Polycarpon*. From *πολυς*, many, *καρπος*, fruit; all-seed; one of the names applied by the ancients to the *Polygonum aviculare*, and sufficiently applicable to this plant.

222. *Lechea*. In memory of G. Lecheo, a Swede, professor of natural history at Abo, and author of observations on rare plants; died in 1764. The genus consists of small N. American plants of no beauty.

223. ERIOCAULON. <i>W.</i> PIPEWORT. 1295 septangulare <i>E. B.</i> 1296 australe <i>R. B.</i>	jointed australasian	≡ Δ cu ≡ Δ cu	$\frac{1}{2}$ s $\frac{1}{2}$ jn	<i>Eriocaulac.</i> <i>W</i> <i>W</i>	Sp. 2—34 Scotland N. Holl.	bogs. 1820.	D m.s D m.s	Eng. bot. 773
224. MONTIA. <i>W.</i> CHICKWEED. 1297 fontana <i>W.</i> 1298 rivularis <i>Gmel.</i>	water brook	≡ ○ w ≡ ○ w	$\frac{1}{2}$ ap, my $\frac{1}{2}$ jn, jl	<i>Portulacac.</i> <i>W</i> <i>W</i>	Sp. 2. Britain Labrador	springs. 1823.	S aq D m.s	Eng. bot. 1206
225. MOLLUGO. <i>W.</i> MOLLUGO. 1299 verticillata <i>W.</i> 1300 triphylla <i>Lk.</i>	whorled three-leaved	○ w □ w	$\frac{1}{2}$ jn, au $\frac{1}{2}$ jl	<i>Caryophyllac.</i> <i>Ap</i> <i>Ap</i>	Sp. 2—7. Virginia Brazil	1748. 1821.	S co D m.s	Ehret. pict. t. 6
226. MINUARTIA. <i>W.</i> MINUARTIA. 1301 dichotoma <i>W.</i> 1302 campestris <i>W.</i> 1303 montana <i>W.</i>	forked field mountain	○ w ○ w ○ w	$\frac{1}{2}$ jn, jl lin jn, jl $\frac{1}{2}$ jn, jl	<i>Caryophyllac.</i> <i>Ap</i> <i>Ap</i> <i>Ap</i>	Sp. 3. Spain Spain Spain	1771. 1806. 1806.	S co S co S co	Ac. st. 1758. t. 1. f. 2 Ac. st. 1758. t. 1. f. 3 Lef. it. rar. t. 1. f. 4
227. QUERIA. <i>W.</i> QUERIA. 1304 hispanica <i>W.</i>	Spanish	○ w	lin my, s	<i>Caryophyllac.</i> <i>Ap</i>	Sp. 1—2. Spain	1800.	S co	Quer. fl. 6. t. 15. f. 2
228. KENIGIA. <i>W.</i> KENIGIA. 1305 islandica <i>W.</i>	Iceland	○ cu	$\frac{1}{2}$ ap	<i>Polygonac.</i> <i>Ap</i>	Sp. 1. Iceland	1773.	S co	Lam. ill. t. 51



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223. *Eriocaulon*. *Egiov*, wool, and *καυλος*, a stem; in allusion to the velvety stem of some species. Only one kind, *E. septangulare*, has been found in Britain. The species are all very curious, and deserving of more attention than they have received at the hands of cultivators.

224. *Montia*. In honor of Joseph de Monti, professor of botany and natural history at Bologna in the beginning of the 18th century. The plants are small inconspicuous weeds.

225. *Mollugo*. The Roman name of what is supposed to be our *Galium mollugo*, which the present plant resembles in its whorled leaves and inconspicuous appearance.



CLASS IV. — TETRANDRIA. 4 STAMENS.

This class is neither so large nor so important as the last. It is composed chiefly of ornamental or curious plants, mostly shrubs, of which the Proteaceæ hold the first rank. Among the few plants used in the arts which it contains, may be mentioned the madder (*Rubia*), Fuller's thistle (*Dipsacus*), the holly (*Ilex*), one of the best evergreen hedge plants; and some foreign timbers and dyes, as the sandal-wood and chayroot.

The Proteaceæ, of which the first section of the class partly consists, are natives chiefly of the Cape of Good Hope and New South Wales; and there is this singular circumstance connected with their geographical distribution, that those two continents do not possess any one genus in common; a singular fact, and of the more difficult solution, as the genera of the order are strictly natural. They have been described by Mr. Brown, in a long and learned memoir, in the Transactions of the Linnean Society, vol. x., where much information respecting them may be found. It has been impossible to state the natural height or color of flower of many of the New Holland kinds, as Mr. Brown says nothing upon these two points; and he is the only author who has seen the plants in their native country, where alone many of them have flowered. In the conservatory they are mostly shrubs of from four to seven feet in height.

The principal part of the fourth section of Monogynia consists of the Stellatæ or Crossworts, which are common weeds all over Europe.

Many of the genera in the sixth section, such as *Ixora*, *Pavetta*, *Catesbæa*, are beautiful ornaments of the conservatory. The wood of *Curtisia* in the seventh section furnishes the Caffees with materials for the shafts of their hassagays.

With the exception of Proteaceæ, the class is made up of a miscellaneous assemblage of species, with few characters in common. The genera have not been combined in any other than a purely artificial manner, and among them are to be found plants belonging to almost all the natural orders of Dicotyledonous plants of the older French botanists. *Pothos*, *Potamogeton*, and *Ruppia* are among the rare instances of a quaternary division of the flower in Monocotyledonous plants.

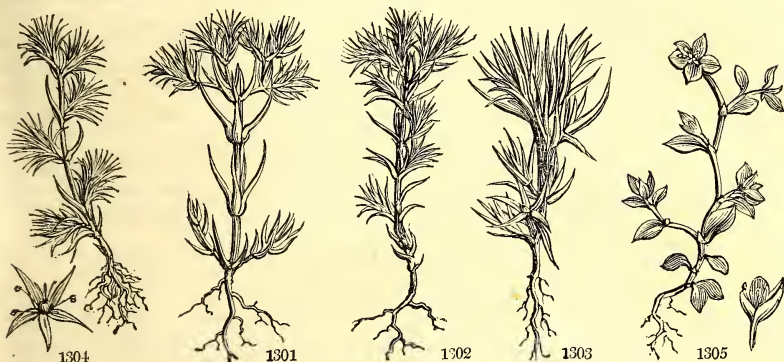


Order 1. MONOGYNIA. 4 Stamens. 1 Style.

1. Flowers incomplete, (no corolla), inferior.

229. *Petrophila*. Cal. 4-cleft, all deciduous. Style persistent at base. Stigma spindle-shaped, narrowed at end. Scales beneath the ovary none. Cone ovate. Nut lenticular, comose at one end.

- 1295 Stem 7-angled, Leaves acuminate cellular, Male fl. monopetalous tetrandrous
 1296 Stem 7-angled, Leaves flat hairy much shorter than the stem, Scales of the head powdery
 1297 Stem erect divaricating, Leaves connate-sessile oblong ovate
 1298 Stem weak dichotomous, Leaves opp. sessile obtuse lanceolate fleshy
 1299 Leaves whorled wedge-shaped acute, Stem divided decumbent, Pedunc. 1-flowered
 1300 Stem erect, Leaves whorled three larger than the rest, Pan. terminal and lateral
 1301 Leaves filiform dilated at base, Branches terminal capitate corymbose, Flowers axillary
 1302 Leaves capillary, Flowers terminal stalked alternate longer than bractææ
 1303 Leaves capillary, Corymbs leafy axillary stalked, Flowers shorter than bractææ
 1304 Leaves opposite filiform, Flowers terminal heaped, Bractææ squarrose
 1305 The only species



and Miscellaneous Particulars.

226. *Minuartia*. In memory of John Minuart, a Spanish botanist, and correspondent of Linnæus. He published some Opuscula in 1739.

227. *Queria*. In memory of Joseph Quer, a Spanish botanist, who published a *Flor Espagnol* in 1762, in six volumes, quarto, held in no estimation. The plant is Spanish, and worthless also.

228. *Kœnigia*. In honor of Emanuel Kœnig, professor of botany at Bale, and called the modern Avicenna; he died in 1731. He published several works now forgotten. The plant is a curious inconspicuous annual, occasionally seen in botanic gardens.

230. *Isopogon*. Cal. 4-cleft, with a slender tube, persistent for a long time. Style wholly deciduous. Stigma spindle-shaped or cylindrical. Scales beneath the ovary none. Nut sessile, ventricose, comose on all sides.

231. *Protea*. Cal. bipartite, unequal, with the stamen-bearing divisions of the broader lip cohering. Style subulate. Stigma narrowly cylindrical. Nut bearded on all sides, with the remains of the persistent style. Common receptacle with short persistent scales. Involucrum imbricated, persistent.

232. *Leucospermum*. Cal. irregular, labiate, with three of the segments (rarely all) cohering at the base, the stamen-bearing divisions distinct. Style filiform, deciduous. Stigma thickened, smooth, sometimes unequal-sided. Nut ventricose, sessile, smooth. Head indefinitely many-flowered. Involucrum many-leaved, imbricated.

233. *Mimetes*. Cal. 4-parted, equal, with distinct divisions. Style filiform, deciduous. Stigma cylindrical, slender. Nut ventricose, sessile, smooth. Common receptacle flat, with narrow deciduous scales. Involucrum indefinitely many-leaved, imbricated.

234. *Serruria*. Cal. 4-cleft, nearly equal, with distinct claws. Stigma vertical, smooth. Scales 4, hypogynous. Nut shortly stalked, ventricose. Head indefinitely many-flowered, with persistent imbricated scales.

235. *Nivenia*. Cal. 4-cleft, equal, wholly deciduous. Stigma clavate, vertical. Nut ventricose, shining, sessile, entire at the base. Involucrum 4-leaved in a simple series, 4-flowered, when in fruit indurated. Receptacle flat, without scales.

236. *Sorocephalus*. Cal. 4-cleft, equal, wholly deciduous. Stigma vertical, clavate. Nut ventricose on a very short stalk, or emarginate at base. Involucrum 3-6-leaved in a simple series, definitely few-flowered or 1-flowered, in fruit not altered. Recept. without scales.

237. *Spatalla*. Cal. 4-cleft, wholly deciduous, the inner segment usually largest. Stigma oblique, dilated. Nut ventricose on a short stalk. Involucrum 2-4-leaved in a simple series, 1-flowered, or definitely many-flowered. Recept. without scales.

238. *Persoonia*. Cal. 4-leaved, regular, the segments having the stamens in their middle, recurved at end, and deciduous. Stamens exserted. Glands 4, hypogynous. Ovary stalked, 1-celled, 1-2-seeded. Stigma obtuse. Drupe berried, with a 1-2-celled nut.

239. *Grevillea*. Cal. irregular, with the segments 1-sided, bearing the stamens in their hollow ends. Anthers immersed. Gland 1, hypogynous, halved. Ovary 2-seeded. Stigma oblique, depressed (sometimes nearly vertical and conical). Follicle 1-celled, 2-seeded, with a cell in the middle. Seeds edged, or with a very short wing at the end.

240. *Hakea*. Cal. 4-leaved, irregular, with the segments on one side. Stamens immersed in the concave ends of the calyx. Gland 1, hypogynous, halved. Ovary stalked, 2-seeded. Stigma nearly oblique, with a conical point from a dilated base. Follicle 1-celled, woody, with a cell out of the centre, falsely 2-valved. Seed with a wing at the end longer than the nut.

241. *Stenocarpus*. Cal. irregular, segments distinct, at one side. Stamens immersed in the concave ends of the cal. Gland 1, hypogynous, half-annular. Ovary stalked, many-seeded. Style deciduous. Stigma oblique, orbicular, flattened. Follicle linear. Seeds winged at base.

242. *Lambertia*. Cal. tubular, 4-cleft, the segments spirally revolute. Stamens inserted in the segments,

Scales 4, hypogynous, distinct or united in a sheath. Ovary 2-seeded. Stigma subulate. Follicle 1-celled, coriaceous. Seeds emarginate. Involucrum 1-7-flowered, imbricated, deciduous. Receptacle flat, without chaff.

243. *Xylometum*. Cal. 4-leaved, regular, the segments revolute at the end. Stam. inserted above the middle of the segments. Glands 4, hypogynous. Ovary 2-seeded. Style deciduous. Stigma vertical, clavate, obtuse. Follicle thick, woody, 1-celled: the cell out of the centre. Seeds winged at end.

244. *Telopea*. Cal. irregular, on one side irregularly divided, on the other 4-toothed. Stam. immersed in the concave ends of the calyx. Gland none. Ovary stalked, many-seeded. Stigma oblique, orbicular, dilated. Follicle cylindrical. Seeds winged at end. Involucrum none.

245. *Lomatia*. Calyx irregular, with distinct 1-sided segments. Stamens immersed in the concave ends of the calyx. Glands 3, hypogynous on one side. Ovary stalked, many-seeded. Style persistent. Stigma oblique, dilated, roundish, flat. Follicle oval. Seeds winged at ends.

246. *Rhopala*. Cal. 4-leaved, regular, segments recurved at end. Stamens inserted above the middle of the segments. Scales 4, hypogynous, distinct or connate. Ovary 2-seeded. Style persistent. Stigma vertical, clavate. Follicle 1-celled, woody. Seeds winged at both ends.

247. *Banksia*. Cal. 4-parted. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody. Dissepiment loose, bifid.

248. *Dryandra*. Cal. 4-parted or 4-cleft. Stamens immersed in the concave ends of the segments. Scales 4, hypogynous. Ovary 2-celled, with 1-seeded cells. Follicle 2-celled, woody, with a loose bifid dissepiment. Common receptacle flat.

249. *Struthiola*. Cal. tubular, having 8 glands at the mouth. Berry without juice, 1-seeded.

250. *Opercularia*. Common calyx 1-leaved, campanulate, 3-6-flowered, 6-9-toothed, proper none. Seeds solitary, immersed in a closing receptacle, which is operculiform, deciduous.

251. *Cryptospermum*. Common calyx 6-leaved: leaflets spreading, unequal; proper, 3-leaved from the chaff of the receptacle. Recept. globose, chaffy. Capsules 1-celled, united into a sub-globose receptacle, opening lengthwise in the middle.

252. *Pothos*. Spathe 1-leaved. Spadix cylindrical, simple, covered with flowers. Cal. 4-leaved. Stamens next the ovary. Berry 2-seeded.

253. *Rivina*. Cal. 4-leaved, persistent. Berry 1-seeded, with a lentiform rough seed.

254. *Camphorosma*. Calyx urceolate, with two opposite and alternate teeth very small. Caps. 1-seeded. Stamens exerted.

255. *Alchemilla*. Cal. 8-cleft, the alternate segments smallest. Style from the base of the ovary. Seed 1, naked, covered with the calyx.

256. *Sanguisorba*. Cal. coloured, 4-lobed, with 2 scales at the base. Caps. 4-cornered, enclosed in the calyx, 1-2-celled.

257. *Dorstenia*. Common receptacle 1-leaved, fleshy, dilated, spreading, orbicular, or angular, in which the solitary seeds nestle.

2. Flowers incomplete, superior.

258. *Isnarda*. Cal. campanulate, adhering to the ovary, 4-cleft. Caps. 4-celled, surrounded by the calyx, 4-cornered, many-seeded.

259. *Elaegnus*. Cal. 4-8-cleft, campanulate on the outside rugose, inside colored, deciduous. Filaments very short between the segments of the calyx. Style short. Drupe ovate, with an oblong 1-seeded nut.

3. Flowers monopetalous, 1-seeded or dicoccous, inferior.

260. *Globularia*. Common calyx imbricated: proper tubular, 5-toothed. Cor. with the upper lip 2-, the lower 3-parted. Seed 1, enclosed in the calyx. Recept. chaffy.

261. *Houstonia*. Cal. 5-toothed. Cor. tubular. Caps. 2-celled, 2-valved, 2-seeded.

4. Flowers monopetalous, 1-seeded or dicoccous, superior.

DIPSACEÆ.

262. *Dipsacus*. Common calyx many-leaved, proper superior. Cor. tubular, 4-cleft. Seed 1, crowned by the calyx. Recept. conical, chaffy. Pappus cross-shaped, entire.

263. *Cephalaria*. Common calyx sub-globose, with scales more or less scarious, proper double, pappus shaped, variously split. Receptacle chaffy.

264. *Scabiosa*. Common calyx many-leaved, proper double pappus-shaped, variously split. Receptacle chaffy.

265. *Knautia*. Common cal. many-leaved, cylindrical, oblong, simple, 5-flowered, proper simple, superior. Corolla irregular. Seed 1, crowned by the calyx. Receptacle naked.

STELLATÆ.

266. *Galium*. Cal. an obsolete superior edge. Cor. rotate. Seeds 2, globose.

267. *Rubia*. Cal. an obsolete superior edge. Cor. rotate, sub-campanulate. Berries 2, 1-seeded. Stam. 4-5.

268. *Asperula*. Cal. an obsolete edge, 4-toothed. Cor. monopetalous, funnel-form. Seeds 2, globose, not crowned by the calyx.

269. *Sherardia*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Seeds 2, 3-toothed, crowned by the persistent calyx.

270. *Spermacoce*. Cal. a 4-toothed edge. Cor. monopetalous, funnel-form. Caps. 2-celled, not divisible in two, with 2 cells, 2-toothed. Seeds with their edge rolled together over their side.

271. *Crucianella*. Cal. 2-3-leaved. Cor. monopetalous, funnel-form, with a filiform tube and an unguiculate limb. Seeds 2, linear.

5. Flowers monopetalous, many-seeded, inferior.

272. *Callicarpa*. Calyx 4-toothed. Corolla tubular, campanulate, 4-cleft. Stamens exerted. Berry 4-seeded.

273. *Witheringia*. Cor. sub-campanulate, with a tube having 4 projections. Cal. very small, obsoletely 4-toothed. Pericarp 2-celled, berried. Anthers conniving, opening laterally.

274. *Egiphia*. Cal. 4-toothed. Cor. 4-cleft. Style semi-bifid, filiform. Berry 2-celled. Cells 2-seeded.

275. *Cephalanthus*. Common cal. none; proper, as well as corolla, 4-toothed, tubular funnel-form. Receptacle globose. Caps. 2-4-celled, not splitting. Seeds solitary by abortion, oblong.

276. *Scaparia*. Cal. 4-parted, equal. Cor. 4-parted, rotate, with a hairy throat, regular. Stamens equal. Stigma obtuse. Capsule nearly round, 2-celled, 2-valved, with a dissepiment from the inflexed margins of the valves.

277. *Centunculus*. Cal. 4-cleft. Cor. 4-cleft, tubular, with a spreading limb. Stamens short. Caps. 2-celled, cut round, many-seeded.

278. *Plantago*. Cal. 4-cleft. Cor. quadrifid, with a reflexed limb. Stamens very long. Caps. 2-celled, cut round.

279. *Buddleia*. Calyx and corolla 4-cleft. Stamens from the incisures. Caps. 2-furrowed, 2-celled, many-seeded.

280. *Eracum*. Cal. 4-leaved. Cor. somewhat bell-shaped, 4-cleft, with a globose tube. Caps. compressed, 2-furrowed, 2-celled, many-seeded, splitting at the end.

281. *Schœa*. Cal. 4-5-parted, the sepals keeled or winged. Cor. 4-5-cleft, withering. Stamens exerted,

the anthers bursting lengthwise after flowering with a recurved callus at the end. Stigmas 2. Caps. with the valves inflexed at the edge, inserted in a central placenta, which finally becomes loose.

282. *Frazera*. Cal. deeply 4-parted, spreading. Cor. much larger than the calyx, very deeply 4-parted, spreading, the segments oval, bearded with a gland in the middle. Stamens shorter than corolla, with anthers 4-divided at the base. Stigmas 2, thick, glandular. Caps. oval, much compressed, 1-celled, 2-valved at the edge. Seeds 8-12, elliptical, with a membranous edge.

283. *Penæa*. Cal. 2-leaved deciduous. Cor. campanulate. Style quadrangular. Stigma 4-lobed. Caps. 4-cornered, 4-valved, 8-seeded.

284. *Blaeria*. Calyx 4-parted. Corolla 4-cleft, somewhat campanulate. Seeds inserted into a receptacle. Caps. 4-celled, many-seeded, opening at the angles.

6. Flowers monopetalous, 2 or many-seeded, superior.

285. *Chomelia*. Cal. 4-parted, tubular, with unequal segments. Cor. hypocrateriform, 4-parted. Drupe oval, inferior, with a 2-celled, 2-seeded nut. Stigmas 2, thickish.

286. *Adina*. Cal. 4-5-cleft, with an occasional toothlet between the divisions. Corolla infundibular. Filaments inserted into the mouth of corolla. Stigma turbinate. Seeds 2-3 in each cell. Flowers in heads.

287. *Bouvardia*. Cal. 4-leaved, with some teeth between. Corolla tubular. Anthers included. Caps. 2-partible, many-seeded. Seeds edged.

288. *Isora*. Cal. 4-parted. Cor. monopetalous, funnel-shaped, long. Stamens above the throat. Berry 4-seeded.

289. *Catesbæa*. Cal. 4-toothed, very small. Cor. funnel-shaped, very long. Stamens within the throat. Stigma simple. Berry 2-celled, many-seeded.

290. *Pavetta*. Cal. 4-toothed. Cor. monopetalous, funnel-form. Stigma thickened, incurved. Berry 1-2-seeded, 1-celled.

291. *Ernodea*. Cal. 4-parted. Cor. hypocrateriform. Style simple. Berry 2-celled. Seeds 2, solitary.

292. *Siderodendrum*. Cal. small, 4-toothed. Cor. hypocrateriform, 4-cleft, with an incurved tube. Stigmas 2, revolute. Berry 2-coccos, 2-celled, dry, with a contrary dissepiment. Seeds 2, solitary.

293. *Coccocypselum*. Cal. 4-parted. Cor. funnel-shaped. Berry inflated, 2-celled, many-seeded. Style half 2-cleft.

294. *Mitchella*. Cal. 2, on one ovary, 4-parted. Cor. funnel-shaped, hairy within. Stigmas 4. Berry bifid, 4-seeded.

295. *Oldenlandia*. Cal. 5-toothed, persistent. Cor. of 5 petals inserted into the calyx.

296. *Manettia*. Cal. 8-leaved. Cor. quadrifid, tubular. Caps. 2-valved, 1-celled. Seeds imbricated, orbiculate, with a central point.

7. Flowers polypetalous, inferior.

297. *Epimedium*. Cal. 4-leaved, caducous, opposite the petals. Nectaries 4, cup-shaped, incumbent upon the petals. Pod 1-celled, 2-valved, many-seeded.

298. *Ptelea*. Cal. 4-parted. Pet. coriaceous. Stigmas 2. Samara roundish with a 1-seeded centre, or 2-celled, 2-seeded.

299. *Monetia*. Cal. 4-cleft, urceolate. Pet. 4, revolute, linear. Berry 2-celled, with 2-seeded cells, one of which is usually abortive.

300. *Curtisia*. Cal. 4-parted. Petals 4, obtuse. Drupe roundish succulent. Nut 4-5-celled.

301. *Hartogia*. Cal. 4-5-cleft. Petals 4, spreading. Drupe not juicy, ovate. Nut rather fleshy, 2-seeded.

302. *Ammannia*. Cal. 1-leaved, campanulate, plaited, 8-toothed. Pet. 4, inserted in the calyx, or very often none. Caps. 2-4-celled, many-seeded.

303. *Gagaya*. Cal. 4-5-cleft. Corolla of 4-5 petals, which are shorter than the stamens. Cal. 2-valved, 1-2-celled, 1-seeded, simple or compound. Stam. 4-5-8.

304. *Zicria*. Cal. 4-cleft. Cor. of 4 petals. Stam. 4, smooth, with filaments inserted into a gland. Style simple. Stigma 4-lobed. Caps. 4, connivent. Seeds with an arillus.

8. Flowers polypetalous, superior.

305. *Cissus*. Cal. 1-leaved, nearly entire. Berry 1-seeded, rarely 3-4-seeded, surrounded by the calyx.

306. *Cornus*. Involucre 4-leaved in some. Cal. 4-toothed. Pet. 4. Drupe with a 2-celled nut.

307. *Santalum*. Cal. $\frac{1}{2}$ -superior, campanulate, 4-cleft. Pet. 4, squamiform. Berry 1-seeded. Embryo inverse, albuminous.

308. *Trapa*. Cal. 4-parted. Nut with 2 opposite spines proceeding from the leaves of the calyx, 1-celled, 1-seeded.

309. *Ludwigia*. Cal. 4-parted, superior, with long persistent sepals. Cor. 4-petals or O. Caps. 4-cornered, 4-celled, crowned, inferior, many-seeded.

Order 2. DIGYNIA.



4 Stamens. 2 Styles.

310. *Cuscuta*. Cor. 4-fid, ovate. Cal. 4-fid. Caps. 2-celled, cut round.

311. *Eufonia*. Cal. 4-leaved. Pet. 4, shorter than calyx. Caps. 1-celled, 2-valved, 2-seeded.

312. *Hamamelis*. Involucre 3-leaved. Sepals 4. Petals 4, linear, very long. Nut 2-horned, 2-celled.

313. *Hypecoum*. Cal. 2-4-leaved. Pet. 4, the two exterior widest. Fruit a silique.

Order 3. TETRAGYNIA.



4 Stamens. 4 Styles.

314. *Myginda*. Cal. 4-toothed, very small, persistent. Pet. 4, rounded, flat, spreading. Stamens shorter than corolla. Style short. Stigmas 2-4. Drupe globose, 1-celled, with a 1-seeded nut.

315. *Ilex*. Cal. 4-5-toothed. Cal. rotate, 4-cleft. Style O. Berry 4-seeded.

316. *Cotadenia*. Cor. 1-petalous. Cal. 4-leaved. Seeds 2, 2-celled.

317. *Potamogeton*. Sepals 4. Pet. O. Style O. Seeds 4, sessile.

318. *Ruppia*. Cal. and Cor. O. Seeds 4-stalked.

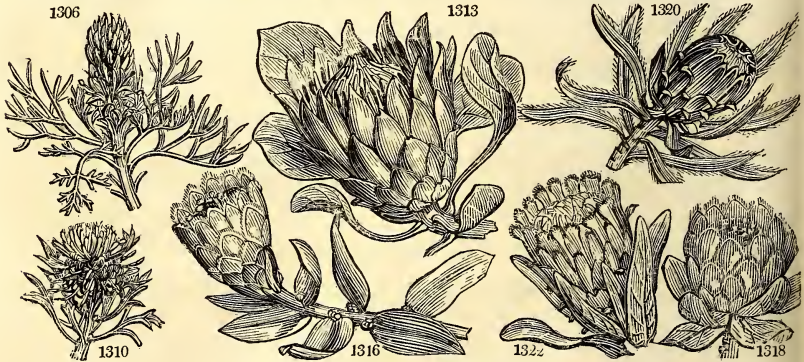
319. *Sagmæa*. Sepals 4. Pet. 4. Caps. 4-celled, 4-valved, many-seeded.

320. *Tillæa*. Cal. 3-5-parted. Pet. 3-5, equal. Caps. 3-5, 2 or many-seeded, opening inwards. Nectary none.

321. *Radiola*. Cal. many-cut. Pet. 4. Caps. superior, 4-8-valved, 8-celled, globose. Seeds solitary.

MONOGYNIA.

229. PETROPHILA. R. Br. PETROPHILA.	Proteaceae.	Sp. 2—10.						
1306 pulchella R. Br.	Fennel-leaved	various-leaved	5	jl.au	W	N. S. W.	1790.	S s p Bot mag. 796
1307 diversifolia R. Br.	various-leaved		5	...	...	N. Holl.	1803.	S s p
230. ISOPOGON. R. Br. ISOPOGON.	Proteaceae.	Sp. 5—12.						
1308 anethifolius R. Br.	Dill-leaved	compact	5	mr.jn	Pa	N. Holl.	1796.	S s p Cav. ic. 6. t. 549
1309 formosus R. Br.	handsome		4	mr.jn	Pa	N. Holl.	1805.	S s p
1310 anemónifolius R. Br.	Anemone-leav.		5	jl.au	Y	N. Holl.	1791.	S s p Bot. mag. 697
1311 trilobus R. Br.	three-lobed		4	my.jn	Pa	N. Holl.	1803.	S s p
1312 attenuatus R. Br.	attenuate		4	...	Pa	N. Holl.	1822.	S s
231. PROTEA. R. Br. PROTEA.	Proteaceae.	Sp. 36—55.						
1313 cynaroides R. Br.	Artichoke-frd.	ray-flowered	1½	mr.n	Pu	C. G. H.	1774.	C s l Bot. mag. 770
1314 latifolia Kn. Pr.	compact		7	jl.s	Pu	C. G. H.	1806.	S s l Bot. mag. 1717
1315 compacta R. Br.	compact		6	...	...	C. G. H.	1810.	C s l p
1316 longiflora R. Br.	milk-colored		7	ja.mr	Pa	C. G. H.	1795.	C s l p Ex. bot. 2. t. 81
1317 speciosa R. Br.	splendid		2	mr.jn	Pu	C. G. H.	1786.	S s l Bot. mag. 1183
1318 obtusa R. Br.	obtuse		10	...	Re	C. G. H.	1788.	C s l Bot. rep. 110
1319 formosa R. Br.	crowm-flowered		6	my.jn	Re	C. G. H.	1789.	S p l Bot. mag. 1713
1320 melaleuca R. Br.	black-fringed		6	mr.jl	D.pu	C. G. H.	1786.	C s l p Bot. rep. 103
1321 Lepidocarpon R. Br.	crested		6	mr.jl	D.pu	C. G. H.	1806.	S s l Bot. rep. 301. 2
1322 nerifolia R. Br.	Oleander-leav'd		6	f.ap	W	C. G. H.	1806.	C s l p Bot. rep. 206
1323 pulchella R. Br.	wave-leaved		2	mr.au	Re	C. G. H.	1795.	L s l Bot. rep. 543
1324 patens R. Br.	spreading		2	mr.jn	W.pu	C. G. H.	1789.	C s l Bot. rep. 438
1325 magnifica Kn. Pr.	magnificent		6	mr.au	W	C. G. H.	1789.	S s l Bot. rep. 47
1326 longifolia R. Br.	long-leaved		7	mr.au	W.bk	C. G. H.	1798.	C s l p Bot. rep. 144
1327 umbonatus R. Br.	embossed		7	mr.au	Pu	C. G. H.	1798.	C s l Bot. rep. 133
1328 ligulifolia Kn. Pr.	strap-leaved		6	my.d	Pa.Y	C. G. H.	1774.	S s l Bot. mag. 345
1329 mellifera R. Br.	honey-bearing		8	my.jn	W	C. G. H.	1787.	S p l Bot. rep. 569
1330 grandiflora R. Br.	great-flowered		3	my.jn	Pu	C. G. H.	1780.	C s l Bot. mag. 698
1331 Scglymus R. Br.	small-flowered		3	my.jn	Pu	C. G. H.	1803.	C s l Bot. mag. 933
1332 mucronifolia R. Br.	dagger-leaved		3	ap.my	W	C. G. H.	1822.	C s l p
1333 incompta R. Br.	bearded		2	ap.jl	Pk	C. G. H.	1787.	C s l p Ex. bot. 1. t. 44
1334 nana R. Br.	dwarf		2	mr.jn	...	C. G. H.	1806.	C l p
1335 pendula R. Br.	pendulous		2	f.my	Y	C. G. H.	1801.	C l p Par. lond. 70
1336 tenax R. Br.	tough		3	f.d	Pk	C. G. H.	1800.	S s l Bot. rep. 437
1337 canaliculata R. Br.	channel-leaved		3	mr.jn	Pu	C. G. H.	1809.	C s l Bot. mag. 1694
1338 acuminata B. M.	sharp-pointed		1½	my.s	Pu	C. G. H.	1802.	S s l Bot. mag. 2065
1339 acaulis R. Br.	short-stalked		1½	...	G	C. G. H.	1806.	C l p Par. lond. 11
β glaucophylla Kn. P.	glaucous-leaved		...	...	G	C. G. H.	1806.	C l p Bot. mag. 2439
1340 laevis R. Br.	smooth-leaved		...	...	Br	C. G. H.	1809.	C l p
1341 scabra R. Br.	rough-leaved		...	...	C. G. H.	1800.	C s l Weinm. t. 897. a	
1342 repens R. Br.	creeping		...	...	C. G. H.	1803.	C s l Par. lond. 108	
1343 turbiniflora R. Br.	turly		...	ap.my	Pk	C. G. H.	1803.	C s l
1344 Scolopendrium R. Br.	Hart's-tongue		...	...	...	C. G. H.	1802.	S l p
1345 cordata R. Br.	heart-leaved		1½	mr.my	Pu	C. G. H.	1790.	S s l Bot. rep. 289
1346 amplexicaulis R. Br.	stem-clasping		1½	ja.mr	Pu	C. G. H.	1802.	S s l Par. lond. 67
1347 humilis R. Br.	low-flowering		1	jn.au	Br	C. G. H.	1802.	S s l Bot. rep. 532
1348 acerosa R. Br.	Pine-leaved		3	mr.my	Pk	C. G. H.	1803.	C s l Bot. rep. 577
232. LEUCOSPERMUM. R. Br. LEUCOSPERMUM.	Proteaceae.	Sp. 12—18.						
1349 lineare R. Br.	linear-leaved		4	au.s	Y	C. G. H.	1774.	C s l Th. prot. n.35.t.4
1350 tottum R. Br.	smooth-bracted		3	jn.au	Y	C. G. H.	1774.	S p l
1351 medium R. Br.	oval-leaved		3	my.jn	O	C. G. H.	1794.	C l p Bot. rep. 17



History, Use, Propagation, Culture.

229. *Petrophila*. From *πετρος* and *φίλον*, to love rocks, in allusion to the places in which it is found growing in a wild state. Stiff shrubs, with smooth leaves of various kinds. Heads of flowers ovate or oblong, terminal or axillary. Ripened cuttings root in sand under a hand-glass.

230. *Iso Pogon*. This genus consists of stiff shrubs, with smooth, flat or filiform, divided or entire leaves. Heads terminal or rarely axillary. Flowers sometimes closely imbricated in a globose cone, sometimes clustered in a common flat receptacle which is somewhat involucreated; they thrive best in a soil composed of one-third loam, a third of peat, and a third of sand. The pots must be well drained, and ripened wood may be chosen for cuttings which will root in sand and a little earth under a hand-glass. They must be uncovered frequently, and the glass wiped, as they are liable to damp off if kept too close. (Sweet.)

231. *Protea*. A mythological name of Proteus the son of Ocean and Thetis, who assumed various forms upon various occasions, to whom this genus, once equally variable in its forms, has been likened. It, as Sweet observes, thrives best in a soil composed of "light turfy loam, mixed with rather more than one-third of fine sand; the pots must be well drained with broken potsherds to prevent them from getting soddened with too much water; the roots are also very fond of running amongst the small bits of sherds. Care must be taken not

MONOGYNIA.

- 1306 Leaves trifid bipinnate, Segments erect, Flowers silky their segments tomentose at end
 1307 Leaves bi-tri-pinnatifid plain, Segments mucronate, Flowers bearded, Cones axillary stalked

- 1308 Leaves pinnatifid and bipinnatifid filiform furrowed above, Segments erect, Branches smooth
 1309 Leaves bipinnatifid somewhat triternate filif. chan. above, Segments divaricating, Branchlets tomentose
 1310 Leaves trifid pinnatifid or bipinnatifid, Leaves linear flat spreading erect smooth beneath
 1311 Leaves wedge-shaped flat 3-lobed attenuate at base stalked lobes entire, Branchlets tomentose
 1312 Leaves elongate oblong mucronate attenuate at base, Branches and involucre smooth

Flowers terminal.

- 1313 Leaves roundish stalked, Invol. silky, Inner bracts acute beardless, Style pubescent below the middle
 1314 Leaves broad ovate $\frac{1}{2}$ cordate sessile, Invol. silky toment. Inner bractes narr. dilat. at end and bearded
 1315 Leaves ovate oblong cordate edged the callus of the end prominent, Invol. silky fringed beardless
 1316 Leaves ov. obl. sessile subcord. or simple, Branches toment. Invol. silky, Inner bracte elong. fringed silky
 1317 Leaves ov. obl. narr. at base with branches smooth, All the bractes sim. inn. dilat. at end and beard. in mid.
 1318 Leaves glaucous obov. the adult smooth, Bractes red the upper lyrate spatul. fimb. obt. Petals obtuse
 1319 Leaves narr. oblong veiny oblique simple at base, the edges and branches downy, Involucre ciliated
 1320 Leaves linear ligulate edged ciliated, Branches hairy, Invol. long turbinate, Bract. fringed with white
 1321 Leaves linear ligulate edged roughish shining with the branches smooth, Inner bract. of invol. spatulate
 1322 Leaves linear ligulate smooth opaque at base outside with the branches downy, Invol. fringed with black
 1323 Leaves linear ligulate edged shining roughish, Branches little downy, Invol. fringed with black
 1324 Leaves narrow oblong rather wavy attenuated at base, Invol. hemisph. inner bearded with black and purple
 1325 Leaves broad long elliptical edged the old ones pubescent wavy, Bractes pale yellow, the upper fringed
 1326 Leaves elong. lin. atten. at base, Inv. turb. Bractes smooth acute beardl. Beards of cal. longer than segm.
 1327 Leaves long ligulate, Head broad convex embossed in middle, Upper bractes spatul. the length of flower
 1328 Leaves long ligulate, Head broad not convex, Upper bractes spatulate longer than flowers
 1329 Leaves lanc. ligul. attenu. at base, Inv. turb. Bractes smooth beardl. viscid. Beards of flow. woolly white
 1330 Leaves obl. sessile and branches smooth, Invol. hemispherical beardl. naked, Fl. toment. Style smooth
 1331 Leaves lin. lanceolate acute submuc. attenuated at base, Invol. hemispherical, Bractes smooth obtuse
 1332 Leaves lanc. lin. mucr. pungent with an obtuse base, Bractes lanc. mucr. smooth, Stem erect many-flow.
 1333 Leaves ligulate oblong the upper and the branches hairy, Inner bractes with a round and bearded end
 1334 Leaves subulate mucronate, Invol. nodding hemispherical, Bract. smooth obtuse
 1335 Leaves linear lanceolate mucronate, Flower-bearing branches recurved, Bract. obtuse at length smooth
 1336 Leaves lin. lanc. flat attenuated at base roughish at edge, Branches decumbent, Invol. hemisph.
 1337 Leaves linear veinless smooth concave above, Branches smooth decumbent, Invol. obtuse
 1338 Leaves lin. lanc. acute flat veiny above, Bractes obtuse pubesc. and conc. at end, Branches wavy colored
 1339 Stems short with depressed branches, Leaves obov. obl. edged veiny attenuat. at base, Invol. hemispher.

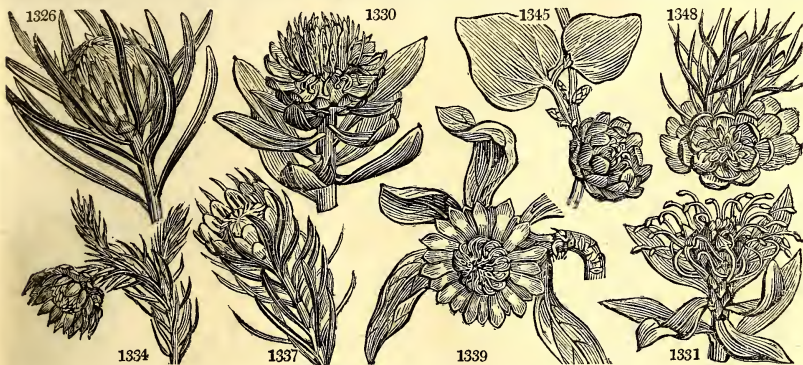
β Leaves more glaucous and narrow

- 1340 Stems dwarf decumb. Leaves elong. lin. smooth veinless recurved at edge, Invol. hemispherical
 1341 Stems dwarf, Leaves elong. lin. scabrous obsolete veiny recurv. at edge, Invol. turbinate hemispher.
 1342 Stems decumb. dwarf, Leaves elong. lin. roughish revol. at edge, Invol. turb. Bractes obtuse tomentose
 1343 Stems dwarf, Leaves elongate lanc. edged subundulate smooth, Invol. turb. Bractes tomentose obtuse
 1344 Stems dwarf, Leaves elongate lanc. edged smooth, Invol. turbinate, Bractes lanceolate acuminate

Flowers lateral.

- 1345 Leaves cordate roughish nerved, Bractes smooth
 1346 Leaves cordate ovate, Stem clasping divaricate recurved at the end, Bractes pubescent
 1347 Leaves linear acute, Receptacle conical, Paleae acute
 1348 Leaves subulate, Receptacle convex, Paleae obtuse

- 1349 Style longer than the hairy flower, Stigma gibbous on one side, Invol. downy, Leaves linear entire
 1350 Style a quarter longer than the hairy flow. Stigma gibb. on one side, Leaves lin. obl. veiny ent. obt. at base
 1351 Style nearly twice as long as hairy flow. Stigma gibb. on one side, Leaves lin. obl. entire or 2 or 3-toothed

*and Miscellaneous Particulars.*

to let them droop for want of water, as the young roots are of a very fleshy substance, and soon suffer by too much drought, as well as by too much wet, so that they seldom recover if suffered to flag much; they also like to be placed where they may have a free circulation of air, as they cannot bear to be crowded like some more rigid-growing plants. Ripened cuttings taken off at a joint, and pared quite smooth, will strike root if planted thinly in pots of sand placed under a hand-glass, but not plunged; the glasses must be often taken off to give them air, as they are very liable to get the damp amongst them, which soon spreads if not cleaned off, and destroys them; as water they regularly whenever they want it, but not over the leaves, and let them get a little dry before the glasses are placed over them again. Some of the kinds root very soon, others are a long time before they root. The quickest rooting kinds I have met with are *P. cordata*, *Cynaroides*, *amplexicaulis*, *grandiflora*, *acerosa*, *nana*, and *acaulis*. *P. mellifera* also roots very quickly sometimes. The same treatment will agree with several other genera belonging to this family, as *Leucospermum*, *Spatalla*, *Sorocephalus*, *Leucadendron*, and *Aulax*. (See *Bot. Mag. No. 1717. Bot. Cult. 244.*) There are several kinds in cultivation, and published in Knight's *Proteeae*, which have not been retained here; because, as they are not acknowledged by Mr. R. Brown, it is probable that they are not distinct from some which are here enumerated."

1352	formósum <i>Kn. Pr.</i>	handsome	☼	]	or	4	my.au	Pk	C. G. H.	1784.	S	p.l	Bot. rep. 469
1353	ellipticum <i>R. Br.</i>	elliptic	☼	]	or	4	my.au	Y	C. G. H.	1803.	C	l.p	
1354	conocárcum <i>R. Br.</i>	many-toothed	☼	]	or	3	...	Y	C. G. H.	1774.	S	s.l	Pl. pht. t. 200. f. 2
1355	grandifórum <i>R. Br.</i>	great-flowered	☼	]	or	4	my.jl	Y	C. G. H.	1800.	S	p.l	Par. lond. 116
1356	púberum <i>R. Br.</i>	downy-leaved	☼	]	or	2	my.au	Y	C. G. H.	1774.	C	s.l	
1357	tomentósum <i>Kn. Pr.</i>	cottony	☼	]	or	2	aus.	Y	C. G. H.	1789.	S	p.l	
1358	párule <i>Kn. Pr.</i>	matched	☼	]	or	2	aus.	Y	C. G. H.	1789.	C	l.p	
1359	cándicans <i>B. R.</i>	Rose-scented	☼	]	or	2	aus.	Y	C. G. H.	1790.	S	p.l	Bot. rep. 294
1360	Hypophýllum <i>R. Br.</i>	trifid-leaved	☼	]	or	1½	...	Y	C. G. H.	1787.	S	p.l	Pl. man. t. 40. f. 3
233.	MIME/TES <i>R. Br.</i>	MIMETES.	<i>Proteaceae.</i> Sp. 6—13.										
1361	hirta <i>R. Br.</i>	hairy	☼	]	or	3½	jn.au	R	C. G. H.	1774.	C	s.l	W. ph. 4. t. 899. f. a
1362	palústris <i>Kn. Pr.</i>	marsh	☼	]	or	1	jn.au	Pu	C. G. H.	1802.	C	l.p	B. lgd. 2. p. 194. c. t
1363	cuculláta <i>R. Br.</i>	three-toothed	☼	]	or	2	...	Pu	C. G. H.	1789.	S	s.l	P. al. 212. t. 304. f. 6
1364	divaricáta <i>R. Br.</i>	divaricate	☼	]	or	1½	jn.s	W	C. G. H.	1795.	C	s.l	
1365	vacciniifólia <i>Sweet.</i>	Vaccinium-lvd.	☼	]	or	3	...	n.d	C. G. H.	1800.	C	l.p	
1366	purpúrea <i>R. Br.</i>	Heath-leaved	☼	]	or	2	n.d	Pu	C. G. H.	1789.	C	s.l	
234.	SERRU'RIA <i>R. Br.</i>	SERRURIA.	<i>Proteaceae.</i> Sp. 20—46.										
1367	abrotánifólia <i>Kn. P.</i>	Southernw.-lvd.	☼	]	or	4	jn.au	Pk	C. G. H.	1803.	C	l.p	Bot. rep. 522
1368	millefólia <i>Kn. P.</i>	thousand-leav'd	☼	]	or	4	jn.au	Pu	C. G. H.	1803.	C	l.s.p	Bot. rep. 337
1369	artemisiáfólia <i>Kn. P.</i>	wormwood-lvd.	☼	]	or	5	jn.au	Pu	C. G. H.	1789.	C	l.p	Bot. rep. 264
1370	pinnáta <i>R. Br.</i>	slend.-creeping	☼	]	or	1	jn.au	Pk	C. G. H.	1803.	S	p.l	Bot. rep. 512
1371	arenária <i>R. Br.</i>	sand	☼	]	or	1	jn.au	Pu	C. G. H.	1803.	C	s.p	
1372	cyanoídes <i>R. Br.</i>	trifid-leaved	☼	]	or	1½	jn.au	Pu	C. G. H.	1803.	S	p.l	Pl. m. 61. t. 345. f. 6
1373	pedunculáta <i>R. Br.</i>	woolly-headed	☼	]	or	7	jn.au	Pu	C. G. H.	1789.	C	p.s	Bot. rep. 264
1374	Nivéní <i>R. Br.</i>	decumbent	☼	]	or	3	jn.au	Pu	C. G. H.	1800.	C	s.p.l	Bot. rep. 349
1375	ciliáta <i>R. Br.</i>	ciliated	☼	]	or	2	jn.au	Pu	C. G. H.	1803.	C	s.l	
1376	phlycoídes <i>R. Br.</i>	Phlyca-flower.	☼	]	or	3	jn.au	Pu	C. G. H.	1788.	C	l.p	Bot. rep. 507. f. 4
1377	æ'mula <i>R. Br.</i>	grey-branched	☼	]	or	3	jn.au	Pu	C. G. H.	1803.	C	l.p	
1378	párilis <i>Kn. P.</i>	matched	☼	]	or	2	jn.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep. 507
1379	odoráta <i>Sweet.</i>	sweet-scented	☼	]	or	2	jn.au	Pk	C. G. H.	1803.	C	p.l	Bot. rep. 545
1380	emargináta <i>Sweet.</i>	emarginated	☼	]	or	2	jn.au	Pk	C. G. H.	1800.	C	p.l	Bot. rep. 536
	<i>Serruria arenária</i>	<i>Kn. Prot.</i>	<i>Proteaceae.</i> Sp. 5—12.										
1381	glomeráta <i>R. Br.</i>	many-headed	☼	]	or	3	jn.au	Pu	C. G. H.	1789.	S	p.l	Bur. afr. t. 99. f. 2
1382	decepiens <i>R. Br.</i>	deceptive	☼	]	or	4	jn.au	Pu	C. G. H.	1806.	C	l.p	
1383	Roxbúrgii <i>R. Br.</i>	Roxburgh's	☼	]	or	3	jn.au	W	C. G. H.	1806.	C	l.p	
1384	Burmánni <i>R. Br.</i>	Burmans'	☼	]	or	2½	jn.au	Pu	C. G. H.	1786.	C	l.p	Bur. afr. t. 99. f. 2
1385	triternáta <i>R. Br.</i>	silvery-flower'd	☼	]	or	7	jn.au	W	C. G. H.	1802.	S	p.l	Bot. rep. 447
1386	elongáta <i>R. Br.</i>	long-stalked	☼	]	or	1½	jn.au	Pu	C. G. H.	1800.	C	l.p	
235.	NIVE'NIA <i>R. Br.</i>	NIVENIA.	<i>Proteaceae.</i> Sp. 6—10.										
1387	Sceptrum <i>R. Br.</i>	sceptre-like	☼	]	or	2	my.jn	W	C. G. H.	1790.	S	p.l	
1388	spatuláta <i>R. Br.</i>	maiden-hair-lv.	☼	]	or	2½	jl.au	Pu	C. G. H.	1790.	C	s.l	Thu. dis. n. 58. t. 5
1389	spicáta <i>R. Br.</i>	spiked	☼	]	or	2½	jn.au	Pu	C. G. H.	1786.	S	p.l	
1390	crithmifólia <i>R. Br.</i>	Sampshire-leav.	☼	]	or	2½	jn.au	Pa.pu	C. G. H.	1797.	S	p.l	Bot. rep. 243
1391	média <i>R. Br.</i>	middle	☼	]	or	6	jn.au	W	C. G. H.	1803.	C	s.p	Bot. rep. 234
236.	SOROCE'PHALUS <i>R. Br.</i>	SOROCEPHALUS.	<i>Proteaceae.</i> Sp. 4—16.										
1392	imberbis <i>R. Br.</i>	smooth	☼	]	or	3	jn.au	Pu	C. G. H.	1806.	C	s.p	
1393	diversifólius <i>R. Br.</i>	various-leaved	☼	]	or	4	...	Pu	C. G. H.	1803.	C	l.p	
1394	spatilloides <i>R. Br.</i>	club-bearing	☼	]	or	3	jn.au	Pu	C. G. H.	1803.	C	s.p	
1395	tenuifólius <i>R. Br.</i>	slender-leaved	☼	]	or	3	jn.au	Pu	C. G. H.	1802.	C	l.p	
1396	lanátus <i>R. Br.</i>	woolly	☼	]	or	2	jn.s	Pu	C. G. H.	1790.	C	l.p	Thu. dis. n. 30. t. 3
1397	imbricátus <i>R. Br.</i>	imbricated	☼	]	or	3	ap.jl	Pu	C. G. H.	1794.	S	p.l	Bot. rep. 517
237.	SPATAL'LA <i>R. Br.</i>	SPATALLA.	<i>Proteaceae.</i> Sp. 6—10.										
1398	prolifera <i>R. Br.</i>	proliferous	☼	]	or	1½	jn.au	Pu	C. G. H.	1800.	C	s.l	Thunb. dis. 27. t. 4
1399	ramulósa <i>R. Br.</i>	cluster-flowered	☼	]	or	3	aus.	Pu	C. G. H.	1787.	C	l.p	
1400	incurva <i>R. Br.</i>	incurved-leav'd	☼	]	or	2½	my.jn	Pu	C. G. H.	1789.	S	l.p	Bot. rep. 429
1401	Thunbérghii <i>R. Br.</i>	Thunberg's	☼	]	or	3	my.jn	Pu	C. G. H.	1806.	C	l.p	



History, Use, Propagation, Culture,

232. *Leucospermum*. From λευκος, white, and σπέρμα, seed, in allusion to the color of the seeds. The genus is chiefly composed of low shrubs, which are usually downy or hairy. Leaves entire, or with callous teeth at the end. Heads terminal. Flowers yellow. The culture as for Protea.

233. *Mimetes*. Named by Mr. Salisbury from μιμητης, a mimic, because it resembles various other genera. The soil for this genus is two-thirds of light loam, and one third of sand. In other respects, the treatment is the same as for Isopogon.

234. *Serruria*. Named by Burmannus after Professor Joseph Serrurier, an obscure botanist, of whom little is known. The species flower freely, and make handsome bushy shrubs. The soil best adapted to them is one-third light loam, a third of peat, and a third of sand, with well drained pots. "They also require an airy situation, as they are so crowded with leaves that the branches are liable to damp and canker if any wet settle

- 1352 Leaves elliptical edged, Bractes spreading : upper spatulate minutely fringed, Petals downy
 1353 Style nearly twice as long as hairy flower, Stigma conical ovate gibb. on one side, Leaves obl. 3-4-toothed
 1354 Style longer than the very villous flower, Stigma equal-sided conical, Leaves oval 3-9-toothed
 1355 Style longer than very vill. fl. Stig. equal-sided obl. Lvs. obl. lanc. 3-toothed and entire, Branches very hairy
 1356 Style longer than hairy fl. Stigma equal-sided ovate, Lvs. lanc. and ellipt. entire short pub. Branches hairy
 1357 Leaves linear channelled veinless, Branches and bractea tomentose, Segments of flower bearded
 1358 Leaves linear flat, Branches hairy, Bractea smooth fish ciliated
 1359 Leaves linear wedge-shaped flat veiny 3-5-toothed, Branches hairy, Bractes and segments of flow. toment.
 1360 Leaves linear 3-toothed, Bractes rounded tomentose twice as short as tube of flower

- 1361 Involucr. equal-sided colored acuminate half exserted 8-10-flowered, Leaves acute entire
 1362 Leaves oval lanceolate pubescent, Stigma short prominent at base
 1363 Invol. unequal-sided, Leaves lin. oblong 3-toothed smooth the floral dilated beneath with recurved edges
 1364 Stem procumbent, Leaves oval obtuse pubescent, Style smooth, Heads terminal
 1365 Leaves narrow obovate almost smooth, Upper bractes longer than flowers very acuminate
 1366 Stem procumbent, Branches ascending, Leaves linear subulate channelled, Segments of flower smooth

Heads simple.

- 1367 Leaves from below the middle bipinnatifid hairy, Head sessile higher than leaves, Bractes hairy outside
 1368 Leaves from base bipinnat. hairy, Ped. as long as head or longer, Bractes hairy at end outside, Stig. trunc.
 1369 Leaves from the base 3-pinnatifid pubescent, Ped. 1-3 long smoothish, Bractes recurved scarcely toment.
 1370 Heads terminal and axillary stalked clustered, Leaves pinnatifid and trifid more than an inch long
 1371 Heads terminal longer than the stalk, Leaves pinnatifid and trifid less than an inch long, Stem pubesc.
 1372 Heads ter. longer than stalk, Lvs. sprgd. upper less an inch long nearly bipin. lower shorter trifid, Stem erect
 1373 Heads terminal stalked, Leaves bi-tripinnatifid with the erect stem hairy
 1374 Heads term. sessile, Leaves bi-pin. about an inch long upper longer than heads with the branches smooth
 1375 Heads ter. longer than stalks, Brac. subul. smooth hairy at edge, Lvs. sub-bipinnate and branches smooth
 1376 Heads ter. and axil. stalks branch-like squarrose, Outer bractes subul. inner lanc. Lvs. an inch and half long
 1377 Bractes a little shorter than the terminal head, Outer lanc. fringed inner less villous, Leaves bipinnatifid
 1378 Stem pubesc. Leaves from below middle all bipinnatifid, Heads 1-3 shorter than ped. Bracts reflex. ciliat.
 1379 Leaves bipinnatifid filiform pointed hairy, Flowers terminal sweet-scented
 1380 Leaves from below the middle bipinnatifid pubescent, Heads 1-3 longer than leaves, Bractes silky at base

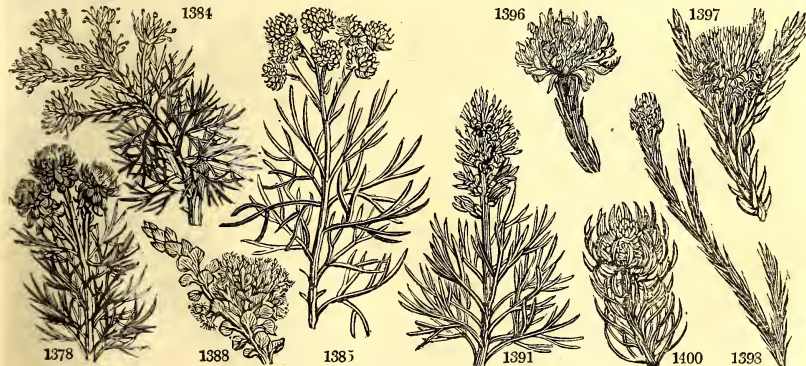
Heads compound.

- 1381 Stem erect, Lvs. smth. bipin. more than an inch long, Partial heads many-fl. outer brac. smth. : inner silky
 1382 Stem erect, Branches pub. Lvs. bipin. an inch and more long, Partial heads few-fl. All the bractes very vill.
 1383 Stem erect, Leaves triternate bundled less than $\frac{1}{2}$ inch long common and partial heads few-flow. sessile
 1384 Heads corymbose 10-flow. Leaves bipinnatifid setaceous scarcely 2 inches long, Flowers silky clustered
 1385 Corymbs compound, Leaves triternate $\frac{1}{2}$ inch long and stem very smooth, Bractes and partial stalks silky
 1386 Corymbs simple or compound, Leaves bi-tripinnat. common flower-stalk long, partial and bractes smooth

- 1387 Leaves obovate or lanceolate flattish simple at edge, Flower silky with appressed hairs
 1388 Leaves broader than long hooded edged, Leaves of invol. obt. Flower bearded style smooth, Stig. clavate
 1389 Stalks umbelled $\frac{1}{2}$ as long as the cylindrical spike, Bractes ovate, Style 2-3ds hairy, Leaves smooth
 1390 Stalks umbelled about as long as cylind. spikes, Leaves obtuse divar. smooth, Styles vill. as far as middle
 1391 Spikes cylindrical 4 times as long as their stalk, Leaves of involucre ovate acute beardless at end

- 1392 Involucr. 3-flowered, Segments of flower and points of bractea smooth, Spike naked
 1393 Leaves spatulate lanceolate smooth beneath, the lower bipinnatifid, Flower bearded, Stigma cylindrical
 1394 Involucr. 3-flowered stalked, Segments of flower bearded, Spike naked
 1395 Lvs. filif. less than $\frac{1}{2}$ inch long, Heads few-fl. Seg. of fl. feathery except the inner one, Spike with an invol.
 1396 Leaves 3-cornered filiform more than $\frac{1}{2}$ an inch long furrowed above, All the segments of flower feathery
 1397 Leaves lanceolate scabrous beneath, Claws of flower glandular hairy, Stigma clavate

- 1398 Involucr. 4-leaved, Leaflets withered at end, Spike conical headed, Flowers sessile
 1399 Involucr. 2-leaved the wider leaf trifid, Spike sessile imbricated, Leaves with a sharp point
 1400 Spikes racemose stalked, Bractes shorter than the 4-flowered downy involucre, Leaves incurved
 1401 Spike sessile, Bractes and invol. ovate lanc. vill. Leaves longer than flow. acute chann. and branches hairy



and Miscellaneous Particulars.

amongst them. Ripened cuttings taken off at a joint and planted thinly in a pot of sand, will root without difficulty under a hand-glass : but the glass must be taken off occasionally to give them air, and dry their leaves." (*Bot. Cult.* 254.)

235. *Nivenia*. Named by Salisbury, in compliment to Mr. James Niven, an intelligent collector, who discovered many new plants in South Africa while in the service of Mr. Hibbert. Culture as for *Serruria*.

236. *Sorocephalus*. From *σωρος*, a heap, and *κεφαλη*, a head, on account of the heads of flowers being in clusters.

237. *Spatalla*. A word formed by Mr. Salisbury, with more wit than decency, from *σπαταλα*, lascivo, on account of its ample stigma. Culture as for *Leucospermum*.

238. <i>PERSOONIA</i> . <i>R. Br.</i> <i>PERSOONIA</i> .		<i>Proteacea.</i>		<i>Sp. 6—22.</i>								
1402	<i>hirsúta R. Br.</i>	hairy	葎	or	4	my.jl	Y	N. S. W.	1800.	C	l p	Bot. cab. 327
1403	<i>lineáris R. Br.</i>	linear-leaved	葎	or	5	jl.au	Y	N. S. W.	1794.	L	s p	Bot. mag. 760
1404	<i>lanceoláta R. Br.</i>	spear-leaved	葎	or	4	jn.jl	Y	N. S. W.	1791.	L	s p	Bot. rep. 74
1405	<i>salicína R. Br.</i>	willow-leaved	葎	or	7	jn.jl	Pk	N. S. W.	1795.	C	l p	Cav. ic. 4. t. 389
1406	<i>latifolia Andr.</i>	broad-leaved	葎	or	4	jn.jl	Y	N. S. W.	1795.	L	s p	Bot. rep. 280
1407	<i>pinifolia R. Br.</i>	pine-leaved	葎	or	4	jn.jl	Y	N. S. W.	1822.	L	s p	
239. <i>GREVIL/LEA</i> . <i>R. Br.</i> <i>GREVILLEA</i> .		<i>Proteacea.</i>		<i>Sp. 13—38.</i>								
1408	<i>sericea R. Br.</i>	silky	葎	or	6	aps.	Pk	N. S. W.	1790.	S	s p	Bot. mag. 862
1409	<i>punicera R. Br.</i>	purple	葎	or	...	...	Pu	N. S. W.	1822.	C	l p	Sm. N.H. t.9. f.5
1410	<i>jupiperina R. Br.</i>	juniper-like	葎	or	4	...	Pk	N. S. W.	1822.	C	l p	
1411	<i>lineáris R. Br.</i>	linear-leaved	葎	or	6	aps.	W	N. S. W.	1790.	S	s p	Bot. rep. 272
1412	<i>ripária R. Br.</i>	river-side	葎	or	4	aps.	Pk	N. S. W.	1791.	C	l p	
1413	<i>arenária R. Br.</i>	sand	葎	or	5	aps.	Pk	N. S. W.	1803.	C	l p	
1414	<i>acumináta R. Br.</i>	acute-leaved	葎	or	4	aps.	...	N. S. W.	1805.	S	s p	
1415	<i>stylósa Kn. P.</i>	long-styled	葎	or	4	aps.	Pk	N. S. W.	1809.	C	s.l	
1416	<i>mucrónuláta R. Br.</i>	Podalyria-leav.	葎	or	4	aps.	Pk	N. S. W.	1809.	C	l p	
1417	<i>cinérea R. Br.</i>	cinereous	葎	or	...	...	...	N. S. W.	1822.	C	l p	
1418	<i>buxifolia R. Br.</i>	Box-leaved	葎	or	6	f.s	Pk	N. S. W.	1790.	S	s p	Bot. rep. 218
1419	<i>collina Kn. P.</i>	hill	葎	or	...	mr.jl	Pk	N. S. W.	1802.	C	l p	
1420	<i>aspleniifolia R. Br.</i>	<i>Asplenium</i> -lvd.	葎	or	5	mr.jl	Pk	N. S. W.	1806.	C	l p	
240. <i>HA/KEA</i> . <i>R. Br.</i> <i>HAKEA</i> .		<i>Proteacea.</i>		<i>Sp. 20—40.</i>								
1421	<i>pugióniformis R. Br.</i>	dagger-fruited	葎	or	6	my.jn	W	N. S. W.	1796.	S	s p	Bot. cab. 353
1422	<i>párilis Kn. P.</i>	matched	葎	or	...	my.jn	W	V. Di. L.	1796.	C	l p	
1423	<i>oblíqua R. Br.</i>	oblique-flower.	葎	or	6	...	W	N. Holl.	1803.	C	s p	
1424	<i>gibbósa R. Br.</i>	gibbous-fruited	葎	or	7	my.jn	W	N. S. W.	1790.	C	s p	Cav. ic. 6. t. 534
1425	<i>aciculáris R. Br.</i>	needle-leaved	葎	or	3	my.jn	W	N. S. W.	1790.	C	s p	Vent. mal. 111
1426	<i>suavéolens R. Br.</i>	sweet-smelling	葎	or	4	ja.n	W	N. Holl.	1803.	C	s p	
1427	<i>microcarpa R. Br.</i>	small-fruited	葎	or	4	my.jn	W	V. Di. L.	1819.	C	s p	Bot. reg. 475
1428	<i>flórida R. Br.</i>	many-flowered	葎	or	5	my.jn	W	N. Holl.	1803.	C	s p	
1429	<i>hílicifolia R. Br.</i>	Holly-leaved	葎	or	4	jl.s	W	N. Holl.	1803.	C	s p	
1430	<i>nitida R. Br.</i>	glossy	葎	or	5	jn.jl	W	N. Holl.	1803.	C	s p	Bot. mag. 2246
1431	<i>amplexicaúlis R. Br.</i>	stem-clasping	葎	or	2	...	W	N. Holl.	1803.	C	s p	
1432	<i>prostráta R. Br.</i>	trailing	葎	or	1½	...	W	N. Holl.	1803.	C	s p	
1433	<i>ceratophýlla R. Br.</i>	horn-leaved	葎	or	4	my.jn	Br	N. Holl.	1803.	C	s p	
1434	<i>acanthophýlla Lk.</i>	prickly-leaved	葎	or	3	...	...	N. S. W.	1821.	C	s p	
1435	<i>unduláta R. Br.</i>	wave-leaved	葎	or	3	...	...	N. Holl.	1803.	L	s p	
1436	<i>oleifolia R. Br.</i>	olive-leaved	葎	or	5	jn.jl	W	N. Holl.	1794.	S	s p	
1437	<i>saligna R. Br.</i>	willow-leaved	葎	or	7	mr.jl	W	N. Holl.	1791.	C	s p	Bot. rep. 215
1438	<i>cinérea R. Br.</i>	hoary-leaved	葎	or	5	jn.jl	W	N. Holl.	1803.	S	s p	
1439	<i>dáctyloides R. Br.</i>	nerve-leaved	葎	or	7	jn.au	W	N. S. W.	1790.	C	s p	Cav. ic. 6. t. 535
1440	<i>elíptica R. Br.</i>	oval-leaved	葎	or	4	jn.au	W	N. Holl.	1794.	C	s p	
241. <i>STENOCAR/PUS</i> . <i>R. Br.</i> <i>STENOCARPUS</i> .		<i>Proteacea.</i>		<i>Sp. 1—2.</i>								
1441	<i>fragrans R. Br.</i>	fragrant	葎	or	5	jn.jl	G	N. Holl.	1819.	C	s.l	Bot. reg. 441
242. <i>LAMBERT/IA</i> . <i>R. Br.</i> <i>LAMBERTIA</i> .		<i>Proteacea.</i>		<i>Sp. 1—2.</i>								
1442	<i>formósa R. Br.</i>	handsome	葎	or	4	jn.au	Re	N. S. W.	1788.	C	s p	Bot. rep. 69
243. <i>XYLOME/LUM</i> . <i>R. Br.</i> <i>XYLOMELUM</i> .		<i>Proteacea.</i>		<i>Sp. 1.</i>								
1443	<i>pyriforme R. Br.</i>	pear-fruited	♣	or	14	...	...	N. S. W.	1789.	S	s p	Cav. ic. 6. t. 536
244. <i>TELOPE/A</i> . <i>R. Br.</i> <i>WARRATAH</i> .		<i>Proteacea.</i>		<i>Sp. 1—2.</i>								
1444	<i>spéciosíssima R. Br.</i>	splendid	♣	or	10	my.jl	S	N. S. W.	1789.	C	s p	Bot. mag. 1128
245. <i>LOMA/TIA</i> . <i>R. Br.</i> <i>LOMATIA</i> .		<i>Proteacea.</i>		<i>Sp. 2—8.</i>								
1445	<i>siláifolia R. Br.</i>	cut-leaved	葎	or	2	jn.au	O	N. S. W.	1792.	C	s p	Bot. mag. 1272
1446	<i>longifolia R. Br.</i>	long-leaved	葎	or	2	jn	G	N. S. W.	1816.	C	l p	Bot. reg. 442



History, Use, Propagation, Culture,

238. *Persoonia*. So named by Sir J. E. Smith, in honor of C. H. Persoon, the celebrated author of *Synopsis Plantarum* and other esteemed works: he is still living, and about to publish a new edition of his most useful *Synopsis*.

239. *Grevillea*. So named by Mr. R. Brown, after the Right Honorable Charles Francis Greville, a great promoter of natural history. He was one of the vice-presidents of the Royal Society. Some species ripen abundance of seeds; all of them thrive in an equal mixture of sandy loam and peat, and strike roots freely in sand under a hand-glass.

240. *Hakea*. Named by Schreber after Baron Hake, a patron of the botanic garden at Hanover. This genus thrives in equal parts of loam, peat, and sand well drained; and cuttings root readily in sand under a hand-glass.

- 1402 Leaves linear hairy scabrous recurved at edge, Flowers axillary, Ovary one-sided silky
 1403 Leaves oblong linear mucronate rather villous, Flowers axillary solitary
 1404 Leaves lanceolate or elliptical mucronate glabrous smooth, Peduncle axillary 1-flowered, Flower silky
 1405 Leaves lanceolate oblong unequal-sided, Flowers smooth, Stem arborescent, Bark scarious in layers
 1406 Leaves linear lanceolate acute smooth on both sides without ribs thick, Flowers axillary remote on long stalks
 1407 Leaves filiform lax, Spike leafy elongated pyramidal, Floral leaves abbreviated
Style smooth, Follicle ribless.
 1408 Leaves ellipt. or obl. obt. mucr. broken back at the edges, Flower branches erect, Racemes abbrev. recurv.
 1409 Leaves elliptical oblong attenuate at base broken back at edges, Flower bearing branches recurved
 1410 Leaves subulate fascicled divaricating broken back at the edge, Branches villous rounded
 1411 Leaves linear lanceolate acute mucr. broken back at edges, Rac. abbreviate erect, Style very smooth at end
 1412 Lvs. elong. linear broken back at edges smooth, Inner beard of flower very dense, Stalks longer than ovary
Style hairy. Follicle ribbed.
 1413 Leaves oblong obtuse mucronate, Racemes recurved few-flowered, Pistils tomentose
 1414 Leaves lanc. sub-acum. mucr. above dotted scabrous beneath cinereous, Branc. pubes. Rac. few-fl. recurved
 1415 Leaves lanceol. hairy beneath, Style very long compressed hairy at back [or horizontal
 1416 Leaves obovate obt. mucr. above scabrous and shining beneath rather silky, Hairs of flowers appressed
 1417 Leaves elliptical and obovate mucronate above roughish beneath cinereous [as recurved appendage
Pistil woolly. Follicle ribless.
 1418 Leaves elliptical above dotted scabrous beneath cinereous with close tomentum, Stig. orbic. scarcely as long
 1419 Leaves elliptical lanceolate little revolute at edge, Flowers scarcely higher than leaves
Raceme thyrsoid. Leaves pinnatifid. (True Grevilleae, Br.)
 1420 Leaves elongate linear pinnatifid cut or entire beneath tomentose, Racemes 3 times as short as the leaf
Leaves filiform.
 1421 Leaves smooth, Flowers silky or hairy, Caps. lanceolate acuminate straight crested on both sides
 1422 Leaves smooth with bloom not channelled, Petals woolly
 1423 Leaves terete, Branches toment. Gland attached to oblique end of stalk, Flow. silky, Caps. gibbous nodose
 1424 Lvs. ben. with an obsol. furr. at base and branc. s.-pub. Branchl. and fl.-stks. hairy, Caps. gibb. with cav. inside
 1425 Leaves smooth beneath below the middle with an obsolete furrow the length of fruit, Caps. gibbous rugose
 1426 Leaves furrowed above pinnatifid occasionally undivided, Flowers racemose smooth, Caps. gibbous
 1427 Lvs. of upper branches flif. of lower flat, Perianths very smooth, Caps. with 2 spurs umbelled much shorter
Leaves flat, toothed, or entire.
 1428 Leaves narrow-lanceol. prickly toothed minutely dotted a little rough at the edge, Caps. 2-spurred convex
 1429 Leaves oval opaque sinuate-toothed prickly stalked, Caps. 2-spurred ovate gibbous compressed at end
 1430 Lvs. lanc. or obl. attenu. at base with a few prickly teeth or entire shining veinly with branches very smooth
 1431 Lvs. sinu. tooth. shining veiny stem-clasp. with a dilated cord. base, Stem prost. Bran. smooth, Caps. spurl.
 1432 Lvs. angul. tooth. dil. at end and cuneate at base cord. stem clasp. Stem prost. Branc. pubes. Caps. spurless
 1433 Leaves pinnatifid and bipinnatifid linear, Capsules spurless
 1434 Leaves pinnatifid the anterior segments 1 inch long the posterior 1½ inch and more
 1435 Leaves obovate 3-nerved reticulated wavy prickly toothed, Caps. spurless ventricose
 1436 Leaves lanc. entire and nerved obsoletely veined prickly at end upper pubesc. Caps. term. 2-spurred gibbous
 1437 Lvs. elongate-lanc. entire 1-nerv. acute withered at end with bran. very smooth, Caps. keeled on both sides
 1438 Lvs. lin.-lanc. elongate entire 3-nerv. obsoletely veined rough. with. at end, Bran. downy, Caps. lanceol.
 1439 Leaves entire 3-nerved veiny obovate-oblong or linear lanceolate reversed, Branches angular, Bark warted
 1440 Leaves entire 5-nerved reticulated elliptical or oval pointless, Stalks and flowers smooth, Bark shining

1441 Leaves elongate lanceolate 3-nerved at base

1442 Involucres 7-flowered, Leaves linear-lanceolate cuspidate

1443 The only species

1444 Leaves wedge-shaped oblong toothed veiny smooth

1445 Leaves bipinnatifid very smooth, Segments wedge-shaped or lanceolate cut

1446 Leaves linear lanceolate elongate smooth remotely serrate



and Miscellaneous Particulars.

241. *Stenocarpus*. A handsome genus. The name is derived from *στυνος*, narrow, and *καρπος*, fruit.

242. *Lambertia*. In honor of A. B. Lambert, Esq. F. R. S., vice-president of the Linnean Society, and possessor of a rich Herbarium. This handsome plant thrives well in loam and peat not over watered. Cuttings must be taken off at a joint before they begin to push, and planted thinly in sand under a glass, and guarded from damp.

243. *Xylometum*. A name derived by Sir J. E. Smith from the remarkable fruit of the plant which resembles a wooden apple; *ξύλον*, wood, and *μήλον*, an apple.

244. *Telopsea*. From *τηλοσπος*, seen at a distance, in allusion to the brilliant crimson blossoms which decorate the plant, and make it a conspicuous object in its own country, as well as in our conservatories.

245. *Lomatia*. From *λωμαία*, an edge, on account of the winged edge of the seeds.

246. RHOPALA. <i>R. Br.</i>	RHOPALA.				<i>Proteaceæ.</i>	<i>Sp. 2.</i>						
1447 dentata <i>R. Br.</i>	tooth-leaved	♀	□	or	10	my.au	G	S. Amer.	1802.	C	1 p	
1448 sessilifolia <i>R. Br.</i>	sessile-leaved	♀	□	or	10	...	G	Guiana	1803.	C	1 p	Rudg. gui. 1. t. 31
247. BANK'SIA. <i>R. Br.</i>	BANKSIA.											
1449 pulchella <i>R. Br.</i>	small-flowered	♀	□	or	6	...	Y	N. Holl.	1805.	C	1 p	
1450 sphaerocarpa <i>R. Br.</i>	round-fruited	♀	□	or	6	...	Y	N. Holl.	1803.	C	1 p	
1451 nutans <i>R. Br.</i>	nodding-flower.	♀	□	or	4	jns.	Y	N. Holl.	1803.	C	1 p	
1452 ericifolia <i>R. Br.</i>	Heath-leaved	♀	□	or	6	ja.d	Y	N. S. W.	1788.	C	1 p	Bot. mag. 738
1453 spinulosa <i>R. Br.</i>	spiny	♀	□	or	6	my.d	Y	N. S. W.	1788.	C	1 p	Bot. rep. 457
1454 collina <i>R. Br.</i>	hill	♀	□	or	6	...	Y	N. S. W.	1800.	C	1 p	
1455 occidentalis <i>R. Br.</i>	west-coast	♀	□	or	4	...	...	N. Holl.	1803.	C	1 p	
1456 littoralis <i>R. Br.</i>	sea-side	♀	□	or	8	...	O	N. Holl.	1803.	C	1 p	
1457 marginata <i>R. Br.</i>	various-leaved	♀	□	or	6	my.au	Y	N. S. W.	1804.	G	1 p	Bot. mag. 1947
1458 australis <i>R. Br.</i>	southern	♀	□	or	6	...	G	N. S. W.	1822.	C	1 p	Bot. reg. 787
1459 integrifolia <i>R. Br.</i>	entire-leaved	♀	□	or	12	...	Y	N. S. W.	1788.	C	1 p	Cv. ic. 6. t. 545, 546
1460 verticillata <i>R. Br.</i>	verticillate	♀	□	or	12	jl.o	Y	N. Holl.	1794.	C	1 p	Hook. ex. fl. 96
1461 coccinea <i>R. Br.</i>	scarlet-flowered	♀	□	or	6	...	S	N. Holl.	1803.	C	1 p	
1462 paludosa <i>R. Br.</i>	marshy	♀	□	or	5	ja.ap	Y	N. S. W.	1805.	L	1 p	Bot. cab. 392
1463 oblongifolia <i>R. Br.</i>	oblong-leaved	♀	□	or	15	my.au	Y	N. S. W.	1788.	C	1 p	Bot. cab. 241
1464 latifolia <i>R. Br.</i>	broad-leaved	♀	□	or	30	my.au	G	N. S. W.	1802.	S	1 p	Bot. mag. 2406
1465 marcescens <i>R. Br.</i>	short-leaved	♀	□	or	6	ja.d	Pu	N. Holl.	1794.	C	1 p	Bot. rep. 258
1466 insularis <i>R. Br.</i>	Island	♀	□	or	6	...	...	N. S. W.	1822.	C	1 p	
1467 attenuata <i>R. Br.</i>	smooth-flower.	♀	□	or	6	...	...	N. Holl.	1794.	L	1 p	
1468 serrata <i>R. Br.</i>	saw-leaved	♀	□	or	20	jl.s	Y	N. S. W.	1788.	S	1 p	Bot. rep. 82
1469 emula <i>R. Br.</i>	deeply-sawed	♀	□	or	6	jl.s	G	N. S. W.	1788.	C	1 p	Bot. rep. 638
1470 quercifolia <i>R. Br.</i>	oak-leaved	♀	□	or	5	...	...	N. Holl.	1805.	C	1 p	
1471 dentata <i>R. Br.</i>	toothed	♀	□	or	4	...	...	N. S. W.	1822.	C	1 p	
1472 speciosa <i>R. Br.</i>	long-leaved	♀	□	or	5	my.au	...	N. Holl.	1805.	C	1 p	
1473 grandis <i>R. Br.</i>	great-flowered	♀	□	or	4	...	...	N. Holl.	1794.	S	1 p	
1474 repens <i>R. Br.</i>	creeping	♀	□	or	2	...	Y	N. Holl.	1803.	C	1 p	Voy. de lab. 1. t. 23
248. DRYANDRA. <i>R. Br.</i>	DRYANDRA.											
1475 floribunda <i>R. Br.</i>	many-flowered	♀	□	or	3	ja.d	Y	N. Holl.	1803.	S	1 p	Bot. mag. 1581
1476 cuneata <i>R. Br.</i>	wedge-leaved	♀	□	or	3	fn	Y	N. Holl.	1803.	C	1 p	
1477 armata <i>R. Br.</i>	acute-leaved	♀	□	or	3	ja.d	Y	N. Holl.	1803.	C	1 p	
1478 formosa <i>R. Br.</i>	splendid	♀	□	or	4	ja.d	Y	N. Holl.	1803.	C	1 p	Lin. tran. 10. t. 3
1479 plumosa <i>R. Br.</i>	feathered	♀	□	or	3	...	Y	N. Holl.	1803.	C	1 p	
1480 obtusa <i>R. Br.</i>	obtusely-leaved	♀	□	or	1	...	Y	N. Holl.	1803.	C	1 p	
1481 nivea <i>R. Br.</i>	white-leaved	♀	□	or	1	jl.s	Y	N. Holl.	1803.	C	1 p	Voy. de lab. 1. t. 24
1482 longifolia <i>R. Br.</i>	long-leaved	♀	□	or	2	ja.d	Y	N. Holl.	1805.	S	1 p	Bot. mag. 1582
1483 tenuifolia <i>R. Br.</i>	fine-leaved	♀	□	or	2	mr.my	Y	N. Holl.	1803.	S	1 p	
249. STRUTHIOLA. <i>W.</i>	STRUTHIOLA.											
1484 juniperina <i>W.</i>	drooping	♀	□	or	2	aps	W	C. G. H.	1758.	C	1 p	Bot. mag. 222
1485 erecta <i>W. en.</i>	upright	♀	□	or	1½	aps	W	C. G. H.	1798.	C	1 p	Bot. mag. 2138
1486 ovata <i>W.</i>	oval-leaved	♀	□	or	2	f.jn	W	C. G. H.	1792.	C	1 p	Bot. rep. 119
1487 imbricata <i>H. K.</i>	tiled-leaved	♀	□	or	2	ap.au	Y	C. G. H.	1794.	C	1 p	Bot. rep. 113
1488 tomentosa <i>H. K.</i>	downy-leaved	♀	□	or	2	aus	Y	C. G. H.	1799.	C	1 p	Bot. rep. 334
1489 virgata <i>H. K.</i>	twiggy	♀	□	or	2	ap.au	R	C. G. H.	1779.	C	1 p	Bot. rep. 139
1490 ciliata <i>Andr.</i>	ciliated	♀	□	or	2	ap.au	W	C. G. H.	1799.	C	1 p	Bot. rep. 149
1491 pubescens <i>H. K.</i>	downy	♀	□	or	3	ap.au	R	C. G. H.	1790.	C	1 p	Bot. mag. 1212
1492 incana <i>Lodd.</i>	hoary	♀	□	or	2	au	W	C. G. H.	1817.	C	1 p	Bot. cab. 11



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246. *Rhopala*. The vernacular name of one of the species found in Guiana is Roupala. The species seldom flower, and are remarkable more for the beauty of their foliage than blossoms, which are disposed in long spikes, usually of a greenish color.

247. *Banksia*. So named by Linnaeus, in honor of Sir Joseph Banks, Bart., Pres. R. S., a distinguished promoter of the study of natural history, and of science in general: he died in 1820. This is an elegant genus, and to be grown well requires a soil composed of equal parts of peat, loam, and sand. The pots must be well drained; and the following is the mode recommended by Sweet: "Place a piece of potsherd about half way over the hole at the bottom of the pot, then lay another piece against it that it may be hollow, afterwards put some smaller pieces all round them, and some more, broken very small, on the top of these. All plants belonging to the Proteaceae should be drafted in the same manner, as the roots are very fond of running amongst the broken potsherd; and there is not so much danger of their being overwatered; care must be taken not to let them flag for want of water; as they seldom recover if allowed to get very dry; they should also be placed in an airy part of the green-house when in doors, as nothing is more beneficial to them than a free circulation of air. Cuttings are generally supposed to be difficult to root, but they will root readily if properly managed: let them be well ripened before they are taken off; then cut them off at a joint, and plant them in pots of sand without shortening any of the leaves, except on the part that is planted in the sand, where they should be taken off quite close; the less depth they are planted in the pots the better, if they only stand firm when the sand is well closed round them; then place them under hand-glasses in the propagating house, but not plunge them in

1447 Leaves alternate ovate lanceolate complicate toothed attenuated at both ends
 1448 Leaves 4 together subsessile wedge-shaped oblong entire

1449 Leaves acerose entire not pointed, Claws of flower woolly, Segments smooth, Stigma a depressed head
 1450 Leaves acerose entire mucronate, Flower all hairy, Stigma subulate, Cones globose
 1451 Leaves acerose entire mucronate, Flower hoods nodding, Flowers silky
 1452 Leaves acerose emarginate 2-toothed entire, Flower heads long, Flowers silky, Stigma capitate
 1453 Leaves acerose 3-toothed at end, the middle tooth longest prickly or entire at the edge, Stigma subulate
 1454 Leaves linear prickly toothed; the terminal tooth shortest
 1455 Leaves linear beyond the middle prickly toothed beneath veinless, Stem shrubby, Branches smooth
 1456 Leaves long lin. prickly toothed atten. at base veinless beneath, Stem arborescent, Branchlets tomentose
 1457 Leaves linear truncate mucronate entire or toothed; veins beneath inconspicuous, Ends of branches hairy
 1458 Leaves linear truncate mucronate recurved at edge entire beneath netted, Ends of branches tomentose
 1459 Leaves whorled oblong lanc. entire mucronulate with conspicuous netted veins beneath, Stem arborescent
 1460 Leaves whorled lingulate oblong obtuse unarmed beneath veinless white, Stem arborescent
 1461 Leaves altern. wedge-shaped obovate or obl. toothed truncated ribbed reticulated at the base transverse
 1462 Leaves somewhat whorled wedge-shaped obl. subtrunc. attenuated at base beyond middle toothed serrate
 1463 Leaves scattered narr. obl. trunc. toothed serr. beneath ribbed and veiny, Footstalks and branchl. toment.
 1464 Leaves obovate oblong prickly serrate acute at base beneath ribbed reticulated cinereous
 1465 Leaves wedge-shaped flat scattered truncate beyond the middle toothed serrate at the base acutish
 1466 Leaves linear or wedge-shaped oblong rounded mucronulate scattered or whorled beneath netted
 1467 Leaves elongate lin. trunc. at the base attenuate beyond the middle serrated beneath ribbed retic. toment.
 1468 Leaves broad linear elongate truncated serrate beneath reticulated smoothish at the base attenuated
 1469 Lvs. broad lin. elong. truncated deeply serrate beneath reticulated smoothish, Stig. bearded not furrowed
 1470 Leaves oblong wedge-shaped subtruncate smooth cut serrate mucronate, Segments of flower awned
 1471 Leaves wedge-shaped oblong truncate sinuate toothed undulated acute at base beneath ribbed veiny snowy
 1472 Leaves linear pinnatifid, Lobes triangular half ovate mucronate beneath snowy obsoletely nerved
 1473 Leaves pinnatifid, Lobes triangular ovate acute flat beneath nerved smoothish, Flowers smooth
 1474 Leaves pinnatifid, Lobes sinuate or toothed, Stem prostrate

1475 Leaves wedge-shaped cut serrate, Bractes of involucre striated outer smoothish
 1476 Leaves wedge-shaped sinuate toothed prickly stalked, Bractes all smooth silky
 1477 Lvs. pinnatifid, Lobes triang. flat divaricating straight prickly pointed the stem longer than those next it
 1478 Lvs. elongate linear pinnatifid, Lobes triangular pointless flat snow-white beneath, Involucres tomentose
 1479 Leaves elongate lin. pinnatifid, Lobes an equal-sided triangle mucron. recurved at edge beneath snow-white
 1480 Leaves lin. pinnatifid longer than decumbent tomentose stem, Lobes triangular obtuse snow-white beneath
 1481 Leaves lin. pinnatifid as long as smooth stem, Lobes triang. acute mucr. beneath white with recurved edge
 1482 Lvs. lin. pinnatifid very long acute beneath ashy at base attenuated and entire, Lobes triang. ascend. decur.
 1483 Leaves linear elongate pinnatifid sub-truncate white beneath, Lobes triangular decurrent divaricating

1484 Leaves linear acute spreading, Flowers naked, Anthers included
 1485 Leaves linear and 4-cornered branches smooth
 1486 Leaves ovate and branches rugose smooth
 1487 Leaves ovate furrowed quadrifarious ciliated at edge, Glands of flower 4
 1488 Leaves ovate tomentose, Glands of flower 12
 1489 Leaves lanceolate ciliated, Bractes the length of germen
 1490 Leaves lanceolate mucronate ciliate concave incurved at end
 1491 Leaves linear ciliated, Bractes longer than germen
 1492 Leaves all over hoary



and Miscellaneous Particulars.

heat; the glasses must be frequently taken off to give them air and dry them, or they are apt to damp off; when they are rooted, the sooner they are potted off in little pots the better, as the sand is liable to canker their roots if left too long in it; when potted off, they should be placed in a close frame, but not on heat, as a bottom heat will destroy their roots, when they must be hardened to the air by degrees. Plants raised in this way have better roots, grow faster, and flower sooner than plants raised from seeds. In raising them from seeds they should be sown in the same kind of soil as the plants are grown in, and placed in the green-house; or if it is in summer they will come up sooner if placed out in the open air; they will soon make their appearance, when they should be potted off in small pots, for if left in the seed-pots too long they are apt to die, and are more difficult to move with safety." (*Bot. Cull.* 147.)

248. *Dryandra*. Was named by Mr. R. Brown after the famous Jonas Dryander, whose catalogue of the Banksian library would alone be a monument of talent and industry, if his high botanical acquirements had been unknown. This genus is allied in character and habits to *Banksia*. It thrives best in very sandy loam and peat in well drained pots. Cuttings made from ripened wood taken off at a joint before they begin to push, planted in sand without shortening any of the leaves, and covered with a glass, will root without difficulty. The pots should not be plunged, and as soon as the cuttings are rooted they must be potted off, as the sand is apt to injure their roots. Place them afterwards in a close frame or under hand-glasses till they strike root afresh, and then harden them by degrees. (*Succet.*)

249. *Struthiola*. From *argus* For., a sparrow: the pointed seed vessels have some resemblance to the beak of a

250. OPERCULARIA. <i>W. OPERCULARIA.</i>	<i>Valerianææ.</i>	<i>Sp. 1—12.</i>						
1493 <i>áspera W.</i>	rough-seeded	Y Δ W	1	jn.jl	W	N. S. W.	1790.	S s.p An. mu.4.t.70.f.1
251. CRYPTOSPERMUM. <i>P. S. CRYPTOSPERMUM</i>	<i>Valerianææ.</i>	<i>Sp. 1.</i>						
1494 <i>Youngii P. S.</i>	chaffy	Y \square W	4	jl.au	Pk	N. S. W.	1793.	C co Linn.trans.3. t.5
252. POTTHOS. <i>W.</i>	<i>POTHOS.</i>	<i>Aroidææ.</i>	<i>Sp. 19—28.</i>					
1495 <i>acutis W.</i>	stemless	Y Δ cu	1	ap.jl	Ap	W. Indies	1790.	Sk s.p Jac.am.240.t.153
1496 <i>lanceolata W.</i>	lance-leaved	Y Δ cu	1½	ap.jl	Ap	Barbadoes	1790.	Sk s.p Plum am.47.t.62
1497 <i>violacea W.</i>	blue-fruited	Y Δ cu	2	ap.jn	Ap	Jamaica	1793.	Sk s.l Hook. ex. fl. 55
1498 <i>cannefolia H. K.</i>	sweet-scented	Y Δ cu	3	ap.my	Ap	W. Indies	1789.	Sk s.p Bot. mag. 603
1499 <i>crassinervis W.</i>	thick-nerved	Y Δ cu	2½	...	Ap	S. Amer.	1796.	Sk s.p Jac. ic. 3. t. 609
1500 <i>cordata W.</i>	heart-leaved	Y Δ cu	3	ap'	Ap	America	1770.	Sk s.p Plum. ic. 26. t.38
1501 <i>sagittata B. M.</i>	arrow-leaved	Y Δ cu	3	au	Ap	W. Indies	1800.	Sk p.l Bot. mag. 1584
1502 <i>macrophylla W.</i>	large-leaved	Y Δ cu	3	my.jn	Ap	W. Indies	1794.	Sk s.p Jac. ic. 3. t. 610
1503 <i>obtusifolia H. K.</i>	blunt-leaved	Y Δ cu	2	my.jn	Ap	Barbadoes	1790.	Sk p.l
1504 <i>foetida H. K.</i>	Scunkweed	Y Δ cu	1	mr.ap	Ap	N. Amer.	1735.	Sk p.l Bot. mag. 836
1505 <i>palmata W.</i>	palmated	Y Δ cu	3	jn.jl	Ap	S. Amer.	1803.	Sk p.l Plum.am.49.t.64
1506 <i>pentaphylla W.</i>	five-leaved	Y Δ cu	2	o.n	Ap	Cayenne	1803.	Sk p.l Bot. mag. 1375
253. RIVINA. <i>W.</i>	<i>RIVINA.</i>	<i>Chenopodææ.</i>	<i>Sp. 5—7.</i>					
1507 <i>humilis W.</i>	downy	Y \square or	2	ja.o	W	W. Indies	1699.	S r.m Bot. mag. 1781
<i>β canescens W.</i>	hoary	Y \square or	2	my.au	W	W. Indies	1804.	C l.p
1508 <i>purpurascens W. en.</i>	purple	Y \square or	2	my.au	Pk	W. Indies	1815.	C l.p
1509 <i>laevis W.</i>	smooth	Y \square or	2	f.s	Pk	W. Indies	1733.	S r.m Bot. mag. 2333
1510 <i>brasilienis W.</i>	wave-leaved	Y \square or	2	jn.jl	G	Brazil	1790.	C l.p
1511 <i>octandra W.</i>	climbing	Y \square or	20	my.jn	W	W. Indies	1752.	C p.l B. jun.149.t.23.f.2
254. CAMPHOROSMA. <i>W. CAMPHOROSMA.</i>	<i>Chenopodææ.</i>	<i>Sp. 1—5.</i>						
1512 <i>monspeliaca W.</i>	hairy	Y \square cu	1½	aus	Ap	S. Europe	1640.	C p.l Schk. han.1. t.96
255. ALCHEMILLA. <i>W. LADIES-MANTLE.</i>	<i>Sanguisorbææ.</i>	<i>Sp. 7—14.</i>						
1513 <i>vulgaris W. en.</i>	common	Y Δ or	1	jn.au	G	Britain	me.pa.	D co Eng. bot. 597
1514 <i>montana W. en.</i>	mountain	Y Δ or	1	jn.au	G	Britain	moun.	D co Mill. ic. t. 18
1515 <i>pubescens W. en.</i>	pubescent	Y Δ or	½	jn.au	G	Caucasus	1813.	D co Hort. ber. 2. t.79
1516 <i>sericea W. en.</i>	silky	Y Δ or	½	jn.au	G	Caucasus	1813.	D co
1517 <i>alpina W.</i>	silvery	Y Δ or	½	jl	G	Britain	rocks.	D co Eng. bot. 244
1518 <i>pentaphylla W.</i>	five-leaved	Y Δ or	½	jl	W	Switzerl.	1784.	D co Bocc. mus.1. t. 1
1519 <i>Aphanes W.</i>	Parsley-piert	Y \square w	½	ap.jn	G	Britain	...	D co Eng. bot. 1011
256. SANGUISORBA. <i>W. GREAT-BURNET.</i>	<i>Sanguisorbææ.</i>	<i>Sp. 5.</i>						
1520 <i>officinalis W.</i>	official	Y Δ ag	2	jn.au	Pk	Britain	me.pa.	S co Eng. bot. 1312
<i>β auriculata</i>	eared	Y Δ or	2	jn.au	Pk	Italy	.....	D co Bocc.mus.19. t.9
1521 <i>carnea Fisch.</i>	flesh-colored	Y Δ or	2	jn.au	R	.....	1823.	D co Schr. mon. t. 69
1522 <i>tenuifolia Fisch.</i>	fine-leaved	Y Δ or	2	jn.au	Pk	.....	1820.	D co
1523 <i>media W.</i>	short-spiked	Y Δ or	2	jl.s	R	Canada	1785.	D co Zan. h.181. t.138
1524 <i>canadensis W.</i>	Canadian	Y Δ or	3	jl.s	W	Canada	1633.	D co Cor. can. t. 174.
257. DORSTENIA. <i>W.</i>	<i>DORSTENIA.</i>	<i>Urticææ.</i>	<i>Sp. 4—14.</i>					
1525 <i>brasilienis W.</i>	Brazilian	Y Δ cu	½	ap.au	G	S. Amer.	1792.	R s.l
1526 <i>Houstoni W.</i>	Houston's	Y Δ cu	½	jn.jl	G	S. Amer.	1747.	R s.l Bot. mag. 2017
1527 <i>Contrajerva W.</i>	Contrajerva-rt.	Y Δ m	½	my.au	G	S. Amer.	1748.	Sk p.l Jac. ic. 3. t. 614
1528 <i>arifolia Lam.</i>	arum-leaved	Y Δ cu	½	my.jl	G	Brazil	1822.	R s.l Bot. mag. 2476



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sparrow or other small bird. The species are all slender, hardy, green-house plants, of pretty appearance, and easy cultivation.

250. *Opercularia.* From *operculum*, a lid, in allusion to the manner in which the calyx is closed. Plants of no beauty.

251. *Cryptospermum.* From *κεντρον*, to conceal, and *σπερμα*, seed. The seeds, or rather seed-vessels, are hidden in the involucre. Weeds of some tropical countries.

252. *Pothos.* From *potha*, the native name of this plant in Ceylon. Most of the species are sub-parasitic, and found climbing, like ivy, on the trunks of trees in the West Indies and America. In our stoves most of the species will thrive planted in old bark and moss, and plunged in heat. *P. palmata* has leaves upwards of three feet long, with a foot-stalk nearly four feet long, palmate, as thick as strong parchment, smooth, with a midrib of a deep green above, and the fructification on spikes more than a foot in length. The species are cultivated for the sake of their foliage, which is always of an agreeable green color, and not liable to discoloration by damp or other accidents of a hot-house.

253. *Rivina.* In memory of A. O. Rivinus, a native of Saxony, born in 1652, and died in 1722. He was for a long time professor of botany and medicine at Leipsig, and left behind him some valuable botanical works; and among them a very ingenious attempt at a classification of plants by the corolla; from which some modern botanists have profited more than they have acknowledged. The name, as Linnæus observes, with his usual neatness, has been given to a shrub always covered with leaves and fruits, in allusion to the merit of the works of Rivinus. *R. octandra*, the Hoop-witly of Jamaica, and *liane à baril* of Martinique, has a very long tough flexible stalk an inch or more in diameter, and sometimes made into hoops in the West Indies. The berries con-

- 1493 Leaves opposite ovate rough, Flowers capitate, Heads stalked axillary
- 1494 Stem erect 4-cornered and leaves lanceolate entire smooth
- 1495 Leaves lanceolate entire nerveless
 1496 Leaves lanceolate 3-nerved veiny entire, Scape 3-cornered at the end
 1497 Leaves ovate lanceolate entire nerved dotted
 1498 Leaves obovate lanceolate pointed at both ends ribbed, Spathe oblong acuminate flat stalked
 1499 Leaves obl. attenuated at both ends veiny entire, Middle rib convex on both sides with 3 keels at its base
 1500 Leaves cordate lobed imbricated, Spathe flat, Scape rounded
 1501 Leaves cordate acute, Lobes spreading, Spathe reflexed as long as the erect spadix
 1502 Leaves cordate lobes divaricating, Spadix much shorter than the spathe
 1503 Leaves cordate very obtuse
 1504 Leaves cordate acute, Spadix subglobose
 1505 Leaves palmated, Lobes 9 or 10 lanceolate obtuse
 1506 Leaves digitate quinate ovate acuminate
- 1507 Leaves pubescent
- 1508 Leaves ovate smooth ciliated, Petioles pubescent
 1509 Leaves ovate acuminate smooth flat, Stem round
 1510 Leaves ovate wavy rugose, Stem furrowed
 1511 Flowers octandrous and dodecandrous
- 1512 Tufted tomentose hoary, Stems ascending simple
- 1513 Leaves reniform plaited serrated, Stem and petiole smoothish, Flowers dichotomous corymbose
 1514 Leaves reniform 9-lobed beneath with the stem and petioles silky, Flowers fastigiate clustered sessile
 1515 Leaves reniform 7-lobed toothed silky beneath, Corymbs terminal
 1516 Leaves digitate in sevens lanceolate acute, from the middle to the end deeply serrated silky beneath
 1517 Leaves digitate in fives or sevens lanceolate cuneate obtuse serrated or toothed at the end silky beneath
 1518 Leaves three together, Leaflets ciliated multifid smooth
 1519 Leaves three parted, Segments trifid pubescent, Flowers clustered monandrous
- 1520 Spike ovate, Stamens shorter than the cor. Cal. and leaves smooth, Leaflets ovate subcordate
- 1521 Leaflets cordate lanceolate crenate toothed quite smooth, Stamens shorter than corolla
 1522 Leaflets subsessile ovate-lanceolate finely serrated, Spikes cylindrical, Stamens longer than corolla
 1523 Spikes cylindrical, Stamens longer than corolla, Cal. somewhat ciliated
 1524 Spikes cylindrical very long, Stamens much longer than corolla
- 1525 Leaves cordate oval obtuse crenulate, Receptacles orbicular
 1526 Leaves cordate angular acute, Receptacles quadrangular
 1527 Leaves cordate or pinnatifid palmate serrated, Receptacles quadrangular
 1528 Leaves cordate sagittate undulated toothed large, Receptacles oval



and Miscellaneous Particulars.

stitute the principal part of the food of the American thrush or nightingale; they contain a very oily seed, and after the bird has swallowed many of them he frequently flies to the next bird-pepper bush (*Capsicum*), and picks a few pods: instinct directing him to what is necessary to promote the digestion of that oleaginous heavy food.

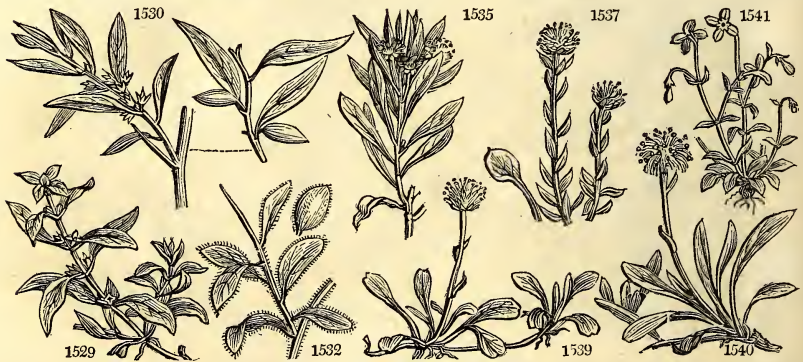
254. *Camphorosma*. Barbarously named from two words, the one Latin (*camphora*), and the other Greek (*osun*), signifying a smell of camphor. The plant abounds with a volatile oily salt, and is warm and stimulating; but its appearance has nothing to recommend it.

255. *Achemilla*. Named, as Linnaeus asserts, from its supposed alchemical purposes; but, as others maintain, from its Arabic appellation *alkémelych*. (*J. de Souza*, p. 52.) *A. vulgaris* is eaten readily by horses, sheep, and goats, and is considered a good herbage-plant where it abounds in upland pastures. *A. alpina* is an elegant species, common on many of the Highland mountains, and supposed by Lightfoot and others to aid considerably in giving the peculiarly excellent flavor to Highland mutton. *A. apiana* is a worthless weed.

256. *Sanguisorba*. From *sanguis*, blood, and *sorbere*, to absorb. The plant has passed for an excellent vulnerary. This genus greatly resembles *Poterium* (*Monœcia Polyan.*), and Professor Martyn observes, that it is certainly a defect in the Linnæan system that two genera so similar in habit should be placed so far apart. A profound remark, and quite worthy the professor of botany of Cambridge. Alas! poor Linnaeus! if he could rise from his grave he would have little cause to congratulate himself upon the aid of those who call themselves his champions, and the expounders of his system.

257. *Dorstenia*. In memory of Theodore Dorsten, a German, author of a work entitled *Botanicon*, printed in 1740. Its flowers, says Linnaeus, are like the works of Dorsten, they have little to recommend them. The roots are imported under the name of *Contryerva* roots, and used both in medicine and dyeing.

258. ISNAR'DA. <i>W.</i>	ISNARDA.				<i>Onagrariea.</i>	<i>Sp. 1—6.</i>				
1529 palustris <i>W.</i>	marsh	三	○	w	1	jl	G	Eur., &c.	1776.	S co Schk. han.1. t.25
259. ELEAG'NUS. <i>W.</i>	OLEASTER.							<i>Eleagnea.</i>	<i>Sp. 5—10.</i>	
1530 angustifolia <i>W.</i>	narrow-leaved	半	辛	or	15	jl	Ap	S. Europe	1633.	C co Pall. ross. 1. t. 4
1531 A'lypum <i>Ph.</i>	silvery	辛	辛	or	10	jl.au	Ap	N. Amer.	1813.	C co Bot. mag. 2256
1532 orientalis <i>W.</i>	oriental	辛	辛	or	10	jl.au	Ap	Levant	1748.	L p.l Pall. ross. 1. t. 5
1533 latifolia <i>W.</i>	broad-leaved	辛	辛	or	3	jl.au	Ap	E. Indies	1712.	L p.l Bn. zeyl. t.39.f.2
1534 acuminata <i>Lk.</i>	acuminated	辛	辛	or	3	...	Ap	.....	...	C co
260. GLOBUL'ARIA. <i>W.</i>	GLOBULARIA.							<i>Globularine.</i>	<i>Sp. 6—13.</i>	
1535 longifolia <i>W.</i>	long-leaved	辛	辛	pr	3	jl.au	W	Madeira	1775.	L p.l Bot. reg. 685
1536 A'lypum <i>W.</i>	three-toothed	辛	辛	pr	2	aus.	Pa	S. Europe	1640.	L p.l Garid. aix. t. 42
1537 vulgaris <i>W.</i>	common	辛	辛	pr	1/2	my.jn	B	Europe	1640.	C p.l Bot. mag. 2256
1538 spinosa <i>W.</i>	prickly-leaved	辛	辛	pr	1/2	my.jn	B	Spain	1640.	C l.p
1539 cordifolia <i>W.</i>	wedge-leaved	辛	辛	pr	1/2	jn.jl	B	Germany	1633.	C l.p Jac. aus. 3. t. 245
1540 nudicaulis <i>W.</i>	naked-stalked	辛	辛	pr	1/2	jn.jl	B	Germany	1629.	C p.l Jac. aus. 3. t. 230
261. HOUSTON'IA. <i>W.</i>	HOUSTONIA.							<i>Rubiaceae.</i>	<i>Sp. 2—15.</i>	
1541 cœrulea <i>W.</i>	blue-flowered	辛	辛	pr	1/2	my.au	LB	N. Amer.	1785.	D s.p Bot. mag. 570
1542 purpurea <i>W.</i>	purple-flower'd	辛	辛	pr	1/2	my.au	Pu	N. Amer.	1800.	D co
262. DIPSAC'CUS. <i>W.</i>	TEASEL.							<i>Dipsaceae.</i>	<i>Sp. 6—10.</i>	
1543 fullonum <i>W.</i>	clothier's	辛	辛	ag	6	jl	Pu	Britain	hedg.	S l Eng. bot. 2080
1544 sylvestris <i>W.</i>	wild	辛	辛	w	4	jl	Pu	Britain	m.hed.	S m.s Eng. bot. 1032
1545 laciniatus <i>W.</i>	cut-leaved	辛	辛	w	4	jl.au	Pu	Germany	1683.	S m.s Jac. aus. 5. t. 403
1546 Gmelni <i>Bieb.</i>	intermediate	辛	辛	w	3	jl.au	B	Caucasus	1820.	S m.s
1547 inermis <i>Wall.</i>	unarmed	辛	辛	pr	4	...	W	Nepal	1823.	S m.s
1548 pilosus <i>W.</i>	small	辛	辛	pr	4	au	W	Britain	mol.pl.	S m.s Eng. bot. 877
263. CEPHAL'ARIA. <i>Schr.</i>	CEPHALARIA.							<i>Dipsaceae.</i>	<i>Sp. 13—30.</i>	
1549 alpina <i>W.</i>	Alpine	辛	辛	or	3	jn.jl	L.Y	Switzerl.	1570.	D co Be. eys.as. t.8. f.1
1550 albescens <i>W. en.</i>	whitish	辛	辛	or	2	jn.jl	W	Siberia	1804.	D co
1551 rigida <i>W.</i>	stiff-leaved	辛	辛	or	2	jl	W	C. G. H.	1731.	S p.l Com. hort. 2. t. 93
1552 attenuata <i>W.</i>	narrow-leaved	辛	辛	or	1	jl.s	W	C. G. H.	1774.	S l.p
1553 transylvanica <i>W.</i>	Transylvanian	辛	辛	or	2	jl	Li	Transylv.	1699.	S co Jac. vind. 2. t. 111
1554 syriaca <i>W.</i>	Syrian	辛	辛	or	3	jl	W	Syria	1683.	S co Mor. h. 3. t. 14. f. 14
1555 leucantha <i>W.</i>	white-flowered	辛	辛	or	2	s.o	W	France	1739.	D co Ger. ena. 721. f. 8
1556 tatarica <i>W.</i>	Tartarian	辛	辛	or	6	jn.au	L.Y	Russia	1759.	S co Act. ups. 1744. t. 1
1557 uralensis <i>W.</i>	Uralian	辛	辛	or	5	jl.au	Y	Siberia	1789.	S co Co. gott. 1782. t. 4
1558 levigata <i>W. & K.</i>	smooth	辛	辛	or	1 1/2	jl.au	Str	Hungary	1805.	D co Wl. & Kit. 3. t. 230
β <i>corniculata</i>	horned	辛	辛	or	2	jl.au	Str	Hungary	1801.	D co W. et Kit. t. 13
1559 cretacea <i>Bieb.</i>	chalky	辛	辛	or	4	jl.au	Str	Caucasus	1818.	D co
1560 Vaillantii <i>Schott.</i>	Vaillant's	辛	辛	or	1 1/2	jl.au	B	Aleppo	1822.	D co
1561 papposa <i>W.</i>	downy-headed	○	○	or	1	jl	W	S. Europe	1739.	S co
264. SCABIO'SA. <i>W.</i>	SCABIOUS.							<i>Dipsaceae.</i>	<i>Sp. 33—103.</i>	
1562 dichotoma <i>W. en.</i>	forked	辛	辛	or	1	jn.au	Pk	Sicily	1804.	S co Bocc. mus. t. 120
1563 Succisa <i>W.</i>	Devil's-bit	辛	辛	or	1	au.o	V	Britain	pas.	D co Eng. bot. 878
1564 integrifolia <i>W.</i>	red-flowered	辛	辛	or	1 1/2	jn.au	R	France	1748.	S co
1565 arvensis <i>W.</i>	field	辛	辛	or	2	l.o	Pu	Britain	cor. fi.	S co Eng. bot. 659
1566 sylvatica <i>W.</i>	broad-leaved	辛	辛	or	3	jl	Pu	Austria	1633.	D co Jac. aus. 4. t. 362
1567 longifolia <i>P. S.</i>	long-leaved	辛	辛	or	1 1/2	jl.au	Li	Hungary	1802.	D co W. et Kit. t. 5
1568 ciliata <i>Pr.</i>	ciliated	辛	辛	or	2	jl.au	W	Germany	1802.	D co



History, Use, Propagation, Culture,

258. *Isnarda*. Antoine Tristan Danti d'Isnard was a French botanist, professor at the Jardin du Roi, and member of the Academy of Sciences, to which he communicated many memoirs upon plants from 1716 to 1794. An obscure marsh plant.

259. *Eleagnus*. From ελαιον, an olive: the tree having a striking resemblance to the olive tree. *E. angustifolia* is a low tree with elegant silvery leaves and a brown bark, but not of long duration. All the hardy species are commonly propagated by layers; but according to Sweet and Haynes, "cuttings will strike if taken off at a joint in ripened wood, and planted in a sheltered situation early in autumn." The green-house and stove species strike in sand under a bell-glass.

260. *Globularia*. From the flowers being packed in *globose* heads. The species called *Alypum* has been so named from α, privative, and λυπον, pain; used by way of antiphrasis, according to Dalechamp, because it is a dangerous purgative. Bauhin even calls it *Frutex terribilis*; but Clusius says, it was used by the Spanish quacks of his day as a cure for venereal diseases. It is however doubtful whether the *Alypum* of the old botanists is the same with the plant so called by the moderns. Cuttings of the shrubby green-house species, taken off before they begin to make new shoots, root freely in loam and peat under a bell-glass, and in moderate bottom heat. The hardy and herbaceous kinds may be propagated from seeds, or divided like daisies. Miller says, they prefer a shady situation and a moist loamy soil; but Sweet recommends a light sandy soil. The leaves of most of the species dry black.

261. *Houstonia*. Named after Dr. Wm. Houston, the friend and correspondent of Miller: he died in 1733. The plants are small, elegant in their habits, and very fit for pots or rockwork.

1529 Leaves stalked ovate acute

1530 Leaves lanceolate

1531 Leaves oblong acute at each end silvery, Flowers solitary nodding

1532 Leaves oblong ovate opaque

1533 Leaves ovate

1534 Leaves ovate acuminate wavy

1535 Stem shrubby, Leaves lanceolate linear entire, Flowers axillary subsessile solitary

1536 Stem shrubby, Leaves lanceolate 3-toothed and entire, Heads terminal

1537 Stem herbaceous, Radical leaves about 3-toothed much longer than the stalk, Cauline lanceolate

1538 Radical leaves crenate acuminate, Cauline entire mucronate

1539 Radical leaves wedge-shaped retuse toothed at end the intermediate tooth very small

1540 Stem naked, Leaves entire lanceolate

1541 Leaves radical ovate, Stem compound, First peduncles 2-flowered

1542 Leaves ovate lanceolate, Corymbs terminal

1543 Corona obsolete, Head cylindrical, Bractes recurved, Leaves connate entire subcoriaceous

1544 Corona obsolete, Head cylind. Bractes straight, Invol. weak longer than head, Lvs. conn. entire or jagged

1545 Leaves of involucre linear-lanceolate rigid about as long as the head, Leaves usually sinuately jagged

1546 Corona membranaceous, Head ovate, Involucre weak deflexed

1547 Leaves oblong serrate villous stalked sublobate, Cauline connate, Heads globular villous

1548 Corona obsolete, Head globose, Involucre deflexed not quite so long as bractes

Corollas 4-cleft.

1549 Corona with 8 nearly eq. awned teeth, Anth. strip. with green at time of open. Br. acum. pub. Corol. radiant

1550 Corolla equal, Cal. imbr. Radical leaves pinnated, Leaf. lanc. cut toothed ciliat. Caul. tern. and sim. lin.

1551 Corollas 4-fid unequal, Scales of calyx obtuse, Leaves oblong serrated scabrous

1552 Corollas equal, Scales of calyx oblong obtuse, Leaves linear smooth entire trifid and at base pinnatifid

1553 Corona with 8 equal short teeth, Bractes awned, Awns purplish black

1554 Corona with 8 teeth of which 4 are awned and the other 4 very short, Br. awned, Awns rufous, Corol. equal

1555 Coroll. sub-equal, Scales of calyx ovate, Leaves pinnatifid

1556 Corona with 8 awned nearly equal teeth, Anth. str. with green at time of op. Br. acum. pub. Corol. radiant

1557 Coroll. radiant, Radical leaves simple, Cauline decurrent pinnated, Paleæ arid reflexed at end

1558 Corona with 4-8 obsolete teeth, Eractes awnless yellowish white the outer obtuse the inner acuminate

β Teeth of the corona distorted

1559 Coroll. radiant, Calyx imbricated, Leaves coriaceous smooth lanceolate entire: the upper lyrate

1560 Coroll. equal, Calyx and paleæ awned, Stem simple smoothish, Leaves lanceolate almost smooth

Corollas 5-cleft.

1561 Coroll. unequal, Stem herbaceous erect, Leaves pinnatifid, Seeds bearded and feathery pappose

Corollas 4-fid.

1562 Coroll. nearly equal, Stem dichotomous, Leaves oblong cauline entire subsessile radical toothed stalked

1563 Cor. equal, Stem simple, Branches approximated, Leaves lanc. ovate pubescent, Caul. lin. nearly entire

1564 Cor. radiant, Leaves undivided, Radical ovate serrated, Cauline lanceolate

1565 Coroll. radiant, Leaves entire pinnatifid and cut, Stem hispid

1566 Coroll. radiant, Leaves all undivided ovate oblong serrated, Stem hispid

1567 Coroll. radiant, Leaves oblong lanceolate entire, Stem below smooth above pilose

1568 Coroll. sub-radiant, Stem and leaves ovate hispid the lower leaves stalked entire auric. or pinn. Calyx cil.



and Miscellaneous Particulars.

262. *Dipsacus*. From $\delta\iota\psi\alpha\upsilon$, to thirst. At the axillæ of the leaves is usually a quantity of limpid water, which may be acceptable to people who are thirsty. This water once had reputation as a cosmetic. *Chardon à Foulon*, Fr. *Kardendestel*, Ger.; and *Dissaco*, Ital. *D. fullonum* is cultivated in the west of England for raising the nap upon woollen cloths, by means of the crooked awns or chaffs upon the heads, which in the wild Teasel are not hooked. For this purpose they are fixed round the circumference of a large broad wheel, which is made to turn round, and the cloth is held against them. The seeds are sown in March, on well prepared strong clayey loam, broad-cast, and at the rate of one peck to the acre. They are hoed, like turnips, to a foot distance; and the second year, in August, the heads are fit to cut. They are sold by the bundle or stave, twenty-five in each, and the ordinary produce is 160 staves per acre. In Essex, carraway is often sown along with teasel, and the second year after the latter is pulled, the former is mown or reaped. (*Young's Annals*, vol. xxi. p. 53.)

D. pilosus is the handsomest species; the seeds are eaten by small birds, and the flowers frequented by moths in great numbers.

263. *Cephalaria*. From $\kappa\epsilon\phi\alpha\lambda\eta$, a head, in reference to the manner in which the flowers grow. A mere artificial division of the genus *Scabiosa*, from which it differs in no natural characters whatever.

264. *Scabiosa*. From *scabies*, leprosy. The sudorific qualities of this plant are said to be useful in cutaneous diseases. This is a vigorous-growing coarse-looking genus. *S. succisa* is one of the few examples of radix præmorsa or bitten-off root; an appearance, as Keith states, owing to the point or top of the seminal root

1569	canescens P. S.	hoary	△	or	1	jl.au	Li	Hungary	1802.	D	co	W. & K. hun. t. 53
1570	gramúntia W.	cut-leaved	△	or	1	jl.au	L.B	S. Europe	1597.	D	p.l	Ger. herb. 582. f. 2
1571	columbária W.	fine-leaved	△	or	1	jl.au	Pu	Britain	dr. pa.	S	co	Eng. bot. 1311
1572	grandiflora P. S.	great-flowered	△	or	3	jn.s	W	Barbary	1804.	S	co	Seco. dl. ins. 3. t. 14
1573	lúcida P. S.	shining	△	or	2	jn.s	B	Dauphiny	1800.	D	co	
1574	sioula W.	Sicilian	△	or	1	au	Pk	Sicily	1783.	S	co	Jac. vind. 1. t. 15
1575	rutæfolia P. S.	Rue-leaved	△	or	1	jl.au		Sicily	1804.	D	co	Pocc. sic. t. 52
1576	maritima W.	sea	△	or	2	jl	Pu	Italy	1683.	D	co	Mor. h. 6. t. 15. f. 29
1577	Webbiána B. R.	Webb's	△	or	1	½ jl	W	Mnt. Ida	1818.	D	co	Bot. reg. 717
1578	holosericea Bert.	silky	△	or	1	jn. jl	B	Pyrenees	1818.	D	co	
1579	stellata W.	starry	△	or	1½	jl.au	B	Spain	1596.	S	co	Clu. hist. 2. p. 1. ic
1580	prolifera W.	prolific	△	or	1	jl.au	Y	Egypt	1683.	S	co	Her. parad. t. 125
1581	atropurpurea W.	sweet	△	or	4	jl.s	Br	.....	1629.	S	co	Bot. mag. 247
1582	argentea W.	silvery	△	or	2	jn.o	W	Levant	1713.	D	co	Ann. mus. 11. t. 24
1583	urceolata P. S.	jagged	△	or	3	jl.au	Y	Barbary	1804.	S	co	Moris. 6. t. 13. f. 24
1584	africana W.	African	△	or	6	jl.o	W	Africa	1690.	S	p.l	Herm. par. t. 219
1585	nitens R. & S.	Masson's	△	or	...	jn.au	...	Azores	1779.	D	co	
<i>Scabiõsa lucida</i> H. K.												
1586	crética W.	Cretan	△	or	1	jn.o	Pu	Crete	1596.	S	p.l	Mor. h. 3. t. 15. f. 31
1587	graminifolia W.	grass-leaved	△	or	1	jn	B	Switzerl.	1683.	D	p.l	Bot. reg. 835
1588	caucæsa E. M.	Caucasian	△	or	1	jl.au	B	Caucasus	1803.	D	p.l	Bot. mag. 886
1589	lyrata W.	lyrate-leaved	△	or	1	jl.au	Pu	Turkey	1799.	S	s.l	
1590	palæstina W.	Palestine	△	or	1	jl.au	Ci	Palestine	1771.	S	s.l	Jac. vind. 1. t. 96
1591	iseténsis W.	Siberian	△	or	1	jl.au	W	Siberia	1801.	S	s.l	Gmel. sib. 2. t. 88
1592	ucrànica W.	Ukraine	△	or	1	s	L.Y	Ukraine	1795.	C	s.l	Gmel. sib. 2. t. 89
1593	ochroleuca W. en.	pale-flowered	△	or	1	jl.au	Y	Germany	1597.	D	s.l	Jac. aust. 5. t. 47
1594	banatica P. S.	Hungarian	△	or	3	jl.au	Pk	Hungary	1800.	D	co	W. & Kit. 10. t. 12
265. KNAUTIA. W. KNAUTIA. <i>Dipsacæe. Sp. 2-6.</i>												
1595	orientalis W.	red-flowered	○	or	1	jn.s	R	Levant	1713.	S	co	Schk. han. 1. t. 22
1596	propõtica W.	purple-flower'd	○	or	2	jn.au	Pu	Levant	1768.	S	co	Till. pis. 153. t. 43
266. GALIUM. W. <i>Rubiaceæ. Sp. 26-160.</i>												
1597	rubioides W.	Madder-leaved	△	w	1	jl	W	S. Europe	1775.	D	co	Buxb. cent. 2. t. 29
1598	palústre W.	marsh	△	w	2	jl.au	W	S. Europe	m.me.	D	m.s	Eng. bot. 1857
1599	Witheringii E. B.	rough	△	w	1	½ jn. jl	W	England	hea.	D	s.p	Eng. bot. 2206
1600	austriacum W.	Austrian	△	w	1	jn. jl	W	Europe	1804.	D	co	Jac. aust. t. 30
1601	Bocconi W.	Boccone's	△	w	1	my. jn	Pk	Europe	1801.	D	co	Boc. m. 145. t. 101
1602	erectum E. B.	upright	△	w	1½	jn. jl	W	Britain	m. pas.	D	m.s	Eng. bot. 2067
1603	pusillum W.	least	△	w	½	jl.au	W	England	m. pas.	D	s.l	Eng. bot. 74
1604	vérum W.	Cheese-rennet	△	w	1½	jl.au	Y	Britain	bu. pl.	D	m.s	Eng. bot. 660
1605	Mollógo W.	great-hedge	△	w	2	jl.au	W	Britain	hedg.	D	co	Eng. bot. 1673
1606	sylvaticum W.	wood	△	w	3	jl.au	W	S. Europe	1658.	D	co	Flor. dan. t. 609
1607	linifolium W.	Flax-leaved	△	w	1½	jn. jl	W	S. Europe	1759.	D	co	Barrel. ic. 583
1608	rigidum W.	rigid	△	w	1	jn. jl	W	.....	1778.	D	co	
1609	aristatum W.	awned	△	w	1	½ jn. jl	W	Italy	1690.	D	co	Boc. mus. 83. t. 75
1610	tyrolense W. en.	Tyrolese	△	w	1	jl	W	Tyrol	1801.	D	co	
1611	gláucum W.	glaucous	△	w	2	jn.s	W	S. Europe	1710.	D	co	Jac. aust. 1. t. 81
1612	purpureum W.	purple	△	or	1	jn. jl	Pu	Switzerl.	1731.	D	co	
1613	rúbrum W.	red	△	or	1	jn. jl	Pu	Italy	1597.	D	co	Ger. herb. 967. f. 3
1614	spúrium E. B.	spurious	△	w	1½	jn. jl	G	Britain	cor. fi.	S	co	Eng. bot. 1871
1615	aliginosum W.	marsh	△	w	½	jl.au	W	Britain	mar.	D	m.s	Eng. bot. 1972
1616	ánglicum E. B.	wall	△	w	½	jl.au	Y	England	Wales.	D	s.l	Eng. bot. 384
1617	saxatile W.	smooth-head	△	w	½	ap.s	W	Britain	hea.	D	s.p	Eng. bot. 815
1618	trícorne Sm.	three-horned	○	w	½	jn. jl	W	Britain	hea.	S	co	Eng. bot. 1641



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dying off, in consequence of which horizontal roots naturally protrude themselves. Why it should rot off is another matter, but readily accounted for by ascribing it to a bite from the devil. The same appearance is found in *Plantago*, *Trifolium*, and some other plants with subfusiform roots. A decoction of *S. succisa* is an empirical specific for the gonorrhœa.

S. atropurpurea is the handsomest species, and is cultivated as a border annual and biennial. It has been so long in cultivation that its native country is unknown. Linnæus and Miller consider it a native of India; Professor Martyn of the south of Europe.

265. *Knautia*. So named by Linnæus in honor of Christopher Knaut, physician at Halle in Saxony; born in 1636; died in 1694. Another Knaut (Christian) published a system of plants in 1705, which has nothing to recommend it.

266. *Galium*. Derived from γάλα, milk; because one sort is used for the purpose of curdling milk. This is a very natural genus; the roots of most of the sorts dye red, and the herb, like madder, colors the bones of animals that feed on it. The stems of all the species are four-cornered, and the leaves in whorls; the flowers ge-

Corollas 5-fid.

- 1569 Hoary, Coroll. radiant, Stem many-flowered, Radical leaves ovate lanceolate entire, Cauline pinnatifid
 1570 Calyx very short, Cauline leaves bipinnate filiform
 1571 Coroll. radiant, Radical leaves ovate or lyrate pubescent crenate, Cauline pinnate setaceous
 1572 Coroll. radiant, Radical leaves oblong crenated, Caul. pinnatifid: the pinnæ linear lanceolate spreading
 1573 Coroll. radiant, Leaves smooth, Radical ovate oblong serrate or lyrate, Caul. pinnate: the segm. lin. cut
 1574 Coroll. equal shorter than calyx, Leaves lyrate pinnatifid hairy, Stem branched divaricating
 1575 Leaves pinnate: the upper linear, Calyxes 1-leaved 5-cleft
 1576 Coroll. radiant shorter than calyx, Leaves pinnated the upper linear entire
 1577 Silky, Lower lvs. stalked roundish or cuneate rugose cren. upper pinnat. Florets uniform longer than invol.
 1578 Hoary very soft, Radical leaves obl. crenated upper caul. pinnatifid with ovate or lanc. crenated segm.
 1579 Coroll. radiant, Lvs. cut, Recept. of fruit roundish, Outer limb of calyx broad membran. Stem branched
 1580 Coroll. radiant, Flowers subsessile, Stem dichotomous, Leaves oblong lanceolate nearly entire pubescent
 1581 Coroll. radiant, Leaves cut, Receptacles of the flower subulate
 1582 Coroll. radiant, Leaves pinnatifid, Segments linear, Peduncles very long, Stem rounded
 1583 Calyx multifid urceolate, Coroll. radiant, Leaves fleshy pinnatifid with linear stiff pinnæ
 1584 Coroll. equal, Stem shrubby, Leaves simple erect
 1585 Coroll. radiant, Leaves undivided elliptical serrated shining stalked
- 1586 Coroll. radiant, Leaves lanceolate nearly entire, Stem shrubby
 1587 Coroll. radiant, Leaves linear lanceolate entire, Stem herbaceous 1-flowered
 1588 Coroll. radiant, Radical leaves lanceolate stalked entire, Cauline pinnated, Stem 1-flowered
 1589 Coroll. radiant, Segments entire, Lower leaves oblong coarsely serrated upper pinnatifid at base
 1590 Coroll. radiant, all the segments trifid, Leaves undivided subserrate the upper pinnatifid at base
 1591 Coroll. radiant longer than calyx, Leaves bipinnate longer than stem
 1592 Coroll. radiant, Radical leaves pinnatifid, Cauline linear fringed at base
 1593 Coroll. radiant, Radical leaves bipinnate with linear leaflets, Cauline pinnate with perfoliate stalks
 1594 Coroll. radiant, Radical leaves lyrate, Cauline sub-bipinnate, Calyxes as long as disk

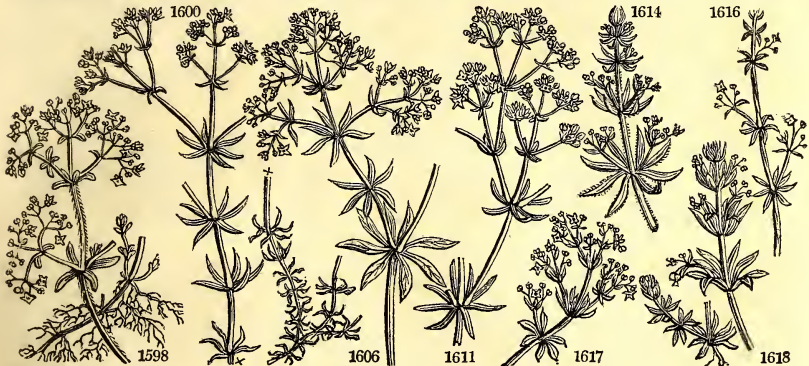
- 1595 Leaves cut, Cor. 5 longer than calyx
 1596 Upper leaves lanceolate entire, Cor. 10 as long as calyx

Fruit smooth.

- 1597 Leaves 4 ovate lanceolate 3-nerved beneath scabrous, Stem erect simple
 1598 Leaves 4 obovate unequal obtuse, Stems diffuse
 1599 Leaves 5 reflexed lanceolate awned ciliated, Stem erect simple scabrous
 1600 Leaves linear smooth mucronate, Stems 4-cornered diffuse
 1601 Leaves 6 linear mucron. roughish, Peduncles trichot. Stems prostrate diffuse 4 angular winged branched
 1602 Leaves 8 lanceolate prickly serrate forwards, Panicles trichotomous, Stems smoothish flaccid
 1603 Leaves 8 hispid lanceolate linear acuminate subimbricate, Peduncles twice dichotomous
 1604 Leaves 8 linear furrowed with stem smooth to the touch, Branches flexible, the flow.-bearing ones short
 1605 Leaves 8 elliptical lanceolate obtuse mucronate at the edge rough horizontally spreading, Stem flaccid
 1606 Leaves 8 smooth lanc. scabrous beneath, Floral in pairs, Panicle term. Ped. capill. Stem rounded smooth
 1607 Leaves 8 linear lanceolate very smooth, Peduncles paniced capillary, Stem rounded
 1608 Leaves whorled linear above scabrous, Panicle divaricating, Stem erect rounded pilose roughish
 1609 Leaves 8 lanceolate smooth mucronate, Panicle capillary, Petals awned, Stem 4-cornered weak
 1610 Leaves 8-6 obovate lanc. mucr. rough at edge, Peduncles 3-flow. Petals awned, Stem 4-cornered smooth
 1611 Leaves whorled linear, Peduncles dichotomous flower-bearing from the top of the stem which is smooth
 1612 Leaves whorled linear setaceous, Peduncles capillary longer than the leaves
 1613 Leaves whorled linear spreading, Peduncles very short
 1614 Leaves 6 lanceolate keeled rough aculeate backwards joints simple
 1615 Leaves 6 or 8 lanceolate prickly serrate backwards mucronate stiff, Cor. larger than fruit
 1616 Leaves 6 linear lanceolate mucronate thin, edges and the stem scabrous, Peduncles bifid, Fruit granular

Fruit rough or hispid.

- 1617 Leaves 4-6 oblong with short point rough at edge, Panicles close, Stem weak short smooth
 1618 Leaves 8 lanc. at edge and stem aculeate backwards, Peduncles axillary 3-fl. Fruit granular nodding

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nerally axillary, but sometimes paniced. *G. verum*, *petit Muget*, Fr. is called bed-straw, from the verb to strew, strow, or straw; being one among a variety of odoriferous herbs which were formerly used to strew beds with. The bruised plant is sometimes put in milk intended for cheese to give it a flavor and color. Boiled in alum-water, the flowering stems dye a good yellow color, and the roots a red equal to madder. They were once cultivated like that plant, at the recommendation of the Committee of Council for Trade, and yielded 12½ cwt. of dried roots per acre. *G. mollugo*, of which there are several varieties, and *G. sylvaticum* and boreale have similar qualities, though in a less degree.

G. aparine, (from *αραιος*, to lay hold of), has the fruit set with hooked bristles which adhere to whatever they come in contact with, whence it was called by the Greeks *Philanthron* (man-lover), and by us cleavers, catch-weed, scratch-weed, &c.; and from being a favorite food or medicine with geese, goose-grass, &c. Linnaeus informs us, that they use the stalks in Sweden as a filtre to strain their milk through. Dioscorides relates, that the shepherds made the same use of it in his time; and certainly it is no bad thing to take hairs from milk, where a sieve is not at hand. It is reckoned to purify the blood, and for that purpose the tops are

1619 borealis W.	cross-leaved	✕	△	w	1 1/2	jl	W	Britain	moun.	D	co	Eng. bot. 105
1620 Aparine W.	Cleavers	✕	○	w	3	my.au	W	Britain	hedg.	S	co	Eng. bot. 816
1621 pilosum W.	hairy	✕	○	w	1	jn.jl	W	N. Amer.	1778.	D	co	
1622 græcum W.	Candian	✕	△	cu	1 1/2	jn.jl	Pu	Candia	1798.	D	co	Alp.ex.167. t.166
267. RŪ'BIA. W.	MADDER.							<i>Rubiacee.</i>	Sp. 6-17.			
1623 tinctorum W.	dyer's	✕	△	ag	4	jn	Y	S. Europe	1596.	D	s.l	Lam. ill. t.60. f.1
1624 peregrina W.	wild	✕	△	w	2	jl	Y	England	bu. pl.	D	co	Eng. bot. 851
1625 lœcida W.	shining	✕	□	w	2	jl	Y	Majorca	1762.	C	l.p	Fl. græc. t. 142
1626 fruticosâ W.	prickly-leaved	✕	□	w	4	s	Y	Canaries	1779.	C	p.l	Jac. ic. 1. t. 25
1627 angustifolia W.	narrow-leaved	✕	□	w	2	jl.au	Y	Minorca	1772.	C	l.p	Lam. ill. t.60. f.2
1628 cordifolia W.	heart-leaved	✕	△	cu	3/8	jl	W	Siberia	1783.	D	p.l	Pall. it. 3. t. 2. f.1
268. ASFERULA. W.	WOODROOF.							<i>Rubiacee.</i>	Sp. 14-30.			
1629 odorata W.	sweet-scented	✕	△	or	3/8	my.jn	W	Britain	woods.	D	s.l	Eng. bot. 755
1630 arvensis W.	field	○	○	w	1/2	jl	Li	Europe	1596.	S	co	Lob. ic. t.801. f.2
1831 hirta P. S.	hairy	✕	△	pr	1/4	jn.jl	Pu	Pyrenees	1817.	D	co	
1632 hirsuta Desf.	hirsute	✕	△	pr	1/2	my.jn	W	Portugal	1819.	D	co	
1633 taurina W.	broad-leaved	✕	△	pr	1	ap.jn	W	Italy	1739.	D	s.l	Moris.s.9.t.21.f.1
1634 crassifolia W.	thick-leaved	✕	△	pr	1	jn	W	Levant	1775.	D	s.l	
1635 aristata L.	awned	✕	△	pr	1	jl.au	Y	S. Europe	1823.	D	co	
1636 scabra Lk.	rough	✕	△	pr	1	jn.jl	W	Italy	1824.	D	co	
1637 tinctoria W.	narrow-leaved	✕	△	pr	3/8	jn.jl	Pk	Europe	1764.	D	s.l	Tab. ic. t.733. f.1
1638 cynanchica W.	small	✕	△	pr	3/8	jl	F	England	ch. hil.	D	s.l	Eng. bot. 33
1639 supina Bieb.	supine	✕	△	pr	3/8	jn	Pk	Caucasus	1821.	D	co	
1640 arcadiensis B. M.	Arcadian	✕	△	pr	1	my	W	Arcadia	1819.	D	co	Bot. mag. 2146
1641 levigata W.	shining	✕	△	pr	1	ju	W	S. Europe	1775.	D	s.l	Mor. his. t.21. f.4
1642 montana W. en.	mountain	✕	△	pr	1	ju.jl	Pk	Hungary	1801.	D	co	
269. SHERARDIA. W.	FIELD-MADDER.							<i>Rubiacee.</i>	Sp. 2.			
1643 arvensis W.	little	○	○	w	1/4	ap.s	B	Britain	cor. fi.	S	co	Eng. bot. 891
1644 muralls W.	wall	○	○	w	1/2	ju.au	Y	Italy	1805.	S	co	Allion. t. 77. f. 1
270. SPERMACOCE W.	BUTTON-WEED.							<i>Rubiacee.</i>	Sp. 13-65.			
1645 tenuior W.	slender	○	○	w	2	ju.au	Pk	W. Indies	1732.	S	co	Sch. hand.1. t.22
1646 latifolia W.	broad-leaved	✕	○	w	2	jl	W	Guiana	1803.	S	s.l	Aublet. t. 19. f. 1
1647 strigosa B. M.	Cross-wort	○	□	w	1	jl.au	W	W. Indies	1760.	S	s.l	Bot. mag. 1558
1648 radicans W.	rooting	✕	□	w	1/2	jl	W	Guiana	1803.	S	s.l	Aublet. t.20. f.4
1649 verticillata W.	whorl-flowered	✕	□	w	2	ju.au	W	Africa	1732.	S	s.p	Dil. el. t.277. f.358
1650 hispida W.	bristly	✕	□	w	1 1/2	au.s	V	E. Indies	1781.	S	s.l	Mur.co.got.3. t. 6
1651 rûbra Jacq.	red	✕	□	w	1	ju.au	Pu	.....	1804.	S	s.l	Jac.schen. t.256
1652 stricta L.	upright	✕	□	w	1/2	jn.jl	W	E. Indies	1820.	S	s.l	
1653 stylôsa Lk.	long-styled	○	□	w	1	my.jn	W	Manilla	1819.	S	s.l	
1654 cornifolia Fisch.	dogwood-leav'd	○	□	w	1	my.jn	R	Brazil	1819.	S	s.l	
1655 Fischéri Lk.	Fischer's	○	□	w	1	my.jn	W	Jamaica	1821.	S	s.l	
1656 suffruticosa Jacq.	suffruticose	✕	□	w	1/2	ju.au	F	.....	1824.	C	s.l	Jac.schen. t.322
1657 mucronata Nees.	mucronate	○	□	w	2	jn.jl	W	Jamaica	1822.	D	s.l	
271. CRUCIANEL/LA. W.	CROSS-WORT.							<i>Rubiacee.</i>	Sp. 9-16.			
1658 angustifolia W.	narrow-leaved	○	cu	1/2	jn.jl	Y	France	1658.	S	co	Ex. bot. 2. t. 109	
1659 latifolia W.	broad-leaved	○	cu	1/2	jn.jl	G	France	1653.	S	co	Barr. ic. t. 520	



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an ingredient in spring-broth. The expressed juice of the herb, taken to the amount of four ounces or a quarter of a pint night and morning, during several weeks, is very efficacious in removing many of those cutaneous eruptions, which are called, though improperly, scorbatic. The seeds have been substituted for coffee. The roots, like those of most of the species, will dye red; and, eaten by birds, tinge their bones of that color. It is a very troublesome weed, particularly in young hedges, but being an annual is easily eradicated.

G. tuberosum is cultivated in China for the roots, which are eaten boiled, either whole or in meal, and Loureiro says, are esteemed salubrious. It has not yet been introduced.

267. *Rubia*. From *ruber*, red. *R. tinctorum* has an annual stalk, which trails or climbs, supporting itself in the latter case by its leaves and prickles. Its root is composed of many long thick succulent shoots nearly half an inch in diameter, striking deep into the ground, and growing to the length of three or four feet. From them is procured a well-known red and scarlet dye used by clothiers and callico-printers, and employed to a great extent, though chiefly from foreign roots. England was formerly supplied with this article exclusively from Holland, and as in times of political derangement the price was greatly increased, its dearth induced some patriotic individuals, who had recently set on foot the Society of Arts, to attempt its culture in England. Miller paid great attention to the subject about 1758, publishing separately, as well as in his Dictionary, the Dutch practice as observed by him while in Holland. A. Young, in his "Annals," details several trials; the result of which, and especially those of J. Arbutnot in 1765, proves, that it could be grown here to as great perfection as in Holland, but not sold at so low a price. Its culture was not therefore encouraged, and we are now supplied from Holland, France, Italy, and Turkey, and the cochineal is very generally in use as a substitute. Like others of the natural order of Rubiacee, madder tinges with a florid red color the milk, urine, and bones of the animals that feed on the plant. The hardest part of the bones receives the color first, which gradually extends through the whole substance; but if the plant be alternately given and inter-

- 1619 Leaves 4 lanceolate 3-nerved smooth, Stem erect, Fruit hispid
 1620 Leaves 8 lanc. keels and edge scab. acul. backw. Stem flaccid, Joints vill. Fruit covered with hooked hairs
 1621 Leaves 4 subovate pilose nerveless, Fruit hairy
 1622 Hairy leaves about 6 linear lanceolate, Stems woody
- 1623 Leaves 6 lanceolate smooth above: their edge and keel beneath scabrous, Stem herbaceous aculeate
 1624 Leaves 4 perennial lanceolate above shining smooth their edge and rib beneath scabrous
 1625 Leaves perennial 6 elliptical shining, Stem smooth
 1626 Leaves perennial elliptical at the edge and keel very prickly, Stem rough shrubby
 1627 Leaves perennial linear above scabrous
 1628 Leaves perennial 4 cordate oblong stalked 3-nerved above and at the edges scabrous
- 1629 Leaves 8 lanceolate, Corymbs terminal stalked, Seeds echinate
 1630 Lower leaves 4 obovate, upper 5-6-8, Flowers terminal sessile aggregated, Involucres ciliated
 1631 Leaves hairy acute 6 longer than the joint, Flowers terminal aggregate sessile longer than involucrem
 1632 6 linear acute toothletted: the lower hirsute, Flowers aggregate terminal
 1633 Leaves 4 ovate lanceolate 3-nerved, Flowers fasciated terminal
 1634 Leaves 4 together oblong: the lateral revolute obtuse pubescent
 1635 Leaves linear fleshy: the lower 4, Flowers 3 awned
 1636 Cauline leaves 4 linear the lower elliptical the upper in pairs all rough awned, Cor. rough
 1637 Leaves linear the lower 6 3-nerved, the middle 4, the upper opposite, Stem flaccid, Cor. smooth 3-fid
 1638 Lower leaves 4 lanceolate upper linear very unequal in pairs, Stem erect, Fruit smooth tubercled
 1639 Leaves 4 linear the lower imbricate, Stem much branched at base procumbent, Flowers 2-fid
 1640 Hispid, Leaves 6 oblong-ovate acute revolute at edge, Stems decumbent
 1641 Leaves 4 elliptical obsolete nerved smooth glabrous at edge, Fruit scabrous
 1642 Leaves linear the lower 6, middle 4, upper opposite, Stem flaccid, Cor. 4-fid scabrous outside
- 1643 Lower leaves 8 and 4, Flowers terminal, Stem and branches scabrous, Involucres naked
 1644 Leaves 6 linear: floral in pairs opposite, Branches simple, Flowers two, Fruit hispid subsessile
- 1645 Smooth, Leaves lanceolate, Stamens included, Flowers whorled, Seeds hairy
 1646 Smooth, Leaves ovate, Stamens exserted, Flowers whorled ciliated
 1647 Leaves and bractes oblong ovate hispid, Stalks stem-clasping, Flowers capitate, Stamens exserted
 1648 Smooth, Leaves subsessile lanceolate acute, Flowers whorled small, Stem procumbent rooting
 1649 Smooth, Leaves lanceolate, Whorls globose
 1650 Hispid, Leaves obovate oblique, Flowers axillary in pairs
 1651 Hairy, Leaves ovate the upper four together, Heads terminal
 1652 Leaves linear-lanceolate lined
 1653 Stem decum. rounded smooth, Lvs. obl. lanc. atten. at base, Stipules setose, Fl. whorled, Style exserted
 1654 Stem erect slightly downy, Leaves stalked oblong acute rough and pubescent at edge, Stamens exserted
 1655 Stem erect 4-cornered hairy, Leaves acute entire lined pubescent with very short hairs, Flowers termina.
 1656 Stem ascending very smooth 4-cornered, Leaves stalked ovate acuminate thin, Flowers whorled
 1657 Resembles *Sp. verticillata*, but the leaves are shorter and obtuse with a point, at the edge and back rough

- 1658 Erect, Leaves 6 linear, Flowers spiked
 1659 Procumbent, Leaves 4 lanceolate, Flowers spiked



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mitted, the bones are found to be colored in concentric circles. In medicine, madder was formerly used in complaints of the kidneys.

To cultivate the madder, choose a deep sandy loam, and prepare it by trenching or very deep ploughing. Plant cuttings of the roots in rows, eighteen inches by one foot in the row, in March, and the third year they may be taken up in September. The roots are next kiln-dried, and afterwards threshed to clean them from earth and dust. They are then drie. a second time, and immediately afterwards pounded or stamped in a mill. It is cultivated extensively in Zealand, and especially in the isle of Schowen: round Avignon and in Lombardy it is grown on narrow ridges, and irrigated by directing water along the furrows.

268. *Asperula*. From *asper*, rough. The species *cynanchica* is so called from *κυνάχης*, to choak, it being a specific in cases of squinancy. The English name of this genus is supposed to be a corruption of the word *wood-rowel*, the whorls of leaves, according to Turner, representing certain kinds of "rowelles of spores." All the species, excepting *arvensis* and *cynanchica*, will thrive in the shade and drip of trees in a moist soil. *A. odorata* has a pleasant scent like *Anthoxanthum*: it imparts a grateful flavor to wine, an agreeable perfume to clothes, and preserves them from insects. It is eaten by cattle and horses, and from containing an acid principle, with much fixed alkaline salt, has been thought useful in obstructions of the liver and biliary ducts. The roots of *A. tinctoria* are used in Gothland to dye wool a red color.

269. *Sherardia*. So named in honor of the famous Sherard, of whose noble garden at Eltham Dillenius's Hortus Elthamensis is a living monument, and whose herbarium is still one of the few things which recommend Oxford to the notice of a botanist. This is a little insignificant weed, by no means worthy to be consecrated to the memory of so celebrated a man.

270. *Spermacoce*. From *σπέρμα*, seed, and *ακμή*, point. The seeds have two remarkable points. The rubbish of the tropics.

1660	<i>ægyptiaca W.</i>	Egyptian spreading	○	1	jn.jl	Y	Egypt	1800.	S	co	
1661	<i>pátula W.</i>	pubescent	○	1	jl.au	Y	Spain	1798.	S	co	
1662	<i>pubescens W.</i>	ciliated	¥	1	jl.au	Pu	Candia	1799.	C	lp	
1663	<i>ciliata W.</i>	sea	¥	1	jl.au	Y	Levant	1805.	S	co	
1664	<i>marítima W.</i>	Montpelier	¥	1	jl.au	Y	France	1640.	C	lp	
1665	<i>mollugioides W.en.</i>	Mollugo-like	¥	1	jl.au	Y	France	1791.	S	l.s.p	
1666	<i>mollugioides W.en.</i>	Mollugo-like	¥	1	jl.au	G	Caucasus	1800.	C	co	Bux.cn.2.t.30.f.1
272.	CALLICARPA. W.	CALLICARPA.					<i>Verbenaceæ.</i>	<i>Sp. 5—22.</i>			
1667	<i>americana W.</i>	American	¥	6	jn.jl	R	N. Amer.	1724.	C	s.p	Cat. car. 2. t. 47
1668	<i>cána W.</i>	hoary	¥	3	...	Pu	E. Indies	1799.	C	s.p	Bot. mag. 2107
1669	<i>lanata W.</i>	woolly	¥	4	jn.jl	Pu	E. Indies	1788.	C	lp	
1670	<i>macrophylla W.</i>	long-leaved	¥	6	...	Pk	India	1808.	C	s.p	Vah.symb.3.t.53
1671	<i>feruginea W.</i>	rusty	¥	2	jn.jl	B	Jamaica	1794.	C	lp	
273.	WITHERINGIA. W.	WITHERINGIA.					<i>Solanaceæ</i>	<i>Sp. 1—12.</i>			
1672	<i>solanæca W.</i>	yellow-flower'd	¥	1	my.s	Y	S. Amer.	1742.	D	lp	L'Her.ser.33.t.1
274.	ÆGIPHILA. W.	ÆGIPHILA.					<i>Verbenaceæ.</i>	<i>Sp. 4—12.</i>			
1673	<i>martinicensis W.</i>	Martinique	¥	6	n	W	W. Indies	1780.	S	p.l	Jac. obs. 2. t. 27
1674	<i>foetida W.</i>	fœtid	¥	2	jn.jl	Li	W. Indies	1800.	C	lp	Bot. rep. 578. f. 1
1675	<i>diffusa Andr.</i>	diffuse	¥	2	jl.au	Y	W. Indies	1804.	C	lp	Bot. rep. 578. f. 2
1676	<i>obovata Andr.</i>	oval-leaved	¥	2	jl.au	Y	W. Indies	1804.	C	lp	
275.	CEPHALANTHUS. W.	BUTTON-WOOD.					<i>Rubiaceæ.</i>	<i>Sp. 1—10.</i>			
1677	<i>occidentalis W.</i>	American	¥	7	au	W	N. Amer.	1735.	S	s.l	Schm. arb.1.t.45
276.	SCOPARIA. W.	SCOPARIA.					<i>Scrophularinæ.</i>	<i>Sp. 1</i>			
1678	<i>dulcis W.</i>	sweet	¥	3	jn.s	W	Jamaica	1730.	S	s.l	Herm. par. t.941
277.	CENTUNCULUS. W.	BASTARD-PIPERNEL.					<i>Primulaceæ.</i>	<i>Sp. 1—4.</i>			
1679	<i>minimus W.</i>	least	○	1	jn.jl	F	Britain	moi. h.	S	p.l	Eng. bot. 531
278.	PLANTAGO. W.	PLANTAIN.					<i>Plantaginæ.</i>	<i>Sp. 42—115.</i>			
1680	<i>máior W.</i>	greater	△	1	my.jn	W	Britain	moi. pa.	D	co	Eng. bot. 1558
1681	<i>crispa Jacq.</i>	thick-leaved	△	1	jn.jl	W	S. Europe	1793.	D	s.l	Jc.co.sup.34.t.16
1682	<i>asiática W.</i>	broad-leaved	△	1	jl	W	Siberia	1787.	D	s.l	Gmel.sib.4.t.37?
1683	<i>máxima W.</i>	hollow-leaved	△	2	jl.au	G	Siberia	1763.	D	co	Jac. ic. 1. t. 26
1684	<i>média W.</i>	hoary	△	1	my.jl	G	Britain	moi. pa.	D	co	Eng. bot. 1559
1685	<i>virginiana W.</i>	Virginian	△	1	jn.s	G	N. Amer.	1688.	S	co	Mor.h.3.t.15.f.8
1686	<i>altissima W.</i>	tall	△	3	jn.jl	G	Italy	1774.	S	co	Jac. obs. 4. t. 83
1687	<i>lanceolata W.</i>	Rib-grass	△	1	my.jl	G	Britain	moi. pa.	S	co	Eng. bot. 507
1688	<i>capensis W.</i>	Cape	△	1	my.au	G	C. G. H.	1788.	C	co	
1689	<i>Lagópus W.</i>	round-headed	△	1	jn.jl	G	Spain	1683.	S	co	W. ph.4.t.820.f.2
1690	<i>túmida Lk.</i>	swelling	△	1	jn.jl	G	Chiii	1819.	S	co	
1691	<i>mexicana Lk.</i>	Mexican	△	1	jn.jl	G	Mexico	1820.	D	co	
1692	<i>kamtchátka Lk.</i>	Kamtchatka	△	1	jn.jl	G	Kamtsh.	1819.	D	co	
1693	<i>tenuiflora W. & K.</i>	slender-flower.	△	1	jn.jl	G	Hungary	1802.	S	s.l	Pl. rar. hn. 1. t.39
1694	<i>salsa Pall.</i>	grassy	△	1	jl.s	G	Siberia	1804.	D	s.l	
1695	<i>lusitânica W.</i>	Portuguese	△	1	jl.au	W	Spain	1781.	D	s.l	Bar. ic.119. t.745
1696	<i>albicans W.</i>	woolly	△	1	jn.s	G	S. Europe	1776.	D	s.l	Cav. ic. 2. t. 124?
1697	<i>patagónica W.</i>	Patagonian	△	1	jn.s	Y	Patagonia	1793.	S	s.l	Jac. ic. 2. t. 306
1698	<i>hirsúta W.</i>	hairy	△	1	jn.jl	G	C. G. H.	1801.	S	s.l	Jac.schœ.3.t.258
1699	<i>villósa P. S.</i>	villous	△	1	jn.jl	G	Germany	1804.	S	s.l	
1700	<i>Wulfeni W.en.</i>	Wulfen's	△	1	jn.jl	G	Germany	1802.	D	co	
1701	<i>alpina W.</i>	Alpine	△	1	jn.jl	W	Austria	1774.	D	s.l	Jac.vind.2.t.125
1702	<i>Bellardi W.</i>	Bellardi's	△	1	jn.jl	G	S. Europe	1797.	S	co	Al. ped.1.t.85.f.3
1703	<i>crética W.</i>	Cretan	△	1	jn.jl	G	Candia	1711.	S	co	



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271. *Crucianella*. A diminutive of *crus*, a cross; some of the roots having their leaves in whorls of four. These are small herbaceous plants of little beauty, natives of the south of France, and rarely seen in this country except in botanic gardens.

272. *Callicarpa*. From *καλος*, beautiful, and *καρπος*, fruit. Its berries are of a bright purple color.

273. *Witheringia*. In honor of Dr. W. Withering, the author of a classification of English plants, which has been one of the most popular of our English botanical works, and deservedly so, although it has now yielded to others of a more modern character.

274. *Ægiphila*. From *αιξ* *αιγος*, a goat, and *φιλος*, friend, beloved by goats. In Martinique the plant is called *Bois de Cabri*.

275. *Cephalanthus*. From *κεφαλη*, a head, and *ανθος*, a flower; because the flowers grow in heads. This is a low evergreen shrub, with large light green leaves, and the flowers in spherical heads, about the size of a musket bullet. It has a good effect on lawns in scattered groups, or in the front ranks of shrubberies. Sweet says, "soil that has some peat in it suits them best," and that they are readily propagated by layers, or ripened cuttings under a hand-glass. Miller, in whose time the art of striking cuttings was not nearly so well understood as at present, recommends a moist light soil, and propagating from seeds.

- 1660 Leaves 4 sublinear, Flowers spiked 5-cleft
 1661 Diffuse, Leaves 6 revolute at edge, Bract. linear subulate roughish, Flowers scattered
 1662 Erect, Leaves 6 linear pubescent, Heads stalked axillary and terminal
 1663 Diffuse, Leaves 4 or 2 lin. keeled, Bract. ciliated loosely spiked, Seeds oval covered with obtuse tubercles
 1664 Procurrent suffruticose, Leaves 4 mucronate, Flowers opposite 5-cleft
 1665 Procurrent, Leaves acute, of the stem in 4s ovate, of the branches 6 linear, Flowers spiked
 1666 Erect, Leaves whorled 8-12 linear lanc. scab. Fascic. of flowers stalked term. and axillary, Cor. 5-cleft

- 1667 Lvs. ovate acum. uneq. obtusely toothed at base wedge-shaped atten. entire beneath and branches toment.
 1668 Leaves ovate toothletted running down the petiole beneath hoary villous, Panic. dichotomous
 1669 Leaves ovate rounded at base entire somewhat toothletted rugose above beneath with the branches woolly
 1670 Leaves ovate lanc. serrulate reticul. hoary beneath, Corymbs axillary dichotomous longer than petioles
 1671 Leaves broad lanceolate serrate roughish beneath, Cymes terminal and axillary

1672 Stem hairy herbaceous angular, Leaves ovate lanceolate pilose, Stalks 1-flowered umbelled axillary

- 1673 Leaves ovate lanceolate acuminate smooth, Branches diffuse, Panic. terminal and axillary, Cal. smooth
 1674 Leaves ovate lanceolate beneath and the stalks hairy, Peduncles axillary solitary
 1675 Leaves ovate lanceolate with a long point smooth on both sides, Pan. diffuse axillary and terminal
 1676 Leaves obovate acuminate smooth on both sides, Pan. axillary and terminal, Stalks and calyxes less pub.

1677 Leaves opposite and ternate oblong oval acuminate

1678 Leaves 3 together, Flowers stalked

1679 Leaves alternate ovate, Flowers sessile

- 1680 Lvs. ovate smoothish generally shorter than footst. Scape rounded, Spike cyl. slender, Caps. many-seeded
 1681 Leaves obovate shining undulated fleshy sessile, Scape compressed below, Flowers imbric. remote at base
 1682 Leaves ovate smooth somewhat toothed, Scape angular, Spike with distinct flowers
 1683 Leaves ovate subdenticulate 9-nerved pubescent, Spike cylindrical imbricated, Scape rounded
 1684 Leaves ovate pubescent longer than the footstalk, Scape rounded, Spike short cylindrical, Filam. lilac
 1685 Leaves lanceolate ovate pubescent toothletted, Spikes cylindrical pubescent, Scape angular
 1686 Leaves lanceolate 5-nerved toothed smooth, Spike oblong cylindrical, Scape angular
 1687 Leaves lanceolate acuminate both ways, Spike short ovate cylind. Scape angular, Caps. 2-seeded
 1688 Leaves elliptical, Spike with distinct flowers
 1689 Leaves lanceolate somewhat toothed, Spike ovate hairy, Scape rounded
 1690 Leaves linear lanceolate toothletted silky, Scapes ascending with appressed hairs, Caps. tumid
 1691 Leaves lanceolate linear entire, Hairs scattered, Scapes erect rounded, Spike cylindrical dense
 1692 Leaves oblong toothed 5-nerved hairy, Scapes ascending angular hairy, Spike cylindrical dense
 1693 Leaves linear nearly entire obtuse fleshy, Scape rounded, Spike erect, Flowers distant
 1694 Leaves linear convex beneath a little toothed smooth, Scape rounded hirsute, Spike cylindrical smooth
 1695 Leaves broad lanceolate 3-nerved a little toothed pilose, Scape angular, Spike oblong hairy
 1696 Leaves lanceolate oblique villous, Spike cylindrical erect, Scape rounded
 1697 Leaves lanc. lin. semew. chan. ent. woolly; Scape rounded hirsute, Spike cyl. Stam. not longer than flower
 1698 Leaves linear ciliated, Spike cylindrical, Stem hirsute
 1699 Subcaulescent, Lvs. lin. lanc. obsol. 3-nerv. toothl. hoary, Spike roundish, Br. winged keeled shorter than fl.
 1700 Leaves linear attenuated both ways flat 3-nerved, Scape rounded
 1701 Leaves lin. atten. remotely toothed, Scape rounded hairy, Spike obl. acute, Br. ovate membranous at edge
 1702 Leaves linear lanceolate hairy longer than the rounded hairy scape, Spike ovate erect, Bractes lanceolate
 1703 Leaves linear, Scape rounded very short woolly, Spike roundish nodding



and Miscellaneous Particulars.

276 *Scoparia*. From *scopa*, a broom. In the Antilles brooms are made of the twigs. This plant is treated as a tender annual, and after being raised in the hot-house or hot-bed, is potted off, and kept in the greenhouse, or planted out in the flower borders.

277 *Centunculus*. A name given by the Romans to a small plant found in cultivated lands. The present is a little mean weed of no use or beauty.

278 *Plantago*. A name of which no satisfactory explanation has been given. Of the species, *Psyllium* is derived from *ψυλλος*, a flea, in allusion to the appearance of its little seeds. *Lagopus*, from *λαγος*, a hare, and *πους*, foot; its velvety or silky spike resembling the foot of such an animal. *Coronopus*, from *κορωνη*, a crow, and *πους*, foot; its deeply-cut leaf having been compared to a bird's foot. *Cynops*, signifying dog's-eye, is the name of a plant of Pliny, and one of his plantains. This is a genus of little beauty, and no great utility. Like all other plants known to our botanical forefathers, they were said to have their medical virtues; but that is nothing, or at least but little guide to their absolute use in the arts. *P. lanceolata* (rib-grass) has been employed in agriculture as a herbage plant, but to which it appears to have no great claim. Where it abounds naturally, it is a certain indication of a dry soil. Haller attributes the richness of the milk in the alpine dairies to this plant and *Alchemilla vulgaris*, but Linnæus says cows refuse it. This every shepherd knows to be the case as far as

1704 marítima W.	sea	△	w	½	jl	G	Britain	sea co.	S	co	Eng. bot. 175
1705 graminea P. S.	grass-leaved	△	w	½	jn.jl	G	France	1804.	D	co	Dod. pempt. 108
1706 recurvata W.	recurved-leaved	△	w	½	jn.jl	G	S. Europe	1799.	S	s.l	M.co.go.1780. t.6
1707 subulata W.	awl-leaved	△	w	½	jl	W	S. Europe	1596.	D	s.l	Lob. ic. 439
1708 macrorhiza W.	large-rooted	△	w	½	jl.au	Br	Morocco	1798.	D	s.l	Mor. h.3. t.17. f.2
1709 Serrária W.	saw-leaved	△	w	½	jn.jl	G	Barbary	1640.	D	s.l	Col. ephr. t. 259
1710 Coronopus W.	Star of the earth	△	w	½	ap.s	G	Britain	sea sh.	S	s.l	Eng. bot. 892
1711 Loefflingii W.	narrow-leaved	○	w	½	jl.au	G	Spain	...	S	co	Jac. vind.2. t.126
1712 Cornúti W.	rough-leaved	△	w	½	jl.au	G	.....	1801.	S	co	
1713 amplexicaulis W.	stem-clasping	○	w	½	jn.jl	G	Spain	1797.	S	co	Cav. ic. 2. t. 125
1714 Psyllium W.	Stemwort	○	w	½	jl.au	G	S. Europe	1562.	S	co	Mor. h.3. t.17. f.4
1715 arenária P. S.	sand	○	w	½	my.au	G	Hungary	1804.	S	co	W. & Kit. t. 51
1716 squarrosa W.	leafy-spiked	○	w	½	jl.au	G	Egypt	1787.	S	co	Jac. ic. 1. t. 28
1717 indica W.	Indian	○	w	½	jl.au	G	India	1780.	S	co	
1718 stricta P. S.	upright	○	w	1	jl.au	G	Morocco	1804.	S	co	Sch.mar.1.ic.145
1719 pumila W.	dwarf	○	w	½	jl.au	G	S. Europe	1790.	S	s.l	M.co.go.1778. t.5
1720 Cynops W.	shrubby	○	w	½	my.au	G	S. Europe	1596.	C	s.l	W.ph.4.t.837.f.a
1721 átra W.	Barbary	△	w	1	jn	G	Sicily	1640.	S	s.l	Mor.h.3. t.17. f.4
279. BUD'DLEA. W.	Buddleia.						Scrophularine.	Sp. 4—26.			
1722 globosa W.	round-headed	△	or	15	my.jn	Or	Chili	1774.	C	co	Bot. mag. 174
1723 Neem'da Buch.	Indian	△	or	15		W	Nepal	1824.	C	l.p	
1724 salvifolia W.	Sage-leaved	△	or	3	aus	C	C. G. H.	1760.	C	s.l	Jac.schoen.1.t.28
1725 saligna W. en.	Willow-leaved	△	or		aus	W	C. G. H.	1816.	C	l.p	Jac.schoen.1.t.29
280. EX'ACUM. W.	EXACUM.						Gentianeae.	Sp. 3—18.			
1726 viscosum Sm.	clammy	△	or	2	jn.jl	Y	Canaries	1781.	S	p.l	Smit.ic.fas.3.t.18
1727 spicatum Vahl.	spiked	△	or	2	...	...	S. Amer.	1823.	S	m.p	Aub. gui. 1. t. 27
1728 filiforme W.	least	○	cu	½	jn.jl	Y	Britain	sa. ma.	S	s.l	Eng. bot. 235
281. SEBÆ'A. R. Br.	SEBÆA.						Gentianeae.	Sp. 1—4.			
1729 cordata R. Br.	heart-leaved	○	or	½	jl.au	Y	C. G. H.	1815.	S	co	Bur. afr. t.74. f.5
282. FRASE'RA. Walt.	FRASE'RA.						Gentianeae.	Sp. 1.			
1730 carolinensis P. S.	Carolina	△	or	4	jl.au	G	Carolina	1795.	S	co	Bart. m.bot.t.35
283. PENÆ'A. W.	PENÆA.						Epacrideae?	Sp. 2—14.			
1731 mucronata W.	heart-leaved	△	or	2	jn.jl	R	C. G. H.	1787.	S	p.l	Vent. mal. 87
1732 squamosa W.	scaly	△	or	1	jn.jl	R	C. G. H.	1787.	S	p.l	Bot. reg. 106
284. BLÆ'RIA. W.	BLÆRIA.						Ericace.	Sp. 5—13.			
1733 ericoides W.	heath-leaved	△	or	2	au.o	Pu	C. G. H.	1774.	C	s.p	P.gz.471. t.2. f.10
1734 articulata W.	jointed	△	or	2	my.jn	PK	C. G. H.	1795.	C	s.p	Lam. ill. t. 78
1735 purpurea W.	purple-flowered	△	or	2	my.jn	Pu	C. G. H.	1791.	C	s.p	
1736 muscosa W.	Moss-leaved	△	or	1	jn.au		C. G. H.	1774.	C	l.p	
1737 ciliaris W.	ciliated	△	or	2	jn.au	W	C. G. H.	1795.	C	s.p	Wend.col.2. t.49
285. CHOME'LIA. W.	CHOMELIA.						Rubiaceae.	Sp. 1—2.			
1738 spinosa W.	spiny	△	or	12	...	W	W. Indies	1793.	C	p.l	Jac.amer.18.t.13
286. ADI'NA. Sal.	ADINA.						Rubiaceae.	Sp. 1.			
1739 globiflora Sal.	globe-flowered	△	or	2	jl.au	W	China	1804.	C	s.l.p	Par. lon. 115
287. BOUVAR'DIA. H. K.	BOUVAR'DIA.						Rubiaceae.	Sp. 2.			
1740 triphylla H. K.	three-leaved	△	or	2	ap.n	S	Mexico	1794.	C	s.p	Par. lond. 88
1741 versicolor B. Reg.	various-colored	△	or	2	ils	R	S. Amcr.?	1814.	C	l.p	Bot. reg. 245



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respects the flower-stalks. Zappa of Milan, and A. Young, speak in high terms of it; but the general feeling and practice of scientific agriculturists is against it, and it is now seldom sown.

P. major is a native of most parts of Europe and of Japan, and always by way-sides, whence its name of way-bread or way-bred. The seeds afford food to linnets, finches, and other small birds, and the leaves are a common application to wounds and cutaneous sores. An American negro once received a reward from an assembly of South Carolina for a cure for the bite of the rattle-snake; and in the receipt, it is said by Woodville (*Med. Bot.*), plantain was a principal ingredient. There are several varieties of this species to be met with in rich pastures and in botanic gardens, such as the rose P., in which the flower appears changed into a tuft of leaves expanded like a rose, and the besom P., in which the spike-leaves are imbricate and pyramidal.

P. maritima varies in size and situation more than most plants. Its leaves are sometimes scarcely an inch, and at other times more than a foot in length; and the number of flowers in the spike varies extremely. Like *Stachis armeria* and *Sambucus nigra*, it is found on the summits of the highest mountains, in the clefts of rocks, on the sea-shore, in salt marshes, and muddy banks.

P. coronopus is a singular-growing plant, with recumbent stems pressing closely on the ground. The leaves have a very peculiar flavor, and are rather disagreeable, but were formerly used in salads. P. psyllium is sometimes imported from the south of France in a dried state for the druggists.

279. *Buddleia*. In honor of Adam Buddle, a name well known to the English botanist as authority for many rare British plants. B. globosa is a very handsome shrub, and though rather tender, flowers freely in warm situations, or against a wall, with protection in very severe winters. Its leaves are long, narrow, pointed,

- 1704 Leaves semicylindrical entire woolly at base, Scape rounded
 1705 Leaves lin. flat somew. toothed smooth at base, Spike cyl. Scape rounded hairy scarcely longer than leaves
 1706 Leaves linear channelled recurved naked
 1707 Leaves linear channelled entire beneath with rigid ciliae hairy at base, Scape rounded pubescent
 1708 Leaves spatulate cut-toothed, Teeth imbricated mucronated, Scape rounded hairy
 1709 Leaves lanceolate 5-nerved toothed serrate, Scape rounded
 1710 Leaves linear pinnate toothed, Scape rounded
 1711 Leaves linear sub-toothed, Scape rounded, Head ovate, Bractes keeled membranous
 1712 Leaves ovate entire fleshy rough woolly at base, Capsules 4-seeded
 1713 Stem erect simple short, Leaves lanceolate fleshy entire stem-clasping hairy, Heads oblong leafless
 1714 Stem branched herbaceous, Leaves somewhat toothed recurved, Heads leafless
 1715 Hoary, Stem erect branched herbaceous, Leaves nearly entire, Heads leafy and sepals ovate
 1716 Herbaceous, Stem branched diffuse decumbent, Leaves linear entire, Heads squarrose
 1717 Stem branched herbaceous, Leaves linear entire reflexed, Heads leafy
 1718 Stem branched herbaceous erect, Leaves linear channelled entire, Heads leafless
 1719 Stem branched herbaceous weak, Leaves subulate entire, Heads leafy
 1720 Stem branched suffruticose, Leaves entire filiform straight, Heads somewhat leafy
 1721 Stem branched shrubby, Leaves lanceolate toothed, Heads leafless

- 1722 Leaves lanceolate acuminate crenulate beneath hoary, Heads globose stalked
 1723 Leaves lanceolate subserrate hoary underneath, Spikes terminal lengthening with flowers threefold
 1724 Leaves lanceolate cordate crenate rugose beneath tomentose, Flowers paniced
 1725 Leaves linear lanceolate entire revolute at edge tomentose beneath, Corymbs terminal

- 1726 Leaves oblong nerved stem-clasping, Bractes cordate perfoliate longer than calyx
 1727 Flowers spiked whorled and ternary, Leaves ovate lanceolate, Stem nearly simple
 1728 Limb spreading, Stem filiform branched, Radical leaves roundish, Cauline subulate

- 1729 Flowers 5-cleft, Sepals cordate striated membranous keeled, Stem dichotomous, Leaves cordate

- 1730 A singular plant found in morasses in North America, and resembling *Swertia*

- 1731 Flowers terminal, Leaves cordate acuminate smooth
 1732 Leaves rhomboidal wedge-shaped fleshy smooth, Flowers terminal

- 1733 Anthers exerted awnless, Cal. 4-leaved, Bract. 3 length of cal. Leaves 4 oblong acerose hairy imbricated
 1734 Anthers exerted awnless, Leaves 4 ovate smooth, Flower-heads cernuous
 1735 Anthers included awnless, Leaves 4 ovate subciliated, Flowers umbelled, Stem flexuose erect
 1736 Anthers subexserted awnless, Cal. 1-leaved pilose, Cor. campanulate pilose above, Flowers axillary
 1737 Leaves 4 smooth, Calyx lacerated ciliated

- 1738 Leaves ovate acuminate entire, Peduncles axillary

- 1739 The only species

- 1740 Leaves ternate lanceolate, Stamens included
 1741 Leaves opp. Cor. clavate, Tube smooth inside



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rugose, of the color of the common sage, and the flowers are very fragrant. It is commonly propagated by layers; but cuttings of the young wood of all the species root freely in common earth under a hand-glass. *Buddlea Neemda* is one of the most beautiful plants of India.

280. *Eaecum*. The ancient name of a plant nearly related to *Centaurium*; said to have been derived from $\epsilon\kappa$ and $\alpha\gamma\alpha$, to conduct out, on account of its properties of expelling poison taken into the stomach.

281. *Scbaea*. A genus nearly related to the last, named after the famous Albert Seba, whose museum was once one of the wonders of Europe.

282. *Frazeria*. After Mr. John Frazer, an indefatigable collector of plants in North America.

283. *Penea*. In honor of P. Pena, who published *Adversaria Botanica*, 1570, in conjunction with Lobel. A handsome genus, readily propagated by cuttings in sand under a hand-glass. Many of the finest species remain to be introduced from the Cape of Good Hope.

284. *Blairia*. In honor of Patrick Blair, who practised physic at Boston in Lincolnshire, and was one of the fellows of the Royal Society. He published *Botanical Essays* in 1778. The species resemble some kinds of heaths, and require the same treatment.

285. *Chomelia*. Named after Pierre Jean Baptiste Chomel, a French botanist, physician to Louis XV.; he died in 1740. Culture as for *Siderodendrum*.

286. *Adina*. From *adivos*, clustered, its flowers being in heads. A small Chinese plant, with flowers looking like those of a *Cephalanthus*. It is probably not different from *Cephalanthus*.

287. *Bowardia*. Named after Dr. Charles Bouvard, formerly a superintendent of the *Jardin du Roi* at

288. IXORA. <i>W.</i>	IXORA.				<i>Rubiaceæ.</i>	Sp. 11—16.						
1742 grandiflora <i>B. R.</i>	sessile-leaved	☐	or	4	au	Or	E. Indies	1814.	C	lp	Bot. reg. 154	
1743 Bandhūca <i>Rozb.</i>	Bandhooka	☐	or	3	jl	F	E. Indies	1815.	C	p.l	Bot. reg. 513	
1744 coccinea <i>W.</i>	scarlet	☐	or	4	jl.au	S	China	...	C	p.l	Rhed. mal. 2. t. 12	
1745 barbata <i>Rozb.</i>	bearded	☐	or	12	jn.jl	W	E. Indies	1823.	C	p.l	Bot. mag. 2505	
1746 parviflora <i>W.</i>	small-flowered	☐	or	20	au.o	F	E. Indies	1800.	C	p.l	Va. sy. 3. p. 11. t. 52	
1747 rosea <i>Wall.</i>	highland	☐	or	4	jl	W	Bengal	1819.	C	p.l	Bot. reg. 540	
1748 álba <i>W.</i>	white	☐	or	4	jn	W	E. Indies	1768.	C	p.l		
1749 stricta <i>Rozb.</i>	upright	☐	or	3	jl.au	S	Moluccas	1690.	C	p.l	Bot. mag. 169	
1750 blanda <i>B. Reg.</i>	charming	☐	or	4	au		E. Indies	...	C	p.l	Bot. reg. 100	
1751 cuneifolia <i>Rozb.</i>	wedge-shaped	☐	or	3	jn.jl	S	E. Indies	1822.	C	p.l	Bot. reg. 648	
1752 crocata <i>B. R.</i>	orange	☐	or	3	au.s	O	E. Indies	1822.	C	p.l	Bot. reg. 782	
289. CATESBÆA. <i>W.</i>	LILY-THORN.						<i>Rubiaceæ.</i>	Sp. 2—3.				
1753 spinosa <i>W.</i>	spiny	♂	or	12	my.s	Y	I. Provid.	1726.	C	s.p	Bot. mag. 131	
1754 parviflora <i>P. S.</i>	small-flowered	☐	or	1	...	W	Jamaica	1810.	C	l.p	Sl.his. 2. t. 207. f. 1	
290. PAVETTA. <i>W.</i>	PAVETTA.						<i>Rubiaceæ.</i>	Sp. 1—13.				
1755 índica <i>W.</i>	Indian	☐	or	4	au.o	W	E. Indies	1791.	C	p.l	Bot. reg. 198	
291. ERNODEA. <i>Swz.</i>	ERNODEA.						<i>Rubiaceæ.</i>	Sp. 1—3.				
1756 montana <i>Sm.</i>	mountain	♂	or	½	jn.jl	R	Sicily	1820.	D	rk	Bot. mag.	
292. SIDERODENDRUM. <i>W.</i>	IRON-TREE.						<i>Rubiaceæ.</i>	Sp. 1.				
1757 triflorum <i>W.</i>	three-flowered	☐	or	tm	20	...	Pk	W. Indies	1793.	C	p.l	Jacq. am. t. 175. f. 9
293. COCCOCYP/SILUM. <i>W.</i>	COCCOCYPSILEUM.						<i>Rubiaceæ.</i>	Sp. 1—5.				
1758 repens <i>W.</i>	creeping	☐	or	½	my	Pu	W. Indies	1793.	D	s.p	Bro. jam. t. 6. f. 1	
294. MITCHELLA. <i>W.</i>	MITCHELLA.						<i>Rubiaceæ.</i>	Sp. 1.				
1759 repens <i>W.</i>	creeping	♂	or	½	jn	W	N. Amer.	1761.	L	s.p	Cat. car. 1. t. 20	
295. OLDENLANDIA. <i>W.</i>	INDIAN MADDER.						<i>Rubiaceæ.</i>	Sp. 2—3.				
1760 umbellata <i>W.</i>	common	☐	or	½	jl.au	W	E. Indies	1792.	R	s.p	Roxb. cor. 1. t. 3	
1761 corymbosa <i>W.</i>	Hyssop-leaved	☐	or	½	jn.o	W	Jamaica	1739.	S	s.l	Eh. pic. t. 2. f. 1. t. 4	
296. MANETTIA. <i>W.</i>	MANETTIA.						<i>Rubiaceæ.</i>	Sp. 1—8.				
1762 coccinea <i>W.</i>	pink	♂	or	20	my.jl	Pk	Guiana	1806.	C	lp	Bot. reg. 693	
297. EPIMEDIUM. <i>W.</i>	BARREN-WORT.						<i>Berberideæ.</i>	Sp. 1.				
1763 alpinum <i>W.</i>	Alpine	♂	or	¾	ap.my	Bd	England	m. thi.	C	p.l	Eng. bot. 438	
298. PTELEA. <i>W.</i>	SHRUBBY-TREFOIL.						<i>Terebintaceæ.</i>	Sp. 1—2.				
1764 trifoliata <i>W.</i>	three-leaved	♂	or	12	jn.jl	G	N. Amer.	1704.	L	co	Schm. ar. 2. t. 76	
299. MONEZIA. <i>W.</i>	MONETIA.						<i>Incerta.</i>	Sp. 1.				
1765 barlerioides <i>W.</i>	four-spined	☐	or	3	jl	G	E. Indies	1758.	C	s.p	L'Her. st. n. 1. t. 1	
300. CURTISIA. <i>W.</i>	HASSAGAY-TREE.						<i>Incerta.</i>	Sp. 1.				
1766 faginea <i>W.</i>	Beech-leaved	♂	or	tm	30	...	Pa	C. G. H.	1775.	C	s.l	Bur. afr. 235. t. 82
301. HARTOGIA. <i>W.</i>	HARTOGIA.						<i>Terebintaceæ?</i>	Sp. 1.				
1767 capensis <i>W.</i>	Cape	♂	or	6	jn.jl	G	C. G. H.	...	C	s.l	Lam. ill. t. 76	



History, Use, Propagation, Culture,

Paris. *B. triphylla* is a beautiful, and not very tender plant, which flowers great part of the year; var. β has smooth shining leaves, and flowers of a deeper scarlet than the other. *B. versicolor* requires the warmest part of the green-house, and the cuttings require bottom heat, with the same soil as the plants.

288. *Ixora*. A name of doubtful origin. Iswara is the name of an Indian divinity. According to Sweet, the species of this beautiful genus "require to be kept in a moist heat to thrive well; but not plunged in tan, as that is almost certain to injure their roots. A mixture of sand, loam and peat is the best soil for them. Care must be taken to keep them clean and free from insects, or they will not thrive. Cuttings root very freely in sand under a hand-glass.

289. *Catesbæa*. So named by Gronovius, in honor of Mark Catesby, author of the natural history of Carolina, and who discovered the first species of this genus. It is very ornamental. *C. spinosa* has flowers about six inches long, in the form of a Roman trumpet, and succeeded by fruit the size of a pullet's egg; the skin smooth and yellow, and the pulp like that of a ripe apple, with an agreeable taste. It does not flower very freely, but strikes root readily in sand under a bell-glass, and in moist heat.

290. *Pavetta*. The name of the plant in Malabar. A small genus nearly related to *Ixora*, with flowers usually white, as those of *Ixora* are red.

291. *Ernodea*. From *ερωδης*, branching, in allusion to the habit of the plant.
292. *Siderodendrum*. From *σιδηρος*, iron, and *δενδρον*, a tree. Wood, compared for hardness to iron. This tree may be noticed on account of an anomaly which occurs in the corolla, which is often changed, perhaps by some insect, into an oblong bag, half an inch in length, fleshy, and hollow within, and ending in a point at top like a fruit. Cuttings of ripened wood root in sand under a hand-glass.

293. *Coccocypsilum*. From *κοκκος*, fruit, and *κυψελη*, a vase, its berry being surmounted by a corona resembling a little cup. Cuttings root freely in sand under a bell-glass.

294. *Mitchella*. Named after John Mitchell, an Englishman, who travelled in Virginia, and left some papers upon North American plants behind him. This is one of those plants which Humboldt (*De Distrib. Plant.*) calls

- 1742 Shrubby spreading, Lvs. oval stem-clasping, Corymbs crowded, Segm. of cor. ovate obt. Berries crowned
 1743 Leaves elliptical acute cordate at base sessile, Umbels terminal aggregate, Segm. of cor. ovate acute
 1745 Corol. long bearded at mouth, Lvs. opp. obl. entire smooth shining, Floral lvs. round cord. sess. Pan. open
 1746 Leaves subsessile oblong smooth, Panicles ovate oblong decussate, Pet. oval, Style hairy
 1747 Leaves obl. acute with a contr. emarg. base pubesc. beneath subsessile, Corymbs large, Pet. cuneate acute
 1748 Leaves sessile broad lanceolate, Corymbs decompound dense, Pet. obovate reflexed
 1749 Shrubby straight, Lvs. subsess. obl. Corymbs dense, Pet. round spreading, Anthers round bristle-pointed
 1750 Leaves ovate-lanceolate, Cyme trichotomous contracted
 1751 Leaves wedge-shaped lanceolate acuminate, Corymbs terminal, Sepals conical
 1752 Leaves coriaceous oval lanc. Cymes decompound close, Petals wedge-shaped obovate, Anthers sessile

1753 Tube of corolla very long, Berries oval

1754 Tube of corolla 4-cornered short, Berries roundish

1755 Leaves smooth entire, Panic. fastigiate axillary and terminal, Style twice as long as corol. Stigma entire

1756 Leaves in 4s oblong obtuse smooth, Stem shrubby

1757 The only species. Branches 4-cornered, Leaves 5-6 inches long elliptic lanceolate

1758 Stem herbaceous creeping, Leaves ovate, Flowers clustered axillary sessile

1759 A little creeping plant with flat round leaves and little scarlet berries

1760 Umbels naked lateral alternate, Leaves linear

1761 Pedunc. many-flowered, Leaves linear lanceolate

1762 Leaves ovate acuminate, Racemes many-flowered, Stem twining shrubby

1763 The only species

1764 Leaves on long stalks ternate, Fruit with two wings

1765 A small prickly shrub, Leaves opposite ovate acute entire. The only species

1766 The only species. Leaves ovate oblong acute serrated opposite

1767 Leaves opposite elliptical obtuse emarginate serrated



and Miscellaneous Particulars.

social, being always found in quantities. Barton says, it is the plant most extensively spread in North America, covering the surface from the 28th to the 69th degree of north latitude.

295. *Oldenlandia*. In honor of H. B. Oldenland, a Dutch naturalist, who travelled in Africa, where he died about the end of the 17th century. O. umbellata, the chay-root, grows on light sandy ground near the sea, and is much cultivated on the coast of Coromandel for dyeing red, purple, brown, and orange, and to paint the red figures on chintz. The coloring matter resides in the bark, which gives it out to water. The Malabar physicians say that the roots cure poisonous bites, colds, and cutaneous disorders, and warm the constitution.

296. *Manettia*. In honor of Xavier Manetti, an Italian, and professor of botany at Florence. Some of the species are rather pretty, but they are seldom seen in collections.

297. *Epimedium*. A name of Dioscorides, applied to this little elegant alpine plant, without any assignable reason.

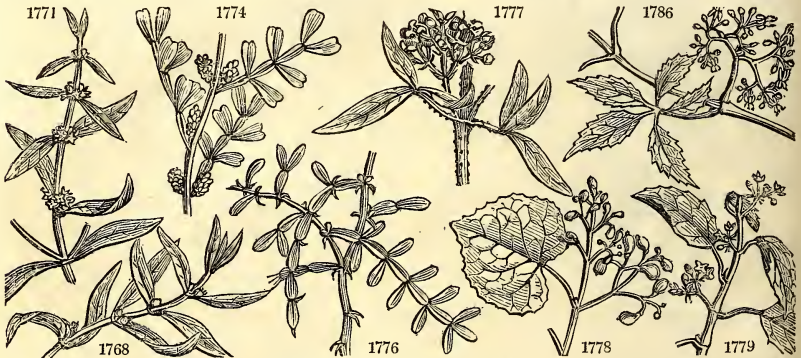
298. *Ptelea*. The Greek name of the elm. It is derived from πτελω, to fly, in allusion to the winged seed-vessels. A hardy shrub of North America, not unlike a laburnum in foliage, but with small green flowers.

299. *Monetia*. So named by L'Heritier, in honor of the Chevalier Jean Baptiste Monet de la Marck, a celebrated French botanist, now dead; who, unfortunately for botany, many years ago diverted his attention from that science to conchology. Cuttings root in sand under a bell-glass, and in bottom heat.

300. *Curtisia*. Named in honor of W. Curtis, lecturer on botany, author of the Botanical Magazine and other works; he died in 1799. This is one of the largest trees of Africa, from which the Hottentots and Caffes make the shafts of their javelins. It has fine broad leaves, but small flowers, which, however, have not yet appeared in this country.

301. *Hartogia*. Named after John Hartog, a Dutchman, who travelled in Southern Africa and Ceylon. The plant called by this name in the gardens is probably only a variety of the common laurel, and nearly as hardy as it. The flowers grow in axillary racemes like bunches of currants.

302. AMMAN'NIA. W.		AMMANNIA.		<i>Salicaria.</i>		Sp. 6—20.						
1763	latifolia W.	broad-flowered	□ w	1	jl.au	W	W. Indies	1733.	S	s.l	Slo. jam. 1. t. 7. f. 4	
1769	debilis W.	cluster-flowered	□ w	1	jl.au	Pu	E. Indies	1778.	S	s.l		
1770	caespica Ledeb.	Caspian	□ w	½	jl.au	Ap	Astracan	1821.	S	s.l		
1771	baccifera L.	berry-bearing	□ w	½	jn.jl	Ap	India	1820.	S	s.l	Lam. ill. t. 77. f. 5	
1772	ramosior W.	branching	□ w	2	jl.au	Pu	Virginia	1759.	S	s.l	Bocc. mus. t. 104	
1773	sanguinolenta W.	bloody	□ w	½	jl.au	R	Jamaica	1803.	S	s.l		
303. FAGA'RA. W.		FAGARA.		<i>Terebintaceæ.</i>		Sp. 3—18.						
1774	Pterota W.	vine-leaved	♂ tm	20	au.s	G	Jamaica	1768.	C	p.l	Bro. ja. 146. t. 5. f. 1	
1775	Piperita W.	ash-leaved	♂ or	10	s	W	Japan	1773.	L	p.l	Kempfr. t. 893	
1776	tragodes W.	prickly-leaved	♂ or	5	...	W	W. Indies	1759.	C	lp	Jac. am. 21. t. 14	
304. ZIE'RIA. Sm.		ZIERIA.		<i>Rubiaceæ.</i>		Sp. 1.						
1777	Smithii Sm.	Smith's	♂ or	2	ap.jl	W	N. S. W.	1808.	C	s.p	Bot. mag. 1395	
305. CIS'SUS. W.		CISSUS.		<i>Sarmentaceæ.</i>		Sp. 13—50.						
1778	vitiginea W.	vine-leaved	♂ or	20	...	G	India	1772.	C	p.l	Pl. m. 27. t. 337. f. 2	
1779	antarctica Vent.	Kanguru-vine	♂ or	20	jn.au	G	N. S. W.	1790.	C	s.l	Bot. mag. 2488	
1780	heterophylla Lk.	various-leaved	♂ or	10	...	G	.....	1822.	D	co		
1781	glandulosa Horn.	glandular	♂ or	10	...	G	.....	1819.	D	co		
1782	scyoides W.	naked-leaved	♂ or	10	...	G	Jamaica	1768.	C	s.p	Jac. amer. 22. t. 15	
1783	quadrangularis W.	square-stalked	♂ or	30	...	G	E. Indies	1790.	C	p.l	Forsk. ic. t. 2	
1784	capensis W.	Cape	♂ or	30	...	G	C. G. H.	1792.	C	s.p		
1785	casia R. B.	Sier. Leo. grape	♂ or	15	...	...	S. Leone	1822.	D	co		
1786	5-folia B. M.	five-leaved	♂ or	12	jl.au	G	Brazil	1822.	D	co	Bot. mag. 2443	
1787	acida W.	acid	♂ or	6	...	G	Jamaica	1692.	C	p.l	Jac. schoen. 1. t. 33	
1788	trifoliata W.	three-leaved	♂ or	6	...	G	Jamaica	1739.	C	p.l	Slo. ja. 1. t. 144. f. 2	
1789	pentaphylla W.	five-leaved	♂ or	6	ap.s	G	Japan	1790.	C	s.p		
1790	quinata H. K.	wedge-leaved	♂ or	10	jl	G	C. G. H.	1790.	C	s.p		
306. COR'NUS. W.		DOGWOOD.		<i>Caprifoliæ.</i>		Sp. 11—14.						
1791	suecica W.	dwarf	♂ Δ or	½	ap	Pu	Britan	sc. alp.	R	s.p	Eng. bot. 310	
1792	canadensis W.	Canadian	♂ Δ or	½	jn.au	Pu	Canada	1774.	R	s.p	Bot. mag. 880	
1793	florida W.	great-flowered	♂ Δ or	15	ap.my	W	N. Amer.	1731.	L	co	Bot. mag. 526	
1794	mascula W.	Cornel.-cherry	♂ or	15	f.ap	Y	Austria	1596.	L	co	Schm. arb. 2. t. 63	
1795	sanguinea W.	common	♂ or	8	jn.jl	W	Britain	woods	L	co	Eng. bot. 249	
1796	alba W.	white-berried	♂ or	10	jn.s	W	Siberia	1741.	L	co	Sch. arb. 2. t. 65	
	<i>ros'sica</i>	Russian	♂ or	8	jn.s	W	Siberia	...	L	co		
1797	sericea W.	blue-berried	♂ or	5	au	W	N. Amer.	1683.	L	co	Sch. arb. 2. t. 64	
1798	circinata W.	Pennsylvanian	♂ or	6	jl.au	W	N. Amer.	1784.	L	co	Sch. arb. 2. t. 69	
1799	stricta W.	upright	♂ or	10	jn.jl	W	N. Amer.	1758.	L	co	Sch. arb. 2. t. 67	
1800	paniculata W.	panicled	♂ or	6	jn.jl	W	N. Amer.	1758.	L	co	Sch. arb. 2. t. 68	
1801	alternifolia W.	alternate-leav'd	♂ or	15	s	W	N. Amer.	1760.	L	co	Sch. arb. 2. t. 70	
307. SAN'TALUM. W.		SANDAL-WOOD.		<i>Santalaceæ.</i>		Sp. 2—6.						
1802	album W.	true	♂ Δ tm	10	...	Pu	E. Indies	1804.	C	p.l	Rom. arb. 2. t. 11	
1803	myrtifolium Roxb.	myrtle-leaved	♂ Δ or	4	...	R	E. Indies	1804.	C	p.l	Ruxb. cor. 1. t. 2	



History, Use, Propagation, Culture,

302. *Ammannia*. Named in honor of John Ammann, a native of Siberia, who was a physician and professor of botany at St. Petersburg. He published a work upon the plants of Finland, and some papers in the Transactions of the Academy at St. Petersburg. None of the species have any beauty. They may be treated like Balsams and other tender annuals.

303. *Fagara*. The name of an aromatic plant mentioned by Avicenna. The foliage of the present plant has a strong smell of turpentine. Cuttings root readily in sand under a hand-glass.

304. *Zieria*. So called by Sir J. E. Smith, in honor of his friend Mr. Zier, of whom nothing more is known than that he was "a learned and industrious botanist." The species is a pretty greenhouse plant.

305. *Cissus*. The Greek name of the ivy. The Latin name *hedera* having been retained for the real plant; the Greek word was given to this genus, which climbs like the ivy. The species greatly resemble *Vitis* in generic character. None of them are ornamental, with the exception of *C. quinquefolia*, justly admired for its quinquefid leaves, and the different tints of yellow, red, and purple which these take in autumn. It grows rapidly in any soil, and is well adapted for covering naked walls, decorating old unsightly elevations of houses, ruins, cottages, bowers, &c. All the species root freely by cuttings in any soil.

306. *Cornus*. From *cornu*, a horn: the wood being thought to be as hard and durable as horn. Its value as a material for warlike instruments has been celebrated by Virgil—*Bona bello cornus*. The larger species of this genus are very ornamental and hardy shrubs, not only from their flower and berries of different colors, but by their green, red, purple, or striped barks, which have a fine effect in winter, especially among evergreens. *C. florida* blossoms early, but does not bear berries in this country. *C. mascula*, the Cornier of old authors, blossoms still earlier, and bears handsome fruit, which were formerly made into tarts and *rob de cornis*: the wood is very hard; and Evelyn says, made into wedges, it will last like iron. *C. sanguinea*, *alba*, and *sericea*,

- 1768 Leaves stem-clasping, Stem square, Branches erect
 1769 Leaves lanceolate attenuated at base, Stem branched, Flowers fasciated axillary, Caps. 2-locular
 1770 Leaves sessile lanceolate attenuated at base, Flowers axillary clustered, Sepals rigid acute
 1771 Leaves somewhat stalked, Caps. larger than calyx colored
 1772 Leaves half stem-clasping, Stem square, Branches much spreading
 1773 Leaves half stem-clasping linear lanceolate cordate at base, Pedunc. very short many-flowered

- 1774 Leaves pinnated, Leaflets obovate emarginated, Common footstalk margined jointed unarmed
 1775 Leaves pinnated, Leaflets oblong unequal at base crenate
 1776 Leaves pinnated, Leaflets wedge-shaped emarginate, Common stalk winged jointed prickly beneath

1777 The only species. It may be known by the stamens being inserted into large glands

- 1778 Leaves cordate roundish 3-5 lobed angular repand beneath ferruginous
 1779 Leaves ovate loosely serrated smoothish, Nerves glandular at base, Petioles and branches pubescent
 1780 Branches rounded subpubesc. Petioles with a pubesc. line, Lower lvs. simple, middle tern., upper quinate
 1781 Leaves ovate serrate toothed, Pedicels and cal. hispid glandular
 1782 Leaves ovate cordate smooth thickish bristly serrated, Serratures appressed, Branches rounded
 1783 Leaves cordate ovate serrated fleshy, Stem 4-cornered winged
 1784 Leaves 5 angular toothed beneath ferruginous, Flowers headed
 1785 Leaves cordate serrated, Branches very glaucous
 1786 Leaves in fives, Leaflets narrowed each way acuminate stalked, Branches rounded knotted smooth
 1787 Leaves ternate obovate wedge-shaped fleshy smooth toothed at end entire at base
 1788 Leaves ternate rounded hairy toothed, Branches with membranous angles
 1789 Leaves quinate, Leaflets undivided ovate serrated
 1790 Leaves quinate, Leaflets obovate wedge-shaped serrated above

1. *Flowers in umbels with an involucreum.*

- 1791 Herbaceous, Branches binate, Umbel axillary stalked, Nerves of leaves distinct
 1792 Herbaceous, Branches none, Upper leaves whorled stalked veiny
 1793 A tree, Involucr. very large colored, Leaflets obovate
 1794 A tree, Umbels as long as involucreum

2. *Flowers in naked cymes.*

- 1795 Branches upright, Leaves ovate whole-colored, Cymes depressed flat
 1796 Branches recurved, Branchl. smooth, Leaves broad ovate acute pubesc. hoary beneath, Cymes depressed
 1797 Branches sprdg. Branchl. woolly, Lvs. ovate acum. beneath ferrugin. Cymes depr. woolly, Nuts compr.
 1798 Branches warded, Leaves orbicular beneath hoary, Cymes depressed
 1799 Branches upright, Leaves ovate whole-colored naked, Cymes paniced
 1800 Branches erect, Leaves ovate acuminate smooth hoary beneath, Cyme paniced
 1801 Leaves alternate, Stem dichotomously forked

- 1802 Leaves oblong
 1803 Leaves lanceolate



have fine red twigs; the wood of the first is equal to that of the cornel for hardness, and makes excellent mill cogs, bobbins for lace, toothpicks, and butchers' skewers. An oil may be extracted from the berries, by boiling and pressing. *C. sericea* from its large leaves, whitish underneath, and its terminating branches of white flowers, is valuable for the shrubbery or lawn. All the species may be propagated by seeds, layers, suckers, or cuttings; the second is the most common mode.

C. sanguinea is very common in woods, and after a smothered combustion, affords a charcoal esteemed the best for entering into the composition of gunpowder. It grows in the shade and drip of other trees, and is therefore a valuable plant for thickening strips of plantations which have become naked below.

C. suecica is called by the Highlanders *Lus-a-chrasis*, or plant of gluttony, from its berries, which are eaten by the children, being supposed to create an appetite. This plant is difficult to preserve in gardens: a bed of peat in a shady situation, and kept moist, is the most suitable for it; or it may be planted in small pots of peat, and treated as an alpine.

307. *Santalum*. From its Persian name *Sundul-sufed*. It is a low tree in habits; leaves and inflorescence a good deal resembling the privet. It produces the white and yellow sandal wood of the materia medica, formerly thought to be the produce of different trees. But in India, as in a certain degree in every other country, most trees when large and old, become colored towards the centre, and when the sandal tree becomes large, its centre acquires a yellow color, and great fragrance and hardness; while the exterior part of the same tree that covers the colored part is less firm, white, and without fragrance. It is only the yellow part that is in use, being in universal esteem for its fragrance. According to Wathen (*Voy. to China*, 1812, p. 116.), it sells so high that the tree is seldom allowed to grow more than a foot in diameter. It is manufactured into musical instruments, small cabinets, escurtoires, boxes, and similar articles, as no insect can exist, or iron rust (as it is

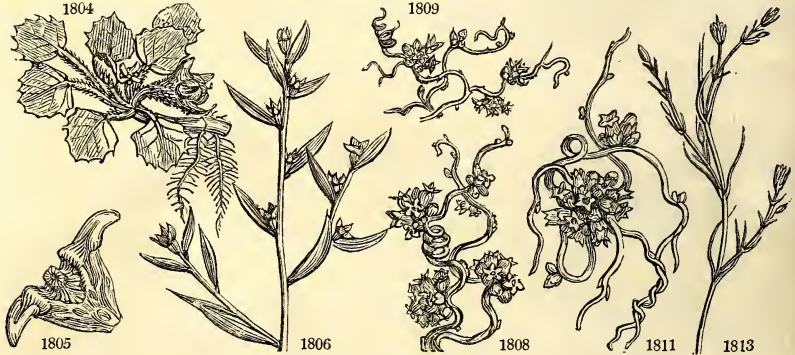
308. <i>TRA'PA. W.</i>	WATER-CALTROPS.	<i>Hydrocharideæ. Sp. 2-3.</i>						
1804 <i>nátans W.</i>	European	≡ ○ clt	jn.au	W.P	Europe	1781.	S co	Bot. reg. 88
1805 <i>bicórnis W.</i>	Chinese	≡ △| clt	...	W	China	1790.	S co	Gært.sem.2. t.95
309. <i>LUDWIGIA. W.</i>	LUDWIGIA.				<i>Onagrariceæ. Sp. 2-16.</i>			
1806 <i>alternifólia W.</i>	large-capsuled	○ w	1 jn.jl	Y	Virginia	1752.	S co	Lam. ill. 1. t. 77
1807 <i>hirsúta Ph.</i>	hairy	△ w	1 jn.au	Y	N. Amer.	1812.	D p1	

DIGYNIA.

310. <i>CUSCUTA. W.</i>	DODDER.				<i>Convolvulaceæ. Sp. 5-10.</i>			
1808 <i>europa'ra W.</i>	common	≡ △ cu	jl	W	Britain	hea.	D par	Eng. bot. 378
1809 <i>epithymum W.</i>	lesser	≡ △ cu	jl	W	Britain	hea.	D par	Eng. bot. 55
1810 <i>chiménsis</i>	Chinese	≡ △ cu	au.s	W	China	1803.	D par	
1811 <i>chilénsis B.M.</i>	Chili	≡ △ cu	ja.d	W	Chili	1821.	D par	Bot. reg. 603
1812 <i>verrucósa Sweet.</i>	Nepal	≡ △ cu	apo	W	Nepal	1821.	D par	Scot. fl. gard. 6.
311. <i>BUFO'NIA. W.</i>	BUFO'NIA.				<i>Caryophylleæ. Sp. 1-2.</i>			
1813 <i>tenuifólia W.</i>	slender-leaved	△ w	½ jn	W	England	sea co.	S co	Eng. bot. 1313
312. <i>HAMA'NÉ'LLIS. W.</i>	WITCH-HAZEL.				<i>Berberideæ. Sp. 1-2.</i>			
1814 <i>virginica W.</i>	Virginian	≡ or	10	my.n	W	N. Amer.	1736.	L p1
313. <i>HYPE'COUM. W.</i>	HYPECOUM.				<i>Papaveraceæ. Sp. 3-6.</i>			
1815 <i>procum'bens W.</i>	procumbent	○ or	1 jn.jl	Y	S. Europe	1596.	S co	Schk. han. 1. t. 27
1816 <i>péndulum W.</i>	pendulous	○ or	½ jn.jl	Y	S. France	1640.	S co	Par. thea. 372. f. 2
1817 <i>eréctum W.</i>	erect	△ or	½	my.jn	Y	Siberia	1759.	S co

TETRAGYNIA.

314. <i>MYGIN'DA. W.</i>	MYGINDA.				<i>Rhamni. Sp. 3-5.</i>			
1818 <i>Uragóga W.</i>	saw-leaved	≡ or	4	au.s	Pu	S. Amer.	1790.	L p1
1819 <i>Rhácoma W.</i>	blunt-leaved	≡ or	4	...	...	Jamaica	1798.	L p1
1820 <i>latifólia W.</i>	broad-leaved	≡ or	4	ap.my	...	W. Indies	1795.	C s.p
315. <i>P'LEX. W.</i>	HOLLY.				<i>Rhamni. Sp. 12-29.</i>			
1821 <i>Aquifólium W.</i>	common	tm	20	ap.jn	W	Britain	hedg.	S co
β <i>heterophýlla</i>	various-leaved	or	20	ap.jn	W	Britain	...	G co
γ <i>crassifólia</i>	thick-leaved	or	20	ap.jn	W	Britain	...	G co
δ <i>reclára</i>	slender	or	20	ap.jn	W	Britain	...	G co
ε <i>férax</i>	hedgchog	or	12	ap.jn	W	Britain	...	G co



History, Use, Propagation, Culture,

said) within its influence. It is of the dust of this wood that the Bramins form the pigment which they use in giving the tilac or frontal mark to the God Vishnoo; and the oil used in their ceremonies is obtained from the shavings, or at least scented by them. Cuttings root readily in a pot of sand under a bell-glass.

The true sandal wood is the *Santalum album*, found chiefly on the coast of Malabar, and in the Indian Archipelago.

Santalum myrtifolium, which has been confounded with it, is the kind which grows upon the Circar mountains, the wood of which is of little value. An amusing specimen of German critical puzzling upon this subject may be seen in Messrs. Römer and Schultes, *Species Plantarum*, vol. iii. p. 328.

308. *Trapa*. Abridged from *calcestrapa*, the Latin name of a dangerous instrument called caltrops, furnished with four spines, which was formerly used in war to impede the progress of cavalry. The fruit of this plant is hard, and has four spines also. *T. natans* is a curious aquatic, with long brown and green roots and floating leaves, with petioles inflated into a tumour, as in the marine algae. The seed is larger than the kernel of the filbert, with two cotyledons, one large, and the other very small, and not increasing in size during the germination. Hence, Gärtner considers this plant like the *Nelumbium*, as in a sort of middle state between the *monocotyledonæ* and *dicotyledonæ*. The nuts are farinaceous, and are esteemed nourishing and pectoral. The skin with the spines being removed, there is a white sweet kernel within, somewhat like a chestnut. They are sold in the market at Venice under the name of Jesuits' nuts. They are also much eaten in Switzerland and the south of France. Some of the canals at Versailles are covered with the plant; and Neill informs us (*Hort. Tour.*), that the nuts are sometimes served up like chestnuts. Pliny says that the Thracians made them into bread; and Thunberg states that they (the seed of *Trapa bicornis*) are commonly put into broth in Japan. In this country the plant is generally kept in a cistern in the stove, and so treated, was fruited by A. B. Lambert, Esq. in 1815, and specimens of the fruit sent to the Horticultural Society.

T. bicornis is cultivated by the Chinese in marshes; and the nuts used as food.

309. *Ludwigia*. So named by Linneus, in honor of C. G. Ludwig, professor of botany at Leipsic, in the middle of the last century. He left behind him several works which are now almost forgotten. The species are of no beauty.

310. *Cuscuta*. This is a genus of parasitical plants, which fasten themselves to, and draw their nourishment from others. The seed does not split into lobes, but opens and puts forth a little spiral body, which is the em-

- 1804 Nuts 4 horned, Spines spreading
1805 Nuts 2 horned

1806 Erect branched smooth, Leaves altern. lanc. hoary beneath, Caps. large crowned with the col. lvs. of cal.
1807 Leaves alternate lanceolate, Flowers axillary solitary subsessile, Stem rounded diffuse.

DIGYNIA.

- 1808 Flowers sessile, Orifice of cor. naked, Stigma acute
1809 Flowers sessile, Stamens with a scale at their base, Stigma acute
1810 A species of which no account has yet been published. Shoots short white
1811 Flowers 5-cleft, Segments oblate rounded, Anthers sessile, Stigmas pileate
1812 All over warted, Color dull brown, Shoots very long

1813 Stem branched at end, Branches erect, Calyx scarious at edge

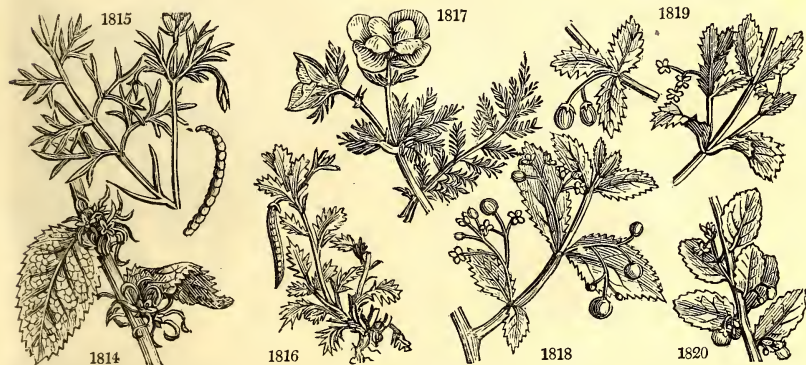
1814 Leaves obovate acutely toothed cordate with a small sinus

- 1815 Pods jointed compressed arcuate, Pet. 3-lobed the outside smooth at the back
1816 Pods knotty rounded pendulous, Petals smooth the 2 outer ovate oblong pendulous 2 inner 3-parted
1817 Pods not jointed erect compressed, Pet. smooth outer wedge-shaped about 3-lobed inner trifid the lateral lobes 2-lobed the middle one small

TETRAGYNIA.

- 1818 Leaves ovate and subcordate acuminate subserrated pubescent
1819 Leaves lanceolate ovate obtuse crenated, Flowers monogynous, Style quadrifid
1820 Leaves elliptical crenated subcoriaceous, Stigmas 2-4 sessile

1821 Leaves ovate acute spiny shining waved, Flowers axillary umbelled



and Miscellaneous Particulars.

bryo. The stalk twines about some other plant, contrary to the sun's apparent motion, or from right to left, sending out from the inner surface a number of little vesicles which attach themselves to the bark of the supporting plant. By degrees, the longitudinal vessels of the stalk shoot from their extremities, and insinuate themselves so intimately with it, that it is easier to break than to disengage them. Plants raised from seed soon die when they have no plant to which they can attach themselves. They adhere to the ground by the original root, and draw a part of their nutriment from thence at first; but the original root withers away as soon as the young stem has fixed itself to any other plant.

C. euroæa may be sown in peat soil by the sides of other plants; in a wild state it is commonly found in hedges, and on hops, brambles, woody nightshade, fern, thistles, hemp; as also on flax, nettles, clover, grass, &c.

C. epithymum will thrive well on any small shrub when once it has got hold. According to Sweet, "it will flower freely, and be very handsome."

C. chinensis may be treated like *C. europæa*.

311. *Bufonia*. So named after the celebrated Count de Buffon. It is slender, like the botanical acquirements of that illustrious naturalist. Some say that Linnæus slyly dropped an *f* in the name.

312. *Hamamelis*. *Homomelis* is the name under which Athenæus describes a fruit like an apple. This is another of the not very commendable freaks of gentlemen who name genera; the present plant being more like a hazel-nut than an apple-tree. In New England this tree has ripe fruit and fresh blossoms at the same time.

313. *Hypecoum*. From ὑπεχωω, to rattle, on account of the noise the seeds make in the pods. It is not impossible that *Hypecoum procumbens* is the *Hypecoon* of Pliny: the wild Cumin of Gerard. The juice of all the species is yellow, like that of celandine, and is said to have the same effect as opium.

314. *Myginda*. So named by Jacquin, in honor of Counsellor Mygind of Vienna; a botanical amateur and patron. A tree resembling some kind of *Ilex*.

315. *Ilex*. A word upon which much ingenuity and learning have been tortured in vain. De Théis derives it from *ec* or *ac*, a point in Celtic; but that explanation applies better to the specific name *acqifolium*. *I. aquifolium* is one of our most beautiful shrubs or low trees, displaying either character, according to situation, age, and application by art. It is found in most parts of Europe, and in North America, Japan, Cochinchina.

<i>ζ flava</i>	<i>yellow-berried</i>	葎	or	15	ap,jn	W	Britain	...	G	co
<i>α albo-marginata</i>	<i>silver-edged</i>	葎	or	12	ap,jn	W	Britain	...	G	co
<i>δ aureo-marginata</i>	<i>gold-edged</i>	葎	or	12	ap,jn	W	Britain	...	G	co
<i>γ medio-picta</i>	<i>painted</i>	葎	or	10	ap,jn	W	Britain	...	G	co
1822 <i>chinensis</i> B. M.	Chinese	葎	□	or	10	jl	W	China	1814.	G. s.l. Bot. mag. 2043.
1823 <i>laxiflora</i> Ph.	loose-flowered	葎	□	or	20	ap,jn	W	Carolina	1811.	G. s.p. Lam. ill. t. 89
1824 <i>opaca</i> W.	Carolina	葎	□	or	10	my,jn	W	Carolina	1744.	G. p.l. Meerb. ic. 2. t. 5
1825 <i>crœca</i> W.	African	葎	□	or	30	...	...	C. G. H.	1794.	G. s.p.
1826 <i>Perádo</i> W.	thick-leaved	葎	□	or	10	ap,my	Pk	Madeira	1760.	G. s.l. Meerb. ic. 2. t. 6
1827 <i>Prinoïdes</i> W.	deceituous	葎	□	or	2	jl	W	N. Amer.	1760.	G. s.p.
1828 <i>Cassine</i> Ph.	br.-lv.-Dahoon	葎	□	or	12	au	W	Carolina	1726.	G. s.l. Cat. car. 1. t. 31
1829 <i>Dahóon</i> Ph.	Dahoon	葎	□	or	6	my,jn	W	Carolina	1726.	G. s.l.
1830 <i>augustifolia</i> W. en.	Myrtle-leaved	葎	□	or	6	ry,jn	W	Carolina	1806.	G. s.l.
1831 <i>vomitoria</i> W.	South Sea Tea	葎	□	or	10	...	...	Florida	1700.	G. p.l. Cat. car. 2. t. 57
1832 <i>canadensis</i> Ph.	Canadian	葎	or	3	ap,my	W	N. Amer.	1802.	G. s.l. Mich. am. 2. t. 49	
316. COLDENIA. W.	COLDENIA.							<i>Boraginæ.</i>	Sp. 1—2.	
1833 <i>procumbens</i> W.	trailing	葎	□	or	2	jl,au	W	E. Indies	1699.	S. co. Lam. ill. t. 89
317. POTAMOGE'TON. W.	POND-WEED.							<i>Alismacæ.</i>	Sp. 13—44.	
1834 <i>nátans</i> W.	broad-leaved	葎	△	cu	au	G	Britain	riv.	D	co. Eng. bot. 1822
1835 <i>flútans</i> W.	long-leaved	葎	△	cu	jl,au	R	Britain	dit.	D	co. Eng. bot. 1286
1836 <i>heterophýllum</i> W.	various-leaved	葎	△	cu	jl,au	G	Britain	dit.	D	co. Eng. bot. 1285
1837 <i>perfoliátum</i> W.	perfoliate	葎	△	cu	jl,au	P	Britain	riv.	D	co. Eng. bot. 168
1838 <i>den'sum</i> W.	close-leaved	葎	△	cu	my,jl	G	Britain	dit.	D	co. Eng. bot. 397
1839 <i>lúcens</i> W.	shining	葎	△	cu	jn,jl	G	Britain	dit.	D	co. Eng. bot. 376
1840 <i>crispum</i> W.	curled	葎	△	cu	jn,jl	R	Britain	rivul.	D	co. Eng. bot. 1012
1841 <i>compréssum</i> W.	flat-stalked	葎	△	cu	jn,jl	G	Britain	rivul.	D	co. Eng. bot. 418
1842 <i>pectinátum</i> W.	fennel-leaved	葎	△	cu	jn,jl	Ol	Britain	dit.	D	co. Eng. bot. 323
1843 <i>lanceolátum</i> E. B.	spear-leaved	葎	△	cu	jl,au	Ol	England	w.lak.	D	co. Eng. bot. 1985
1844 <i>graminéum</i> W.	grass-leaved	葎	△	cu	jl,au	G	Britain	dit.	D	co. Eng. bot. 2253
1845 <i>pússillum</i> W.	small	葎	△	cu	jl,au	G	Britain	dit.	D	co. Eng. bot. 215
1846 <i>setáceum</i> W.	bristle-leaved	葎	△	cu	jl,au	G	Britain	...	D	co.
318. RUPPIA. W.	RUPPIA.							<i>Fluviales.</i>	Sp. 1.	
1847 <i>maritima</i> W.	sea	葎	△	cu	jl	G	Britain	s. w. d. S	s.l.	Eng. bot. 136
319. SAGI'NA. W.	PEARLWORT							<i>Caryophylleæ.</i>	Sp. 5—7.	
1848 <i>procum'bens</i> W.	procumbent	○	w	¼	my,s	W	Britain	rub.	S	s.l. Eng. bot. 880
1849 <i>ceratosa</i> W.	tetrandrous	○	w	½	jn,jl	W	Britain	sea sh.	S	co. Eng. bot. 166



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China, &c. In Britain, it is found congregated in natural woods and forests. Some of the finest in England, are in Medwood forest, in Staffordshire, and in Scotland, in the woods of Dumbartonshire, about Luss and Lochlomond. Professor Martyn's father first discovered the difference of sexes in the holly, some being male, others female, and others hermaphrodite. It is a tree of great longevity, and will grow in any soil not very wet, but best in a dry deep loam; such is the soil of Medwood forest. By culture alone, a hundred varieties and subvarieties have been produced, differing in the variegation, margin, and size of the leaves, and in the color of the fruit. These make gay and elegant shrubs for lawns and small groups, and form an important furniture in the general shrubbery. The common green prickly-leaved holly makes the best of all hedges, whether we regard its qualities for defence, shelter, duration, or beauty. It has one fault, it is very slow of growth unless carefully cultivated, and for this reason hawthorn is preferred. It has a very general custom about the end of the 17th century to divide gardens by hedges of this tree, and to keep them exactly shorn. Evelyn's impenetrable holly hedge at Deptford has been much celebrated. It was 400 feet long, 9 feet high, and 5 feet broad. Gibson, (*Archæologia Brit. &c.*) who mentions Evelyn's hedge, made a tour of the principal gardens near London, and states, as next in grandeur, that of Sir M. Decker at Richmond: of neither does there exist a single plant. The largest holly hedge in Scotland is at Tynningham near Dunbar, planted by a former earl of Haddington, author of a Treatise on Fruit Trees. It has for many years past been left uncut, and now presents a noble phalanx of deep shining green leaves, and numerous spiry tops with spikes of coral berries.

In cultivating the holly, the kernel or stone of the berries is divested of its skin and glutinous pulp, by mixing with sand in heaps in the open garden, and turning over frequently. The berries being gathered in November, may be rotted in this way till the October following, and then sown in beds, and covered three quarters of an inch with fine mould; or they may remain on the trees till spring, then gathered and mashed in a tub of water to separate the pulp, after which they may be sown. In general, the stones do not vegetate till the second year from the gathering; some will occasionally germinate the first year, and a number not till the third. In transplanting and pruning the holly, the months of October and April are to be chosen: the oftener young plants are removed before planted in the final site the better, as it has naturally but few roots, and those chiefly ramose and descending. Miller recommends cutting holly hedges with a knife, as clipping renders them unsightly. The variegated and other curious sorts are generally propagated by budding and grafting on the common green. Evelyn says he raised some of the variegated sorts by sowing the seeds, and Miller always found the hedgehog variety continue the same when so propagated. Some raise them by layers, and Sweet says all of them "will root freely by cuttings taken off at a joint in ripened wood, and planted in sand under a hand-glass in a shady situation."

- 1822 Leaves ovate oblong edge with little cartilaginous scarcely pungent teeth, Corymbs pedunc. dichotomous
 1823 Leaves ovate sinuate-toothed slightly spiny, Stipules subulate, Pedunc. lax divided
 1824 Leaves ovate acute spiny smooth flat, Flowers scattered at the base of the older branches
 1825 Leaves oblong serrated, Serratures prickly-ciliated
 1826 Leaves ovate with a point unarmed nearly entire
 1827 Leaves elliptic-lanceolate acute deciduous serrated, Serratures unarmed
 1828 Leaves alternate distant evergreen lanceolate attenuated both ways serrated at the end
 1829 Leaves lanceolate elliptical nearly entire reflexed at the edge, Rib villous beneath
 1830 Leaves alternate distant evergreen linear lanceolate shining serrated at end, Rib smooth beneath
 1831 Leaves alternate distant oblong obtuse crenated serrated, Serratures not prickly
 1832 Leaves oblong acuminate subserrated at the end, Pedunc. long axillary 1-flowered

1833 Leaves wedge-shaped stalked shorter on one side coarsely sawed and plaited

- 1834 Leaves all elliptical stalked floating, Lower petioles submersed leafless
 1835 Leaves floating on long stalks lanceolate ovate narrowed at both ends
 1836 Upper leaves stalked elliptical narrowed at both ends the lower close together sessile linear
 1837 Leaves cordate stem-clasping all immersed
 1838 Leaves ovate acuminate opposite close, Stem dichotomous, Spike 4-flowered
 1839 Leaves ovate-lanceolate flat narrowed into the stalks, Spike many-flowered contracted
 1840 Leaves lanceolate alternate wavy serrated
 1841 Leaves linear obtuse, Stem compressed
 1842 Leaves setaceous parallel close together in two rows
 1843 Leaves lanceolate membranous flat entire, Spike ovate dense few-flowered
 1844 Leaves linear lanceolate alternate sessile broader than their stipule
 1845 Leaves linear opposite and alternate narrower than their stipule spreading at base, Stem rounded
 1846 Leaves lanceolate opposite acuminate

1847 The only species

- 1848 Branches procumbent smooth, Petals very short
 1849 Stem diffuse dichotomous, Leaves spatulate and obovate recurved, Fruit-stalks reflexed



and Miscellaneous Particulars.

I. *cassine* and *vomitaria* have bitter leaves, of which the N. American Indians make a tea, which is almost their only physic. At a certain time of the year they come down in droves from a distance of some hundred miles, to the coast, for the leaves of this tree, which is not known to grow at any considerable distance from the sea. They make a fire on the ground, and putting a great kettle of water on it, they throw in a large quantity of these leaves, and setting themselves round the fire, from a bowl that holds about a pint they begin drinking large draughts, which in a very short time occasion them to vomit easily and freely: thus they continue drinking and vomiting for the space of two or three days, until they have sufficiently cleansed themselves; and then every one taking a bundle of the tree to carry away with him, they all retire to their habitations.

316. *Coldenia*. So named by Linnæus, in honor of Cadwallader Colden, an English naturalist, who published in 1742, an account of the plants of New York.

317. *Potamogeton*. From *ποταμος*, a river, and *γειτον*, near. Most of the species grow wholly immersed in water, but like most aquatics, flower above its surface. It should seem, Professor Martyn observes, that the respiration of such truly-aquatic vegetables must be as different from those which inhale atmospheric air, as the breathing of fishes is from that of beasts and birds. Accordingly, they are, as Haller remarks, of a different texture, pellucid, like oiled paper, very vascular, harsh, and ribbed, but often very brittle; and their surface, like that of aquatic animals, destitute of hair or down of any kind. The leaves of aquatic plants afford shade and spawning places to fish, and habitations for aquatic insects and worms for their nourishment. The roots of *P. natans* are a favorite food of the swan, and that bird is in consequence erroneously considered as keeping ponds and lakes clear of all aquatics. Ducks eat the seeds and leaves of *P. crispum*. Haller informs us, that in the Swiss lakes *P. serratum* grows from ten to twenty fathoms long, forming, as it were, immense woods in the midst of these immense reservoirs. Most of the species may be considered as ornamental in a botanic garden, when kept within bounds or in pots. They are readily propagated by seeds or by dividing their long roots, and for the most part, grow best on a clayey bottom.

318. *Ruppia*. Named after Henry Bernard Rupp, a German. He published in 1718, a *Flora Jenensis*. It is remarked by Dr. Goodenough, that the flower-stalk of this plant is spiral, like that of *Valisneria*, and relaxes or contracts itself according to the depth of the water. The truth is, the flower and leaf-stalks of all aquatics have a power of accommodating themselves to the depth of the water, so as just to emerge above its surface; but the singularity in *Ruppia* and *Valisneria* appears to be the employment of a flower-stem for that purpose. (See *Valisneria*.)

319. *Sagina*. This plant, says Linnæus, is so called for its qualities. In Latin, *sagina* expresses something

1850 apétala <i>W.</i>	small-flowered	○ w	$\frac{1}{2}$ my.jn	W	Britain	rub.	S	co	Eng. bot.	881
1851 marítima <i>E. B.</i>	sea-side	○ w	$\frac{1}{2}$ my.au	W	Ireland	sc. alp.	S	co	Eng. bot.	2195
1852 erécta <i>Sm.</i>	glaucous	○ w	$\frac{1}{2}$ ap.my	W	Britain	...	S	co	Eng. bot.	609
320. TILLÆA. <i>W.</i>	TILLEA.				<i>Sempervivæ.</i>	<i>Sp. 1—4.</i>				
1853 muscôsa <i>W.</i>	mossy	○ cu	$\frac{1}{2}$ in.o	Pl	England	sa. he.	S	co	Eng. bot.	116
321. RADIOLA. <i>Sm.</i>	RADIOLA.				<i>Caryophyllææ.</i>	<i>Sp. 1.</i>				
1854 millegrána <i>Sm.</i>	all-seed	○ w	$\frac{1}{2}$ jl.au	W	Britain	san. pl.	S	co	Eng. bot.	893



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nourishing. The species are very common in dry pastures, where they are valuable for sheep-food. *S. procumbens* is a small but troublesome weed in shaded garden-walks and paved courts, and with *S. apetala*, seeds the whole summer. Curtis remarks, that the latter species ripens its seeds more rapidly than almost any other plant.



CLASS V. — PENTANDRIA. 5 STAMENS.

ONE of the most extensive of the Linnæan classes, and containing about a fifth part of all phænogamous plants. It includes the whole of the Boraginæ or Asperifoliæ, Asclepiadæ, Apocynæ, and Umbelliferæ, nearly all Primulacæ, and portions of a great variety of other natural orders, among which many are ornamental, and others valuable on account of their relation to medicine and the arts.

The Boraginæ are, in many instances, ornamental plants; a few, such as *Anchusa tinctoria* are applied to economical purposes; but the principal part are weeds of northern latitudes. They have been recently described and re-arranged in a scientific manner by M. Lehmann, whose *Monographia Asperifoliarum* should have a place in every botanical library.

The curious genus *Stapelia* is a part of the Asclepiadæ, which order was in so unsettled and confused a state as to be a reproach to the science until it was remodelled by Mr. Brown, who first determined the just limits of its genera. The Apocynæ contain, among some poisonous plants, such as *Echites venenata*, the Oleander remarkable for the beauty of its flowers, and the Cream fruit and Picimmons of Sierra Leone, which are said to be excellent fruit-trees.

Umbelliferous plants contain numerous species, some of which, like the *Cicuta virosa*, *Conium maculatum*, &c. are dangerous poisons, and others which are useful to mankind either as luxuries or necessities. The seeds of caraway, coriander, &c. are commonly used by the confectioner, of dill and anise by the distiller; the blanched stems of celery and sweet fennel, and the roots and leaves of many others are among the best of British vegetables. The gum glibanum of the shops is said to be the produce of a plant of this tribe. Great difficulty exists in ascertaining upon what principles the genera should be divided. Linnæus, contrary to his usual practice, attempted to derive their characters from the absence or presence of the involucreum; Hoffman, Link, and Sprengel from peculiarities in the fruit, or, as it is familiarly called, in the seeds. The characters of Sprengel, who has, as it were, grown old in the study of Umbelliferæ, are certainly deserving of attention; but botanists are much divided in opinion upon their merits; and, it is to be feared, that notwithstanding the labours of the learned men who have directed their study particularly to the consideration of the order, little real progress has been made in its final arrangement. In this work the arrangement of Sir James Smith has been adopted, as being the most simple of all that has been published, and the most easy of application.

The plants belonging to Primulacæ are beautiful border-flowers, or pretty alpine plants. In the same artificial section with these, are found the elegant families of *Convolvulus* and *Ipomæa*, one or several species of which produce the jalap of the shops; the various kinds of *Epacris*, which in New Holland rival the heaths of Southern Africa, and the splendid genus *Azalea*.

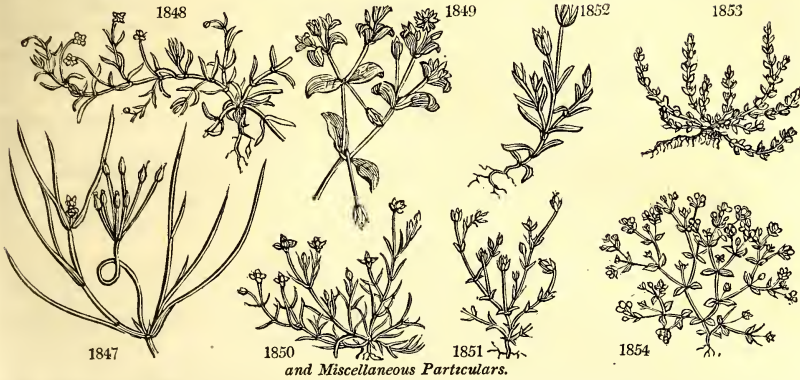
Other sections include the teak wood of the East Indies; the *Sapodilla* plum, and the Star apple, fine fruits of the West Indies; solanum, well digested by Dunal; the Jesuit's bark (*Cinchona*), of which no species has yet been brought alive to Europe; the coffee tree, and many others.

Pentandria Digynia contains little beyond the Asclepiadæ and Umbelliferæ, already mentioned. The Sumack, Guelder Rose, and Elder are contained in Trigynia; in Tetragynia the paradoxical and curious *Parnassia*; in Pentagynia, *Crassula*, *Linum*, and *Statice*, all ornamental genera; and a few obscure weeds make up the last order, Polygynia.

- 1850 Stem erect pubescent, Flowers alternate apetalous
 1851 Stems erect divaricating smooth, Leaves obtuse blunt, Petals obsolete
 1852 Stem erect about 1-flowered, Sepals acute, Petals entire

1853 Procumbent, Flowers trifid

1854 The only species



and Miscellaneous Particulars.

320. *Tillæa*. From Mich. Ang. Tilli, an Italian, born in 1653, died in 1740. He was a foreign member of the Royal Society of London, and published a *Catalogus Horti Pisani*, in one volume, folio.

321. *Radiola*. A diminution of *radius*. A little insignificant weed, formerly referred to the same genus with common flax.

Order I. MONOGYNIA.



5 Stamens. 1 Style.

1. Flowers monopetalous, inferior. Seed 1, naked.

322. *Mirabilis*. Nut below the corolla, which is funnel-shaped. Stigma globose, a little warted.
 323. *Abroma*. Cor. funnel-shaped, with cordate segments, above the germs contracted, at the orifice inflated. Stigma simple.
 324. *Plumbago*. Seed 1. Stamens inserted into the valves. Corolla funnel-shaped. Stigma 5-cleft.

2. Flowers monopetalous, inferior. Seeds 2 or more, naked.

325. *Heliotropium*. Cal. 5-parted. Cor. hypocrateriform, orifice without teeth, limb 5-cleft, sinuses plaited, simple, or toothed. Stamens included. Stigma peltate. Nuts 4, cohering without a common receptacle.
 326. *Myosotis*. Cal. 5-parted. Cor. hypocrateriform, closed with scales. Limb 5-parted, obtuse. Stamens included. Anthers peltate. Stigma capitate. Nuts 4, distinct, perforated at the base.
 327. *Echinospermum*. Cal. cor. and other parts as in *Myosotis*. Nuts united to a central column, prickly, compressed, closed at the base.
 328. *Mattia*. Cal. 5-parted, spreading. Cor. tubular, funnel-shaped at the orifice with 5 scales as long as the tube. Anthers sagittate, conniving, exserted. Style longer than stamens. Stigma simple. Seeds winged.
 329. *Tiaridium*. Cor. hypocrateriform, with an angular tube, the orifice contracted with 5 rays. Style very short. Stigma capitate. Nuts 4, 2-celled, mitre-formed, cohering, closed at base. No common receptacle.
 330. *Lithospermum*. Cal. 5-parted, persistent. Cor. funnel-shaped, with a half 5-cleft obtuse limb, and an open orifice. Anthers included. Stigma obtuse, bifid. Seeds 4, hard, smooth, closed at the base.
 331. *Batschia*. Cal. deeply 5-parted. Cor. hypocrateriform, with a hairy ring at the base inside, an open orifice, and rounded segments. Stigma emarginate. Seeds hard, shining.
 332. *Onosma*. Cal. 5-parted, erect. Cor. campanulate, funnel-shaped, with a ventricose tubular 5-toothed limb, and an open orifice. Anthers sagittate, connected at base by their lobes. Stigma obtuse. Seeds ovate, shining, stony, closed at base.
 333. *Anchusa*. Cal. 5-cleft, persistent. Cor. funnel-shaped, with a half 5-cleft spreading limb, orifice closed with 5 prominent scales. Anthers included. Stigma emarginate. Seeds gibbous, with a sculptured surface.
 334. *Symphytum*. Cal. 5-parted, acute. Cor. cylindrical, campanulate, with a short tube and a tubular inflated limb, orifice with 5 subulate rays conniving into a cone. Stigma simple. Seeds gibbous, not pierced at base.
 335. *Onosmodium*. Cal. deeply 5-parted. Cor. oblong, campanulate, with a ventricose half 5-cleft limb, the edges of which are inflated, orifice open. Anthers sagittate, included.
 336. *Cynoglossum*. Cal. 5-parted. Cor. short, funnel-shaped, with a 5-parted obtuse limb; orifice closed by scales. Stamens included. Stigma capitate. Nuts depressed, attached to a central column.
 337. *Omphalodes*. Cal. deeply 5-parted. Cor. rotate, shorter than the tube of the calyx, with 5 short scales crossing over the anthers, which are inserted into the base of the tube. Style short. Stigma thick. Seeds urceolate, toothed at the edge.
 338. *Pulmonaria*. Cal. prismatic, 5-cornered, 5-toothed. Cor. funnel-shaped, with a cylindrical tube, open orifice, and obtuse 5-lobed limb. Stigma obtuse. Seeds 4, obtuse, rounded.
 339. *Cerinth*. Cor. tubular, ventricose. Nuts 2, each 2-celled, open at the base.
 340. *Borago*. Cal. 5-parted. Cor. rotate, with acute segments; orifice crowned. Filaments conniving. Seeds rounded, closed at base, rugose, inserted lengthways into an excavated receptacle.

341. *Trichodesma*. Cor. rotate, with a naked orifice and subulate segments. Stamens exerted. Anthers villous at back. Nuts half immersed in the 4-winged column.
342. *Asperugo*. Cal. 5-parted, irregular. Cor. funnel-shaped, with a short tube, orifice closed by convex scales. Stigma obtuse. Seeds oblong, compressed, not perforated.
343. *Nonea*. Cal. at length inflated. Cor. funnel-form, with a 5-cleft short limb, and straight naked tube. Stamens included. Orifice nearly open. Seeds 4, with parallel streaks.
344. *Lycopsis*. Cor. funnel-shaped, 5-lobed, with a covered tube and obtuse limb. Scales at the orifice. Stigma emarginate. Nuts hollowed at base.
345. *Echium*. Cal. 5-parted, subulate. Cor. campanulate with unequal obtuse segments, the 2 upper the longest; orifice open. Filaments unequal, declinate. Stigma obtuse. Seeds roundish, warted, not open at base.
346. *Tournefortia*. Berry 2-celled, cells 2-seeded, perforated at end. Cor. hypocrateriform or rotate, naked at the orifice.
347. *Nolana*. Cal. turbinate. Cor. campanulate, plaited. Nuts 5, 2 or 4-celled.
3. *Flowers monopetalous, inferior. Seeds in a capsule or dry drupe. (Vestia, which has a berry, is an exception, but is placed here on account of its relation to other genera.)*
348. *Aretia*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
349. *Androsace*. Caps. 1-celled. Corolla hypocrateriform, contracted at the orifice. Stigma globose.
350. *Primula*. Caps. 1-celled. Corolla funnel-shaped, pervious at the orifice. Stigma globose.
351. *Cortusa*. Caps. 1-celled, oblong. Corolla rotate. Stigma somewhat capitate.
352. *Soldanella*. Caps. 1-celled. Corolla torn. Stigma simple.
353. *Dodecatheon*. Caps. 1-celled, oblong. Corolla reflexed. Stigma obtuse.
354. *Cyclamen*. Caps. 1-celled, pulpy within. Corolla reflexed. Stigma acute.
355. *Hottonia*. Caps. 1-celled. Corolla with the tube below the stamens. Stigma globose.
356. *Lysimachia*. Caps. 1-celled, 10-valved. Corolla rotate. Stigma obtuse.
357. *Anagallis*. Caps. 1-celled, cut round. Corolla rotate. Stigma capitate.
358. *Diapensia*. Caps. 3-celled. Corolla hypocrateriform. Cal. 8-leaved.
359. *Pyzidanthera*. Cal. deeply 5-parted. Cor. campanulate, much shorter than the tube of calyx, segments 5, spatulate. Anthers with an appendage at their base. Style thick. Stigmas 3.
360. *Coris*. Caps. 1-celled, 5-valved. Corolla irregular. Stigma capitate.
361. *Galax*. Caps. 1-celled, 2-valved. Corolla hypocrateriform. Stigma roundish.
362. *Menyanthes*. Caps. 1-celled. Corolla villous spreading. Stigma bifid. Cal. 5-parted.
363. *Villarsia*. Caps. many-seeded, 2-valved. Cor. rotate, limb spreading, 5-parted, flat, bearded or scaly at the base. Glands 5, hypogynous.
364. *Chironia*. Caps. ovate, seeds numerous small. Cal. 5-parted erect. Cor. equal, with a 5-parted limb of ovate equal segments. Filaments from mouth of tube. Anthers, after bursting, spiral. Style declinate.
365. *Eustoma*. Cal. deeply 5-cleft. Tube of cor. funnel-shaped, contracted. Filam. short, regular, inserted about the middle of the tube. Stigma large, deeply 2-lobed. Seeds scurfy.
366. *Erythraea*. Caps. linear. Cal. 5-cleft. Cor. funnel-shaped, with a short limb withering. Anthers, after bursting, spiral. Stigmas 2.
367. *Sabbatia*. Cor. with an urceolate tube, and limb 5-12-parted. Stigmas 2-parted, with spiral divisions. Anthers at length revolute.
368. *Logania*. Caps. 2-parted. Cor. subcampanulate, with a villous throat, and 5-parted limb. Stigma clavate.
369. *Phlox*. Caps. 3-celled. Corolla hypocrateriform, with a curved tube. Stigma trifid.
370. *Polemonium*. Caps. 3-celled. Corolla 5-parted. Stamens placed on the valves.
371. *Vestia*. Berry. Cor. funnel-shaped, 5-parted, with a hairy throat. Stamens exerted. Stigma nearly entire.
372. *Hydrophyllum*. Caps. 1-celled, 2-valved. Corolla with 5 nectaries. Stigma bifid.
373. *Paecelia*. Caps. 2-valved, 4-seeded. Cal. persistent. Cor. campanulate, 5-cleft, with 5 furrows inside the base. Stam. exerted. Style short. Stigmas 2, long.
374. *Ramondia*. Caps. 2-valved, valves bent in at edge, septiferous. Cor. rotate, rather unequal. Stamens approximated, perforated at end. Stigma round.
375. *Verbascum*. Caps. 2-celled. Corolla rotate. Stigma obtuse. Stamens declinate.
376. *Datura*. Caps. 2-celled, 4-valved. Corolla funnel-shaped. Calyx deciduous.
377. *Broomsgansia*. Caps. unarmed. Cal. bursting at side, persistent. Cor. funnel-shaped. Anthers glued together. Stigma or line running down each side of style.
378. *Lisianthus*. Caps. 2-celled, many-seeded. Corolla funnel-shaped, ventricose. Style persistent.
379. *Spigelia*. Caps. 2-celled, double. Corolla funnel-shaped. Stigma simple.
380. *Nicandra*. Berry without juice, 3-5-celled, covered by the calyx, which is inflated. Cor. campanulate, Stamens incurved, distant.
381. *Hyoscyamus*. Caps. 2-celled, with a lid. Corolla funnel-shaped. Stigma capitate.
382. *Nicotiana*. Caps. 2-celled. Corolla funnel-shaped. Stigma emarginate.
383. *Ipomæa*. Caps. 3-celled. Corolla funnel-shaped. Stigma capitate.
384. *Convolvulus*. Caps. 2-celled, 2-seeded. Cor. campanulate. Stigma 2-cleft.
385. *Argyrea*. Berry rounded, juiceless, 4-celled. Cal. colored, persistent, the outer sepals largest. Cor. 5-parted, with a short thick tube surrounding the nectary. Stamens in the mouth of tube thickened, at base hairy. Anthers sagittate.
386. *Nemophila*. Ovary 1-celled, with 2 parietal placentas, each bearing 2 distant ovules. Capsule 1-celled, with fleshy placentas fixed to a longitudinal dorsal axis, otherwise loose, bearing the seeds on their inner surface.
387. *Calystegia*. Ovary half 2-celled, 4-seeded. Cal. 5-parted, inclosed in two leafy bractes. Cor. campanulate, 5-plaited. Stamens nearly equal, shorter than the limb. Stigmas 2, obtuse.
388. *Cobæa*. Caps. obovate, 3-5-celled, 3-5-valved. Seeds imbricated, edged. Cal. 5-cleft, campanulate, 5-cornered, winged. Cor. campanulate, with 5 blunt lobes. Stamens declinate, filaments spiral.
389. *Cantua*. Caps. 3-celled, 3-valved. Seeds winged. Corolla funnel-shaped. Stigma trifid.
390. *Hoitzia*. Caps. of Cantua. Seeds not edged. Cal. double, inner 1-leaved, tubular, outer of 4-8 leaves. Cor. funnel-shaped, 4-5 times as long as calyx, a little incurved. Stamens inserted into base of tube.
391. *Retzia*. Caps. 2-celled. Corolla cylindrical, villous on the outside. Stigma bifid.
392. *Lubinia*. Caps. many-seeded, mucronate, when pressed of 2-4 valves. Cal. 5-parted. Cor. hypocrateriform, with a flat 5-parted equal limb. Filaments attached to middle of tube. Stigma obtuse.
393. *Epacris*. Caps. with placentas attached to a central column. Cal. colored, with many bractes. Cor. tubular, with a beardless limb. Stamens on the petals. Scales 5, hypogynous.
394. *Styphelia*. Drupe juiceless, with a solid bony putamen. Cal. 5-parted, with many bractes. Cor. in a long tube, having within 5 bundles of hairs, and bearded reflexed segments. Filaments exerted.
395. *Lissanthe*. Drupe berried, with a bony solid putamen. Cal. with 2 bractes or more. Cor. infundibuliform, not bearded. Ovarium 5-celled.
396. *Astroloma*. Drupe juiceless, with a solid bony putamen. Cal. with 4 or more bractes. Cor. ventricose, twice as long as calyx, with 5 bundles of hairs inside, and a short spreading bearded limb. Filaments linear included.
397. *Sprengelia*. Caps. with placentas attached to a central column. Cal. colored. Cor. 5-parted, rotate, beardless. Stamens hypogynous. Anthers connate or not. No hypogynous scales.
398. *Andersonia*. Caps. of Sprengelia. Cal. colored, with 2 or more leafy bractes. Cor. the length of the

calyx, the segments of the limb bearded at the base. Stamens hypogynous. Scales 5, hypogynous, sometimes connate.

399. *Lysinema*. Caps. of Sprengelia. Cal. colored, with many bractea. Cor. hypocrateriform, with a tube sometimes 5-partite, with beardless segments bent to the right. Stamens hypogynous. Scales 5, hypogynous.

400. *Monotoca*. Drupe berried. Cal. with 2 bractea. Cor. funnel-shaped, with the limb and throat beardless. Ovary 1-seeded.

401. *Leucopogon*. Drupe berried or juiceless, sometimes crustaceous. Cal. with 2 bractea. Cor. funnel-shaped, with a spreading limb bearded lengthwise. Filaments included. Ovary 2-5-celled.

402. *Stenanthaera*. Drupe juiceless, with a solid bony putamen. Cal. with many bractea. Cor. tubular, longer than the calyx, ventricose, with a short spreading half-bearded limb. Filaments included, fleshy, broader than the anthers.

403. *Azalea*. Caps. 5-celled. Corolla campanulate. Stigma obtuse.

404. *Chamaeledon*. Caps. 2-celled, opening at the end. Cal. 5-parted, equal. Cor. campanulate, 5-cleft, unequal. Stamens inserted into the base of cor. equal, straight, included. Anthers opening lengthwise. Style straight.

405. *Brexia*. Cal. short, with 5 rounded lobes. Petals ovate, spreading, rounded. Filam. dilated at base. Bristles shorter than the stamens, about the ovarium.

406. *Ophiorhiza*. Caps. 2-celled, 2-parted. Corolla funnel-shaped, villous at mouth, with acute segments. Stigma bifid.

407. *Allamanda*. Caps. 1-celled, lens-shaped, 2-valved, the valves being boat-shaped. Seeds imbricated.

408. *Theophrasta*. Caps. 1-celled, very large. Corolla campanulate. Stigma acute.

409. *Clavija*. Caps. 1-celled, very large. Corolla rotate, with 5 prominences in the centre. Filaments 5, united into a tube at the base of the corolla.

4. Flowers monopetalous, inferior. Seeds in a follicle.

410. *Vinca*. Cal. 5-cleft. Cor. hypocrateriform, plaited at the orifice, with flat segments, truncate at the end. Filaments at the end dilated into concave scales. Glands 2 at base of ovary.

411. *Nerium*. Cor. hypocrateriform, crowned at the mouth with little lacerated appendages, segments of cor. twisted. Filaments inserted into middle of tube. Anthers sagittate, adhering to the stigma by the middle. Little teeth at the base of the calyx outside the corolla.

412. *Wrightia*. Cor. hypocrateriform. Mouth crowned by 10 divided scales. Stam. exerted. Filaments inserted into throat. Anthers sagittate, adhering to the stigma by the middle. Scales 5-10, inserted into base of calyx outside of corolla, some hypogynous.

413. *Echites*. Cor. hypocrateriform, with segments of the limb unequal-sided. Ovaries 2. Style 1, filiform. Follicles slender.

414. *Ichnocarpus*. Cor. hypocrateriform, with segments of limb halved. Ovaries 2. Style 1, filiform. Stigma ovate ovate, acuminate. Filaments 5, hypogynous, alternate with the stamens.

415. *Plumieria*. Cor. funnel-shaped, with a flat limb, and ovate-oblong oblique segments. Filaments from the middle of tube. Anthers conniving. Styles scarcely any.

416. *Strophanthus*. Cor. funnel-shaped, with segments caudate, mouth crowned with 10 entire scales. Stam. inserted into middle of tube. Anthers sagittate, aristate, or mucronate. Style filiform, dilated at end. Stigma cylindrical.

417. *Cameraria*. Cal. very small. Cor. funnel-shaped or hypocrateriform, with a long tube inflated at both ends, and a flat limb, with 5 lanceolate oblique segments. Filaments in the middle of tube. Ovaries, with appendages at their sides. Styles scarcely any.

418. *Tabernaemontana*. Cor. hypocrateriform. Stamens included. Anthers sagittate. Ovaries 2. Style filiform. Stigma dilated at base, bifid. Seeds immersed in pulp.

419. *Amsonia*. Cor. funnel-shaped, closed at the orifice, with a 5-lobed limb. Stigma capitate, surrounded by a membranous angle. Seeds obliquely truncate, naked.

5. Flowers monopetalous, inferior. Seeds in a drupe or berry.

420. *Cerbera*. Cal. persistent, 5-parted. Cor. funnel-shaped, with a clavate tube and 5-corned throat, with 5 scales, segments of limb oblique obtuse. Stigma fringed, bifid. Drupe bony, 2-celled, 4-valved. Seeds 1-2, covered with a fleshy skin.

421. *Tectona*. Cal. campanulate, with 5-6 lobes. Cor. funnel-shaped, the length of calyx, with a short tube, and 5-6-parted crenulate limb. Stamens under the throat of corolla. Drupe globose in the inflated calyx, 2-4-celled.

422. *Caldasia*. Cal. tubular. Cor. tubular, 2-lipped, with emarginate segments. Filaments declinate. Drupe 3-angular, 3-valved, 3-seeded.

423. *Bumelia*. Cal. 5-parted, very small. Cor. campanulate, 5-cleft, or hypocrateriform, with teeth between the divisions of limb. Nectary a 5-leaved crown, adhering to the tube of the corolla. Drupe ovate or globose.

424. *Chrysophyllum*. Cal. 5-parted, small. Cor. campanulate, short. Filaments on the tube connivent. Style very short. Stigma obtuse, 5-cleft. Berry 10-celled, with solitary shining seeds.

425. *Sideroxylon*. Cal. 5-toothed. Cor. 5-cleft. Scales of nectary five. Stigma simple. Berry 5-seeded.

426. *Jacquinia*. Cal. 5-leaved. Cor. with a campanulate ventricose tube, and 10-cleft limb. Stamens hypogynous. Anthers hastate. Stigma capitate. Berry roundish, 1-celled, 1-seeded.

427. *Achras*. Cal. 5-6-parted. Cor. ovate, 5-6-cleft, with as many scales on the throat. Berry or apple teated, 1-celled. Seeds solitary, with a marginal hilum, and a claw at the end.

428. *Cordia*. Cal. tubular, 4-5-toothed. Cor. funnel-shaped, 4-5-cleft. Style dichotomous. Stigmas 4. Drupe covered by the calyx, 1-4-celled. Cotyledons plaited.

429. *Varronia*. Cal. tubular, 5-toothed. Cor. tubular, with a 5-cleft, spreading, plaited limb. Style dichotomous. Stigmas 4. Drupe 4-celled, 4-seeded.

430. *Ehretia*. Cal. deeply 5-cleft. Cor. funnel-shaped, with a naked throat. Stamens exerted. Style semi-bifid. Berry 2-celled, 2-seeded.

431. *Bouyeria*. Cal. campanulate, half 5-cleft, very small. Cor. longer than calyx, with a plaited limb. Stam. as long as cor. Stigma obtuse edged. Berry roundish, 1-celled, with 4 convex seeds.

432. *Ellisia*. Cal. 8-parted. Cor. funnel-shaped. Stam. inserted in base of corolla. Stigma simple or bifid. Berry dry, scrotiform, 2-valved, 2-celled, in an enlarged stellate calyx. Seeds globose, black, dotted.

433. *Sersalisia*. Cal. 5-parted. Cor. 5-cleft. Stamens 5, sterile, scale-like, with as many alternate fertile ones. Ovary 5-celled. Stigma undivided. Berry 1-5 seeded. Seeds with a crustaceous skin, and longitudinal hilum.

434. *Mangilla*. Cal. very small, 5-parted. Cor. rotate, 5-parted. Scales of nectary none. Drupe or berry 1-celled, 1-seeded.

435. *Ardisia*. Cal. 5-parted. Cor. hypocrateriform, with a reflexed limb. Anthers large, erect. Stigma simple. Drupe fleshy, superior, 1-seeded.

436. *Arduina*. Cor. funnel-shaped, curved. Stigma bifid. Berry 2-celled. Seeds solitary, oblong.

437. *Strychnos*. Cor. tubular, 5-cleft. Berry 1-celled, with a woody coat. A Contorta.

438. *Carissa*. Cal. short. Cor. tubular. Stamens included. Berry 2-celled. Cells 1-2 or many-seeded. A Contorta.

439. *Paderia*. Cal. 5-toothed. Cor. infundibuliform, 5-lobed, hairy within. Style bipartite. Berry brittle, shining, 2-seeded.

440. *Gelsemium*. Cal. 5-toothed. Cor. infundibuliform. Limb spreading, 5-lobed, nearly equal. Caps. compressed, flat, 2-partite, 2-celled. Seeds flat, attached to the margins of the valves.

441. *Rauwolfia*. Cor. tubular, globose at base. Berry succulent, 2 seeded. A Contorta.

442. *Vallesia*. Cal. very small, 5-fid. Cor. hypocrateriform, or infundibuliform, with a long slender tube, an inflated throat, and a flat limb with 5 lanceolate spreading segments. Stamens inserted in the throat. Drupes 2, 1-celled, 1-seeded. Nut fibrose, striated.
443. *Bæobotrys*. Cor. tubular, 5-cleft. Calyx double, superior: outer 2-leaved, lower campanulate, 5-toothed. Berry 1-celled, many-seeded.
444. *Solandra*. Cal. bursting. Cor. clavate, funnel-shaped, very large. Berry 4-celled, many-seeded.
445. *Cestrum*. Cal. funnel-shaped. Segments acute, edged. Stamens with or without a tooth. Anthers 4-cornered. Berry 1-2-celled. Seeds few, angular.
446. *Atropa*. Cor. campanulate. Stamens distant. Berry globose, 2-celled, sitting on the calyx.
447. *Mandragora*. Cal. turbinate. Cor. campanulate. Filaments dilated at base. Ovary with 2 glands. Berry fleshy, solid. Seeds reniform.
448. *Physalis*. Cor. campanulate, rotate. Stamens conniving. Berry within the inflated calyx, 2-celled.
449. *Saracha*. Cor. rotate, campanulate. Berry 1-celled. Receptacle fleshy.
450. *Lycium*. Cor. tubular, with a closed orifice. Filaments bearded. Berry 2-celled, many-seeded.
451. *Solanum*. Cal. persistent. Cor. rotate or campanulate, 5-lobed, plaited. Anthers in some degree united, opening by a double pore at the end. Berry 2-celled, many-seeded.
452. *Nycterium*. Cal. 4-5-cleft. Cor. rotate, unequal. Anthers declinate, conniving, the lowest longest. Berry 2-celled, many-seeded.
453. *Capsicum*. Cor. rotate. Berry without juice.
454. *Leca*. Cor. monopetalous. Nectary 1-leaved, placed on the tube of the corolla, 5-cleft, erect. Berry 5-seeded, inferior.

6. *Flowers monopetalous, superior. Seeds in a capsule.*

455. *Spermadictyon*. Caps. inferior, 1-celled, 5-valved. Seeds 5, with a netted coat. Cor. funnel-shaped. Stigma 5-cleft.
456. *Dentella*. Cal. 5-parted, superior. Cor. funnel-shaped, with 3-toothed divisions. Caps. 2-celled, many-seeded.
457. *Macrocraemum*. Cal. campanulate, cup-shaped. Cor. campanulate or funnel-shaped. Caps. 2-celled. Seeds imbricated.
458. *Exostemma*. Cal. campanulate, 5-toothed. Cor. funnel-shaped. Limb 5-parted, usually hairy. Caps. oblong, rounded, 2-celled, 2-partite. Seeds numerous, with a membranous edge.
459. *Burchellia*. Heads of flowers in an involucre. Cor. clavate, funnel-shaped, with a 5-cleft short limb and a beard-like orifice. Segments before expansion twisted together. Stamens inserted above the middle of the tube. Anthers sessile, included. Stigma clavate. Berry crowned by the deeply 5-cleft calyx, 2-celled, many-seeded.
460. *Rondeletia*. Cor. funnel-shaped. Tube ventricose at top. Segments rounded, flattish. Caps. round, crowned, 2-celled. Seeds several or solitary.
461. *Coutarea*. Cal. 6-leaved. Cor. large, funnel-shaped, 6-cleft, with an incurved ventricose tube. Filaments inserted at base of tube. Caps. 2-celled, 2-valved, many-seeded. Seeds with a membranous edge.
462. *Portlandia*. Cal. 5-leaved. Cor. clavate, funnel-shaped. Segments spreading, deflexed. Caps. 5-cornered, retuse, crowned, 2-celled, 2-valved. Valves doubled, 2-cleft, many-seeded.
463. *Campanula*. Cor. campanulate, closed at bottom with stamiferous valves. Stigma 3-5-cleft. Caps. inferior, opening by lateral pores.
464. *Lobelia*. Cor. with the tube split on one side, the limb 2-lipped, 5-parted. Stigma 2-lobed, sometimes entire. Caps. 2-3-celled, 2-valved at end.
465. *Phyteuma*. Cor. at first rounded conical, afterwards 5-parted with linear weak segments. Stigma 2 or 3-cleft. Caps. 2-3-celled, inferior.
466. *Trachelium*. Cor. funnel-shaped. Style long. Stigma globose. Caps. 3-celled, inferior.
467. *Roelea*. Cor. funnel-shaped, closed at bottom with stamiferous valves. Stigma 2-fid. Caps. nearly 2-celled, cylindrical, inferior.
468. *Goodenia*. Cor. labiate, 5-cleft, waved, longitudinally split, pushing forth the stamens. Anthers linear. Stigma urceolate, ciliated. Caps. 1-2-celled, 2-valved, many-seeded. Seeds imbricated.
469. *Euthales*. Cal. tubular, 5-cleft, equal. Cor. split at the end, with a 2-lipped limb. Anthers distinct. Style undivided. Stigma 2-lipped. Caps. 4-valved, 2-celled at base.
470. *Dampiera*. Cor. 2-lipped. Tube split on one side. Segments of upper lip with an auricle upon the inner edge. Anthers cohering. Covering of stigma naked.
471. *Samolus*. Cor. hypocrateriform, 5-cleft, with scales between the divisions. Stamens inserted into the tube. Caps. 1-celled, 5-toothed, many-seeded.
472. *Veleia*. Cal. 3-5-leaved, unequal. Tube split at end with a 2-lipped limb. Anthers distinct. Style undivided. A gland between the two front stamens.

7. *Flowers monopetalous, superior. Seeds in a drupe or berry.*

473. *Scævola*. Cor. 1-petalous, with the tube divided lengthwise. Limb 5-cleft, lateral. Drupe inferior, 1-seeded. Nect. 2-celled.
474. *Caprifolium*. Cal. 4-5-toothed or entire. Tube of cor. long, with a 5-cleft, regular, or 2-lipped limb. Stamens length of cor. Stigma globose. Berry distinct, 3-celled, many-seeded.
475. *Lonicera*. Cal. 5-toothed. Cor. tubular, 5-cleft, irregular. Berry inferior, 2-3-4-celled, many-seeded.
476. *Symphoria*. Cal. 4-toothed. Cor. trifid, nearly equal. Berry crowned, 4-celled, 4-seeded, 2 cells sometimes abortive.
477. *Diervilla*. Cal. oblong, 5-cleft. Cor. twice as long, funnel-shaped, 5-cleft, spreading. Caps. oblong, 4-celled, many-seeded.
478. *Triosteum*. Cal. 5-cleft. Cor. scarcely longer, tubular, 5-lobed. Berry 3-celled, 3-seeded, inferior.
479. *Coffea*. Cal. increasing, 5-toothed, teeth deciduous. Cor. hypocrateriform. Stamens above the tube. Anthers sagittate. Berry 2-seeded. Seeds with an arillus, on one side convex, on the other flat.
480. *Chiococca*. Cor. funnel-shaped, equal. Berry compressed, double, 2-seeded. Seeds oblong, compressed.
481. *S'issa*. Cor. funnel-shaped, fringed at the throat, with segments of the limb 3-lobed. Berry 2-seeded.
482. *Canthium*. Cal. 5-cleft. Cor. 5-cleft, spreading. Style elevated. Stigma capitate. Berry coated, 2-celled, 2-seeded. Seeds on one side convex, on the other flat, with a longitudinal furrow. Prickly.
483. *Psychotria*. Cal. 5-toothed, crowning. Cor. funnel-shaped. Berry globose or oval. Seeds 2, furrowed, bony.
484. *Hamelia*. Cor. 5-cleft. Berry 5-celled, many-seeded. Racemes divided. Flowers 1-sided.
485. *Posoqueria*. Cal. turbinate. Cor. hypocrateriform, with a long cylindrical curved tube which is dilated at end, with long narrow reflexed segments. Stamens exserted.
486. *Vanguiera*. Cor. campanulate, globose, with a hairy throat. Stigma of 2 lips. Berry apple-shaped, 4-5-celled, 4-5-seeded.
487. *Gardenia*. Segments of the cal. vertical or oblique. Cor. at first twisted, funnel-shaped, 5-9-cleft, with a tube usually long. Style elevated. Stigma 2-lobed. Berry 2-celled, many-seeded. Seeds in a double row.
488. *Genipa*. Cal. tubular or turbinate, entire. Cor. hypocrateriform, with a large 5-parted limb. Anthers sessile in the throat, exserted. Stigma clavate, entire, or simple. Berry large, fleshy, truncated at the end, 2-celled, many-seeded.
489. *Oryanthus*. Cal. contracted at top. Cor. funnel-shaped, with a very long rounded tube, and a 5-parted limb, with very acute lobes. Anthers exserted.
490. *Randia*. Cal. 5-parted, with linear-lanceolate, twisted sepals. Cor. hypocrateriform, tube not much longer than calyx. Stigma 2-lobed, with oblong unequal lobes. Berry half 2-celled, with an incomplete partition; crowned with the tubular calyx. Seeds many.

491. *Mussaenda*. Cor. funnel-shaped. Stigmas 2, thickish. Berry oblong, 2-celled, many-seeded. Seeds in 4 rows. Stamens in the inside of the tube.
 492. *Pinckneya*. Sepals unequal, one or two of them foliaceous. Cor. a long tube. Filaments in the base of the tube. Caps. 2-valved, valves bearing the divisions in the middle.
 493. *Eriithalis*. Cal. urceolate. Cor. 5-parted, with recurved segments. Berry 10-celled, 10-seeded.
 494. *Webera*. Cor. funnel-shaped, spreading. Stamens included. Stigma clavate. Berry rounded, two-celled.
 495. *Plocama*. Cal. 5-toothed. Cor. campanulate, 5-cleft. Berry 3-celled, with 1-seeded cells.
 496. *Morinda*. Flowers collected in a globe above a spherical receptacle. Cal. 5-toothed. Cor. funnel-shaped, 5-cleft, spreading. Berries aggregate, on account of their mutual compression angular.
 497. *Cephaelis*. Flowers headed in an involucrem. Cal. 5-toothed. Cor. tubular. Stigma 2-parted. Berry 2-seeded. Receptacle chaffy. Involucrem 1.5-leaved.
 498. *Sarcocephalus*. Flowers in a naked head, 5-parted. Stigma clavate. Fruit united into a great fleshy tessellated berry.

8. *Flowers polypetalous, inferior. Seeds in a drupe, berry, or berried capsule.*

499. *Hirtella*. Pet. 5. Filam. very long, persistent, spiral. Berry 1-seeded. Style lateral.
 500. *Triphasia*. Flowers with their parts ternary. Stamens distinct. Anthers sagittate. Berry 3-celled 3-seeded.
 501. *Vitis*. Petals cohering at the end like a calyptra, withering. Berry 5-seeded.
 502. *Ampelopsis*. Cal. entire. Petals cohering at the end, withering. Stigma capitate. Ovary immersed in the disk, 2-4-seeded.
 503. *Rhamnus*. Cal. campanulate, 4-5-cleft. Cor. scales protecting the stamens, inserted into the calyx. Stigmas 1-2-5-cleft. Berry 3-4-seeded.
 504. *Enoptia*. Cal. urceolate, 5-cleft. Petals 5. No fleshy discus. Drupe juicy, 2-celled, one cell being usually abortive, 1-seeded.
 505. *Paliurus*. The flowers of *Zizyphus*. Styles 3. Drupe dry, 3-celled, surrounded by a membranous orbicular wing.
 506. *Zizyphus*. Cal. spreading, 5-cleft. Petals 5. Discus fleshy, orbicular, surrounding the ovary. Styles 2. Drupe with a 1 or 2-seeded nut. Flowers axillary.
 507. *Celastrus*. Cor. 5 petals, spreading. Caps. 3, angular, 3-celled. Seeds with an arillus.
 508. *Scnacia*. Cal. very small, 5-toothed. Cor. 5 petals. Caps. spherical, stalked, 2-valved, 4-seeded. Seeds angular, naked.
 509. *Euonymus*. Pet. 5. Caps. 5-cornered, 3-celled, 3-valved, colored. Seeds with an arillus.
 510. *Ceanothus*. Pet. 5, bagged, vaulted. Berry dry, 3-celled, 3-seeded.
 511. *Staavia*. Flowers aggregate. Stamens inserted into the calyx. Styles 2, united. Berry 5-seeded, coated. Receptacle chaffy, villous.
 512. *Pomaderris*. Cal. turbinate. Petals arched, scale-like, sometimes none. Style 3-cornered. Stigmas 3, capitate. Caps. of 3 papery divisions.
 513. *Mangifera*. Pet. 5. Drupe reniform.
 514. *Schrebera*. Drupe dry, with a 2-celled nut. Nectary an elevated edge.
 515. *Billardiera*. Petals 5, alternate with the sepals. Nectary O. Stigma simple. Berry many-seeded
 516. *Elæodendrum*. Sepals 5-10, with round concave scales. Cor. 5-parted. Segments ovate, lanceolate, concave. Nect. linear, subulate, petal-like. Drupe dry, with a 2 or 3-celled nut. Putamen thick, hard, furrowed.

9. *Flower polypetalous, inferior. Seeds in a capsule.*

517. *Diosma*. Cal. 5-parted. Petals and stamens inserted in the calyx. Nect. of 5 plaits. Ovary crowned. Caps. 5-valved. Each end with an elastic arillus.
 518. *Adenandra*. Cal. 5-parted. Pet. and stamens inserted in the calyx. Stamens 10, of which every other one is sterile. Anthers with a gland at end.
 519. *Baryosma*. Cal. 5-leaved. Petals 10, unequal, inserted in the receptacle. Nect. a 5-lobed gland inserted on the receptacle.
 520. *Agathosma*. Cal. 5-parted. Petals 10, unequal, inserted in the calyx. Nect. 5-lobed, inserted in calyx.
 521. *Nauclea*. Cal. about 5-toothed. Cor. funnel-shaped. Caps. 3-cornered, 2-celled, many-seeded. Flowers in a globose head upon a common pilose receptacle.
 522. *Pitosporum*. Cal. deciduous. Petals 5, conniving in a tube. Caps. 2-5-celled, 2-5-valved. Seeds pulpy.
 523. *Lasiopetalum*. Cal. 5-leaved. Petals minute, gland-like. Filaments 5, separate. Anthers opening by two pores inwards. Stipules none.
 524. *Thomasia*. Cal. persistent, veiny. Pet. 5, very small or O. Filam. united at base. Anthers opening laterally. Stipules leafy.
 525. *Seringia*. Cal. withering. Pet. O. Filam. 10, every other one barren. Anthers opening at their back. Stipules small, deciduous.
 526. *Butneria*. Pet. 5. Nect. 5-leaved. Filaments inserted into the end of the nectary. Caps. of 5 divisions, mucicated.
 527. *Agenia*. Cal. 5-parted. Pet. 5, connected at end into a star, with their claws slender, bent into the form of a crown. Glands 5, stamen-shaped. Nectary cup-shaped. Caps. depressed, 5-furrowed, 5-celled, 5-valved. Valves bifid.
 528. *Calodendrum*. Cal. 5-parted, short. Petals lanceolate, stalked. Stam. 5, sterile, petal-shaped. Caps. 5-angular, 5-celled, 5-valved, with 2-seeded cells.
 529. *Toddalia*. Cal. 5-cleft. Petals 5. Stigma capitate. Caps. berried, 5-celled. Cells 2-seeded.
 530. *Bursaria*. Cal. inferior, 5-toothed. Pet. 5, linear. Stigma simple. Caps. cordate, compressed, 2-partible, 2-seeded. Seeds reniform.
 531. *Cedrela*. Cal. withering. Cor. of 5 petals, funnel-shaped, at base united $\frac{1}{2}$ with the receptacle. Caps. woody, 5-celled, 5-valved. Seeds with a membranous wing.
 532. *Hovenia*. Cal. 5-parted. Pet. 5, convolute. Stigma 3-fid. Caps. 3-celled, 3-valved. Cells 1-seeded.
 533. *Brunia*. Flowers aggregate. Cal. superior, 5-parted. Filaments inserted into the claws of the petals. Stigma 2-fid. Caps. small, 2-celled.
 534. *Brossæa*. Cal. fleshy, superior. Cor. conical, truncated. Caps. 5-furrowed, 5-celled, covered by the persistent calyx, with 5-fissures.
 535. *Itea*. Cal. 5-cleft, campanulate. Pet. 5, linear, reflexed, inserted into calyx. Stigma capitate, 2-lobed. Caps. 2-celled, 2-valved, with the valves bent inwards.
 536. *Cyrtilla*. Cal. very small, turbinatè, 5-parted, superior. Pet. 5, stellate, stiffish. Styles 2-fid. Berry dry, 2-celled. Seeds solitary, attached by a little cord.
 537. *Claytonia*. Cal. 2-valved. Pet. 5. Stigma 3-fid. Caps. 3-valved, 1-celled, 3-seeded.
 538. *Impatiens*. Cal. 2-leaved. Pet. 5, irregular, with one cucullate. Anthers at first subconnate. Caps. superior, 5-valved.
 539. *Savagesia*. Pet. 5, fringed. Sepals 5. Nectary 5-leaved, alternate with the petals. Caps. 3-celled, 3-furrowed, 3-valved, with the edges bent inwards.
 540. *Viola*. Sepals 5. Petals 5, irregular, connatè behind. Anthers adhering at the end by a membrane, or distinct. Caps. 3-valved, 1-seeded.
 541. *Ionidium*. Sepals 5, produced at their base. Cor. 2-lipped, without a spur. Anthers usually distinct. Stigma simple. Caps. 1-celled, 3-valved.

10. *Flowers polypetalous, superior.*

542. *Phytica*. Cal. 5-parted, turbinate. Pet. O. Scales 5, protecting the stamens. Caps. 3-coccos, inferior.
543. *Plectronia*. Cal. turbinate, 5-toothed, persistent, closed by 5 villous scales. Pet. 5, inserted in the throat of calyx. Berry 2-celled, 2-seeded.
544. *Conocarpus*. Pet. 5 or O. Seeds naked, solitary. Flowers in heads.
545. *Cyphia*. Cal. 5-cleft, turbinate. Petals linear, dilated at base, connivent, spreading at end. Filaments hairy, cohering. Anthers distinct. Stigma cernuous, hollow, gibbous.
546. *Lightfootia*. Sepals 5. Petals thin, bottom closed by stamen-bearing valves. Stigma 3-5-cleft. Caps. 3-5-celled, 3-5-valved, $\frac{1}{2}$ -superior.
547. *Jasione*. Flowers in heads. Common involucreum 10-leaved. Petals 5, erect. Anthers oblong, cohering at base. Stigma bifid.
548. *Lagocchia*. Umbel simple. Common involucre about 8-leaved, partial 4-leaved, finely pinnated. Cal. 5-cleft, with many-cut fine segments. Petals 2-fid. Seeds crowned by the calyx.
549. *Hedera*. Petals 5, oblong. Berry 5-seeded, surrounded by the calyx.
550. *Ribes*. Petals 5, and stamens inserted into the calyx. Style 2-fid. Berry many-seeded, inferior.
551. *Gronovia*. Petals 5, and stamens inserted into the campanulate calyx. Berry dry, 1-seeded, inferior.

11. *Flowers incomplete, inferior.*

552. *Achyranthes*. Sepals 5. Scales 5, connate at the base into a tube, at the end fringed and alternate with the stamens. Stigma 2-fid. Seed solitary, crowned by the conniving sepals.
553. *Phloxeris*. Sepals 5, irregular. Stamens 5, united at the base into a little cup shorter than the ovary. Anthers 1-celled. Style 1. Utricle 1-seeded, without valves.
554. *Desmochata*. Sepals 5. Stamens 5, united at base with a very small cup with neither teeth nor chaff between. Stigma capitate. Utricle 1-seeded.
555. *Illecebrum*. Sepals 5, vaulted at the end. Pet. O. Stigma simple or bifid. Caps. 5-valved, 1-seeded.
556. *Alternanthera*. Sepals 5. Stamens 5, united into a little cup, with or without intermediate teeth, one or more of the stamens usually abortive. Anthers 1-celled. Stigma capitate.
557. *Paronychia*. Cal. nearly 5-parted, colored inside. Scales or petals 5, linear. Style 2-fid. Stigmas 2. Caps. 1-celled, 5-valved.
558. *Chenolea*. Cal. globose, fleshy, concave. Cor. O. Filam. inserted into the base of calyx. Stigmas 2, spreading. Caps. round, depressed, 1-celled, 1-seeded.
559. *Anychia*. Cal. connivent, with oblong segments, bagged at the end. Pet. O. Filam. distinct, with no setae between. Stigmas 2, oblong. Caps. an utricule, not opening. Seed 1, reniform.
560. *Aëria*. Sepals 5, with 2-3-bractæe, oblong; on the outside white, hairy; inside smooth. Stamens 10, alternately barren, inserted into a little cup at the base. Style larger, filiform. Stigma bifid.
561. *Lestibodesia*. Sepals 5. Stamens 5, united into a little cup without teeth. Anthers 2-celled. Ovary many-seeded. Style short or none. Stigmas 3-4, filiform, recurved. Caps. opening transversely.
562. *Rhagodia*. Flowers polygamous. Perianth 5-parted. Stamens 5 or fewer. Style bifid. Grain depressed, fleshy, surrounded by the perianth.
563. *Deeringia*. Perianth 5-parted. Stamens united at base into a small cup. Anthers 2-celled. Style 3-parted. Berry many-seeded.
564. *Trianthema*. Sepals oblong, colored inside. Stamens 5-10-12, with capillary filaments. Ovary half-superior. Style 1 or 2, filiform. Stigmas simple. Caps. oblong, truncate, cut round.
565. *Celosia*. Sepals 3, like a 5-petalous corolla. Stam. united at base by a plaited nectary. Caps. horizontally opening. Style 2-3-cleft.
566. *Chenoprena*. Sepals 5, colored: outer 3 conniving, keeled. Pet. 5, rude, villous. Nect. cylindrical, 5-toothed. Caps. cut round, 1-seeded. Style half-bifid.
567. *Mollia*. Sepals 5. Pet. 5, emarginate. Style simple. Caps. 3-cornered, 1-celled, 3-valved, many-seeded.
568. *Glauca*. Cal. 1-leave-1, colored, 5-lobed. Cor. O. Caps. 1-celled, 5-valved, 5-seeded, surrounded by a calyx.

12. *Flowers incomplete, superior.*

569. *Thesium*. Cal. 1-leaved, into which the stamens are inserted. Nect. inferior, 1-seeded, surrounded by the persistent calyx.
570. *Heliconia*. Spathes universal and partial. Cal. O. Cor. 3 petals, superior. Nect. 2-leaved. Stigma 1. Caps. 3-celled, with 1-seeded cells.
571. *Strelitzia*. Spathes universal and partial. Cal. O. Cor. superior, 3 petals, the larger segments hastate. Nect. 3-leaved, surrounding the stamens. Stigmas 3. Caps. 3-celled. Cells many-seeded.

Order 2. DIGYNIA.



5 Stamens. 2 Styles.

1. *Flowers monopetalous, inferior. Fruit a follicle or capsule. (ASCLEPIADEÆ.)*

572. *Apocynum*. Cor. campanulate. Filaments 5, alternate with the stamens. Style none. Stigma broad. Follicles long, linear.
573. *Melodinus*. Cal. campanulate, 5-toothed. Cor. hypocrateriform. Limb spreading, with falcate, crenulate segments. Corona 5-cleft, with short, stellate, torn divisions. Stigmas 2. Fruit a fleshy globose, 2-celled, many-seeded berry.
574. *Periploca*. Anthers bearded at back. Pollen-masses solitary, made up of 4 confluent ones. Stigma blunt. Follicles cylindrical, divaricating, smooth. Seed comose.
575. *Cryptostegia*. Cor. funnel-shaped. Tube with two included bifid scales, alternate with the divisions of the limb. Stamens included, inserted in the base of the tube. Filaments distinct. Anthers cohering with the stigma by their base. Glands 5, spatulate. Pollen granular, simple.
576. *Hemidesmus*. Cor. with 5 blunt scales under the sinuses. Anthers free from the stigma, simple at end. Stigma blunt. Follicles cylindrical, much spreading, smooth. Seeds comose.
577. *Secamone*. Corona 5-leaved. Pollen-masses 20, smooth, erect, fixed by fours to the point of each corpuscle of the stigma. Stigma contracted at end.
578. *Microtoma*. Tube of cor. inflated, angular, shorter than the limb. Scales inserted into the middle of the tube below the sinuses. Anthers terminated by a membrane, sagittate. Pollen-masses compressed, pendulous. Stigma with a little point.
579. *Sarcostemma*. Cor. rotate. Pollen-masses pendulous. Stigma blunt. Seeds comose.
580. *Damia*. Cor. rotate, with a short tube. Outer corona 10-parted, short. Pollen-masses pendulous, compressed. Stigma blunt. Seeds comose.
581. *Cynanchum*. Cor. rotate, 5-parted. Pollen-masses inflated. Stigma with a little point. Follicles smooth.
582. *Ozystalma*. Cor. spreading, rotate, with a short tube. Columna exerted. Crown 5-leaved, with compressed, acute, undivided leaflets. Pollen-masses compressed, pendulous, fixed by a narrow end. Stigma blunt. Follicles smooth. Seeds comose.
583. *Gymnema*. Cor. 5-cleft. Scales or little teeth of the orifice 5, inserted in the sinuses. Crown none. Masses of pollen erect, fixed by the base. Follicle slender, smooth.

584. *Calotropis*. Cor. with an angular tube: the angles saccate inside. Crown with carinate leaflets, united lengthwise to the tube of the filaments. Pollen-masses pendulous, fixed by the narrow end. Stigma blunt.
585. *Dischidia*. Cor. urceolate, 5-cleft. Corona with subulate, spreading, recurved segments. Pollen-masses erect, fixed by the base. Stigma blunt. Follicles smooth. Seeds comose.
586. *Xysmalobium*. Cor. 5-cleft, spreading. Corona 10-parted in a 'single row: the 5 divisions next to the anthers fleshy, round, simple within, the 5 others small. Pollen-masses pendulous, with lax connecting processes. Stigma blunt.
587. *Gomphocarpus*. Corona 5-leaved, the segments simple within. Pollen-masses compressed, pendulous, fixed by a fine end. Stigma depressed, blunt. Follicles ventricose, covered with innocuous spines. Seeds comose.
588. *Asclepias*. Corona 5-leaved, with a process on the inside. Pollen-masses fixed by a fine end. Stigma depressed, blunt.
589. *Gonolobus*. Cor. rotate, 5-parted. Corona shield-shaped. Anthers opening across, terminated by a membrane. Stigma flat, depressed.
590. *Pergularia*. Cor. hypocrateriform, with an urceolate tube. Pollen-masses erect, fixed by their base. Stigma blunt. Follicles ventricose, smooth. Seeds comose.
591. *Marsdenia*. Cor. urceolate, 5-cleft, sometimes rotate. Pollen-masses erect, fixed by the base. Follicles smooth. Seeds comose.
592. *Hoya*. Cor. 5-cleft. Pollen-masses fixed by the base, conniving, compressed. Stigma depressed, with an obtuse wart. Follicles smooth. Seeds comose.
593. *Ceropegia*. Outer corona short, 5-lobed; inner 5-leaved, with ligular undivided leaflets. Pollen-masses fixed by their base with simple edges. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
594. *Stapelia*. Cor. rotate, 5-cleft, fleshy. Column of fructification exserted. Pollen-masses fixed by the base. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
595. *Piaranthus*. Cor. fleshy. Outer corona none. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt.
596. *Huernia*. Accessory segments of cor. tooth-like. Leaflets of the inner corona from a gibbous base subulate, undivided, alternate with the outer segments. Pollen-masses fixed by the base, with one edge cartilaginous, pellucid. Stigma blunt. Follicles cylindrical, smooth. Seeds comose.
597. *Brachystelma*. Cor. campanulate, with angular recesses. Column included. Crown 1-leaved, 5-cleft, with the lobes opposite the anthers, simple at back. Anthers without a membrane at the end. Pollen/masses erect, inserted by the base.
598. *Caraltuma*. Cor. rotate, deeply 5-cleft. Cal. of fructification exserted. Pollen-masses erect, fixed by the base with simple edges. Stigma blunt. Follicles slender, smooth. Seeds comose.

2. Flowers monopetalous, inferior. Fruit a capsule.

599. *Suertia*. Caps. of 1 cell. Cor. wheel-shaped, with 2 nectariferous pores at the base of each segment.
600. *Gentiana*. Caps. of 1 cell. Cor. tubular at the base, destitute of nectariferous pores.
601. *Hydrolea*. Caps. 2-valved, 2-celled. Cor. rotate, campanulate. Stamens inserted in the tube.
602. *Falkia*. Cal. inflated, 5-parted, 5-angular. Cor. campanulate, emarginate, crenate. Styles spreading. Stigma globose, woolly. Seeds 4, globose, with an arillus in the bottom of the calyx.
603. *Dichondra*. Cal. 5-parted, with spatulate segments. Cor. short, campanulate, 5-parted. Stigma peltate, capitate. Caps. compressed, 2-celled, 2-seeded. Seeds round.

3. Flowers pentapetalous, inferior.

604. *Velexia*. Cal. slender, 5-toothed. Cor. of 5 small petals. Caps. 1-celled, at the end 4-valved. Seeds many, attached to a filiform central receptacle.
605. *Bumalda*. Cal. 5-parted. Petals 5. Styles villous. Caps. 2-celled, with 2 bractes.
606. *Heuchera*. Petals 5. Caps. 2-celled, with 2 bractes.
607. *Cussonia*. Invol. O. Cal. 1-leaved, truncated, crenate. Pet. 5, oblong, acute. Fruit twin, 2-celled, crowned by the calyx and styles.
608. *Anabasis*. Cal. 3-leaved. Pet. 5. Berry 1-seeded, surrounded by the calyx.
609. *Salsola*. Caps. closed, imbricated in the fleshy calyx. Seed with a spiral embryo.
610. *Kochia*. Cal. 1-leaved, campanulate, in the fruit expanding into a leafy rim resembling 5 petals. Cor. O. Stigmas 2-3, long. Caps. 1-celled, 1-2-seeded. Seed incurved.
611. *Chenopodium*. Seed lenticular, truncated, superior.
612. *Beta*. Seed kidney-shaped, imbedded in the fleshy calyx.
613. *Bosea*. Cal. 5-leaved. Cor. O. Berry 1-seeded.
614. *Herniaria*. Caps. closed, membranous, invested with the calyx. Stam. with 5 imperfect filaments.
615. *Ulmus*. Caps. closed, membranous, compressed, bordered, superior.
616. *Planera*. Cal. membranous, subcampanulate, 4-5-cleft. Cor. O. Stigmas 2, oblong, glandular, spreading. Caps. globose, membranous, 1-celled, not opening, either smooth or scaly, not winged, 1-seeded. Stamens 4-5. Polygamous.

4. Flowers pentapetalous, superior.

617. *Phyllis*. Cal. 2-leaved. Pet. 5. Stigmas hispid. Seeds 2, oblong, fixed to a filiform axis.

5. Flowers pentapetalous, superior. Seeds 2. (UMBELLIFERE.)

A. Fruit of a single or double globe.

618. *Coriandrum*. Fruit a single or double globe, smooth, without ribs. Cal. broad, unequal. Petals radiant. Floral recept. none.

B. Fruit beaked.

619. *Scandix*. Beak much longer than the seeds, fruit somewhat bristly. Cal. none. Pet. unequal, undivided. Floral recept. 5-lobed, colored.
620. *Anthriscus*. Beak shorter than the seeds, even. Fr. rough, with scattered prominent bristles. Cal. none. Petals equal, inversely heart-shaped. Fl. recept. slightly bordered.
621. *Cherophyllum*. Beak shorter than the seeds, angular. Fr. smooth, without ribs. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. wavy.

C. Fruit solid, prickly, without a beak.

622. *Eryngium*. Fr. ovate, clothed with straight bristles. Cal. pointed. Pet. oblong, equal, inflexed, undivided. Fl. aggregate. Common recept. scaly.
623. *Sanicula*. Fr. ovate, clothed with hooked bristles. Cal. acute. Pet. lanceolate inflexed, nearly equal. Fl. separated, dissimilar.
624. *Echinophora*. Fr. ovate, imbedded in the enlarged armed receptacle. Seed solitary. Cal. spinous. Pet. inversely heart-shaped, unequal. Fl. separated.
625. *Daucus*. Fr. elliptic oblong, compressed transversely. Seeds with four rows of flat prickles, and rough intermediate ribs. Cal. obsolete. Pet. inversely heart-shaped, unequal. Fl. separated.
626. *Caucalis*. Fr. elliptic oblong, compressed transversely. Seed with 4 rows of ascending, awl-shaped, hooked prickles, the interstices prickly or rough. Cal. grooved, acute, unequal. Pet. inversely heart-shaped, unequal. Fl. imperfect, separated.
627. *Torilis*. Fr. ovate, slightly compressed laterally. Seeds villous, rough, with scattered prominent,

ascending, rigid prickles. Cal. short, broad, acute, nearly equal. Pet. inversely heart-shaped, nearly equal. Fl. united.

628. *Olivaria*. Leaflets of the involucre 3-parted. Umbels fascicled, as long as the involucre. Petals split to the base. Fr. ovate, hispid, with three streaks.

629. *Ledeburia*. Involucre O. Fr. ovate, with spreading bristles. Bases of styles 2, conical, connate at base. Styles persistent.

630. *Myrrhis*. Fr. deeply furrowed. Cal. none. Pet. inversely heart-shaped, rather unequal. Fl. recept. none. Flowers imperfectly separated.

631. *Bunium*. Fr. slightly ribbed. Cal. small, acute, unequal. Pet. inversely heart-shaped, equal. Fl. recept. none. Flowers imperfectly separated.

D. *Fruit solid, nearly round, unarmed, without wings.*

632. *Enanthe*. Fr. ribbed, somewhat spongy. Cal. large, lanceolate, acute, spreading, unequal. Pet. inversely heart-shaped, very unequal. Fl. recept. dilated, depressed. Fl. separated.

633. *Critillum*. Fr. ribbed, coriaceous. Cal. small, broad, acute, incurved. Pet. elliptical, acute, incurved, equal. Fl. recept. none. Fl. united, all perfect.

634. *Athamanta*. Fr. ribbed, ovate, hairy. Styles short. Cal. lanceolate, acute, incurved. Pet. inversely heart-shaped, broadly-pointed, equal. Fl. recept. none. Fl. imperfectly separated.

635. *Pimpinella*. Fr. ovate, ribbed, with convex interstices. Styles capillary, as long as fruit. Cal. none. Pet. inversely heart-shaped, nearly equal. Fl. recept. none. Fl. either united or dioecious.

636. *Phellandrium*. Flowers fertile. Fruit crowned. Fruit ovate, smooth, crowned by the calyx and styles, Involucre partial, not universal.

637. *Dondia*. Umbels capitate. Involucre 6-leaved, longer than umbel. Petals entire. Fruit ovate, solid, with 4 ribs, and convex intervals.

638. *Tyachyspermum*. Leaves of involucre pinnatifid. Fruit striated, with 5 mucricated ribs. Rudiments of calyx 5. Fl. receptacle conical. Style withering.

639. *Ammi*. Involucre pinnate or pinnatifid. Fruit oblong, with 5 obtuse ribs, and convex intervals.

640. *Bubon*. Involucre O. Fruit ovate, solid, hispid, or villous, with 5 ribs, and broadish bands of the intervals and raphe.

641. *Cuminum*. Involucre 5-leaved. Fruit ovate, prismatic, smoothish, bladdery, with 7 ribs, and bearded intervals.

642. *Seseli*. Common involucre O; partial 5-leaved, sometimes 1-leaved. Fruit ovate, solid, with 5 acute ribs, and furrowed, striated intervals.

643. *Thapsia*. Fruit narrow, but little compressed, scarcely ribbed, with 2 dorsal and marginal wings.

644. *Actinosis*. Umbel capitate. Involucre woolly, very large. Cor. O. Cal. 5 sepals. Male flowers mixed with hermaphrodite. Fruit ovate, villous, with 5 stripes, crowned by the calyx.

645. *Trinia*. Flowers dioecious. Involucre few-leaved. Pet. ovate, lanceolate. Seeds roundish, with 5 ribs, with the intervals once-banded.

E. *Fruit solid, unarmed, without wings, compressed laterally, the diameter of its juncture being at least twice as narrow as the opposite diameter.*

646. *Sium*. Fr. ovate or orbicular, ribbed, furrowed. Cal. small, acute, unequal, or obsolete. Pet. inversely heart-shaped or obovate, equal. Styles cylindrical, shorter than the petals. Fl. receptacle none. Fl. uniform, united.

647. *Sison*. Fr. ovate or nearly orbicular, ribbed. Cal. obsolete or blunt. Pet. elliptical or inversely heart-shaped, with an involute point, equal. Styles very short and thick. Fl. recept. none. Fl. uniform, united.

648. *Cicuta*. Fr. nearly orbicular, heart-shaped at the base, with 6 double ribs. Cal. broad, acute, rather unequal. Pet. ovate or slightly heart-shaped, nearly equal. Style scarcely tumid at the base. Fl. recept. depressed, withering. Fl. uniform, nearly regular, united.

649. *Conium*. Fr. ovate, with 10 acute ribs, wavy in an unripe state. Cal. obsolete. Pet. inversely heart-shaped, slightly unequal. Styles a little tumid at the base. Fl. recept. dilated, depressed, wavy, permanent. Fl. slightly irregular, united.

650. *Smyrnum*. Fr. broader than long, concave at each side, with 6 acute dorsal ribs; interstices convex. Cal. very small, acute. Pet. equal, lanceolate, incurved or inversely heart-shaped. Styles tumid and depressed at the base. Fl. recept. none. Fl. nearly regular, partly barren or abortive.

651. *Apium*. Fr. roundish, ovate, with 6 acute dorsal ribs; interstices flat. Pet. roundish, with an inflexed point, very nearly equal. Styles greatly swelled at the base. Fl. recept. thin, orbicular, wavy. Fl. nearly regular, united.

652. *Zegopodium*. Fr. elliptic-oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. inversely heart-shaped, broad, a little unequal. Style ovate at the base. Fl. recept. none. Fl. united, all perfect, slightly radiate.

653. *Meum*. Fr. elliptic, oblong, with equidistant ribs; interstices flattish. Cal. none. Pet. obovate, with an inflexed point, equal. Styles tumid at the base, short, recurved. Fl. recept. none. Fl. united, all perfect, regular.

654. *Anethum*. Invol. none. Pet. involute, yellow. Seeds compressed, with 3 ribs; intervals once-banded.

655. *Carum*. Fr. elliptic, oblong, with equidistant ribs; interstices convex. Cal. minute, acute, often obsolete. Pet. inversely heart-shaped, unequal. Styles tumid at the base, subsequently elongated, widely spreading. Fl. recept. angular, thin, wavy, permanent. Fl. separated, irregular.

656. *Cnidium*. Fr. ovate, acute, with equidistant sharp ribs; interstices deep, concave; juncture contracted. Cal. none. Pet. equal, obovate or inversely heart-shaped. Styles hemispherical at the base; subsequently elongated, spreading, cylindrical. Fl. recept. annular, thin, undulated, erect, afterwards depressed. Flower imperfectly separated, nearly regular.

657. *Bupleurum*. Fr. ovate-oblong, obtuse, with prominent, acute, abrupt ribs; interstices flat; juncture contracted. Cal. none. Pet. equal, broadish, wedge-shaped, very short, involute. Styles very short, not extending beyond the circumference of their broad tumid bases. Fl. recept. none. Fl. all perfect and regular.

658. *Hydrocotyle*. Fl. nearly orbicular, rather broader than long, angular, much compressed, juncture very narrow. Cal. none. Pet. equal, ovate, spreading, undivided. Styles cylindrical, shorter than the stamens, tumid at the base. Fl. recept. none. Fl. all perfect and regular.

659. *Spananthe*. Umbel simple, with few rays. Involucre few-leaved. Fruit ovate, solid, smooth, with the juncture and sides contracted, and 5 ribs at the back.

660. *Ulosperrum*. Involucre few-leaved. Germen oblong. Ribs of fruit membranous, wavy, curled. Calyx scarcely any. Fl. receptacle flattened. Styles withering.

F. *Fruit solid, unarmed, compressed transversely, the diameter of the juncture being much greater than the opposite diameter.*

661. *Aethusa*. Seeds ovate, convex, with 5 tumid, rounded, acutely keeled ribs; interstices deep, acute, angular; border none. Cal. pointed, very minute. Pet. inversely heart-shaped, rather angular. Fl. recept. none. Fl. all perfect, slightly radiant.

662. *Inperatoria*. Seeds orbicular, with a notch at each end, a little convex, with 3 prominent dorsal ribs, and a dilated, flat, even border. Cal. none. Pet. inversely heart-shaped, very slightly irregular. Fl. recept. none. Fl. all perfect, scarcely radiant.

663. *Selinum*. Scales elliptical, slightly convex, with 3 acute dorsal ribs, and a dilated, flat, even border. Cal. minute, pointed, spreading. Pet. inversely heart-shaped, involute, equal. Fl. recept. obsolete. Fl. perfect, regular, a few occasionally abortive.

664. *Angelica*. Seeds elliptic-oblong, convex, with 3 dorsal wings, and a narrow, flat, even border. Cal. none. Pet. lanceolate, flattish, undivided, contracted at each end, equal. Fl. recept. thin, wavy, narrow, permanent. Fl. all perfect.

665. *Ligusticum*. Seeds oblong convex, with 3 dorsal and 2 marginal equal wings. Cal. small, pointed, erect, broad at the base. Pet. elliptical, flattish, undivided, contracted at each end, equal. Fl. recept. none. Fl. all perfect, regular.

666. *Hasselquistia*. Involucres various. Flowers radiant. Fruit compressed at edge, flat, roundish. Bark turgid in the circumference with 5 obtuse ribs. Fruit in the middle of the umbel deformed, navicular, torn at edge, with 3 stripes at back.

667. *Arctia*. Fruit oblong, compressed, with the marginal wings sinuated, 5 dorsal ribs, and scaly juncture. Flowers radiant. Involucres pinnatifid.

668. *Ferula*. Fruit compressed, flat, thickened at edge, with 3 obtuse dorsal ribs, and banded intervals and juncture. Flowers polygamous. Involucres various.

669. *Laserpitium*. Fruit oval, somewhat compressed, with the 3 principal ribs acute, the secondary winged. Involucres many-leaved.

G. Fruit thin and almost flat, compressed transversely, without dorsal wings.

670. *Peucedanum*. Seeds broadly elliptical, with a notch at each end, a little convex, with 3 slightly prominent ribs, interstices striated, border narrow, flat, even, smooth, and entire. Cal. pointed, ascending. Pet. inversely heart-shaped, all very nearly equal. Fl. recept. none. Flowers regular, imperfectly separated.

671. *Pastinaca*. Seeds elliptic-obovate, with a slight notch at the summit, very nearly flat, with 3 dorsal ribs and 2 marginal ones; border narrow, flat, thin, even, smooth, and entire. Cal. very minute, obsolete. Pet. broadly lanceolate, involute, equal. Fl. recept. broad, orbicular, wavy, rather thin, concealing the calyx. Fl. regular, uniform, perfect.

672. *Heracleum*. Seeds inversely heart-shaped, with a notch at the summit, very nearly flat, with 3 slender dorsal ribs, 2 distant marginal ones, and 4 intermediate, colored, depressed, abrupt lines from the top; border narrow, slightly tumid, smooth, even, and entire. Cal. of 5 small, acute, evanescent teeth. Pet. inversely heart-shaped, radiant. Fl. recept. wavy, crenate, obtuse. Fl. separated.

673. *Tordylium*. Seeds orbicular, nearly flat, roughish, without ribs; border tumid, wrinkled or crenate, naked or bristly. Cal. of 5 awl-shaped unequal teeth. Pet. inversely heart-shaped, radiant, variously unequal and irregular. Fl. recept. none. Fl. separated.

674. *Astrantia*. Umbels fasciated. Involucres as long as umbels. Fruit oblong, surrounded by furrowed, wrinkled, little bladders.

675. *Zosimia*. Both involucres many-leaved. Petals obovate, with the little segment involute, acute. Fruit compressed, villous, thickened at edge, at the back with 4 bands, which are jointed and conniving.

H. Fruit with a coarse, corky, or spongy bark.

676. *Rumia*. Partial involucre, 3-8-leaved. Cal. 5-toothed. Petals ovate, incurved, with a short crenulate segment. Seeds ovate, fleshy, rugose, scaly.

677. *Cachrys*. No involucre. Cal. O. Petals ovate, lanceolate, acute. Seed obovate, oblong, rounded, smooth, fungous.

678. *Hippomarathrum*. Fruit with scaly, rough ribs, covered with a thick bark.

Order 3. TRIGYNIA.



5 Stamens. 3 Styles.

1. Flowers superior.

679. *Viburnum*. Cor. 5-cleft. Berry with 1 seed.

680. *Sambucus*. Cor. 5-cleft. Berry with 3 seeds.

2. Flowers inferior.

681. *Rhus*. Cal. 5-parted. Petals 5. Berry 1-seeded.

682. *Cassine*. Cal. 5-parted. Petals 6. Berry 3-seeded.

683. *Spathelia*. Cal. 5-leaved. Petals 5. Caps. 3-angular, 3-celled. Seeds solitary.

684. *Staphylea*. Petals 5. Caps. 2 or 3, inflated.

685. *Tumarix*. Pet. 5. Caps. of 3 valves. Seeds numerous, feathered.

686. *Turnera*. Cal. 5-cleft, infundibuliform; the outer 2-leaved. Petals 5, inserted in the calyx. Stigmas many-cleft. Caps. 1-celled, 3-valved.

687. *Drypis*. Cal. 5-toothed. Petals 5. Caps. cut round, 1-seeded.

688. *Alsine*. Cal. 5-leaved. Pet. 5 equal. Caps. superior, 1-celled, 3-valved, many-seeded. Receptacle central, free.

689. *Teledium*. Cal. 5-leaved. Petals 5, inserted in the receptacle. Caps. 1-celled, 3-valved.

690. *Corrigiola*. Pet. 5. Seed 1, naked, triangular.

691. *Pharnaceum*. Cal. 5-leaved. Cor. O. Caps. 3-celled, many-seeded.

692. *Portulacaria*. Cal. 2-leaved. Petals 5. Seed 1, winged, 3-cornered.

693. *Basella*. Cal. O. Cor. 7-cleft; at length berried, with the two opposite segments larger than the rest.

Order 4. TETRAGYNIA.



5 Stamens. 4 Styles.

694. *Parnassia*. Nectaries fringed with bristles bearing globes. Caps. of 4 valves.

695. *Evolvulus*. Cal. 5-leaved. Cor. rotate, campanulate, with emarginate lobes. Styles 2, deeply bifid. Stigma simple. Caps. 2-celled, 4-valved, 4-seeded. Seeds 2.

Order 5. PENTAGYNIA.



5 Stamens. 5 Styles.

1. Flowers superior.

696. *Aralia*. Involucre very small. Umbels globose. Cal. very small, 5-toothed. Petals 5, ovate, oblong, spreading, or reflexed. Stigmas nearly round, 5-10. Berry roundish, crowned, 5-seeded. Seeds hard, oblong.

697. *Actinophyllum*. Cal. an entire rim. Cor. calyptrate, jumping off. Stam. 5-6-8-9. Styles 4-7. Berry with 7 angles and 7 cells. Seeds solitary, bony. Flowers clustered.

2. Flowers inferior.

698. *Rochea*. Cal. 5-parted. Cor. funnel-shaped, 5-cleft. Scales 5, at base of ovary. Caps. 5.

699. *Crassula*. Cal. 5-leaved. Pet. 5. Scales 5, nectariferous at base of ovary. Caps. 5.

700. *Giskia*. Cal. 5-leaved. Cor. O. Caps. 5, close together, roundish, 1-seeded.

701. *Linum*. Pet. 5. Capsule of 10 cells.

702. *Drosera*. Pet. 5. Caps. of 3 valves, with many seeds.

703. *Commersonia*. Cal. 1-leaved, bearing the cor. Petals 5. Nectary 5-parted. Caps. 5-celled, echinate.
 704. *Rulingia*. Petals 5, with a cucullate base. Sterile stamens 5, undivided. Ovary 5-celled. Caps. with double septa.
 705. *Armeria*. Cal. 2-leaved, entire, plaited, scarios. Petals 5. Seed 1, superior. Flowers in heads, with a common many-leaved involucrem.
 706. *Statice*. Cal. 2-leaved, entire, plaited, scarios. Petals 5. Seeds 1, superior. Flowers scattered in a panicled or spiked scape.

MONOGYNIA.

322. MIRA'BILIS. W.	MARVEL OF PERU.			<i>Nyctagineæ.</i>	<i>Sp. 4-5.</i>			
1855 dichõtoma W.	forked	*]	or	2 jl.au	Y	Mexico	1640.	R co Mart. cent. 1. t. 1
1856 Jalapa W.	common	*]		2 jn.s	R	W. Indies	1596.	R r.m Bot. mag. 371
β jalapa	yellow-flowered	*]		2 jn.s	Y	W. Indies	1596.	R r.m
γ alba	white-flowered	*]		2 jn.s	W	W. Indies	1596.	R r.m
δ rubro-alba	red and white	*]		2 jn.s	R.w	W. Indies	1596.	R r.m
ε rubro-flava	red and yellow	*]		2 jn.s	R.y	W. Indies	1596.	R r.m
1857 hýbrida W. cn.	close-flowered	*]		2 jn.s	R	.....	1813.	R r.m
1858 longiflora W.	long-flowered	*]		2 jn.s	W	Mexico	1759.	R r.m Ex. bot. 1. t. 23
323. ABRO'NIA. Juss.	ABRONIA.			<i>Nyctagineæ.</i>	<i>Sp. 1.</i>			
1859 umbellata J.	umbelled	∇ Δ	el	½ ap.my	R	California	1823.	D s.p
324. PLUMBA'GO. W.	LEADWORT.			<i>Plumbagineæ.</i>	<i>Sp. 7-11.</i>			
1860 europæa W.	European	∇ Δ	or	3 s.o	B	S. Europe	1596.	C p.l Bot. mag. 2139
1861 zeylânica W.	cingalese	∇ Δ		2 ap.s	W	E. Indies	1731.	Sk s.p Rhed. mal. 10. L 8
1862 rósea W.	Rose-colored	∇ Δ		1½ mr.jl	R	E. Indies	1777.	Sk r.m Bot. mag. 230
1863 scândens W.	climbing	∇ Δ		3 jl.au	W	W. Indies	1699.	Sk s.p Slo. m. 1. t. 133. f. 1
1864 tristis H. K.	dark-flowered	∇ Δ		1½ my.jn	Br	C. G. H.	1792.	C l.p
1865 capénsis W.	Cape	∇ Δ		1½ n	B	C. G. H.	1818.	C l.p Bot. reg. 417
1866 lapathifolia W.	Dock-leaved	∇ Δ		1½ jn.jl	W	Iberia	1822.	Sk s.p
325. HELIOTRO'PIUM.	TURNSOLE.			<i>Boragineæ.</i>	<i>Sp. 10-77.</i>			
1867 peruvianum W.	Peruvian	∇ Δ	or	2 my.s	Li	Peru	1757.	C r.m Bot. mag. 141
1868 corymbosum B. M.	large-flowered	∇ Δ	or	4 my.s	Li	Peru	1808.	C r.m Bot. mag. 1609
1869 parvisiflorum W.	small-flowered	∇ Δ	w	1 jl.s	W	W. Indies	1732.	C s.l Dil. el. t. 146. f. 175
1870 europæum W.	European	∇ Δ		¾ jn.o	W	W. Indies	1562.	C s.l Jac. aust. 3. t. 207
1871 oblongifolium Lk.	oblong-leaved	∇ Δ		¾ jn.o	W	S. Europe	1824.	S s.l
1872 chenopodioides W. en.	Goose-foot	∇ Δ		1 jn.jl	W	S. Amer.	1823.	S l.p
1873 curassavicum W.	glaucous	∇ Δ		¾ jn.jl	W	W. Indies	1731.	C s.l Mrs. 11. t. 31. f. 12
1874 humile Lam.	dwarf	∇ Δ		1 my.jn	W	S. Amer.	1752.	C s.l Plum. ic. 227. f. 2
1875 indicum W.	Indian	∇ Δ		1 jn.au	B	W. Indies	1713.	S s.p Plk. phyt. 245. f. 4
1876 supinum W.	trailing	∇ Δ		¾ jn.jl	W	S. Europe	1640.	S co Goua. m. 17. c. tab
326. MYOSO'TIS. B. P.	SCORPION-GRASS.			<i>Boragineæ.</i>	<i>Sp. 10-23.</i>			
1877 scorpioides W.	marsh	∇ Δ	w	2 ap.au	B.Y	Britain	mea.	D co Eng. bot. 1973
1878 arvensis W.	field	∇ Δ	w	1 ap.au	B	Britain	dry fi.	S co Eng. bot. 480
1879 nána W.	dwarf	∇ Δ	cu	¾ jl	B	Europe	...	D co Hac. pl. al. t. 2. f. 6
1880 obtusa W. en.	obtuse-calyxed	∇ Δ	w	2 jn.jl	B	Hungary	1815.	D co Pl. rar. hu. 1. t. 100
1881 rupicola E. B.	rock	∇ Δ	cu	1 jn.jl	B	Scotland	al. roc.	D co Eng. bot. 2559
1882 stricta Lk.	upright	∇ Δ	cu	1 jn.jl	B	Gerruany	1822.	S co
1883 sylvatica Ehr.	wood	∇ Δ	cu	2 jn.jl	B	Europe	1823.	D co Fl. dan. 583



History, Use, Propagation, Culture.

322. *Mirabilis*, is a Latin word, signifying something wonderful or admirable; and applied with some reason to this, the most fragrant of flowers. Clusius called it Admirabilis. We from the same cause call it Marvel of Peru. The French botanists still call the genus by Van Royen's name, *Nyctago*; derived from *nyx*, night, and *ago*, to act, on account of the flowers expanding at night. *M. dichotoma* is called the four-o'clock flower in the West Indies, from the flowers opening regularly at that time of the afternoon. *M. jalapa* is a very ornamental plant in warm borders. When cultivated, it sports into many agreeable varieties. It flowers best when treated as a tender annual, and then planted out; but if sown at once in the open air, it will flower late in the season in favorable summers. Its large tuberous roots, if taken up and preserved during winter like those of *Dahlia*, or even covered well with litter in the open garden, will flower perennially. The powder of these roots washed, scraped, and dried, is one of the substances which form the jalap of druggists.

323. *Abronia*. Derived from *αβρος*, delicate. The little plant produces flowers surrounded by an involucrem of a charming rose color.

324. *Plumbago*. Pliny says this plant was so called from *plumbum*, because it possessed the power of curing a disorder in the eyes called by that name, which appears to have been the same as what we call cataract. There

Order 6. POLYGYNIA.  5 Stamens. Many styles.

707. *Myosurus*. Pet. 5, with tubular honey-bearing claws. Seeds naked. Cal. spurred at the base.
 708. *Ceratocephalus*. Cal. 5-leaved, persistent. Petals 5, with a honey pore at base covered by a scale. Seeds several, naked, attached to a bearded receptacle.
 709. *Xanthorhiza*. Cal. O. Petals 5. Nectaries 5, stalked. Caps. 5, 1-seeded.
 710. *Sibbaldia*. Cal. 10-cleft. Petals 5, inserted in the calyx. Styles from the side of the ovary. Seeds 5.

MONOGYNIA.

- 1855 Flowers sessile erect axillary solitary
 1856 Flowers clustered stalked, Leaves smooth
 1857 Flowers clustered somewhat stalked, Tube of cor. 4 times as long as limb, Leaves cordate smooth
 1858 Flowers clustered sessile, Leaves pubescent
 1859 The only species, resembling *Primula farinosa*. Very beautiful
 1860 Leaves stem-clasping lanceolate rough, Stem erect
 1861 Leaves stalked ovate smooth, Stem filiform
 1862 Leaves stalked ovate smooth somewhat toothed, Stem with swollen joints
 1863 Leaves stalked ovate smooth, Stem flexuose climbing
 1864 Leaves obovate retuse smooth
 1865 Leaves stalked oblong entire glaucous beneath, Stem erect
 1866 Leaves stem-clasping lanceolate smooth, Stem divaricating
 1867 Leaves lanceolate ovate, Stem shrubby, Spikes numerous aggregate corymbose
 1868 Leaves oblong lanceolate, Stem shrubby, Spikes terminal aggregate corymbose, Sepals long subulate
 1869 Leaves ovate rugose scabrous opposite and alternate, Spikes in pairs
 1870 Leaves ovate entire tomentose rugose, Spikes in pairs
 1871 Leaves stalked oblong obtuse entire rough with scattered hairs
 1872 Leaves lanceolate glaucous smooth obsolete veined opposite and alternate, Spikes in pairs
 1873 Leaves linear lanceolate glaucous smooth opposite and alternate, Spikes in pairs or compound
 1874 Leaves ovate lanceolate villous, Spikes solitary lateral stalked
 1875 Leaves cordate ovate subserrate rugose, Spikes terminal simple solitary, Stem herbaceous
 1876 Leaves ovate entire tomentose plaited, Spikes solitary and in pairs
 1877 Cal. 5-toothed smoothish, Teeth nearly equal obtuse as long as the tube of cor. Leaves lanceolate obtuse smooth, Limb of cor. more than twice as long as cal.
 1878 Stem hairy, Calyx with dense spreading hairs hooked at the end
 1879 Seeds smoothish sawed at edge, Stem simple few-flowered and oblong, Leaves villous
 1880 Stem nearly sim. with lanc. nearly acute somew. repand lvs. hispid, Sp. in pairs somew. corym. Cal. very obt.
 1881 Seeds naked, Radical leaves stalked, Racemes without bractee, Hairs of calyx spreading.
 1882 Stem diffuse, Branches and flower-stalks much shorter than cal. Leaves oblong ovate obtuse upright
 1883 Cal. spreading 5-parted, Segments unequal acute, Hairs long downy

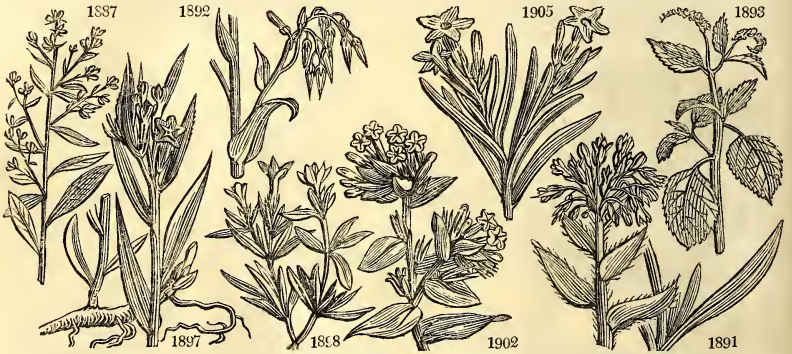
and *Miscellaneous Particulars.*

is also a modern reason for the application of the name to this genus. *P. europæa* is called toothwort, and *denticulaire*, Fr., from its curing the tooth-ach, for which purpose the bruised root is chewed, when it excites by its causticity a healthy salivation, but stains the teeth of a lead color. The species are all pretty, easily cultivated, and almost always in flower.

325. *Heliotropium*. From *ἥλιος*, the sun, and *τροπέω*, to turn. Both Pliny and Dioscorides assert that the flowers are always turned towards the sun. It was called *Ferrucaria* by the Latins, because the juice of the leaves mixed with salt was said to be excellent in removing warts, *verrucae*. *H. peruvianum* and *europæum* are popular plants, with the smell of new hay: the former is rather tender; but both keep flowering during most of the summer months. Curtis recommends keeping *H. peruvianum* in a stove during winter.

326. *Myosotis*. So named from *μῦς*, a rat, and *ὄσος*, an ear. Its oval velvety leaves are like the ear of a rat or mouse. *M. scorpioides*, Forget-me-not, has its specific name from the racemes of flowers, which, when young, bend in at the top like a scorpion's tail. It is a well known sentimental flower, will grow any where, and varies more than most plants with situation. On dry walls and rubbish, it is dwarfish, rough, and hairy, not rising when in flower more than two or three inches; in muddy ditches it is smooth all over, of a shining light

1884 <i>suavéolens</i> W. K.	sweet-scented	Δ	or	½	jn.jl	B	Hungary	1823	D	co
1885 <i>sparsiiflora</i> Mik.	scattered	○	or	1	my.jn	B	S. France	1822.	S	co
1886 <i>pedunculáris</i> Trev.	stalked	○	or	1½	my.jn	B	Astracur	1824.	S	co
327. ECHINOSPERMUM Sw. ECHINOSPERMUM.							<i>Boragineæ.</i>	<i>Sp. 4—16.</i>		
1887 <i>virginiánum</i> P. S.	Virginian	Δ	or	2	jn.jl	W	Virginia	1699.	S	co
1888 <i>Láppula</i> P. S.	common	○	or	1	ap.au	B	Europe	1656.	S	co
1889 <i>squarrosórum</i> P. S.	squarrose	○	or	2	ap.au	B	Siberia	1802.	S	co
1890 <i>barbátum</i> Lehm.	bearded	○	or	1½	jn.jl	B	Tauria	1823.	S	co
328. MATTIA Sch. MATTIA.							<i>Boragineæ.</i>	<i>Sp. 2—4.</i>		
1891 <i>umbelláta</i> Sch.	umbelled	Δ	or	1	my.jn	R	Hungary	1822.	D	s.l
1892 <i>lanáta</i> Sch.	woolly	Δ	or	2	jn	Pk	Levant	1800.	D	s.l
329. TIARIDIUM Lehm. TIARIDIUM.							<i>Boragineæ.</i>	<i>Sp. 1—3.</i>		
1893 <i>indicum</i> Lehm.	Indian	□	or	1	jn.jl	B	W. Indies	1820.	S	s.l
330. LITHOSPERMUM W. GROWWELL.							<i>Boragineæ.</i>	<i>Sp. 10—35.</i>		
1894 <i>officinále</i> W.	official	Δ	cu	2	my.au	Y	Britain	ch.hil.	D	co
1895 <i>arvensé</i> W.	corn	Δ	w	2	my.jn	W	Britain	cor.fi.	S	co
1896 <i>ápulum</i> W.	small	○	cu	½	jn.jl	Y	S. Europe	1768.	S	co
1897 <i>purp.-cardéum</i> W.	creeping	Δ	or	1	my	Pu	England	ch.so.	D	co
1898 <i>fruticósum</i> W.	shrubby	Δ	or	2	my.jn	B	S. Europe	1683.	C	co
1899 <i>distichum</i> P. S.	two-rowed	Δ	or	1½	my.jn	W	Cuba	1806.	D	co
1900 <i>tenuiflórum</i> W.	slender-flower'd	○	or	½	my.jn	B	Egypt	1796.	S	co
1901 <i>dispermum</i> W.	two-seeded	○	or	½	jn.jl	Y	Spain	1799.	S	co
1902 <i>orientále</i> W.	yellow	Δ	or	2	jn.jl	B	Levant	1713.	D	co
1903 <i>canéscens</i> Lehm.	hoary	Δ	or	1	jn.jl	Y	N. Amer.	1823.	D	co
331. BAT'SCHIA Mich. BATSCHIA.							<i>Boragineæ.</i>	<i>Sp. 2—4.</i>		
1904 <i>Gmelini</i> Ph.	Gmelin's	Δ	or	½	my.jl	Y	Carolina	1812.	D	co
1905 <i>longiflóra</i> Ph.	long-flowered	Δ	or	½	my.jl	Y	Missouri	1812.	D	co
332. ONOSMA W. ONOSMA.							<i>Boragineæ.</i>	<i>Sp. 7—23.</i>		
1906 <i>simplicissimum</i> W.	linear-leaved	Δ	or	1	ap.jn	Y	Siberia	1768.	D	s.l
1907 <i>taúricum</i> H. K.	golden-flowered	Δ	or	½	ap.jn	Y	Caucasus	1801.	D	s.l
1908 <i>orientále</i> W.	oriental	Δ	or	½	my.jn	Y	Levant	1752.	D	s.l
1909 <i>echioides</i> W.	hairy	Δ	or	½	nr.jn	W	S. Europe	1683.	D	s.l
1910 <i>sericeum</i> W.	silky-leaved	Δ	or	½	jn.jl	Y	Levant	1752.	D	co
1911 <i>arenárium</i> W. K.	sand	○	or	1	ap.jl	Y	Hungary	1804.	D	s.l
1912 <i>trinerviúum</i> Lehm.	three-nerved	Δ	or	1	...	Y	S. Amer.	1824.	C	s.l
333. ANCHUSA A. BUGLOSS.							<i>Boragineæ.</i>	<i>Sp. 11—50.</i>		
1913 <i>paniculáta</i> W.	panicked	○	or	2	my.jn	B	Madeira	1777.	C	p.l
1914 <i>capénsis</i> W.	Cape	Δ	or	½	jl	B	C. G. H.	1800.	S	p.l
1915 <i>officinális</i> W.	common	Δ	or	2	jn.o	Pu	Britain	sea.co.	D	co
1916 <i>ochroleúca</i> Bieb.	pale-flowered	Δ	or	2	jl.au	Pa.Y	M.Caucas.	1810.	D	co
<i>βítáica</i> W.	Italian	Δ	or	4	jn.o	R.Pu	S. Europe	1597.	S	co
1917 <i>angustifólia</i> W.	narrow-leaved	Δ	or	2	my.jn	Pu	S. Europe	1640.	D	co
1918 <i>Barrelieri</i> Dec.	Barrelier's	Δ	or	2	my.jn	B	S. Europe	1820.	D	co
1919 <i>rupéstris</i> R. Br.	rock	Δ	or	½	jl	B	Siberia	1802.	D	co
1920 <i>unduláta</i> W.	waved-leaved	Δ	or	2	jn.au	B	Spain	1752.	D	co
1921 <i>tinctória</i> W.	dyer's	Δ	or	1½	jn.o	Pu	Montpel.	1596.	D	co
1922 <i>sempervirens</i> W.	evergreen	Δ	or	1½	my.jn	B	Britain	rub.	D	co
1923 <i>Milléri</i> W. en.	pink	Δ	or	1½	my.jn	Pk	Levant	1713.	D	co



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green, and two or three feet high. In common soils, as in a garden or loamy corn-field, it assumes an intermediate character. Linnæus considers the plant as deadly to sheep. In gardens it does well in pots in the shade, or treated as a bog-plant, than which few better deserve the name of pretty.

327. *Echinosperrnum*. Named by Lehmann from *εχινος*, a hedgehog, and *σπερμ*, seed, the seeds being very prickly, by which character, and their being compressed, not depressed, and the bractæa of the inflorescence, the genus is principally distinguished from *Myosotis* and *Cynoglossum*.

328. *Mattia*. A genus divided by Professor Schultes from *Cynoglossum*, with which it agrees in general character. Named after some unknown botanist.

329. *Tiaridium*. From *τιαρα*, an episcopal head-dress, and *ειδος*, similar; on account of the resemblance between its seeds and a mitre. Three species have been described, of which one is the *H. indicum* of Linn., a plant of no beauty or merit.

330. *Lithosperrnum*. From *λιθος*, a stone, and *σπερμ*, seed, the seeds being hard and shining, like little pebbles. *L. officinale* has stony, brittle, egg-shaped nuts, exquisitely polished, grey or yellowish; and being considered like a stone, were for that reason used as a cure for the disease so named. The bark of *L. arvensé* abounds with a deep red dye, which stains paper, linen, &c. and is easily communicated to oily substances, like the alkanet root, and hence is called bastard alkanet. The country girls in the north of Sweden stain their faces with the root on days of festivity.

1884 Stem nearly simple hispid, Leaves lanc. acute hairy ciliated at base, Cal. very spreading
 1885 Stem branched diffuse, Lvs. lanc. acute hispid, Racemes simple elongated, Flow. very remote, Cal. acute
 1886 Stem branched, Leaves obovate obtuse mucr. Fl.-stalks in fruit much spreading thickened under calyx

1887 Seeds all over prickly, Leaves ovate oblong, Racemes divaricating
 1888 Seeds with a double row of marg. prickles, Lvs. lanc. with incumb. hairs, Limb of cor. camp. longer than cal.
 1889 Seeds with a single row of marginal prickles, Leaves obl. obtuse with spreading hairs, Cal. as long as cal.
 1890 Seeds with a doub. row of very short mar. prickl. Lvs. lanc. with incumb. hairs, Cor. twice as long as cal. with a flat limb

1891 Stam. as long as cor. Segments of cor. obtuse, Racemes terminal umbelled, Leaves hoary
 1892 Cal. woolly, Limb of cor. acute deeply 5-cleft, Racemes cernuous

1893 Stem herbaceous erect hairy, Leaves ovate cordate acute hairy, Tube of cor. twice as long as calyx

1894 Seeds smooth, Cor. scarcely longer than calyx, Leaves lanceolate acute veiny
 1895 Leaves lanceolate linear strigose, Cal. the length of cor. spreading in fruit
 1896 Leaves linear lanceolate acute, Spikes terminal 1-sided, Bractes lanceolate, Seeds mucricated
 1897 Seeds smooth, Cor. much longer than cal. Leaves lanceolate acute at each end, Stem herbaceous
 1898 Leaves linear hispid revolute at edge, Stamens as long as corolla
 1899 Seeds smooth, Cor. twice as long as cal. Lvs. obl. lanc. acute, Spikes leafy distichous term. and axillary
 1900 Leaves linear lanceolate strigose, Cal. as long as tube of cor. in fruit conniving
 1901 Seeds smooth, Cal. spreading incurved, Leaves linear
 1902 Flower branches lateral, Bractes cordate stem-clasping
 1903 Stem nearly simple villous, Leaves oblong obtuse hoary, Tube of cor. twice as long as calyx

1904 Hairy, Floral leaves ovate, Cal. long lanceolate
 1905 Silky, Leaves linear, Cal. long linear, Corolla crenate, Tube long

1906 Hirsute, Hairs prost. scattered, Fl.-stems simp. aggregate, Lvs. lin. acute, Anthers shorter than filaments
 1907 Flowers ventricose, Fruit erect, Leaves lanceolate hispid, Hairs stellulate
 1908 Flowers cylindrical acute, Fruit pendulous, Leaves linear hairy
 1909 Hispid, Hairs erect scattered, Stem branched, Leaves lanceolate, Anthers as long as filaments
 1910 Silky, Hairs prostrate very minute, Stems branched, Leaves spatulate, Anthers as long as filaments
 1911 Flowers clavate cylindrical, Leaves oblique the lower lanceolate obtuse, Fruit erect, Seeds smooth
 1912 Stem simple leafy, Leaves linear lanceolate very long acute 3-nerved above hispid beneath closely hairy

1913 Leaves lanceolate strigose entire, Panic. dichotomous divar. Flower stalked, Cal. 5-parted subulate
 1914 Leaves lanceolate callous villous, Racemes trichotomous
 1915 Leaves lanceolate strigose, Spikes 1-sided imbricated, Cal. as long as tube of corolla
 1916 Leaves linear-lanceolate coarsely dotted hispid, Calyx in fruit camp. nodding

1917 Racemes nearly naked in pairs
 1918 Leaves oblong entire narrowed at both ends with the simple stem hispid, Peduncles trifid
 1919 Leaves linear lanceolate villous, Racemes alternate
 1920 Strigose, Leaves linear toothed, Stalks less than bractes, Cal. in fruit inflated
 1921 Leaves oblong, Bractes longer than the 5-parted calyx, Valves of corol. shorter than stamens
 1922 Leaves ovate strigose, Racemes somewhat capitate in pairs leafy, 2-leaved at base, Cal. 5-cleft
 1923 Leaves obl. toothed hispid the lower stalked the upper sessile, Flowers single lateral, Stems diffuse



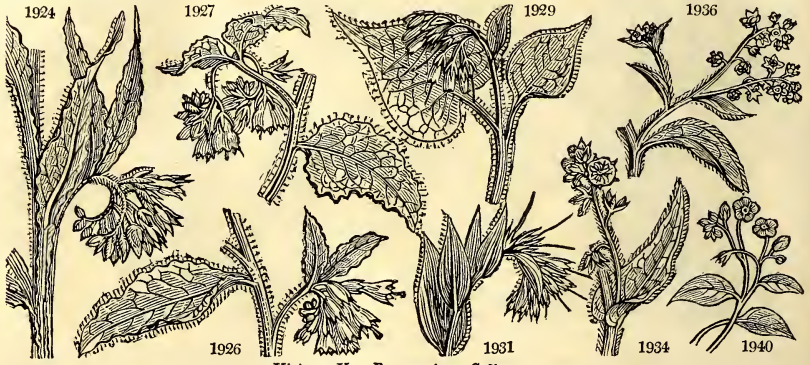
and Miscellaneous Particulars.

331. *Batschia*. Named in honor of John George Batsch, a German professor of botany in the university of Jena, in the latter part of the last century. His works upon Fungi are still quoted. The three species known are natives of North America, and are very pretty plants.

332. *Onosma*. An ancient name, the origin of which, from *onos*, an ass, and *osmia*, smell, as being a plant with flowers grateful in their smell to asses, is not very certain. What was intended by Pliny and Dioscorides as *Onosma* has not been satisfactorily ascertained. It was undoubtedly a plant of this family. This genus in its wild state is found chiefly on rocks; and, like most temporary rock-plants, is not easily preserved otherwise than on dry walls, heaps of rubbish, or artificial rock-work. The species are pretty, and all have yellow flowers.

333. *Anchusa*. Derived from *αγκυρα*, paint. In early times, the root of *A. tinctoria* was used for staining the features when more delicate colors were unknown. The English name Bugloss has been formed from *βυσ*, an ox, and *γλωσσα*, a tongue, in allusion to the long rough leaves. *A. officinalis* is nearly allied in qualities to Borago. The tube of the corolla is melliferous, and very attractive to bees; the leaves are juicy, and the roots mucilaginous, and used in China for promoting the eruption of the small-pox. *A. tinctoria* is cultivated in the south of France for the roots, which communicate a fine deep red to oils, wax, and all unctuous substances, as well as to spirits of wine. It is used chiefly by the apothecaries for coloring plaisters, lip-salves, &c. and by vintners for staining the corks of their port wine bottles, or for coloring and flavoring the spurious compounds sold as port wine.

334. <i>SYM'PHYTUM</i> <i>W.</i>	COMFREY.		<i>Boraginæ.</i>	<i>Sp. 6—10.</i>			
1924 officinale <i>W.</i>	common	✱ Δ or	4 my.jl W	Britain	wet. pl.	D co	Eng. bot. 817
β patens Sibth.	spreading	✱ Δ or	4 my.jl Pk	Britain	wet. pl.	D co	
γ bohemicum Sch.	red-flowered	✱ Δ or	3 my.jl R	Bohemia	...	D co	
1925 tuberosum <i>W.</i>	tuberous	✱ Δ or	4 my.o Y	Scotland	m.s.pl.	D co	Eng. bot. 1502
1926 orientale <i>W. en.</i>	eastern	✱ Δ or	3 my.jl W	Turkey	1752.	D co	Bot. mag. 1912
1927 tauricum <i>W. en.</i>	blistered	✱ Δ or	3 my.jl W	Tauria	1806.	D co	Bot. mag. 1787
1928 asperrium <i>H. K.</i>	roughest	✱ Δ or	4 my.s R.B	Caucasus	1799.	D co	Bot. mag. 929
1929 cordatum <i>W.</i>	heart-leaved	✱ Δ or	2 my.jl Y	Transylv.	1813.	D s.l	Pl. rar. hung. t.7
335. <i>ONOSMODIUM</i> <i>Mich.</i>	ONOSMODIUM.		<i>Boraginæ.</i>	<i>Sp. 2—3.</i>			
1930 hispidum <i>M.</i>	Virginian	✱ Δ or	1 jn Y	N. Amer.	1759.	D s.l	M. h. 3.s.11. t.28f.3
1931 molle <i>M.</i>	soft	✱ Δ or	½ jn.au W	N. Amer.	1812.	D s.l	Mich. amer. t.15
336. <i>CYNOGLOS'SUM</i> <i>W.</i>	HOUND'S-TONGUE.		<i>Boraginæ.</i>	<i>Sp. 8—40.</i>			
1932 officinale <i>W.</i>	common	✱ Δ or	2 jn.jl P.R	Britain	rub.	S co	Eng. bot. 921
1933 sylvaticum <i>E. B.</i>	green-leaved	✱ Δ or	3 jn.jl B	Britain	sha. la.	S co	Eng. bot. 1642
1934 pictum <i>W.</i>	Madeira	✱ Δ or	2 au L.B	Madeira	1658.	S co	Bot. mag. 2134
1935 amplexicaule <i>Ph.</i>	stem-clasping	✱ Δ or	2 my.jl B	N. Amer.	1812.	D p.l	
1936 cheirifolium <i>W.</i>	silvery-leaved	✱ Δ or	1 jn.jl B	Levant	1596.	S co	
1937 apenninum <i>W. en.</i>	Apennine	✱ Δ or	6 ap.jl R	Italy	1731.	D co	Col. eph.1. t.170
1938 hirsutum <i>W.</i>	hirsute	✱ Δ or	1 jl.au L.B	C. G. H.	1806.	S co	Jac. Schön. t.489
1939 glomeratum <i>Fraz.</i>	clustered	✱ Δ or	...	N. Amer.	1812.	D co	
337. <i>OMPHALODES</i> <i>Lehm.</i>	LEHM. VENUS' NAVEL-WORT.		<i>Boraginæ.</i>	<i>Sp. 3—10.</i>			
1940 verna <i>Lehm.</i>	blue	✱ el.	½ mr.ap B	S. Europe	1633.	D co	Bot. mag. 7
1941 linifolia <i>Lehm.</i>	common	✱ Δ or	1 jn.au W	Portugal	1648.	S co	
1942 nitida <i>Lehm.</i>	shining	✱ Δ or	3 ap.jn W	Portugal	1812.	D co	H. & L. fl. p.1. t.23
338. <i>PULMONARIA</i> <i>W.</i>	LUNGWORT.		<i>Boraginæ.</i>	<i>Sp. 10—19.</i>			
1943 angustifolia <i>W.</i>	narrow-leaved	✱ Δ or	½ ap.my V	Britain	woods.	D p.l	Eng. bot. 1628
1944 officinalis <i>W.</i>	common	✱ Δ or	1 my Pk	England	woods.	D p.l	Eng. bot. 118
1945 davurica <i>Fisch.</i>	Daurian	✱ Δ or	1 my Li	Dauria	1812.	D s.l	Bot. mag. 1743
1946 paniculata <i>W.</i>	panicled	✱ Δ or	½ my.jn L.B	Hud. Bay	1778.	D p.l	
1947 lanceolata <i>Ph.</i>	spear-leaved	✱ Δ or	1 my.jn Pu	Louisiana	1813.	D s.l	
1948 virginica <i>W.</i>	Virginian	✱ Δ or	½ mr.my B	N. Amer.	1699.	D p.l	Bot. mag. 160
1949 sibirica <i>W.</i>	Siberian	✱ Δ or	3 jn.jl Pu	N. Amer.	1801.	D s.l	G. sib. 4.n.15. t.39
1950 maritima <i>E. B.</i>	sea	✱ Δ or	½ jn.jl B	Britain	sea sh.	D s.p	Eng. bot. 368
1951 mollis <i>Wulf.</i>	soft	✱ Δ or	½ ap.my B	N. Amer.	1805.	D co	Bot. mag. 2422
1952 azurea <i>Bess.</i>	sky-blue	✱ Δ or	½ ap.jn B	Poland	1823.	D co	
339. <i>CERIN'THE</i> <i>W.</i>	HONEYWORT.		<i>Boraginæ.</i>	<i>Sp. 4—6.</i>			
1953 major <i>W.</i>	great	○ ○ or	3 jl.au Y.P	S. France	1596.	S co	Bot. mag. 333
1954 aspera <i>W.</i>	rough	○ ○ or	2 jl.au Y.P	S. France	1633.	S co	Fl. græc. t. 170
1955 minor <i>W.</i>	small	○ ○ or	½ jn.o Y	Austria	1570.	S co	Jac. aus. 2. t. 124
1956 maculata <i>W.</i>	spotted	✱ ○ or	2 jn.o Y.R	S. France	1804.	S co	
340. <i>BORA'GO</i> <i>W.</i>	BORAGE.		<i>Boraginæ.</i>	<i>Sp. 4—7.</i>			
1957 officinalis <i>W.</i>	common	○ cul	3 jn.s B	England	rub.	S co	Eng. bot. 36
1958 orientalis <i>W.</i>	oriental	✱ Δ or	2 mr.my B	Turkey	1752.	D co	Bot. reg. 288
1959 laxiflora <i>B. M.</i>	bell-flowered	○ ○ or	1 my.au B	Corsica	1813.	C s.l	Bot. mag. 1798
1960 crassifolia <i>Vent.</i>	thick-leaved	✱ Δ or	2 jn.jl Pk	Persia	1822.	C s.l	Vent. cels. 100
341. <i>TRICHODES'MA</i> <i>R. Br.</i>	<i>R. BR. TRICHODESMA.</i>		<i>Boraginæ.</i>	<i>Sp. 3—4.</i>			
1961 indicum <i>R. Br.</i>	Indian	○ ○	1 jn.o B	E. Indies	1759.	S co	Pl. al.30. t.76. f.3
1962 africanum <i>R. Br.</i>	African	○ ○	1 jl.au B	C. G. H.	1759.	S co	Is. ac. p.1718. t.11
1963 zeylanicum <i>R. Br.</i>	Ceylon	○ ○	½ jl.au W	E. Indies	1799.	S co	Jac. ic. 2. t. 314



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334. *Symphytum*. Named from *συμφυσις*, a union or junction, the plant having for a long time passed for a famous vulnerary. The French name for the plant, *Consoude*, has the same meaning; but that of the English term Comfrey is obscure. *S. officinale* abounds in mucilage, and may be substituted for *Althæa officinalis*. All the species are large, coarse, but showy shrubby plants, flowering for two or three months together, and *S. asperrium* the whole season.

335. *Onosmodium*. From *Onosma* and *oides*, similar to *Onosma*; from which it is not very different either in habit or characters.

336. *Cynoglossum*. From *ζυων ζυως*, a dog, and *γλωσσα*, a tongue. Its long soft leaves have been compared to the tongue of a dog. *C. officinale* smells like mice, was considered anti-scorpulose, and is disliked by cattle.

337. *Omphalodes*. From *ομφαλος*, a navel, and *oides*, resemblance; the round seeds, which are depressed in the centre, may be compared to a little navel; for the same cause it is called Navelwort in English. *O. linifolia* is a common border annual. *O. verna* is a beautiful little plant with blue flowers, like the Forget-me-not, peeping from among the snow in every cottager's garden in the early spring.

338. *Pulmonaria*. Derives its name, some say, from the speckled appearance of the leaves resembling diseased lungs; but others think that its name has arisen from the plant having been used with success in pulmonary complaints; whence also, perhaps, the English name Lungwort. It must not, however, be inferred from

1924 Leaves ovate lanceolate decurrent

1925 Leaves ovate oblong narrowed at base the lower stalked, Segments of flower very short obtuse
 1926 Leaves ovate obl. narr. at base hairy the lower stalked the flor. opp. sess. Cal. spread. Segm. of fl. acute
 1927 Leaves cordate ovate hairy stalked the floral opp. sess. Segments of flower obtuse, Stem branched
 1928 Lvs. cord. ovate or lanc. acumin. stalked very rough, Stem muric. with reversed bristles, Limb of fl. camp.
 1929 Leaves cordate ovate acuminate hairy, floral sessile nearly opposite, Stem simple

1930 Hispid, Leaves oval lanceolate acute papillose, Segments of cor. very acute

1931 Hoary, Leaves oblong about 3-nerved, Segments of cor. oval

1932 Leaves broad lanceolate wavy hoary on each side sessile close together, Seeds warted

1933 Leaves spatulate lanceolate shining nearly naked scabrous beneath

1934 Leaves lanceolate tomentose the upper obovate lanceolate cordate stem-clasping, Sepals ovate

1935 Very hairy, Leaves oval the upper stem-clasping, Corymb. terminal leafless on a long stalk

1936 Leaves villous, Cal. hairy, Stamens longer than corolla

1937 Stamens longer than corolla, Cal. villous, Radical leaves ovate stalked very large

1938 Leaves lanceolate villous, Seeds with hooked prickles

1939 Leaves spatulate obtuse, Flowers heaped

1940 Radical leaves ovate cordate, Cauline ovate stalked, Shoots creeping

1941 Leaves linear lanceolate smooth roughish with little teeth at the edge, Seeds urceolate rugose

1942 Leaves obl. lanc. nerved smooth and shining above pubesc. beneath the lower on long stalks the upper sess.

1943 Cal. length of the tube of the cor. Leaves oblong lanceolate the radical sessile cauline stalked

1944 Cal. length of the tube of the cor. Radical leaves ovate cordate scabrous cauline ovate sessile

1945 Cal. short 5-parted hispid, Radical lvs. ovate cordate stalked, cauline half stem-clasping, Flowers paniced

1946 Cal. short 5-parted hispid, Leaves ovate oblong acuminate hairy

1947 Smooth erect, Radical leaves on long stalks lanceolate, cauline linear oblong, Flowers paniced, Cal. short

1948 Cal. much shorter than tube of cor. which is longer than limb, Radical leaves ovate elliptical cauline ob-

1949 Cal. short, Rad. leaves cordate [ovate lanceolate obtuse

1950 Smooth, Leaves ovate glaucous fleshy, Stem branching procumbent

1951 Leaves ovate lanceolate acuminate downy decurrent radical stalked, Cal. longer than tube

1952 Leaves hispid radical obl. lanc. acuminate narr. into the stalk, Cauline decurrent, Cor. campanulate

1953 Cor. obtuse spreading ventricose campanulate at end, Stamens shorter than corolla, Leaves smooth

1954 Cor. obtuse spreading cylindrical, Stamens as long as cor. Leaves rough

1955 Leaves stem-clasping entire, Cor. acute closed whole colored, Segm. of cal. unequal

1956 Leaves stem-clasping entire, Cor. acute closed with a red band in middle, Seg. of cal. uneq. Stems many

1957 Leaves ovate the lower stalked all alternate, Cal. spreading, Pedunc. terminal many-flowered

1958 Leaves cordate stalked, Pedunc. many-flowered, Stamens exerted villous

1959 Leaves alternate oblong sessile, Pedunc. axillary 1-flowered, Cor. campanulate nodding

1960 Glauous, Stem smooth, Leaves decurrent rough above, Segments of cor. lin. lanc. spreading unequal

1961 Leaves of stem and branches lanc. half stem-clasping, Pedunc. 1-flowered, Sepals auriculated at base

1962 Leaves opposite stalked ovate, Pedunc. many-flowered, Sepals ovate acute erect

1963 Sepals not auriculated, Nuts smooth without an edge, Leaves sessile attenuated at the base



and Miscellaneous Particulars.

English names of this sort having been applied to plants, either that lungwort was ever used in this country for the lungs, or liverwort for the liver. The truth is, that the old herbalists, or translators of the classical writers upon natural history, made English names after their Latin denominations, without enquiring whether such continued to be applicable or not, and their less informed successors had no difficulty in finding those virtues in the plants which were indicated by the names of the translators. *P. virginica*, *sibirica*, and *maritima* are elegant plants, greatly resembling each other, and considered by some as most probably only varieties. They are among the most elegant ornaments of the flower-garden in dry springs; but they require some care in keeping, unless in a soil almost entirely of sand.

339. *Cerinth*. From *κερος*, wax, and *ανθος*, flower, because there is great attraction for bees in the flowers. The French word *melinet* and the English honeywort have been formed in the same sense. *C. major* is a shewy border annual, much frequented by bees. In Italy and Sicily it is very common, and a biennial.

340. *Borago*, is said by Apuleius to be an alteration of *corago*, and to have been named on account of its cordial qualities. Pliny says that wine, with this infused in it, cheers the spirits. *B. officinalis* was formerly in great repute as a cordial. According to Withering, the young leaves may be used as a salad or as a pot-herb, and the flowers form an ingredient in cool tankards.

341. *Trichodesma*. From *τριχ* *τριχος*, hair, and *δεσμη*, a bond, the stamens being united by interwoven hairs;

1964 The only species. Stem climbing very rough, Flowers small axillary

1965 Leaves entire, Stem erect, Cal. of fruit inflated pendulous

1966 Leaves obl. lanc. strigose floral cordate longer than the cal. Cal. acute, in fruit inflated pendulous

1967 Cal. 5-cleft, in fruit inflated pendulous, Leaves obl. hispid floral cordate longer than cal. Stems procumb.

1968 Stem procumbent, Leaves entire, Cal. of fruit pendulous, Cor. shorter than calyx

1969 Leaves lanceolate, Stem prostrate, Cal. of fruit inflated nodding 10-angular, Cor. longer than calyx

1970 Leaves lanceolate denticulated hispid ciliated, Cal. of fruit inflated pendulous

1971 Leaves repand toothed callous, Stem decumbent, Corollas nodding

1972 Leaves lanceolate hispid, Cal. always erect

1973 Leaves ovate entire scabrous, Cal. erect

1974 Pubescent, Fl. in loose corymb. Pan. at end of branches, Tube closed by a 5-lobed fringe, Stam. included

1975 Stem shrubby, Leaves lanc. nervose and branches hairy, Sepals oblong and lanceolate acute, Styles hairy

1976 Stem smooth, Leaves lanceolate rough above, Flowers cymose equal, Tube of flower very long

1977 Stem shrubby, Branches and leaves prickly, Flowers in spikes, Corollas nearly equal

1978 Stem shrubby, Leaves lanc. atten. at base hairy, Hairs very short, Bract. and cal. strigose, Stam. exerted

1979 Stem shrubby upright branched, Leaves oblong lanc. hairy, Cor. campanulate small, Stamens exerted

1980 Stem and lanceolate acute leaves silky, Spike terminal nearly simple leafy

1981 Stem smooth, Leaves lanceolate smooth ciliated prickly, Cor. equal

1982 Stem smooth, Leaves lanceolate smooth scabrous at edge

1983 Stem branched, Leaves lanceolate nerved and branches silky, Styles hairy, Racemes cylindrical

1984 Leaves lanceolate nerved and branches silky, Styles hairy, Racemes ovate

1985 Stem villous, Leaves sword-shaped elliptical villous, Spike compound linear oblong

1986 Stem shrubby, Branc. and cal. smooth, Lvs. lanc. glauc. veinl. smooth above with a few coarse hairs at back

1987 Leaves radical ovate lined stalked [towards the end

1988 Stem herbaceous hairy, Leaves linear lanc. strigose hairy lower nerved, Cor. equal, Stamens exerted

1989 Stem erect hispid, Leaves linear lanceolate hispid, Spike compound terminal, Cor. nearly equal

1990 Stem warted hispid, Cauline leaves lanceolate hispid, Flowers spiked lateral

1991 Cor. as long as stamens, Tube shorter than calyx

1992 Leaves spatulate lanceolate villous, Stam. shorter than corolla

1993 Stem herb. erect panic. hisp. dotted, Lvs. lin. lanc. strigose, Flowers remote, Stamens $\frac{1}{2}$ as long again as cor.

1994 Stem herb. echinate, Lvs. obl. lanceol. hispid little narrowed at base, Stam. as long as cor. Cal. of fr. distant

1995 Stem branched, Cauline leaves ovate, Flowers solitary lateral

1996 Stem nearly simple, Lvs. lanc. rather silky, the radical very long on stalks, Spikes axillary bent backwards

1997 Stamens shorter than cor. Cal. as long as limb, Leaves lanceolate strigose

1998 Stem shrubby, Leaves stalked, Flowers hypocrateriform

1999 Stem herbaceous, Leaves sessile, Flowers funnel-form

2000 Leaves ovate-lanceolate hairy, Peduncles branched, Spikes pendulous

2001 Leaves ovate entire naked, Spikes in cymes

2002 Leaves ovate acuminate smooth above rugose, Spike cymose erect recurved

2003 Leaves nearly lanceolate hoary, Stem half shrubby

2004 Leaves ovate acuminate nearly smooth, Leafstalks hairy, Stem climbing, Cal. 5-parted

2005 Stem climbing, Leaves ovate oblong acute repand smooth, Berry with 4 projections bipartite

2006 Leaves ovate oblong, Cal. pyramidal, Sepals triangular sagittate

2007 Stems rounded, Leaves imbricated, Flowers sessile

2008 Villous, Scapes 1-flowered

2009 Steni branching, Leaves smooth above, Pedunc. short, Petals conniving



and Miscellaneous Particulars.

346. *Tournefortia*. So named by Linnæus, after Joseph Pitton de Tournefort, author of an elegant arrangement of plants under the title of *Institutiones rei Herbariæ*, and the father of the French school of botany. The system of Jussieu is founded upon that of Tournefort, or is rather an adaptation of the principles of that botanist to the actual state of the science. The species are by no means handsome either in flowers or foliage, and in some cases the latter is even fetid.

347. *Nolana*. Is a diminution of *nola*, signifying a bell in low Latin. The name has been applied to this plant on account of its bell-shaped corolla. The species are hardy annuals, of beautiful appearance when in flower. They may be sown in the spring in the open border, where they will grow without protection.

348. *Arctia*. In honor of Benoit Arctio, a Swiss, professor in the university of Berne. He died in 1574. He published a work upon alpine plants, and his name has been applied to a charming alpine genus, said by some, with little reason, not to be distinct from *Primula*. The species are very delicate, and require good air and skilful cultivation to succeed well. They are peculiarly suitable for rock-work or growing in pots, well drained, and filled with turfy loam and peat.

349. ANDROSA/CE. W. ANDROSACE.		Primulaceæ.		Sp. 10—35.							
2010	máxima W.	○	or	¼	mr.jn	W	Austria	1597.	S	p.l	Jac. aus. 4. t. 331
2011	elongáta W.	○	or	¼	ap.my	W	Austria	1776.	S	p.l	Jac. aus. 4. t. 330
2012	septentrionalis W.	○	or	¼	ap.my	W	Russia	1755.	S	p.l	Bot. mag. 2021
2013	villósa W.	¼	or	¼	jn.jl	Pk	Pyrenees	1790.	D	s.p	Bot. mag. 743
2014	lactiflóra Fisch.	¼	or	¼	jn.s	Pk	Siberia	1806.	D	s.p	Bot. mag. 2022
2015	Chamejásmé W.	¼	or	¼	jn.au	Pk	Austria	1768.	D	s.p	Bot. cab. 232
2016	láctea W.	¼	or	¼	jn.au	Pk	Austria	1752.	D	s.p	Bot. mag. 868
2017	carnea W.	¼	or	¼	jl.au	F	Switzerl.	1768.	D	s.p	Bot. cab. 40
2018	obtusifolia W.	○	or	¼	ap.jn	Pk	Italy	1817.	S	s.p	All. ped. 1. t. 46. f. 1
2019	nána Horn.	○	or	¼	ap.my	W	Denmark	1803.	S	p.l	
350. PRIMULA. W. PRIMROSE.		Primulaceæ.		Sp. 23—55.							
2020	vulgáris E. B.	¼	or	¼	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 4
	β plena-carnea B. M.	¼	or	¼	mr.my	Pk	Britain	...	D	s.l	Eng. bot. 229
	γ plena-álba	¼	or	¼	mr.my	W	Britain	...	D	s.l	
	δ plena-sulphúrea	¼	or	¼	mr.my	Y	Britain	...	D	s.l	
	ε plena-rúbra	¼	or	¼	mr.my	R	Britain	...	D	s.l	
	ζ plena-cúprea	¼	or	¼	mr.my	O	Britain	...	D	s.l	
	η plena-atropurpúrea	¼	or	¼	mr.my	Pu	Britain	...	D	s.l	
	θ plena-violácea	¼	or	¼	mr.my	Li	Britain	...	D	s.l	
2021	elátiór W.	¼	or	¼	mr.my	Y	Britain	woods.	D	s.l	Eng. bot. 518
2022	véris W.	¼	or	¼	jn.jn	Y	Britain	m. pa.	D	s.l	Eng. bot. 5
2023	farinósa W.	¼	or	¼	jn.jl	R	Britain	m. pa.	D	p.l	Eng. bot. 6
2024	davóricá Fisch.	¼	or	¼	mr.jn	Y	Siberia	1806.	D	p.l	Bot. mag. 1219
2025	curtósoides W.	¼	or	1	my.jl	R	Siberia	1794.	D	p.l	Bot. mag. 399
2026	dentiflóra Andr.	¼	or	1	my.jl	R	Siberia	1806.	D	p.l	Bot. rep. 451
2027	longifolia H. K.	¼	or	¼	ap.my	R	Levant	1790.	D	p.l	Bot. mag. 392
2028	villósa W.	¼	or	¼	ap.my	Pu	Switzerl.	1768.	D	p.l	Bot. mag. 14
	β flore-albo	¼	or	¼	ap.my	W	Switzerl.	1768.	D	p.l	Bot. mag. 1161
2029	nivális W.	¼	or	¼	ap.my	Pu	Dauria	1790.	D	s.l	Pal. it. t. G.* f. 2
2030	margináta W.	¼	or	¼	mr.ap	Pk	Switzerl.	1777.	D	s.l	Bot. mag. 191
2031	Aurícula	¼	or	¼	ap.my	Y	Switzerl.	1596.	D	h.l	Jac. aus. 5. t. 415
2032	Palinúri W. en.	¼	or	¼	ap.my	Y	Naples	1816.	D	h.l	Sweet fl. gard. 8
2033	integrifolia W.	¼	or	¼	jn.jl	Pk	Pyrenees	1792.	D	p.l	Bot. mag. 942
2034	finmárcicá W.	¼	or	¼	my.jn	V	Norway	1798.	D	p.l	Flor. dan. 188
2035	miníma L.	¼	or	¼	ap	Pu	S. Europe	1819.	D	s.l	Bot. reg. 581
2036	sinénsis Lindl.	¼	or	1	ja.d	Pk	China	1820.	S	s.l	Lind. coll. t. 7
2037	stricta Horn.	¼	or	¼	ap.my	Pk	Denmark	1822.	D	s.l	Fl. dan. t. 1385
2038	scóticá Hook.	¼	or	¼	jn.jl	R	Scotland	al.hea.	D	s.l	Bot. cab. 652
2039	Palásií Lemh.	¼	or	¼	...	Y	Altai	1823.	D	s.l	Lehm. mon. t. 3
2040	pusilla Hook.	¼	or	¼	jn	Pu	N. Amer.	1822.	D	s.l	Hook. ex. f. 68
2041	viscósa W.	¼	or	¼	ap	Pu	Piedmont	1792.	D	p.l	All. ped. 1. t. 5. f. 1
2042	decóra B. M.	¼	or	¼	ap	P	.....	1800.	D	p.l	Bot. mag. 1922



History, Use, Propagation, Culture,

349. *Androsace*. From *ανδρος*, a man, and *σάκος*, a buckler; the large round hollowed leaf of the common *Androsace* has been compared to the buckler of the ancients. The *Androsace* of Pliny and others must have been something very different. These are elegant mountaineers which may be treated in all respects as *Aretia*.

350. *Primula*, is derived from *primus*, the first, — to flower; the delicate blossoms of many of the species appearing when all nature is otherwise inert. This genus consists of beautiful dwarf alpine plants, valuable in horticulture, on account of their flowering early in spring, and being prolific in variation.

P. vulgaris is a native of most parts of Europe in woods and hedges on a moist clayey soil. It is generally found with brimstone-colored flowers, and single; but in some places, though rarely, it is found of a white, and again, of a purple hue, and occasionally double. The leaves and roots, which smell of anise, when dried, ground, and used as snuff, act as a sternutatory, and, taken internally, as an emetic. The varieties and subvarieties of this plant are very numerous. Some consider *P. veris* and *elatior* as sprung from it, and only more permanent varieties. The Hon. W. Herbert says, he raised from the seed of one umbel of a highly-mauured red cowslip, a primrose, a cowslip, and oxlips, of the usual and other colors; a black polyanthus, a hose-in-hose cowslip, and a natural primrose bearing its flower on a polyanthus stalk; and from the seed of the hose-in-hose cowslip he raised a hose-in-hose primrose. (*Hort. Trans.* iv. 19.) But this requires confirmation, as the circumstance was never before recorded. For distinction's sake we shall consider them as species or subspecies.

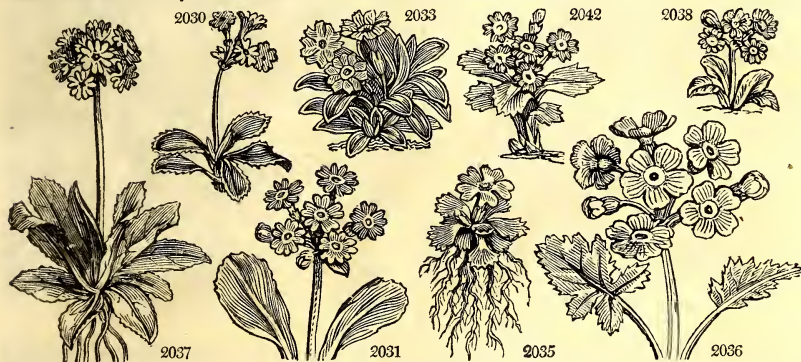
The varieties of *P. vulgaris* are arranged by florists in two classes; the first contains all those whose flowers are on separate pedicels, rising from the root upon a common stem, so short as not to be seen without separating the leaves of the plant, and are called primroses. The second class includes all those whose flowers are in umbels on a scape or flower-stalk rising from three to six inches or more, and are called polyanthus. Of the primroses there are about a dozen beautiful varieties in cultivation; and of the polyanthus an innumerable number, gaudily added to by propagation from seed. The names of the varieties, with the exception of the double sorts risen above, are entirely arbitrary. The rules for judging of the beauty or merits of a variety are also wholly artificial, and founded on an imaginary form far removed from ordinary nature. These rules or canons are

- 2010 All villous, Leaves ovate oblong and sepals toothed, Involucres very large, Flowers very small
 2011 Much branched rough, Branches spreading, Leaves obl. somew. toothed, Sepals lanc. ent. Fl. very small
 2012 Roughish erect, Lvs. lanc. tooth atten. at base, Prop. ped. elong. upright, Cor. longer than cal. Pet. ov. ent.
 2013 Leaves lanceolate entire villous, Umb. few-flowered, Cor longer than the ovate campanulate calyx
 2014 Smooth, Lvs. lanc. lin. tooth. at end, Ped. sprdg. elon. Cor. longer than cal. pet. oboord. (*A. coronopif.* B. M.)
 2015 Pubescent, Leaves lanc. nearly entire ciliated, Umb. few-flowered, Cor. longer than the turb. calyx
 2016 Caulesc. smooth, Lvs. lin. shining ent. cil. at end, Umb. few-fl. Stalks elong. Cor. longer than turb. calyx
 2017 Caulesc. pubesc. Lvs. scattered lin. subulate ciliat. Umb. few-fl. Stalks short, Cor. longer than turb. calyx
 2018 Leaves elliptical lanceolate smooth, Scape umbellate
 2019 Lvs. ov. lanc. from middle to end acutely toothed, Scape lvs. and stalks rather long. than invol. Cor. shorter than angular cal. (*A. Bocconi* of Gardens.)

2020 Leaves obovate oblong toothed rugose villous beneath, Umb. radical, Flower-stalks as long as lvs. Cor. flat

- 2021 Leaves toothed rugose hairy on both sides, Umbel many-flowered with outer flowers nodding, Cor. flat
 2022 Lvs. toothed rugose hairy beneath, Umb. many-flowered, Flowers all nodding, Cal. angular, Cor. concave
 2023 Lvs. cuneate lanc. rug. cren. tooth. powdery, Umb. many-fl. Ped. spread. Tube gland. at end, Limb flat the
 2024 Leaves sessile lanc. spatul. entire smooth on both sides, Outer fl. nodding [length of tube
 2025 Lvs. cordate stalked doubly crenate smooth beneath hairy at the veins, Stalks villous, Umb. many-fl. erect
 2026 Leaves cordate crenate-lobed very rugose, Corolla acutely toothed
 2027 Leaves oblong spatulate toothed green on each side, Leaves of involucre auricled at base
 2028 Leaves obl. oval serrulate villous pale green, Scape 2-3-fl. erect rounded, Cal. globose, Tube of cor. villous

- 2029 Leaves lanc. flat finely toothed smooth, Umb. many-fl. erect, Leaves of invol. connate at base
 2030 Leaves smooth on each side crenate powdery at edge, Cal. very short (*P. crenata*, Lehmann)
 2031 Leaves obov. ent. or serr. fleshy, Scape central as long as lvs. Umb. erect, Inv. with short lvs. Cal. powdery
 2032 Leaves spatulate serrated smooth, Scape lateral, Umbel nodding, Involucre with large leaves
 2033 Leaves elliptical nearly entire thickish cartilaginous at edge, Umb. 2-3-fl. erect, Cal. tubular obtuse
 2034 Leaves ovate entire stalked smooth, Umb. erect 3-fl. Cal. campanulate, Cor. cyathiform
 2035 Leaves wedge-shaped shining many-toothed at end, Scape about 1-fl. Petals half bifid like a Y
 2036 Leaves stalked ovate cordate rugose, Umbel proliferous, Cal. inflated
 2037 Lvs. lan. obov. tooth. stlk. beneath nearly nak. Um. few-fl. erect, Lvs. of inv. lan. Pet. obov. short. than tube
 2038 Resembles *P. farinosa*. Distinguished by its flat corolla, and more robust habit
 2039 Leaves obovate oblong close toothed smooth somewhat wavy, Umb. pubesc. Cal. ovate gaping, Cor. flat
 2040 Leaves obovate spatulate beneath and scape mealy, Segments obovate toothed
 2041 Leaves obovate tongue-shaped entire vill. viscid, Umb. many-fl. erect, Leaves of inv. ovate short membr.
 2042 Leaves flat coarsely serrated acute, Cal. viscid, Pedicels longer than scape



and Miscellaneous Particulars.

agreed on by the general consent of florists; they were first brought forward by the Dutch, and are now to be found in the treatises on florists' flowers of all countries: one of the best in this country is Maddocks's Florist's Directory.

The culture of *P. veris* as a border flower is abundantly simple, as it will grow any where, but best in a situation shaded from the mid-day sun, and in a loamy soil; but its culture as a florists' flower, the crossing to procure new varieties, and all the various cares of the florist involve details much too tedious for this work, if they were to be given at such length as to be of real use. We refer to Maddocks, Emerton, and Hogg, and to the Encyclopedia of Gardening.

P. elatior is found in the same situations as the primrose, but is much less common than either it or *P. veris*. It has little or no smell. Sir J. E. Smith considers it as probably a hybrid between the cowslip and primrose. There are two or three varieties of oxlip, but they are not considered as florists' flowers.

P. veris smells more strongly of anise than the primrose. Its leaves have been used as a pot-herb, and in salads, and are recommended for feeding silk-worms. The flowers make a pleasant wine, flavored like muscadell, but considered somniferous. Liquors and syrups are sometimes tintured with the leaves. Having been less cultivated than the primrose, there are but few varieties of this plant in gardens. They may be raised from seed, however, to any extent, as Messrs. Gibbs, of the Brompton nursery, and others, have lately proved.

P. auricula is a well known favorite of the florist. It is a native of the alpine regions of Italy, Switzerland, and Germany, and found also about Astracan. The most common colors in its wild state are yellow and red, sometimes purple, and occasionally variegated or mealy. The cultivated are innumerable, and many of them of exquisite beauty and fragrance. The leaves in different varieties differ almost as much as the flowers, a circumstance which does not take place to the same extent in the variations of *P. vulgaris* or *veris*. Near most of the manufacturing towns of England, and many in Scotland, the culture of this flower forms a favorite amusement of weavers and mechanics. Lancashire has been long famous for its auriculas: it is no uncommon thing there for a working man who earns, perhaps, from 18s. to 30s. per week, to give two guineas for a new variety of auricula, with a view to crossing it with some other, and raising seedlings of new properties.

351. CORTU'SA. W.	BEAR'S-EAR SANICLE.		<i>Primulaceæ.</i>	Sp. 1.				
2043 Matthioli W.	common	Δ or	½ ap.jn R	Austria	1696.	D s.l	Bot. mag. 987	
352. SOLDANEL/LA. W.	SOLDANELLA.		<i>Primulaceæ.</i>	Sp. 2—3.				
2044 alpina W. en.	Alpine	Δ or	½ ap	Pu	Switzerl.	1656.	D p.l	Bot. mag. 49
2045 montana W. en.	mountain	Δ or	½ ap	Pu	Bohemia	1816.	D p.l	Bot. mag. 2163
	S. Clusii B. M.							
353. DODECA'THEON.	AMERICAN COWSLIP.		<i>Primulaceæ.</i>	Sp. 1.				
2046 Meadia W.	Mead's	Δ or	1 ap.jn L.Pu	Virginia	1744.	D p.l	Bot. mag. 12	
354. CY'CLAMEN. W.	CYCLAMEN.		<i>Primulaceæ.</i>	Sp. 5.				
2047 cœum W.	round-leaved	Δ or	½ ja.ap L.R	S. Europe	1596.	S s.p	Bot. mag. 4	
2048 europæum W.	common	Δ or	½ au	L.R	Britain	banks.	S s.p	Eng. bot. 548
2049 pérsicum W.	Persian	Δ or	½ f.ap	R.w	Cyprus	1731.	S p.l	Bot. mag. 44
2050 hédéræfólium W.	Ivy-leaved	Δ or	½ ap	W	Austria	1596.	S p.l	Bot. mag. 1001
2051 ver'num Mill.	spring	Δ or	½ mr	Pu	.....	...	S s.l	Sweet fl. gard. 9
355. HOTTO'NIA. W.	WATER-VIOLET.		<i>Primulaceæ.</i>	Sp. 1—2.				
2052 palústris W.	marsh	Δ or	1 jl.au F	England	dit.	S aq	Eng. bot. 364	
356. LYSIMA'CHIA. W.	LOOSE-STRIPE.		<i>Primulaceæ.</i>	Sp. 16—29.				
2053 vulgáris W.	common	Δ or	3 jls Y	Britain	wat.sh.	D co	Eng. bot. 761	
2054 Ephémérum W.	Willow-leaved	Δ or	2 jls W	Spain	1730.	D p.l	Bot. mag. 2946	
2055 angustifólia Mich.	narrow-leaved	Δ or	1½ jls Y	N. Amer.	1803.	D p.l		
2056 dúbia W.	purple-flowered	Δ or	1½ jls Pu	Levant	1759.	D p.l	M.co.go.1782. t.1	
2057 stricta W.	upright	Δ or	1½ jl.au Y	N. Amer.	1781.	D p.l	Bot. mag. 104	
2058 thyr'sifóra W.	tufted	Δ or	1 my.jl Y	England	bog.pl.	D co	Eng. bot. 176	
2059 capitáta Ph.	headed	Δ or	1 my.jl Y	N. Amer.	1813.	D co		
2060 punctáta W.	dotted	Δ or	1½ jl.au Y	Holland	1658.	D co	Jac. aus. 4. t. 366	
2061 verticilláta Pall.	whorled	Δ or	1 jl.au Y	Crimea	1820.	D co	Bot. mag. 2295	
2062 quadrifólia Ph.	four-leaved	Δ or	2 jl.au Y	N. Amer.	1794.	D p.l	Lm.ill. t.1.101.f.2	
2063 ciliáta Ph.	ciliated	Δ or	2 jl.au Y	N. Amer.	1732.	D m.s	Walth. hort.t.12	
2064 longifólia Ph.	four-flowered	Δ or	2 jl.au Y	N. Amer.	1798.	D p.l	Bot. mag. 660	
2065 híbrida Ph.	hybrid	Δ or	1½ jl.au Y	N. Amer.	1806.	D co		
2066 Línúm-stellátum W.	small	Δ or	½ jn G	Italy	1658.	S s.l	Mag. b. mo.t.162	
2067 némorum W.	wood	Δ or	½ my.jl Y	Britain	m.s.pl.	D m.s	Eng. bot. 527	
2068 Nummularia W.	Moneywort	Δ or	½ jn.jl Y	Britain	m.me.	D m.s	Eng. bot. 528	
357. ANAGAL'LIS. W.	PIMPERNEL.		<i>Primulaceæ.</i>	Sp. 4—12.				
2069 arvén'sis W.	common	Δ or	1 jn.s S	Britain	cor. fi.	S co	Eng. bot. 529	
2070 cærúlea E. B.	blue	Δ or	1 jn.s B	Britain	cor. fi.	S co	Eng. bot. 1823	
2071 fruticósa H. K.	large-flowered	Δ or	3 my.jl Ve	Morocco	1803.	L p.l	Bot. mag. 831	
2072 latifólia W.	broad-leaved	Δ or	1 my.jl Pu	Spain	1759.	L p.l	Meerb. ic. 1. t.22	



History, Use, Propagation, Culture,

As to the soil proper for auriculas and polyanthuses, much has been written, and some highly artificial compositions of bullock's blood, sugar-baker's scum, night-soil, fuller's earth, &c. recommended. Many of the most successful growers, however, use nothing more than a loam from an old pasture or hedge-row, kept and turned over occasionally during a year, and then mixed with hot-bed dung rotten to a mould, or with leaf-mould, and some sand to keep it open. The soil and manure must be well mellowed by time before using, and not mixed till it is wanted, as that is said to generate worms. (See *Encyc. of Gard.* art. *Primula*.)

P. auricula, *helvetica*, *nivalis*, and *viscosa*, are considered by Herbert as only varieties of one original, for he says he raised a powdered auricula and a *P. helvetica* from *P. nivalis*, and a *P. helvetica* from *P. viscosa*. (*Hort. Trans.* iv. 20.) These, and the other species of this genus, are well adapted for being kept in pots of loam and leaf-mould, or loam and peat well drained, and in frosty or wet weather during winter, protected by a frame to imitate their natural covering of snow in alpine regions. Sweet says, "they require to be shifted and parted frequently, for if left too long without these being done, they will dwindle away and die." The best time for parting and shifting is after they have done flowering.

P. scotica, a pretty plant, resembling *P. farinosa*, has lately been discovered in Scotland by Dr. Hooker, professor of botany at Glasgow.

351. *Cortusa*. So named by Mathioli, in honor of his friend J. A. Cortusus, who first noticed it. This is a handsome little alpine, requiring a similar treatment to the Swiss *Primula*.

352. *Soldanella*. The diminutive of *solidus*, a shilling. The round leaves of these plants are very like pieces of money. They are among the least and most beautiful of alpine plants, and remarkable for the manner in which their corolla is cut or lacerated. Culture as in the Swiss *Primula*.

353. *Dodecatheon*. A name of the Romans, signifying 12 gods or divinities, applied with singular absurdity by Linnaeus to a plant, native of a world the Romans did not know, and resembling in no particular that of their writers. It was originally named *Meadia* by Mark Catesby, in honor of Dr. Mead, but the name was continued only as a specific appellation by Linnaeus. It is very ornamental when in flower; afterwards the leaves die away, and the root only remains till next season. It is not easily kept; but thrives better in a bed of light loamy soil, in a shady and rather moist situation, than in pots.

354. *Cyclamen*. Derived from *κύκλος*, a circle, on account of the numerous coils of the fruit-stalks. This genus consists of humble plants with very beautiful flowers. In the north of Italy wild swine feed on its

2043 The only species

2044 Cor. funnel-shaped spreading out beyond the middle, Calyx erect, Style shorter than corolla
2045 Cor. cylindrical bell-shaped not cut so far as the middle, Cal. spreading, Style longer than corolla

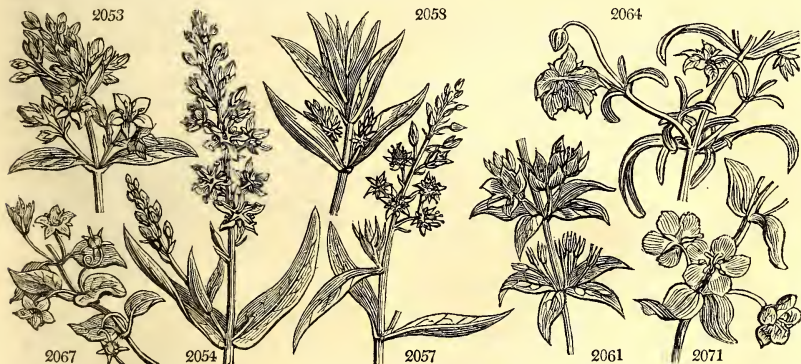
2046 The only species. Leaves radical flat on the ground, Scape bearing at top an umbel of drooping flowers

2047 Leaves orbicular cordate entire, Segments of cor. ovate
2048 Leaves orbicular cordate crenate or toothed, Segm. of cor. lanceolate
2049 Leaves oblong ovate cordate or reniform-cordate crenated, Segm. of cor. oblong obtuse
2050 Leaves cordate oblong acuminate angular toothed, Segm. of cor. oblong lanceolate rather acute
2051 Leaves cordate crenulate emarginate, with the base overlapping, Flower short, Style exerted

2052 Flowers vertical stalked, Leaves under water all finely cut

2053 Racemes terminal compound, Leaves opposite 3-4 together oblong lanceolate
2054 Racemes terminal, Petals obovate spreading, Leaves linear lanceolate sessile
2055 Smooth branching, Leaves opp. or whorled long linear spotted, Raceme terminating a short scape
2056 Racemes terminal, Petals conniving, Stam. shorter than corolla, Leaves lanceolate stalked
2057 Racemes terminal, Petals lanceolate spreading, Leaves lanceolate sessile
2058 Racemes axillary stalked ovate compact, Leaves opp. lanceolate
2059 Smooth, Stem simple spotted, Leaves opp. sess. lanc. acute spott. Flowers in close heads
2060 Leaves 3-4 together ovate lanc. stalked pub. beneath, Ped. axill. whorled, Pet. ovate fringed with glands
2061 Leaves whorled obl. lanc. stalked, Pet. ovate acute glandular, Stem pubescent
2062 Leaves subsessile 4-5 together oval acuminate dotted, Peduncles four, 1-flowered, Petals oval entire
2063 Pub. Lvs. opp. on long stalks cord. ovate, Fl.-stalks axill. in pairs, Fl. cernuous, Petals rounded crenulate
2064 Smooth much branched, Leaves linear very long, Segments of cor. serrulate
2065 Smooth, Leaves opp. on long stalks lanc. Petioles ciliated, Fl. cernuous, Cor. shorter than cal. Pet. cren.
2066 Leaves lanc. sessile, Peduncles axillary opp. Stem much branched smooth, Cal. longer than corolla
2067 Leaves ovate acute, Flowers solitary, Stem procumbent, Stamens smooth
2068 Leaves opposite roundish cordate, Pedunc. axillary 1-flow. Stem smooth creeping, Stamens glandular

2069 Stem procumbent, Leaves 3-nerved ovate lanceolate petals dilated at end crenate with glands
2070 Leaves 5-nerved ovate lanceolate, Stem erect a little winged, Petals toothed at end
2071 Leaves lanceolate about 3 together sessile, Stem shrubby at base rounded, Branches diffuse angular
2072 Leaves cordate stem-clasping, Stem brachiate erect



and Miscellaneous Particulars.

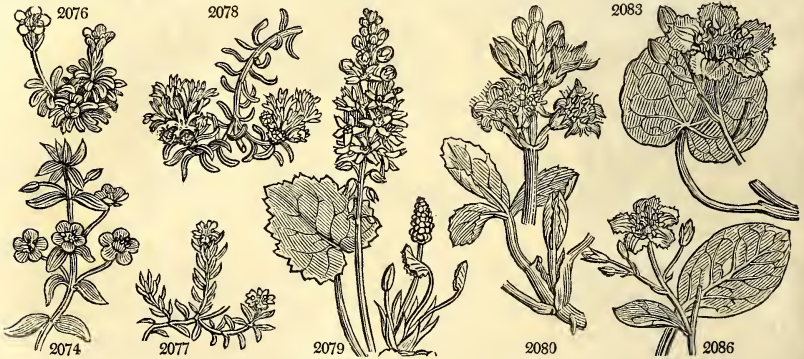
bulbs, which are round, flattened, and solid, and as large as pigeons' eggs. When the flowers fade the pedicels twist up like a screw, inclosing the germen in the centre, and, lying close to the ground among the leaves, remain in that position till the seeds ripen. The plant is peculiarly adapted for pots, and for chamber decoration in spring. *C. hederatifolium* is very scarce, and agreeably fragrant. *C. persicum* is tender; the others are quite hardy.

355. *Hottonia*. In honor of Peter Hotton, a professor in the university of Leyden, born in 1648, died in 1709. He wrote several academical dissertations, and published remarks upon medicinal plants, valuable in their day. *Plume d'eau*, Fr. *Wasserviole*, Ger., and *Miriophyllo aquatica*, Ital. This singular aquatic has roots consisting of white capillary fibres, which strike deep into the mud. The leaves grow in tufts under the water, and only the upper part of the flowering stem rises above it, producing a showy spike of white and blue flowers. It affords refuge to the fresh-water periwinkle (*Turbo Littoreus*), and other small shellfish. The seeds being sown in a pond when ripe, the plants will rise in the water the spring following.

356. *Lysimachia*. From *λυσιμαχία*, of which the English name Loose-strife is a translation; it has been given to this plant from the quality absurdly ascribed to it by the ancients, of quieting restive oxen when put upon their yokes. Linnæus says it was named after king Lysimachus of Sicily, who first used it, which account is nearly the same as that of Pliny. Most of the species are bog or fen plants, of the easiest culture. *L. nummularia* is ornamental on moist rock-work or hanging from a pot in a northern exposure. Though one of the hardest natives, it seldom produces ripe seeds, like most plants which multiply themselves much by the roots or stem. The flowers of *L. thyrsoiflora* come out in lateral bunches from the axils towards the top of the stem, which Linnæus notices as a singular circumstance in an upright plant. *L. stricta*, after flowering, throws out bulbs from the axils of the leaves, which, if allowed to lie on a moist surface, will produce young plants the following spring. *L. dubia* requires to be treated like a tender annual.

357. *Anagallis*. From *αναγέλωσ*, to laugh; the name expressing the medicinal qualities of the plant, which, by removing obstructions of the liver, removed a cause of low spirits and despondency; so at least say Pliny and Dioscorides. *A. arvensis* is a beautiful trailing weed, and one of the *Flora horologica*, opening its flowers regularly about eight minutes past seven o'clock in our latitude, and closing about three minutes past two o'clock. It also serves as an hygrometer, for if rain fall, or there be much moisture in the atmosphere, the flowers either do not open, or close up again. Small birds are very fond of the seeds. *A. monelli* is a very

2073 Monelli <i>W.</i>	blue-Italian	$\frac{1}{2}$ Δ or Δ	1	my.s	B	Italy	1648.	L	p.l	Bot. mag. 319
2074 linifolia <i>W.</i>	Flax-leaved	$\frac{1}{2}$ Δ or Δ	1	jn.jl	B	Portugal	1796.	C	s.l	Bot. mag. 2389
2075 tenella <i>W.</i>	bog	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	au.s	Pk	Britain	bog. pl.	D	lp	Eng. bot. 530
358. DIAPEN'SIA. <i>W.</i>	DIAPENSIA.					<i>Ericaceae. Sp. 1.</i>				
2076 lappónica <i>W.</i>	obtusely-leaved	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	f.mr	W	Lapland	1801.	D	s.l	Bot. mag. 1108
359. PYXIDANTHERA. <i>M.</i>	PYXIDANTHERA.					<i>Ericaceae. Sp. 1.</i>				
2077 barbulate <i>M.</i>	bearded	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	jl	W	Carolina	1806.	D	lp	Mich. amer. t.17
360. CORIS. <i>W.</i>	CORIS.					<i>Primulaceae. Sp. 1.</i>				
2078 monspeliensis <i>W.</i>	Montpelier	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	jn.jl	Li	S. Europe	1640.	S	sp	Bot. mag. 2131
361. GALAX. <i>W.</i>	GALAX.					<i>Saxifragaceae. Sp. 1.</i>				
2079 aphylla <i>W.</i>	heart-leaved	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	jn.jl	W	N. Amer.	1786.	D	sp	Bot. mag. 754
362. MENYANTHES. <i>W.</i>	BUCK-BEAN.					<i>Gentianeae. Sp. 1-2.</i>				
2080 trifoliata <i>W.</i>	common	$\frac{1}{2}$ Δ or Δ	1	jl	W	Britain	moi. pl.	C	p	Eng. bot. 495
363. VILLAR'SIA. <i>R. Br.</i>	VILLARSIA.					<i>Gentianeae. Sp. 6-12.</i>				
2081 nymphoides <i>W.</i>	fringed	$\frac{1}{2}$ Δ or Δ	1	jn.jl	Y	England rivers.	S	p.l		Eng. bot. 217
2082 lacunosa <i>V.</i>	smooth-flower.	$\frac{1}{2}$ Δ or Δ	1	jn.jl	W	N. Amer.	1812.	S	p.l	Vent. choix. 9
2083 sarmenosa <i>B. M.</i>	running	$\frac{1}{2}$ Δ or Δ	1	jn.jl	Y	N. Holl.	1806.	S	p.l	Bot. mag. 1323
2084 indica <i>W.</i>	Indian	$\frac{1}{2}$ Δ or Δ	1	my.au	W	C. G. H.	1792.	S	p.l	Bot. mag. 658
2085 parnassifolia <i>R. Br.</i>	tall	$\frac{1}{2}$ Δ or Δ	2	jn.o	Y	N. S. W.	1805.	S	p.l	Bot. mag. 1029
2086 ovata <i>V.</i>	oval-leaved	$\frac{1}{2}$ Δ or Δ	1	my.jl	O	C. G. H.	1786.	S	p.l	Bot. mag. 1909
364. CHIRO'NIA. <i>L.</i>	CHIRONIA.					<i>Gentianeae. Sp. 7-14.</i>				
2087 jasminoides <i>Thunb.</i>	Jasmine-leaved	$\frac{1}{2}$ Δ or Δ	2	ap.jl	Pu	C. G. H.	1812.	C	p.l	Bot. reg. 197
2088 lychnoides <i>Thunb.</i>	Lychnis-flower.	$\frac{1}{2}$ Δ or Δ	2	...	Pu	C. G. H.	1816.	C	p.l	
2089 linoides <i>W.</i>	Flax-leaved	$\frac{1}{2}$ Δ or Δ	2	jl.s	R	C. G. H.	1787.	C	sp	Bot. mag. 511
2090 baccifera <i>W.</i>	berry-bearing	$\frac{1}{2}$ Δ or Δ	2	jn.jl	Y	C. G. H.	1759.	S	sp	Bot. mag. 233
2091 angustifolia <i>H. K.</i>	narrow-leaved	$\frac{1}{2}$ Δ or Δ	1	jn.au	R	C. G. H.	1800.	C	sp	Bot. mag. 818
2092 frutescens <i>W.</i>	shrubby	$\frac{1}{2}$ Δ or Δ	1	jn.s	R	C. G. H.	1756.	C	sp	Bot. mag. 37
2093 decussata <i>H. K.</i>	cross-leaved	$\frac{1}{2}$ Δ or Δ	1	jn.s	R	C. G. H.	1789.	C	sp	Bot. mag. 707
365. EUSTOMA. <i>P. L.</i>	EUSTOMA.					<i>Gentianeae. Sp. 1.</i>				
2094 silenifolium <i>P. L.</i>	silene-leaved	Δ or Δ	1	jl	W	I. Provid.	1804.	S	s.l	Par. lond. 241
366. ERYTHREA. <i>P. S.</i>	ERYTHREA.					<i>Gentianeae. Sp. 5-99.</i>				
2095 Centaúrium <i>P. S.</i>	common	Δ or Δ	$\frac{1}{2}$	jl.au	Pk	Britain heaths.	S	s.l		Eng. bot. 417
2096 pulchella <i>E. B.</i>	dwarf-branched	Δ or Δ	$\frac{1}{2}$	au.s	Pk	England sea co.	S	s.l		Eng. bot. 458
2097 litorea <i>E. B.</i>	dwarf-simple	Δ or Δ	$\frac{1}{2}$	jn.jl	Pk	Britain sea co.	S	s.l		Eng. bot. 2305
2098 maritima <i>P. S.</i>	procumbent	Δ or Δ	$\frac{1}{2}$	jl.au	Y	S. Europe	1777.	S	s.l	Cav. ic. 3. t. 296. f. 1
2099 conferta <i>Pers.</i>	clustered	Δ or Δ	$\frac{1}{2}$	jl.au	Pk	Spain	1821.	S	s.l	
367. SABBATIA. <i>P. L.</i>	SABBATIA.					<i>Gentianeae. Sp. 4-6.</i>				
2100 gracilis <i>Ph.</i>	slender	$\frac{1}{2}$ Δ or Δ	1	jl	Pu	N. Amer.	...	C	co	Par. lond. 32
2101 calycosa <i>Ph.</i>	dichotomous	$\frac{1}{2}$ Δ or Δ	1	jn.au	Pk	N. Amer.	1812.	C	co	Bot. mag. 1600
2102 chloroides <i>Ph.</i>	chlora-like	$\frac{1}{2}$ Δ or Δ	$\frac{1}{2}$	jl.au	Pk	N. Amer.	1817.	S	co	
2103 paniculata <i>Ph.</i>	panicked	$\frac{1}{2}$ Δ or Δ	1	my.jn	W	N. Amer.	1817.	C	co	
368. LOGANIA. <i>R. Br.</i>	LOGANIA.					<i>Gentianeae. Sp. 2-11.</i>				
2104 latifolia <i>R. Br.</i>	broad-leaved	$\frac{1}{2}$ Δ or Δ	3	...	W	N. Holl.	1816.	C	lp	Lb. nov. ho. 1. t. 51
2105 floribunda <i>R. Br.</i>	many-flowered	$\frac{1}{2}$ Δ or Δ	2	ap.my	W	N. S. W.	1737.	C	lp	Bot. rep. 520



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beautiful small plant, and, with *A. latifolia* and *linifolia*, require the protection of a frame during winter. *A. tenella* is a delicate bog-plant, but not a very certain tenant of the genus. It is probably botanically distinct.

358. *Diapensia*. An ancient Greek name of the Sanicle, and signifying a plant which removes pain; the Sanicle being a vulnerary. Linnæus applied the name to this plant, which is neither a Sanicle nor a vulnerary, but a pretty alpine species, requiring the same cultivation as similar things, and retaining its deep green leaves through the severest winters.

359. *Pyxidantha*. From $\pi\upsilon\sigma\acute{\iota}\varsigma$, a box, and $\acute{\alpha}\nu\theta\eta\rho\alpha$, an anther, the anthers bursting across like a little box. A small plant resembling *Azalea procumbens*, with heath-like leaves and minute white flowers. It is found on the White-Mountains of New Hampshire, and in Pine-barrens in other parts of North America, but is very rare in cultivation.

360. *Coris*. A name of Dioscorides, for which even the etymological ingenuity of a Linnæus or a De Théis have been unable to provide a meaning. It was given to a plant analogous to *Hypericum*, and resembling the heath. Tournefort applied the name to this plant, whose fine leaves, and purple or pink flowers, clothe like the heath, the places where it grows wild.

361. *Galax*. From $\gamma\alpha\lambda\alpha$, milk, in allusion to its milk-white spikes of flowers. This is a neat little plant, and thrives best in a moist situation; where alone it flowers freely.

362. *Menyanthes*. From $\mu\epsilon\nu\eta$, a month, and $\acute{\alpha}\nu\theta\eta\rho\alpha$, flower, in allusion to the power which the plant is supposed to possess of exciting menstruation. *Buck-bean* or *Bog-bean*, Eng., *Bachsbohne*, Ger. An infusion of the leaves is bitter, and is frequently recommended in dropsy and rheumatism. In Sweden the plant is used

- 2073 Leaves linear lanceolate opp. or whorled, Stems ascending
 2074 Leaves sessile opposite 3-4 together lanceolate 3-nerved, Sepals linear acute, Cor. twice as big as calyx
 2075 Leaves ovate acute, Stem creeping, Stigma acute
- 2076 The only species. Plant growing in dense tufts
- 2077 A small plant resembling *Azalea procumbens*
- 2078 The only species
- 2079 The only species. Roots deep red. Flowers in long slender spikes
- 2080 Leaves ternate
- 2081 Leaves cordate orbicular floating, Flowers umbelled, Corollas fringed
 2082 Leaves reniform subpeltate beneath full of holes floating, Petioles flower-bearing, Corollas smooth
 2083 Runners creeping, Leaves cordate roundish repand dotted beneath, Panic. opp. the leaves, Seeds smooth
 2084 Leaves cordate roundish nerved floating, Petioles flower-bearing, Corolla hairy within
 2085 Leaves radical cordate roundish spreading toothed, Stem long naked, Flowers panicled
 2086 Leaves ovate erect, Flowers in panicled racemes fringed
- 2087 Leaves lanceolate smooth, Stem herbaceous 4-cornered cernuous
 2088 Stem simple, Leaves linear-lanceolate
 2089 Herbaceous, Leaves linear erect, Branches fastigiate, Peduncles elongated
 2090 Leaves linear-lanceolate smooth spreading, Stem much branched shrubby, Fruit a berry
 2091 Leaves linear spreading, Cal. ovate closed, Cor. clammy, Segm. cuneate pointed
 2092 Shrubby, Leaves lanceolate subtomentose, Calyx campanulate
 2093 Shrubby subtomentose, Leaves close together decussate oblong obtuse, Cal. globose 5-parted
- 2094 The only species
- 2095 Stem herbaceous dichotomously panicled, Leaves ovate lanceolate, Cal. shorter than tube
 2096 Flowers stalked, Segments of cal. shorter than tube, Style simple, Leaves ovate
 2097 Stem nearly simple dwarf, Flowers clustered sessile, Cal. as long as tube of cor. Leaves lin. lanc.
 2098 Herbaceous, Leaves oblong-lanceolate, Stem dichotomous corymbose rounded, Flowers stalked digynous
 2099 Dwarf upright much branched, Lvs. oval obtuse, Fl. sessile fasc. clustered, Cal. $\frac{1}{2}$ as long as tube of cor.
- 9100 Weak, Branches lax elongated 1-flowered, Leaves linear ellipt. Pet. obovate, Stem angular
 9101 Erect leafy, Leaves oblong, Flowers solitary about 7-parted, Cal. leafy longer than cor.
 9102 Weak, Leaves lanc. erect, Branches few 1-flowered, Flowers 7-13-parted, Sepals linear shorter than cor.
 9103 Erect, Leaves lanc. linear, Pan. many-flowered brachiote, Cal. subulate thrice as short as cor.

- 2104 Leaves obovate acute at each end, Flowers corymbose, Branches smooth, Stem erect
 2105 Leaves lanceolate attenuate at each end smooth, Stipules lateral setaceous, Racemes axillary compound



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as a substitute for hops, two ounces of the leaves being substituted for a pound of hops. The powdered roots are sometimes eaten in Lapland. The only species cultivated is the wild plant of our rivulets.

363. *Villarsia*. A genus divided from the last, and named after Villars, a French botanist of repute, who wrote the *Flora of Dauphny*, in 1785, a work used even at the present day. This is an aquatic genus of easy culture, and increased by seeds or dividing at the root. *V. nymphoides* is one of the most elegant of British water-plants.

364. *Chironia*. Named after Chiron, one of the fathers of medicine, botany, and surgery. He is mythologically represented to have been the son of Saturn, or of Time and Experience. Many plants, the virtues of which he is believed to have first discovered, have borne his name. The genus, however, to which it is now applied, is probably not one of those. It consists of pretty plants of short duration, generally with pink flowers. The species are not long-lived plants, and therefore require to be frequently raised from cuttings. Peat mould suits them best, and a little loam mixed with it; and young cuttings planted in the same kind of soil, under hand-glasses, strike root readily.

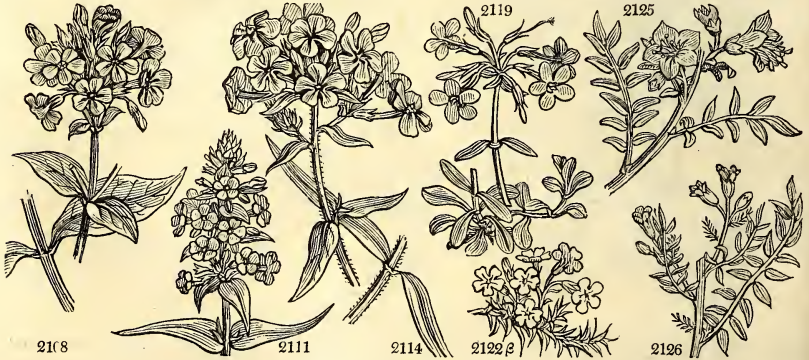
365. *Eustoma*. From *eu*, well, and *stoma*, mouth or orifice, in allusion to the colored aperture of the tube of the flower. A pretty little plant rarely seen in gardens. It resembles a *Sabbatia*.

366. *Erythraea*. From *erythros*, red, in allusion to the color of the flowers. This is a pretty genus of herbaceous and annual flowers, but impatient of cultivation, and therefore rarely seen in gardens.

367. *Sabbatia*. Named after Liberatus Sabbati an Italian botanist, author of many works on botany. In 1772 he published the first volume of the *Hortus Romanus*, a fine work, in folio, of which the seventh and last volume appeared in 1784. A pretty N. American genus of plants resembling *Chironia*.

368. *Logania*. Named by Mr. Brown, after a Mr. James Logan, said to have been the author of some experi-

369. PHLOX. <i>W.</i>	LYCHNIDEA.				<i>Polemoniaceæ.</i>	<i>Sp. 18—24.</i>				
2106 paniculata <i>W.</i>	panicled	Δ	or	3	aus.	Pk	N. Amer.	1732.	D p.l	Milic. 2. t. 205. f. 2
β <i>alba</i>	white	Δ	or	3	aus.	W	N. Amer.	1813.	D p.l	
2107 undulata <i>W.</i>	waved-leaved	Δ	or	3	il.au	R	N. Amer.	1759.	D p.l	
2108 acuminata <i>Ph.</i>	Lyons's	Δ	or	4	my.au	Pu	N. Amer.	1812.	D p.l	Bot. mag. 1880
2109 suavifolens <i>W.</i>	white-flowered	Δ	or	2	il.au	W	N. Amer.	1766.	D p.l	
2110 maculata <i>W.</i>	spot-stalked	Δ	or	4	il.au	R	N. Amer.	1740.	D p.l	Jac. vind. 2. t. 127
2111 pyramidalis <i>H. K.</i>	pyramidal	Δ	or	4	in.au	Pk	N. Amer.	1800.	D p.l	Bot. cab. 342
2112 pilosa <i>W.</i>	hairy-leaved	Δ	or	1	my.jn	FN	N. Amer.	1759.	D p.l	Bot. mag. 1307
2113 amœna <i>B. M.</i>	Fraser's-hairy	Δ	or	1	in.jl	Pk	N. Amer.	1809.	D p.l	Bot. mag. 1308
2114 Carolina <i>W.</i>	rough-stemmed	Δ	or	1	ils.	D.Pu	Carolina	1728.	D p.l	Bot. mag. 1344
2115 triflora <i>Mi.</i>	pubescent	Δ	or	1	ils.	Pu	Carolina	.....	D p.l	Sweet fl. gard. 29
2116 suffruticosa <i>Vent.</i>	shining-leaved	Δ	or	1	ils.	D. Pu	N. Amer.	1790.	D p.l	Bot. reg. 68
2117 glaberrima <i>W.</i>	smooth	Δ	or	3	in.au	R	N. Amer.	1725.	D p.l	D. elt. t. 166. f. 202
2118 divaricata <i>W.</i>	early-flowering	Δ	or	1	ap.jn	LB	N. Amer.	1746.	D p.l	Bot. mag. 163
2119 stolonifera <i>H. K.</i>	creeping	Δ	or	1	in.s.	R	N. Amer.	1800.	D p.l	Bot. mag. 563
2120 ovata <i>W.</i>	ovate-leaved	Δ	or	1	my.jl	Pu	N. Amer.	1759.	D p.l	Bot. mag. 528
2121 subulata <i>W.</i>	awl-leaved	Δ	or	1	ap.jn	F	N. Amer.	1786.	D p.l	Bot. mag. 411
2122 setacea <i>W.</i>	fine-leaved	Δ	or	1	ap.my	F	N. Amer.	1786.	D p.l	Bot. mag. 415
β <i>nivalis</i>	snow-white	Δ	or	1	ap.my	W	N. Amer.	1820.	D p.l	Bot. cab. 780
2123 carnea <i>B. M.</i>	flesh-colored	Δ	or	1	aus.	Pk	N. Amer.	1816.	D p.l	Bot. mag. 2155
370. POLEMONIUM. <i>W.</i>	GREEK-VALERIAN.				<i>Polemoniaceæ.</i>	<i>Sp. 3—12.</i>				
2124 reptans <i>W.</i>	creeping	Δ	or	1	ap.my	LB	N. Amer.	1758.	D co	Mill. ic. 2. t. 209
2125 caruleum <i>W.</i>	blue-flowered	Δ	or	2	in	B	Britain	bu. pl.	D co	Eng. bot. 14
β <i>album</i>	white-flowered	Δ	or	2	in	W	.....	...	D co	
γ <i>maculatum</i>	spotted-flowered	Δ	or	2	in	St	.....	...	D co	
2126 mexicanum <i>Cav.</i>	Mexican	Δ	or	1	ap.my	B	Mexico	1817.	D co	Bot. reg. 460
371. VESTIA. <i>W. en.</i>	VESTIA.				<i>Polemoniaceæ.</i>	<i>Sp. 1.</i>				
2127 lycioides <i>W. en.</i>	Box-thorn-like	Δ	or	3	in	Y	Chili	1815.	C s.p	Bot. reg. 299
372. HYDROPHYL/LUM. <i>W.</i>	WATER-LEAF.				<i>Boraginæ.</i>	<i>Sp. 3—6.</i>				
2128 appendiculatum <i>Ph.</i>	appendaged	Δ	cu	1	my.jn	P.B	N. Amer.	1813.	D p.l	
2129 virginicum <i>W.</i>	Virginian	Δ	cu	1	my.jn	W	N. Amer.	1739.	D m.s	Bot. reg. 331
2130 canadense <i>W.</i>	Canadian	Δ	cu	1	my.jn	W	Canada	1759.	D m.s	Bot. reg. 242
373. PHACELIA. <i>Mich.</i>	PHACELIA.				<i>Boraginæ.</i>	<i>Sp. 1—4.</i>				
2131 bipinnatifida <i>Mich.</i>	bipinnatifid	Δ	cu	2	in.jl	B	N. Amer.	1824.	D co	Mich. am. 1. t. 16
374. RAMONDA. <i>P. S.</i>	RAMONDA.				<i>Solanæ.</i>	<i>Sp. 1.</i>				
2132 pyrenæica <i>W. en.</i>	Borage-leaved	Δ	or	1	my	Pu	Pyrenees	1731.	D s.l	Bot. mag. 236
Verbasicum <i>Mycœni</i>	Linn.									
375. VERBAS/CUM. <i>W.</i>	MULLEIN.				<i>Solanæ.</i>	<i>Sp. 31—70.</i>				
2133 thapsus <i>W.</i>	Shepherd's-club	○	or	6	il.au	Y	Britain	ro. sid.	S co	Eng. bot. 549
2134 thapsiforme <i>Schr.</i>	bastard	○	or	2	il.au	L, Y	Europe	...	S co	
2135 phloimoides <i>W.</i>	woolly	○	or	3	in.jl	Y	Italy	1739.	S co	Mench. n. 170. t. 4
2136 sinuatum <i>W.</i>	scollop-leaved	○	or	2	il.au	Y	S. Europe	1570.	S co	Fl. grac. t. 227
2137 bipinnatifidum <i>B. M.</i>	cut-leaved	○	or	2	il.au	Y	Tauria	1813.	S p.l	Bot. mag. 1777
2138 australe <i>Schr.</i>	southern	○	or	4	il.au	Y	S. Europe	1815.	S co	Schr. mon. t. 2
2139 condensatum <i>Schr.</i>	close-flowered	○	or	4	il.au	Y	Austria	1820.	S co	Schr. mon. t. 3
2140 niveum <i>Ten.</i>	snow-white	○	or	3	il.au	P, Y	Naples	1823.	S co	Ten. neap. t. 22
2141 cuspidatum <i>Schr.</i>	pointed	○	or	4	my.jn	Y	Vienna	1817.	S co	Schr. mon. t. f. 1
2142 macranthum <i>Hgg.</i>	large-flowered	○	or	3	in.jl	Y	Portugal	1820.	S co	Fl. port. t. 27



History, Use, Propagation, Culture,

ments upon the generation of plants. Small bushes or herbaceous plants with opposite entire leaves, and terminal or axillary bunches of white flowers. Eleven species, natives of New Holland, are described. Ripened cuttings may be struck in sand under a hand-glass.

369. *Phlox.* From φλόξ, flame. The plant so named by the ancients is supposed to have been an *Agrostemma*. The genus now so called is a native of North America only, and is one of the handsomest in cultivation. It consists of most elegant border flowers, valuable for blossoming late in the season, and for their lively colors of red, white, and purple, while the majority of plants that flower in autumn have yellow, and generally syngenesious blossoms. Most of the species delight in a rich moist soil, or loam and leaf mould or peat. The dwarf species are admirably adapted for pots, or a select rock-work: they require some protection in severe winters.

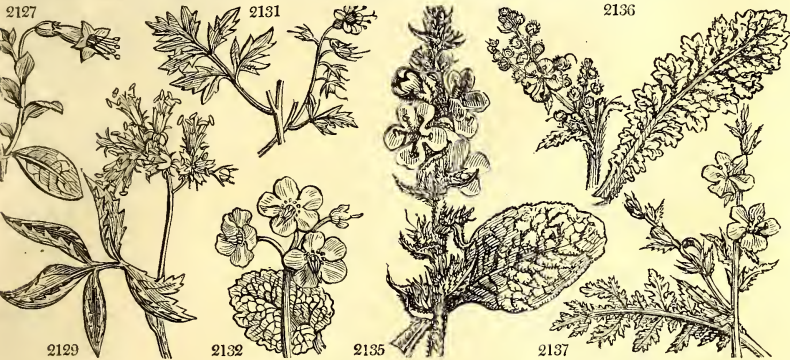
370. *Polemonium.* From πολεμος, war. Pliny relates, that the plant which he called by this name received its appellation from having been the cause of a war between two kings, who could not agree which of them first discovered its virtues. It was also called *Chilodynamia* (from χίλιαι, a thousand, and δυναμις, power), on account of its extraordinary merit. The plant which possessed all these good qualities is now forgotten. Its name has descended to a flower which ornaments the garden, but which preserves nothing of the virtue of its progenitor, beyond a slight vulnerary quality. *P. caruleum* is a border flower of long standing, and of the easiest culture.

371. *Vestia.* Named by Willdenow, in his *Enumeratio Plantarum*, in honor of his friend Dr. Vest of Clagen-

- 2106 Leaves lanc. flat rough at edge, Stem smooth, Corymbs panicled, Segments of cor. rounded
 2107 Leaves obl. lanc. somewhat wavy rough at edge, Stem smooth, Corymbs panicled, Segm. of cor. blunt
 2108 Erect pubescent, Leaves ovate acum. beneath pubescent decussate, Cor. panic. Segm. of Cor. rounded
 2109 Erect, Stem smooth not spotted, Leaves ovate lanc. quite smooth, Raceme panic. Teeth of cal. erect
 2110 Erect, Stem rough spotted, Leaves obl. lanc. smooth rough at edge, Pan. obl. close, Teeth of cal. recurved
 2111 Leaves cordate ovate acute smooth, Flowers densely pyramidal, Teeth of cal. upright, Stem spotted
 2112 Hairy, Stem erect, Leaves linear-lanceolate, Sepals subulate, Tube of cor. curved pubescent
 2113 Hairy, Stems assurgent, Leaves ovate lanc. lanceolate, Sepals subulate, Tube of cor. smooth straight
 2114 Leaves lanceolate sessile smooth thick, Stem erect rough, Flowers whorled terminal
 2115 Stems erect subpubescent, Leaves lanc. smooth, Branches of corymb 3-flowered, Teeth of cal. linear
 2116 Leaves lanc. shining on both sides acute nearly without veins, Stem smooth trifid above shrubby at base
 2117 Tufted assurgent smooth, Leaves linear lanceol. smooth, Corymb term. fastigate, Teeth of cal. mucron.
 2118 Dwarf diffus pubescent, Leaves ovate lanc. chiefly alternate, Branches few-fl. lax, Cal. subul. Pet. cord.
 2119 Stoliferous pubescent, Fertile stems erect simple few-leaved, Leaves oval, Corymb few-flowered
 2120 Leaves ovate, Flowers solitary
 2121 Dwarf tufted pubescent, Leaves fascicled subulate pungent ciliated, Pedicels few terminal
 2122 Leaves ciliated lowest setaceous upper lin. lanc. Branches 3-5-fl. at end, Cal. spreading hairy, Pet. retuse
 2123 Stem erect rounded, Leaves lanc. smooth half stem-clasp. Cal. edged, Tube of cor. twice as long as limb
 2124 Pinnae 7, Flowers terminal nodding
 2125 Leaves pinnate, Flowers erect, Cal. longer than tube of corolla
 2126 Pinnae many the terminal 3-lobed, Flowers nodding, Cal. viscid
 2127 The only species
 2128 Very hairy, Radical leaves subpinnatifid, cauline lobed angular, Sinus of calyx with reflexed appendages
 2129 Leaves pinnate or pinnatifid, Segm. ovate lanceol. cut serrate, Fascicles of flowers clustered
 2130 Smoothish, Leaves lobed angular, Fascicles of flowers close together
 2131 Erect, Leaves pinnatifid, Segments cut lobed, Racemes generally bifid
 2132 A stemless plant with hoary leaves and short scapes of purple flowers. The only species

Leaves decurrent.

- 2133 Lvs. cren. toment. upper acute, Raceme spiked dense, Cor. rotate with obl. obt. segm. Anth. nearly equal
 2134 Lvs. cren. toment. upper acumin. Raceme spiked dense, Cor. rotate with obov. round segm. 2 of anth. obl.
 2135 Lvs. cren. tom. radic. ell. stict. Caul. obl. ac. upper brd. ov. cusp. slightly decur. Fasc. remotish, Two an. obl.
 2136 Leaves toment. radical and lower cauline sinuated upper crenate slightly decurr. Spikes pan. Fl. clustered
 2137 Leaves bipinnatifid [Fasc. of rac. remote, Two anth. obl.
 2138 Leaves crenate tom. Radic. obl. lanc. narr. to stalk, Caul. obl. acute decurr. upper broad ov. cusp. $\frac{1}{2}$ decur.
 2139 Leaves tom. radic. ellipt. narr. at base uneq. doubly crenate, Caul. obl. acute simply crenate upper round.
 ovate cusp. slightly decurr. Racemes dense, Two anthers oblong
 2140 Leaves $\frac{1}{2}$ decurrent crenate snow-white, Raceme spiked dense, Anthers equal
 2141 Leaves crenulate tomentose the upper cuspidate, Fascicles of raceme remote, Two anthers oblong
 2142 Leaves cren. tom. rad. ellipt. obl. narr. at base caul. obl. acute $\frac{1}{2}$ decurr. Fasc. of rac. rem. Two anth. obl.

*and Miscellaneous Particulars.*

furth. A native of Chili, with pale-green smooth leaves, and pale yellow flowers. It is very nearly related to *Lyrium*.

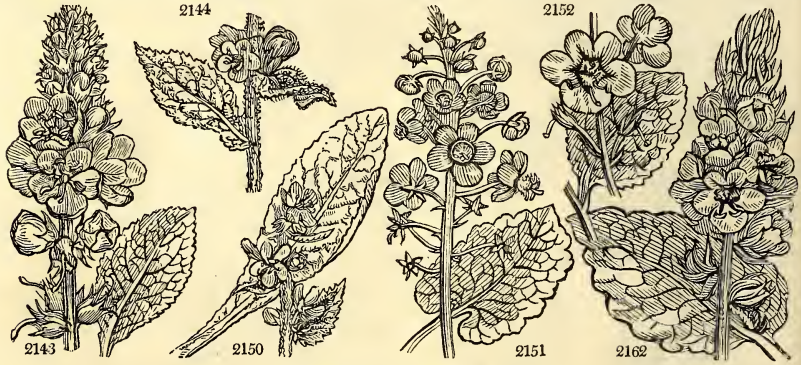
372. *Hydrophyllum*. From *ὕδωρ*, water, and *φυλλον*, a leaf. This plant grows in the marshes of North America, and in the spring time has a small quantity of water in the cavity of each leaf. The species are two only, both humble plants, with neat foliage, which protects the small white flowers. *H. virginicum* is used as a salad, under the name of Shawanese salad in North America.

373. *Phacelia*. From *φακελιος*, a bundle, the flowers being disposed in fascicled spikes.

374. *Ramonda*. Named after M. L. Ramond, a French botanist, who discovered many new plants in France. A very pretty dwarf plant, kept in a frame with other alpine plants. Formerly a species of *Verbascum*, (*V. myconi*).

375. *Verbascum*. An alteration of *barbasicum*, on account of the beard (*barba*) with which all the leaves and stems are closely covered. The species are all very fine looking plants, well calculated for shrubberies, among other tall plants. They have been well illustrated by M. Schrader in a learned Monograph. *V. thapsus* has been so called from its native place, the Isle of Thapsos. *V. blattaria* is said to have the power of driving away the blatta or cockroach. *V. pulverulentum* is one of the most magnificent of native herbaceous plants, sending up a stem a yard high, covered with many hundreds of gold colored flowers. Correa observes of this golden rod, that in still weather two or three blows with a stick will bring down all the corollas. The nap of

2143	ovalifolium <i>H. K.</i>	oval-leaved	△	or	1	jl.s	O	Caucasus	1804.	D	p.l	Bot. mag. 1037
2144	Boerhaavii <i>W.</i>	annual	○	or	2	jl.au	Y.Pu	S. Europe	1731.	S	co	Mill. ic. 2. t. 273
2145	elongatum <i>W. en.</i>	long-stalked	○	or	3	jl.au	Y	.....	1813.	S	co	
2146	pyramidatum <i>W. en.</i>	pyramidal	○	or	3	jl.au	Y	Caucasus	1804.	S	co	Sweet fl. gard. 31
2147	hæmorrhoidale <i>W.</i>	Madeira	○	or	2	jn.au	W.pu	Madeira	1777.	S	co	
2148	Strombosium <i>P. S.</i>	wool-bearing	○	or	3	jn.jl	Y	Hungary	1805.	S	co	Pl. rar. hung. t. 79
2149	Lychnitis <i>W.</i>	white	○	or	3	jn.au	Y	Britain	ro.sid.	S	co	Eng. bot. 58
2150	pulverulentum <i>E. B.</i>	powdered	○	or	3	jn.au	C	England	bor.fi.	S	co	Eng. bot. 487
2151	ferrugineum <i>W.</i>	rusty	△	or	3	my.au	Br	S. Europe	1683.	D	p.l	Bot. rep. 162
2152	cupreum <i>B. M.</i>	copper-colored	△	or	3	my.au	Br	Caucasus	1798.	D	p.l	Bot. mag. 1226
2153	nigrum <i>W.</i>	black-rooted	△	or	2	my.au	Y	England	ch. so.	D	p.l	Eng. bot. 59
2154	phœniceum <i>W.</i>	purple-flowered	△	or	3	my.au	Pu	S. Europe	1596.	D	p.l	Bot. mag. 885
2155	virgatum <i>E. B.</i>	slender	△	or	5	au	Y	Britain	gra.pl.	S	co	Eng. bot. 550
2156	Blattaria <i>W.</i>	moth	△	or	4	jl.au	Y	Britain	gra.pl.	S	co	Eng. bot. 393
2157	glabrum <i>W. en.</i>	smooth	△	or	2	jl.au	Y	.....	1805.	S	co	
2158	repandum <i>W. en.</i>	waved	△	or	3	jl.au	Y	.....	1813.	S	co	
2159	pinnatifidum <i>W.</i>	pinnatifid	△	or	1	my	Y	Archipel.	1788.	S	p.l	
2160	Osbeckii <i>W.</i>	Osbeck's	△	or	1	jl.au	G	Spain	1752.	S	p.l	Tourn. it. 2. t. 83
2161	orientale <i>M. B.</i>	eastern	△	or	2	jn.jl	Y	Caucasus	1821.	S	co	
2162	speciosum <i>M. B.</i>	showy	△	or	2	jn.jl	Y.Pu	Tauria	1820.	S	co	Bot. reg. 558
2163	spinosum <i>L.</i>	spiny	△	or	1	my.jn	Pu	Crete	1824.	S	co	Alp. exot. t. 36
376.	DATŪ'RA. <i>W.</i>	THORN-APPLE.						<i>Solanææ. Sp. 7—10.</i>				
2164	ferox <i>W.</i>	Chinese	○	or	3	jl.s	W	China	1731.	S	s.l	Zano. h. 212. t. 162
2165	Stramonium <i>W.</i>	common	○	or	3	jl.s	W	England	rub.	S	s.l	Eng. bot. 1288
2166	Tatula <i>W.</i>	blue	○	or	3	jl.s	B	N. Amer.	1629.	S	s.l	Meerb. ic. 2. t. 113
2167	fastuosa <i>W.</i>	purple	○	or	3	jl.s	Pu	Egypt	1629.	S	r.m	Kno. the. 1. t. 5. 11
2168	Métel <i>W.</i>	downy	○	or	2	jn.s	W	Asia	1596.	S	r.m	Bot. mag. 1440
2169	larvis <i>W.</i>	smooth-fruited	○	or	2	jn.s	W	Africa	1780.	S	r.m	Jac. sch. 3. t. 82
2170	ceratocaulon <i>Ort.</i>	horn-stalked	○	or	2	jl.s	W	S. Amer.	1805.	S	r.m	Jac. sch. 3. t. 339
377.	BRUGMAN'SIA. <i>P. S.</i>	BRUGMANSIA.						<i>Solanææ. Sp. 2—3.</i>				
2171	suaveolens <i>W. en.</i>	smooth-stalked	□	or	15	aus.	W	Peru	1733.	C	lp	
2172	arboorea <i>W. en.</i>	downy-stalked	□	or	10	aus.	W	Peru	1813.	C	lp	Fl. peruv. 2. t. 123
378.	LISIAN'THUS. <i>W.</i>	LISIAN'THUS.						<i>Gentianææ. Sp. 4—29.</i>				
2173	longifolius <i>W.</i>	long-leaved	○	or	1½	jn.jl	Y	Jamaica	1793.	C	lp	Brow. jam. t. 9. f. 1
2174	glaucofolius <i>Jac.</i>	glaucous-leaved	○	or	2	jn.jl	Pu	.....	...	C	lp	Jac. ic. rar. 1. t. 33
2175	exsertus <i>W.</i>	oval-leaved	○	or	12	...	Y	W. Indies	1793.	C	lp	
2176	cordifolius <i>W.</i>	heart-leaved	○	or	2	...	Y	Jamaica	1816.	C	lp	Br. jam. t. 9. f. 2
379.	SPIGE'LIA. <i>W.</i>	WORM-GRASS.						<i>Gentianææ. Sp. 2—4.</i>				
2177	Anthemia <i>W.</i>	annual	□	w	1½	jl	G.r	W. Indies	1759.	S	s.l	Bot. mag. 2359
2178	marilandica <i>W.</i>	perennial	△	or	1	jl.au	S	N. Amer.	1694.	D	lp	Bot. mag. 80
380.	NICANDRA. <i>J.</i>	NICANDRA.						<i>Solanææ. Sp. 1—2.</i>				
2179	physalodes <i>P. S.</i>	blue-flowered	○	or	2	jl.s	Pu	Peru	1759.	D	s.l	Bot. mag. 2458



History, Use, Propagation, Culture.

this species, of *V. lychnitis*, and of several others, may be used as tinder, and to make wicks for lamps; whence the name *Lychnitis* applied to one of the species, from *λυχνος*, a lamp. Several mules have been produced between the species of this genus; and it has been questioned whether those accounted species are not productions of this kind.

376. *Datura*. An alteration of the Arabic name *tâtôrah*, Forskahl. About Goa and Canara, it is called *Daturo*, Rumphius. *Stramonium* is an abbreviation of the Greek word *στρομανονιον*, or mad-apple, on account of the dangerous effects of the fruit of that species. *Metel* or *Methel*, is an Arabic name employed by Serapion, ch. 375, and expresses the narcotic effect of the plant. *Tatula* is altered from *Datula*, a name given to the *Datura* by the Turks and Persians. *D. stramonium* is an instance of a South American plant, naturalized within a comparatively short time, the seeds having been introduced from Constantinople in Gerarde's time, and by him "dispersed through this land." Kalm says, that this plant and a species of *Phytolacca* are the worst weeds in America. Professor Martyn observes, that "in the earth brought with plants from various parts of that extensive country, we are sure to have the thorn-apple come up." At night, the leaves next the flowers rise up and enclose them. The whole plant smells strongly of bean meal. Every part of the plant is poisonous, bringing on delirium, tremors, &c. but under proper regulations it is a useful medicine in asthma, &c.

D. fastuosa has a fine polished purple stalk, varied with dots or lines; the leaves are large, the flowers of a beautiful purple outside, and a satiny white within; some are single, others semidouble. They have an agreeable odor at first, but if long smelt to become less agreeable, and are narcotic. *D. ceratocaulon* is a fine species; its seed will sometimes remain in the ground several years before it will vegetate.

377. *Brugmansia*. So named by Persoon, in honor of Professor S. J. Brugmans, author of some botanical works, and especially of a dissertation "De Plantis Inutilibus, et Venenatis," published at Groningen, in 1783.

B. arborea is one of the greatest ornaments of the gardens of Chili. The flowers which come out at the

Leaves sessile.

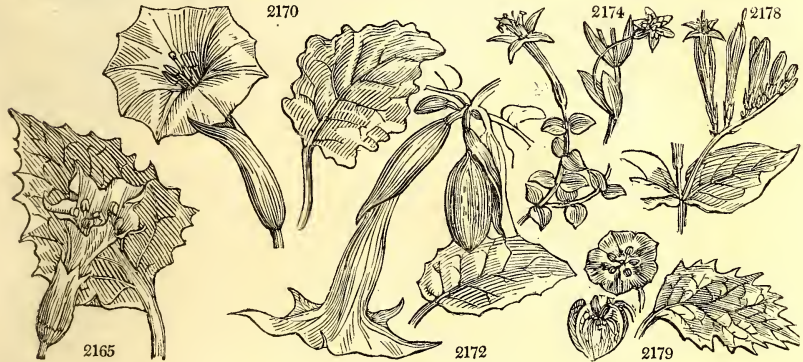
- 2143 Stem erect simple, Leaves oval sessile tooth-crenate smooth above, Flowers spiked
 2144 Leaves sublyrate, Flowers sessile
 2145 Leaves $\frac{1}{2}$ decurrent tomentose on both sides, Stem branched, Three filaments hairy in the middle
 2146 Leaves nearly naked lower oblong attenuated at base upper cord. acum. sess. Racemes panic. Stam. beard.
 2147 Leaves ovate oblong at base atten. toment. obsolete cren. Racemes spiked elongate, Fl. without bractes
 2148 Leaves ovate sessile beneath closely woolly, Stem branched, Filaments bearded
 2149 Leaves wedge-shaped oblong naked above, Stem angular paniced
 2150 Leaves ovate oblong subserrate powdery on both sides, Stem rounded paniced, Hairs of stamens white
 2151 Leaves subvillous rugose cauline subsessile equally crenate, Radical oblong cordate doubly crenate
 2152 Stems virgate simple, Leaves cordate ovate rugose crenate woolly beneath, Pedunc. with 1 bract. solitary
 2153 Leaves oblong cordate stalked wavy crenate subpubescent
 2154 Leaves naked radical uneq. toothed, Caul. lanc. toothed wedge-shaped at base, Stem naked, Rac. elong.
 2155 Leaves oblong lanc. toothed sessile radical sublyrate pubescent, Stem branched, Flowers aggreg. sessile
 2156 Leaves stem-clasping lower smooth doubly serrated, Peduncles 1-flowered solitary
 2157 Leaves naked lower obl. stalked upper obl. lanc. Stem simple pub. Raceme term. Stalks altern. very short
 2158 Leaves naked radical sinuated cauline oblong cordate stem-clasping coarsely toothed, Pedunc. alternate
 2159 Leaves tomentose radical bipinnatifid cauline pinnatifid, Flowers clustered sessile
 2160 Leaves cut naked, Stem leafy, Calyxes woolly, Pedunc. 2-flowered
 2161 Leaves ovate oblong beneath hoary the lower narrowed at base upper subcordate, Racemes lax paniced
 2162 Leaves cordate acuminate, Spike lax downy, Two lower stamens declinate smooth
 2163 Stem leafy prickly shrubby
- 2164 The upper spines very large converging at the top of the pericarp
 2165 Leaves ovate smooth angular toothed, Pericarp prickly
 2166 Leaves ovate subcordate smooth angular toothed, Stem spotted, Pericarp prickly
 2167 Leaves ovate angular, Pericarps tuberculated nodding
 2168 Leaves cordate nearly entire pubescent, Pericarps prickly globose nodding
 2169 Leaves ovate angular toothed smooth, Stem hollow herbaceous, Pericarps smooth erect
 2170 Leaves ovate lanceolate wavy beneath hoary, Stems dichotomous cornute, Pericarps obovate pendulous

- 2171 Leaves oblong entire smooth, Calyxes 5-toothed
 2172 Leaves oblong entire powdery, Stalks and branches pubescent, Cal. spathaceous acuminate

- 2173 Leaves lanceolate acute pubescent, Stem rounded
 2174 Leaves ellipt. lanceolate obtuse smooth, Stem rounded, Peduncles long 1-flowered
 2175 Leaves ovate lanc. pedunc. trichotomous, Genitals very long
 2176 Leaves cordate

- 2177 Stem herbaceous the upper leaves 4 together
 2178 Stem simple, All the leaves opposite sessile lanceolate oval

- 2179 Leaves sinuated, Calyxes closed acute-angled

*and Miscellaneous Particulars.*

divisions of the branches, have a loose tubular calyx nearly four inches long, which, opening like a spathe, a corolla is protruded, with a narrow trumpet-shaped tube, which spreads wide at the brim, where it is divided into five angles, which terminate in very long points: they are white within, pale yellow outside, and one tree will perfume the air of a large garden. It flowers freely in the bark-stove, in a moist heat.

378. *Lisianthus*. From *λυσις*, dissolution, and *ανθος*, a flower; a name given to the plant on account of the medical virtues possessed by it of dissolving humours. It is a powerful cathartic. The species are very handsome stove plants. Cuttings root readily in sand under a bell-glass.

379. *Spigelia*. So named by Linnæus, in honor of Adrian Spigelius, born at Brussels in 1578; professor of anatomy and surgery at Padua; author of *Isagoge in rem Herbariam*; died in 1625.

S. antheimia is so named for its peculiar efficacy in destroying worms, for which it has been long in use among the negroes in the West Indies. Dr. Browne, after a number of successful experiments, says it operates in so extraordinary a manner, that no other simple can be of equal efficacy in any other disease, as this is in those which proceed from these insects. (*Hist. of Jamaica*.) The same plant procures sleep almost as certainly, and in an equal degree with opium.

S. marilandica is used as a vermifuge in North America, and according to Dr. Garden, (*Letters to Dr. Hope*), with very powerful effects. The annual plant may be treated like other tender annuals; but *S. marilandica* is rather difficult to preserve; according to Sweet, "it requires to be grown in a pot, that it may be protected from severe frosts, or too much wet; it will sometimes survive the winters when planted in the open ground in a bed of peat: the best soil for it is an equal mixture of loam and peat, and young cuttings, planted under a hand-glass, root readily." (*Bot. Cult.* 424.)

380. *Nicandra*. Nicander was a Greek physician, who lived about a century and half before Christ. The genus was formed by Adanson; it consists of the *Atropa physaloides* of Linnæus. The Indians of Peru make use of the berries of this plant to bring away gravel, and to relieve persons who have a stoppage of urine.

381. HYOSCYAMUS. W. HENBANE.

2180 niger W.	common	♂	○	p	1	jn.jl	St	Britain	1818.	S	s.l	Eng. bot. 591
β annuus	annual		○	p	1	jn.jl	St	Europe	1818.	S	s.l	Bot. mag. 2394
2181 albus W.	white		○	w	2	jl.au	Pa.W	S. Europe	1570.	S	co	Blackw. t. 111
2183 reticulatus W.	Egyptian		○	w	1	jl.au	R	Egypt	1640.	S	co	Com.hort.77.t.22
2183 Senecionis W.en.	yellow-flowered	♂	△	w	1½	mr.o	Y	Egypt	1812.	C	s.l	
2184 aureus W.	golden		○	w	1	mr.o	Y	Levant	1640.	S	r.m	Bot. mag. 87
2185 canariensis Ker.	various-leaved	♂	□	cu	1½	ja.d	Y	Canaries	1816.	D	s.l	Bot. reg. 180
2186 pusillus W.	dwarf		○	w	½	jl	Y	Persia	1691.	D	s.l	Pk. alm. t.37. £5
2187 physaloides W.	purple-flowered	♂	△	w	1	mr.ap	Pu	Siberia	1777.	D	p.l	Bot. mag. 852
2188 Scopólia W.	Nightsh.-leav'd	♂	△	w	1	ap.my	D.Pu	Carolina	1780.	D	p.l	Bot. mag. 1126
2189 agréstitis Kit.	field		○	w	1	ap.my	Y.Vy	Hungary	1820.	S	p.l	Sweet fl. gard.27
2190 pallidus W. & K.	pale		○	w	1	ap.my	Y	Hungary	1815.	S	p.l	
2191 móticus L.	blunt-calycex	♂	△	w	1	mr.ap	Y.Pu	Egypt	1822.	S	p.l	
2192 orientális Dieb.	eastern	♂	△	or	1½	ap	Pu	Iberia	1821.	D	s.l	Bot. mag. 2414

Solanæa. Sp. 13-14.

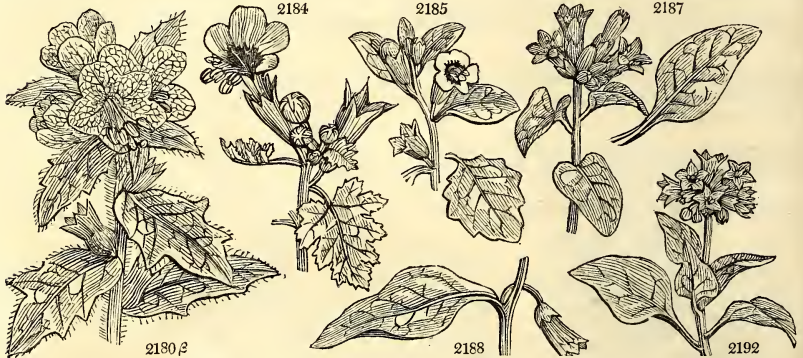
1818.	S	s.l	Eng. bot. 591
1818.	S	s.l	Bot. mag. 2394
1570.	S	co	Blackw. t. 111
1640.	S	co	Com.hort.77.t.22
1812.	C	s.l	
1640.	S	r.m	Bot. mag. 87
1816.	D	s.l	Bot. reg. 180
1691.	D	s.l	Pk. alm. t.37. £5
1777.	D	p.l	Bot. mag. 852
1780.	D	p.l	Bot. mag. 1126
1820.	S	p.l	Sweet fl. gard.27
1815.	S	p.l	
1822.	S	p.l	
1821.	D	s.l	Bot. mag. 2414

382. NICOTIANA. W. TOBACCO.

2193 Tabácum W.	Virginian		○	clt	4	jl.au	Pk	America	1570.	S	r.m	Blackw. t. 146
2194 macrophýlla W.en.	largc-leaved		○	or	6	jl.au	Pk	America	...	S	r.m	
2195 fruticósa W.	shrubby	♂	□	clt	3	jl.au	Pk	China	1699.	C	r.m	
2196 unduláta R. Br.	sweet-scented	♂	□	clt	2	my.s	W	N. S. W.	1800.	D	r.m	Bot. mag. 673
2197 rústica W.	common-green		○	clt	3	jls	G	America	1570.	S	co	Blackw. t. 437
2198 paniculáta W.	panicled		○	clt	3	jls	G	Peru	1752.	S	r.m	Flor. per.2. t.129
2199 glutinósa W.	clammy		○	or	4	jls	S	Peru	1759.	S	r.m	Bot. rep. 484
2200 plumbáginifólia W.en.	curled-leaved	♂	△	clt	2	my.jn	W	America	1816.	D	r.m	Jacq. fragm. t.84
2201 pusilla W.	Primrose-leav'd	♂	□	or	3	au	W	Vera Cruz	1733.	S	r.m	Mil. ic.2.t.185.f.2
2202 quadriválvis Ph.	four-valved		○	or	2	jl.au	W	N. Amer.	1811.	S	r.m	Bot. mag. 1775
2203 nána Lindl.	Rocky-mount.		○	cu	½	jn	W	N. Amer.	1823.	S	co	Bot. reg. 833
2204 Langsdorffii W.en.	Langsdorff's		○	or	5	au	G	Chili	1819.	S	co	Bot. mag. 2221
2205 cerinthoides Lehm.	Honeywort		○	or	2	au	G	.....	1821.	S	co	Lehm. nic. t. 2
2206 repánda W.	Havannah		○	clt	2	jn.jl	W	Havannah	1823.	S	co	Bot. mag. 2484

Solanæa. Sp. 14-26.

1570.	S	r.m	Blackw. t. 146
...	S	r.m	
1699.	C	r.m	
1800.	D	r.m	Bot. mag. 673
1570.	S	co	Blackw. t. 437
1752.	S	r.m	Flor. per.2. t.129
1759.	S	r.m	Bot. rep. 484
1816.	D	r.m	Jacq. fragm. t.84
1733.	S	r.m	Mil. ic.2.t.185.f.2
1811.	S	r.m	Bot. mag. 1775
1823.	S	co	Bot. reg. 833
1819.	S	co	Bot. mag. 2221
1821.	S	co	Lehm. nic. t. 2
1823.	S	co	Bot. mag. 2484



History, Use, Propagation, Culture,

381. *Hyoscyamus*. From *ὕψος*, a pig, and *κωνίος*, a bean; the fruit has been thought to resemble a bean, and, although dangerous to other animals, is said to be eaten by pigs with safety. *H. niger* is a well-known fetid weed, which follows civilized man, growing on rubbish of old houses, dunghills, &c. It has a strong peculiar odor, greatly affecting the heads of some persons, and the whole plant is reputed poisonous. Sir J. E. Smith and Professor Martyn say they have often eaten the seeds without suffering inconvenience. Lightfoot, on the contrary, says, a few of them have been known to deprive a man of his reason and limbs. A species of bug (*Cimex*), and of beetle (*Chrysomela*) take their specific names from feeding on the plant; but no quadruped is known to eat it, unless the goat and sheep, and that very rarely and sparingly. As a medicine, henbane is of immemorial use, and is still continued in the Pharmacopœias. It is given with or without opium in coughs, epilepsy, convulsions, &c. Country people sometimes smoke the leaves for the toothach.

382. *Nicotiana*. So named from John Nicot of Nismes, in Languedoc, ambassador from the king of France to Portugal, who procured the seeds from a Dutchman who had received them from Florida. The first plant was said to have been presented to Catherine de Medicis, whence the French name *Herbe à la Reine*. The name tobacco, which has superseded all others, is the appellation of a district of Mexico. *Petum* or *Petume*, Bras., *Tabac*, Fr., *Tabach*, Ger., and *Tabac*, Ital. The species grown as tobacco are the *N. tabacum* and *rustica*; the former greatly preferred. The popular narcotic which it furnishes is probably in more extensive use than any other, and its only rival is the betel of the east. According to Linnaeus, tobacco was known in Europe from 1560. It was brought to England from Tobago in the West Indies, or Tobasco in Mexico, (and hence the name), by Ralph Lane, in 1586, but only the herb for smoking. Afterwards, according to Hakluyt, seeds were introduced from the same quarter. Sir Walter Raleigh first introduced smoking; in the house in which he lived at Islington are his arms on a shield, with a tobacco plant on the top. Smoking has consequently been common in Europe for upwards of two centuries. It is a powerful narcotic, and also a strong stimulant with respect to the whole system, but especially to the stomach and intestines, to which, in small doses, it proves emetic and purgative. The smoke thrown up the anus acts as a glyster: an infusion of the leaves forms a powerful lotion for obstinate ulcers: the oil applied to a wound, is said by Redi to be as fatal as the poison of a viper. The decoction, powder, and smoke of tobacco, are used in gardening to destroy insects, and in agriculture for the same purpose, and to cure cutaneous eruptions in domestic animals.

Tobacco, as used by man, says Du Tour, (*Nonveau Cours d'Agriculture*, &c.) gives pleasure to the savage and the philosopher, to the inhabitant of the burning desert and frozen zone. In short, its use either in powder, to chew, or to smoke, is universal; and for no other reason than a sort of convulsive motion (sneezing) produced by the first, and a degree of intoxication by the two last modes of usage. A hundred volumes, he adds, have been written against it, of which a German has preserved the titles. Among these books is that of James Stuart, king of England, who violently opposed it. The Grand Duke of Moscow forbade its entrance into his territory under pain of the knout for the first offence, and death for the next. The emperor of the Turks, king of Persia, and Pope Urban VIII. issued similar prohibitions, all of which were as ridiculous as those which attended the introduction of coffee or Jesuit's bark. At present, all the sovereigns of Europe, and most of those of other parts of the world derive a considerable part of their revenue from tobacco.

Tobacco is cultivated in Europe as far north as Sweden, and is also grown in China, Japan, and other eastern

2180 Radic. leaves sinuated pinnatifid upper stem-clasping, Flowers nearly sess. Cor. netted

- 2181 Leaves stalked the lowest rounded entire the rest cordate ovate sinuate toothed, Fl. axill. sess. or stalked
 2182 Cauline leaves stalked cordate sinuate acute, Flowers entire inflated
 2183 Leaves stalked 3-lobed cut-toothed, Flowers stalked, Segm. of cor. equal flat
 2184 Leaves stalked ovate acute angular toothed, Flowers stalked, Three upper segm. of cor. wavy
 2185 Lower leaves cordate ovate angular obtuse, floral ovate entire
 2186 Leaves stalked oblong lanc. toothed, Flowers stalked, Calyx teeth mucronate
 2187 Leaves stalked ovate cordate entire, Flowers stalked axillary solitary terminal in umbels, Cal. inflated
 2188 Leaves stalked ovate obl. entire, Flowers axillary stalked nodding, Cor. camp. trunc. (*Scopolina*, Schul.)
 2189 Stem simple pubescent, Leaves sessile $\frac{1}{2}$ decurrent sinuate toothed smoothish, Flowers sessile
 2190 Leaves stem-clasping angular, radical angular toothed, Flowers sessile 1-colored
 2191 Leaves stalked ovate acute angular, Cal. pointless, Bractes undivided
 2192 Leaves deltoid ovate repand, Cal. of fruit tumid, Stamens exerted

- 2193 Leaves sessile obl. lanc. acumin. the lower decurr. Mouth of cor. inflated, Segm. acuminate
 2194 Leaves stem-clasping ovate acute auricled at base, Mouth of cor. inflated, Segm. short acuminate
 2195 Stem shrubby simple, Lvs. stalked lanc. obliquely acuminate, Coroll. inflated at mouth, Segm. acumin.
 2196 Stem nearly sim. Lvs. somew. stikd. ov. lanc. wavy, Tube of cor. cyl. much longer than cal. Seg. uneq. round
 2197 Stem rounded, Leaves stalked ovate entire, Tube of cor. cylind. longer than cal. Segment rounded obtuse
 2198 Stem nearly sim. Lvs. stikd. ov. subcord. entire, Tube of cor. clav. very sm. much longer than cal. Seg. obt.
 2199 Leaves stalked cordate entire, Fl. racemose 1-sided, Cal. 2-lipp. upper lip longest, Cor. ringent, Segm. acute
 2200 Leaves sessile lower obovate spatulate obtuse upper $\frac{1}{2}$ stem-clasping wavy, Tube of cor. very long clavate
 2201 Stem dichot. Lvs. sess. radic. obl. oval. Cal. very short, Tube of cor. cyl. thrice as long as cal. Segm. acute
 2202 Stem herbac. branching, Lvs. stalked obl. Tube of cor. twice as long as cal. Segm. obt. Caps. 4-valv. round
 2203 Leaves lanceolate hairy, radical longer than the solitary flowers, Petals obtuse
 2204 Leaves leaves ovate obtuse stalked upper sessile decurrent, Tube of cor. clavate long, Limb obtuse
 2205 Stem branc. at base, Lvs. stikd. all cord. ent. Tube of cor. clav. pub. much long. than cal. Seg. very sh. acute
 2206 Leaves stem-clasping cord. spat. roundish repand, Tube of cor. slender very long, Segm. ovate acute plic.



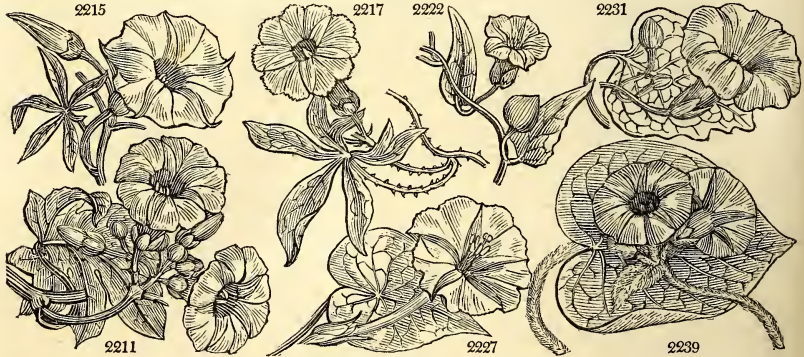
and Miscellaneous Particulars.

and hot countries. The sort preferred is the *N. tabacum*, which is an elegant plant, grown also in gardens as a border flower. *N. rustica*, *fausse tabac*, Fr., *Bauern taback*, Ger., and *Tabacca cimarrona*, Span., is also frequently cultivated, especially in Europe, it being considered harder than the Virginian sort. Parkinson says, he has known Sir Walter Raleigh, when prisoner in the Tower, prefer it to make good tobacco, "which he knew so rightly to cure." Tobacco has been successfully cultivated and cured in this country, but its growth is prohibited to encourage our commerce with America. It is now only grown for curiosity as a border flower, or by gardeners for the destruction of insects. In Germany and other northern countries, most families who have gardens grow enough of *N. rustica* for their own use; but as they do not know how to cure it, it is not much valued, and is never made into chewing tobacco or snuff.

In the culture of Tobacco in America, the plants are raised on beds early in spring, and when they have acquired four leaves, they are planted in the fields in well prepared earth, about three feet distance every way. Every morning and evening the plants require to be looked over, in order to destroy a worm which sometimes invades the bud. When four or five inches high they are moulded up. As soon as they have eight or nine leaves, and are ready to put forth a stalk, the top is nipped off, in order to make the leaves longer and thicker, by diverting all the energies of the plant to them. After this, the buds which sprout from the joints of the leaves are all plucked, and not a day is suffered to pass without examining the leaves, to destroy a large caterpillar, which is sometimes very destructive to them. When they are fit for cutting, which is known by the brittleness of the leaves, they are cut with a knife close to the ground, and, after lying some time, are carried to the drying shed, where the plants are hung up by pairs upon lines, having a space between, that they may not touch one another. In this state they remain to sweat and dry. When perfectly dry, the leaves are stripped from the stalks and made into small bundles tied with one of the leaves. These bundles are laid in heaps, and covered with blankets. Care is taken not to over-heat them, for which reason the heaps are laid open to the air from time to time, and spread abroad. This operation is repeated till no more heat is perceived in the heaps, and the tobacco is then stowed in casks for exportation. (*Long. Jam.* iii. 719.)

In the manufacture of tobacco, the leaves are first cleansed of any earth, dirt, or decayed parts; next, they are gently moistened with salt and water, or water in which salt along with other ingredients has been dissolved, according to the taste of the fabricator. This liquor is called tobacco sauce. The next operation is to remove the midrib of the leaf; then the leaves are mixed together, in order to render the quality of whatever may be the final application equal; next, they are cut into pieces with a fixed knife, and crisped or curled before a fire; the succeeding operation is to spin them into cords, or twist them into rolls by winding them with a kind of mill round a stick. These operations are all performed by the grower, and in this state (rolls) the article is sent from America to other countries, where the tobaccoists cut it into chaff-like shreds for smoking, by a machine like a straw-cutter; form it into small cords for chewing; or dry and grind it for snuff. In manufacturing snuff, various matters are added for giving it an agreeable scent, and hence the numerous varieties of snuff. The three principal sorts are called Rappes, Scotch or Spanish, and Thirds. The first is only granulated, the second is reduced to a very fine powder, and the third is the siftings of the second sort. The best Havannah segars are made from the leaves of *N. repanda*. The Indians of the Rocky Mountains of N. America prepare their tobacco from *N. quadrivalvis* and *N. nana*.

383. IPOMÆA R. Br.		IPOMÆA.		Convolvulacæa. Sp. 52—170.			
2207	quamoclit W.	wing-leaved	☐ or 6	jl.s	D.R	E. Indies	1629. S r.m Bot. mag. 244
2208	dissēcta Ph.	cut-leaved	☐ or 10	jn.s	S	Georgia	1813. C s.p Wil.phy.1.t.2.f.3
2209	carolina Ph.	Carolina	☐ or 10	jl.au	Pu	Carolina	1732. C r.m Dill. elt. t.84.f.98
2210	tuberosa W.	tuberous-rooted	☐ or 10	...	Pa.Y	W. Indies	1731. C s.p Bot. reg. 768
2211	paniculata B. Reg.	panicled	☐ or 20	jn.s	Pk	E. Indies	1799. C s.p Bot. reg. 62
2212	pentaphylla Jac.	five-leaved	☐ or 20	au.s	W	W. Indies	1739. S s.p Jac. ic. 2 t. 319
2213	umbellata L.	umbel-flowered	☐ or 20	jn.jl	S	W. Indies	1739. R r.m Plu. am.88.t.102
2214	tuberculata B. Reg.	tubercled	☐ or 20	au.s	Pu	E. Indies	1815. C l.p Bot. reg. 86
2215	péndula R. Br.	pendulous	☐ or 10	my.o	Pk	N. S. W.	1808. R l.p Bot. rep. 613
2216	Pes-tigris W.	palmated	☐ or 6	au	R	E. Indies	1732. C s.p Dil.elt.t.318.f.411
2217	platénsis Ker.	Plata	☐ or 10	jn.s	V	S. Amer.	1778. S r.m Bot. reg. 333
2218	chryseides Ker.	Mr. Herbert's	☐ or 4	jn.s	Y	China	1817. S r.m Bot. reg. 270
2219	carúlea Ker.	pale-blue	☐ or 9	jn.s	L.B	E. Indies	1818. S r.m Bot. reg. 276
2220	setósa Ker.	bristly	☐ or 9	au	Pu	Brazil	1817. S r.m Bot. reg. 335
2221	scabra Gm.	rough	☐ or 10	s	W	S. Amer.	1804. S r.m Bot. reg. 335
2222	Turpéthum Br.	square-scarled	☐ or 5	jl.s	W	Ceylon	1759. S r.m Bot. mag. 2093
2223	lutóla W. en.	crimson-scarlet	☐ or 10	jn.s	S	Carolina	1759. S r.m Bot. mag. 221
2224	coccinea W. en.	bright-scarlet	☐ or 10	jn.s	D.R	W. Indies	1713. S r.m Bot. reg. 99
2225	lacunósa W.	starry	☐ or 10	jl.au	W	N. Amer.	1740. C r.m Dill.elt.t.87.f.102
2226	gossypifolia B. R.	splendid	☐ or 15	jn.s	Pu	.....	.... C s.p Bot. reg. 75
2227	Bona-nox W.	prickly	☐ or 10	jl.au	W	W. Indies	1773. S s.l Bot. mag. 752
2228	sanguinea Vahl.	blood-flowered	☐ or 10	fn	D.R	W. Indies	1812. C s.l Bot. reg. 9
2229	mutabilis R. Reg.	changeable	☐ or 10	my.s	Pu	S. Amer.	1812. C p.l Bot. reg. 39
2230	cáncidas B. M.	hoary	☐ or 15	jn.au	W	N. Amer.	1776. R p.l Bot. mag. 1603
2231	Jálapa Ph.	Jalap	☐ or 10	au.s	Li	America	1733. C r.m Bot. mag. 1572
	β rosca	rose-colored	☐ or 10	au.s	R	.....	.... C r.m Bot. reg. 621
2232	hepaticifolia W.	Hepatica-leav'd	☐ or 10	au.s	Pu	E. Indies	1759. S co Bu.in.50.t.20.f.2
2233	solanifolia W.	Nightshade-lvd.	☐ or 8	jl.au	Pk	America	1759. C s.p Plum. ic. t.94.f.1
2234	campanulata W.	bell-flowered	☐ or 8	au.s	Pu.w	E. Indies	1800. S s.l Rhd. mal.11.t.56
2235	violæa W.	purple-flowered	☐ or 8	au.s	Pu	S. Amer.	1732. S s.l Plum. ic. t.93.f.1
2236	carnea W.	flesh-colored	☐ or 10	au.s	F	S. Amer.	1799. S s.l Jac. am. 26. t. 18
2237	repanda W.	scolloped	☐ or 10	au	S	W. Indies	1793. C s.p Par. lond. 81
2238	sibirica P. S.	Siberian	☐ or 8	jl.au	F	Siberia	1779. S co Pa.it.3.p.723.t.K
2239	speciosa P. S.	broad-leaved	☐ or 8	jl.au	Pu	E. Indies	1778. C p.l Bot. mag. 2446
2240	purpurea P. S.	great-purple	☐ or 10	jn.s	D.Pu	America	1629. S co Bot. mag. 113
	β incarnata	flesh-colored	☐ or 10	jn.s	F	America	1629. S co
	γ varia	striped	☐ or 10	jn.s	St	America	1629. S co Bot. mag. 1682
2241	discolor Jac.	spotted	☐ or 20	jn.s	B.w	.....	.... S co Bot. mag. 1005
2242	triloba W.	three-lobed	☐ or 10	jn.jl	V	W. Indies	1752. S s.l
2243	hederifolia W.	ivy-leaved	☐ or 10	jl	V	S. Amer.	1773. S s.l Pl. ic.82. t.93. f.2
2244	Nil P. S.	blue	☐ or 10	jl.s	L.B	America	1697. S s.p Bot. mag. 188
2245	hederæa B. Reg.	five-lobed	☐ or 10	jl.s	B	N. Amer.	1732. S s.p Bot. reg. 85
2246	cuspidata P. S.	sharp-pointed	☐ or 10	jn.jl	L.Pu	S. Amer.	1732. S s.p Fl.per.2.t.119.f.a
2247	tannifolia W.	Tamus-leaved	☐ or 10	jl	B	Carolina	1732. S co D. elt. t.318.f.410
2248	grandiflora B. Rep.	great-flowered	☐ or 8	s	W	E. Indies	1802. S s.l Bot. rep. 188
2249	muricata Jac.	rough-stalked	☐ or 8	jl.au	Pu	E. Indies	1777. S co Jac. schæ.3.t.323
2250	obscura B. Reg.	hairy	☐ or 8	jn.au	W	E. Indies	1732. S s.p Bot. reg. 239
2251	sagittifolia Ker.	Catesby's	☐ or 3	jn.s	Pu	Carolina	1819. S co Bot. reg. 437
2252	médium W.	arrow-headed	☐ or 6	jl.au	Pa	E. Indies	1778. S co
2253	denticulata R. Br.	denticulate	☐ or 6	jl.au	Y	E. Indies	1778. S co Bot. reg. 317
2254	glaucofolia W.	glaucous-leaved	☐ or 6	my.jl	Pk	Mexico	1732. R s.p Dil. elt. t.87.f.101
2255	angustifolia Jac.	narrow-leaved	☐ or 6	jl.au	Pk	India	1800. S s.l Jac. ic. rar. t.317
2256	tridentata P. S.	trifid	☐ or 10	jl.au	Y	E. Indies	1778. C s.p Rhd. mal.11.t.65
2257	martima R. Br.	thick-leaved	☐ or 10	jn.jl	Pu	E. Indies	1770. S s.p Bot. reg. 319
2258	brasilienfis L.	Brazilian	☐ or 10	jn.jl	Pu	S. Amer.	1726. R s.p Plu. am.89.t.104



History, Use, Propagation, Culture.

383. *Ipomæa*. From 1705, a bindweed, or something analogous, and *opios*, similar. This genus is nearly allied to *Convolvulus* and *Calystegia*. It consists chiefly of twining stove plants, free flowerers, and of the easiest culture. *I. tuberosa* is a plant of great beauty and fragrance. In Jamaica it is evergreen, thickly covered with leaves and large flowers, and much used to shade arbors. Browne says it may be carried over an arbor of 300 feet in length. Every part of the plant abounds with milk, and is purgative. Long thinks Scammony might be made from its tubers, and *Loureiro* affirms them to be edible.

§ 1. *Leaves pinnate, digitate, or palmate.*

- 2207 Leaves pinnate pinnae filiform, Pedunc. a little longer than leaf 1-flowered
 2208 Leaves palmate, Segments narrow pinnatifid toothed, Pedunc. about 2-flowered
 2209 Leaves digitate, Leaflets stalked, Pedunc. 1-flowered
 2210 Leaves palmate, Lobes 7 lanceolate acute entire, Pedunc. 3-flowered
 2211 Smooth, Leaves palmate, Lobes 7 oblong lanc. entire, Cymes dichotomous, Cal. equal obtuse, Caps. erect
 2212 Leaves digitate in 5s hairy entire, Seeds smooth
 2213 Leaves digitate in 7, Peduncles umbelled very short
 2214 Leaves digitate or nearly pedate 7-parted smooth, Stalks warted rough, Pedunc. 1-flowered
 2215 Leaves palmate pedate, Lobes ciliate mucronate at end, Pedunc. 1-flowered
 2216 Leaves palmate, Flowers aggregate
 2217 Branches peduncles and petioles tubercled, Leaves palmate, Lobes 7 narrow oblong with a short point

§ 2. *Leaves cordate, angular, or lobed.*

- 2218 Leaves obl. cordate rarely obsolete 3-lobed, Pedunc. 1-fl. shorter than leaf, Calyx very smooth
 2219 Leaves cordate 3-lobed villous, Pedunc. 2-3-fl. Edge of cor. nearly entire, Stigmas 3-lobed
 2220 Branches petioles peduncles and calyxes bristly, Leaves naked cordate 3-lobed, Lobes tooth sinuated
 2221 Stem twining, Leaves cordate 3-lobed, Pedunc. longer than petiole, Fruit nodding
 2222 Leaves cordate angular, Stem membranous square, Peduncles many-flowered
 2223 Leaves cordate acuminate angular, Pedunc. first dichotomous afterwards branching
 2224 Downy, Lvs. cord. acum. at base angular, Pedunc. 5-flowered, Cal. warted bearded, Lumb. of cor. entire
 2225 Smooth, Lvs. cord. below obscurely repand or ang. Pedunc. short 1-fl. Cal. hairy ciliated, Cor. small short
 2226 Leaves cordate at the end 5-lobed smooth, Peduncle many-flowered corymbose

- 2227 Very smooth, Leaves cordate entire or angular, Pedunc. 1-3-fl. Cal. aristate, Cor. undiv. Tube very long
 2228 Pedunc. upwards cymose trichotomous longer than the 5-lobed cordate or hastate leaves
 2229 Leaves cordate entire or 3-lobed acuminate above pubescent beneath villous, Flowers numerous in cymes
 2230 Smooth, Leaves cordate acuminate entire, Peduncles many-flowered without bractæ
 2231 Stem warted, Leaves cord. ovate rugose villous beneath entire or lobed, Pedunc. 1 many-fl. Seed woolly

- 2232 Leaves 3-lobed, Flowers aggregate

§ 3. *Leaves cordate entire.*

- 2233 Leaves cordate acute entire, Pedunc. 1-flowered solitary as long as leaves
 2234 Leaves cordate, Pedunc. many-fl. Outer calyx orbicular, Cor. campanulate lobed
 2235 Leaves cordate entire, Flowers close together, Cor. undivided
 2236 Leaves roundish cordate smooth, Pedunc. many-flowered, Cor. edged
 2237 Leaves cordate oblong repand acuminate, Peduncles branched cymose
 2238 Leaves cordate acuminate smooth, Peduncles 2-flowered
 2239 Leaves cordate ovate acute above hairy, beneath silky, Pedunc. longer than the stalks in umbels
 2240 Leaves cordate undivided, Fruit cernuous, Stalks thick, Leaves cordate entire, Ped. many-fl. Cal. hispid

- 2241 Stem very tall, Leaves orbicular rounded, Flowers spotted with eyes
 2242 Leaves 3-lobed cordate, Peduncles 3-flowered
 2243 Leaves 3-lobed cordate, Peduncles many-flowered racemose
 2244 Leaves cordate 3-lobed, Flowers half 5-cleft, Peduncles shorter than the petioles
 2245 Hairy, Leaves cordate 3-lobed, lateral lobes acuminate intermediate acute, Pedunc. 1-fl. Cal. hairy
 2246 Leaves cordate 3-lobed, Lobes cuspidate, Peduncles 1-fl. Sepals linear very hairy at base
 2247 Leaves cordate acuminate hairy, Flowers aggregate
 2248 Leaves cordate ovate obtuse entire, Pedunc. about 2-fl. Cal. coriaceous, Stem and petioles pubescent
 2249 Leaves cordate roundish with a long point smooth, Pedunc. thick 3-fl. and cal. smooth, Stem mucronated
 2250 Leaves cordate acuminate, Pedunc. filiform 1-fl. and cal. smooth, Stem very hairy

§ 4. *Leaves sagittate or hastate.*

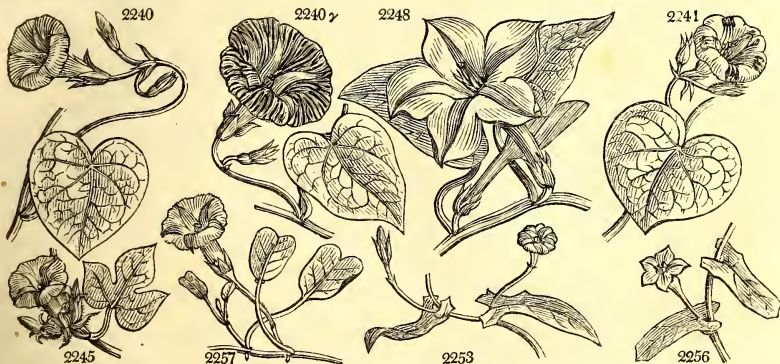
- 2251 Very smooth, Leaves oblong sagittate with a very deep sinus, Auricles acuminate, Pedunc. 1-flowered
 2252 Leaves linear hastate pointed, Auricles toothed, Flowers solitary, Cal. sagittate
 2253 Smooth, Leaves hastate lanceol. or linear acute, Lobes toothed, Pedunc. 1-fl. Sepals oblong lanc. ovate
 2254 Leaves sagittate truncate behind, Peduncles 2-flowered
 2255 Leaves linear hastate obtuse mucronate smooth, Auricles nearly entire, Peduncles 1-flowered

§ 5. *Leaves oblong, entire, or lobed.*

- 2256 Leaves oblong 3-pointed dilated at base toothed, Pedunc. 1-fl. thick 4-cornered

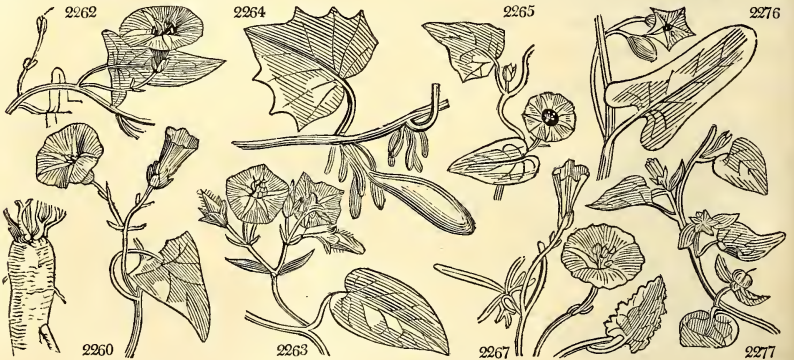
§ 6. *Leaves rounded.*

- 2257 Creeping smooth, Lvs. roundish emarginate or 2-lobed thickish at base beneath with 2 glands, Cal. obt.
 2258 Leaves emarginate with 2 glands at base, Peduncles 3-flowered

*and Miscellaneous Particulars.*

1. *bona-nox*, like most of the species of this genus and *Convolvulus*, varies much in the leaves, which it produces cordate, lobed, or panduriform.
 1. *nil* is a highly beautiful plant, with the corollas of a clear blue color, whence its name of Anil or Nil (Indigo.)
 1. *quamochoit* is a most beautiful tender annual. Its name has been formed from *quamos*, a bean, and *χλιτος*, dwarf, because it resembles the kidney-bean in its climbing stem, but is less tall.
 1. *jalepa* is found wild near Mexico, at Xalapa, whence probably the name of the drug which its root affords. It is said to have been first brought to Europe in 1610. Its virtue as a purge resides chiefly in the resin.

384. CONVOLVULUS. W. BIND-WEED.		Convolvulaceae. Sp. 34—185.									
2259 arvensis W.	small	△	w	1½	jn.s	F	Britain	cor. fi.	R	co	Eng. bot. 312
2260 scammonia W.	scammony	△	m	2	jl.au	W.pu	Levant	1596.	R	s.l	Mill. ic. 1. t. 102
2261 erubescens B. M.	Maiden-blush	△	o	6	jl.s	Pk	N. S. W.	1803.	C	r.m	Bot. mag. 1067
2262 japonicus Vahl.	Japanese	△	o	6	jl.au	Pu	China	1817.	D	co	Bot. reg. 322
2263 pannifolius H. K.	cloth-leaved	△	o	15	jn.s	B	.....	1805.	R	s.l	Bot. reg. 222
2264 Batatas W.	tuberous	△	o	12	...	W.pu	India	1597.	R	r.m	Rhed. mal. 7. t. 50
2265 bicolor Vahl.	involucrated	△	o	6	jn.au	W.pu	Isl. France	1818.			Bot. mag. 2205
2266 panduratus W.	Virginian	△	o	12	jn.s	W.pu	N. Amer.	1732.	R	p.l	Bot. mag. 1939
2267 althæoides W.	Althæa-leaved	△	o	1	jn.s	Pk	Levant	1597.	R	s.l	Bot. mag. 359
2268 bryoniaefolius B. M.	Bryonia-leaved	△	o	1	½ jl.au	Pk	China	1802.	R	s.l	Bot. mag. 943
2269 macrocarpum W.	long-fruited	△	o	10	jl.au	Pu	S. Amer.	1752.	S	co	Plum. ic. 91. f. 1
2270 glabrum W.	smooth	△	o	12	my.jn	W	Cayenne	1806.	C	p.l	Aub. gui. t. 53
2271 pentanthus B. M.	five-flowered	△	o	6	jl.s	L.B	E. Indies	1808.	C	s.l	Bot. mag. 2151
2272 canariensis W.	Canary	△	o	20	my.s	Pu	Canaries	1690.	R	s.l	Bot. mag. 1228
2273 farinosus W.	mealy-stalked	△	o	6	my.jn	Pk	Madeira	1777.	R	s.l	Par. lond. 45
2274 ciliatus W. en.	hairy	△	o	6	jl.s	Pk	.....	1816.	S	co	
2275 maximus W.	great-Ceylon	△	o	20	jl	Pk	Ceylon	1799.	R	r.m	Rhd. mal. 11. t. 53
2276 Hermanniæ W.	Peruvian	△	o	5	au.s	W	Peru	1799.	R	r.m	Jac. ic. 2. t. 315
2277 siculus W.	small-flowered	△	o	1	jn.au	L.B	S. Europe	1640.	S	co	Bot. reg. 445
2278 elongatus W. en.	long-peduncled	△	o	1	jl.au	W	Canaries	1815.	S	co	Bot. reg. 498
2279 Imperati Vahl.	Imperati's	△	o	1	...	Y	Naples	1824.	D	co	Cyrill. fasc. 1. t. 5
2280 reptans W.	creeping	△	o	1	...	Pu	E. Indies	1806.	R	p.l	Rum. 5. t. 155. f. 1
2281 hirtus W.	hairy-stalked	△	o	3	jn.au	B	E. Indies	1804.	S	s.l	
2282 suffruticosus H. K.	shrubby	△	o	1	jl	Pk	Madeira	1788.	R	r.m	Bot. reg. 133
2283 pentapetaloides W.	Majorca	△	o	½	jn	L.B	Majorca	1789.	S	co	Jac. col. 4. t. 22. f. 2
2284 lineatus W.	dwarf	△	o	½	jn	Pu	S. Europe	1714.	R	s.l	Tri. ob. 91. t. 91. f. 2
2285 saxatilis W.	rock	△	o	½	jn	W	S. Europe	1796.	R	s.l	Bo. mus. 138. t. 96
2286 Cneorum W.	silvery-leaved	△	o	3	my.s	Pk	Levant	1640.	C	p.l	Bot. mag. 459
2287 linearis W.	narrow-leaved	△	o	1½	my.s	Pk	.....	1770.	C	l.p	Bot. mag. 289
2288 cantabrica W.	Flax-leaved	△	o	1	my.s	F	S. Europe	1680.	R	s.l	Jac. aus. 3. t. 296
2289 Dorceniun W.	silky-leaved	△	o	1½	jn.jl	Pk	Levant	1806.	C	s.l	
2290 scoparius W.	Broom	△	o	2	au.s	W	Canaries	1733.	C	s.l	Vent. choix. 24
2291 floridus W.	many-flowered	△	o	1½	au.s	Pk	Canaries	1779.	C	p.l	Jac. ic. 1. t. 34
2292 tricolor W.	three-colored	△	o	3	jl.au	St	S. Europe	1629.	S	co	Bot. mag. 27
385. ARGYREIA. Lour.	SILVER-WEED.	Convolvulaceae. Sp. 1—4.									
2293 cuneata Ker.	wedge-leaved	△	o	2	au.s	Pu	E. Indies	1822.	C	s.l	Bot. reg. 661
386. NEMOPHILA.	NEMOPHILA.	Boraginæ. Sp. 1.									
2294 phaeioides	shady	△	cu	1	jl.au	B	N. Amer.	1822.	S	co	Bot. mag. 2373
387. CALYSTEGIA. R. Br.	BEARBIND.	Convolvulaceae. Sp. 3—7.									
2295 sepium R. Br.	great-hedge	△	o	6	jn.s	W	Britain	m. hed.	R	s.l	Eng. bot. 313
β incarnata	red-flowered	△	o	6	jn.s	R	N. Amer.	...	R	co	Bot. mag. 732
2296 sylvêstris W. en.	wood	△	o	18	jn.s	W	Hungary	1815.	R	co	
2297 spithamea Ph.	small-upright	△	o	1	jl	W	N. Amer.	1796.	R	co	Hook. ex. fl. 97
2298 Soldanella R. Br.	sea	△	o	1	jn.jl	F	Britain	sea sh.	R	s.l	Eng. bot. 314



History, Use, Propagation, Culture,

384. *Convolvulus*. From *convolvere*, to entwine. This is an extensive genus of some beauty, and the *C. batatas* is of known utility as an edible root. The stems in the greater number of species are herbaceous and twining, a few are shrubby, and one or two very low herbs.

C. arvensis has white jointed worm-like roots, very difficult to eradicate in gardens or corn-fields: it is considered as a certain indication of a dry soil.

C. scammonia, named in Arabia *Scamuniâ* (*Forsk. Golius*), affords the gummy resin of that name from the roots, which are three or four feet long, from nine to twelve inches in circumference, and contain a milky juice. The top of the root being bared of earth, it is cut through in a sloping direction, and a shell or cup placed close to the section for the juice to run into. This juice hardened is the true scammony, chiefly used as a stimulating cathartic.

C. turpethum is derived from *turbid*, its name in Arabia (*Golius*.)

C. batatas, (*Batatas* is Malay according to Rumphius, Mexican according to Nieremberg) skirrets of Peru, or Spanish potatoes, is a native of both Indies and China. It came first to Spain from the West Indies, from thence it was imported here annually, and sold as a delicacy. It is the potatoe of Shakspeare and contemporary writers, the *Solanum tuberosum* being then scarcely known in Europe. The *batatas* is cultivated in all the tro-

§ 1. *Climbing; leaves sagittate or hastate.*

- 2259 Leaves sagittate acute at each end, Peduncles about 1-flowered
 2260 Leaves sagittate truncate behind, Peduncles rounded 3-flowered
 2261 Leaves cordate sagittate behind sinuate repand, Pedunc. axillary solitary about 2-flowered
 2262 Leaves lanceolate hastate acute, Auricles 1-toothed behind, Stem simple, Peduncles 1-flowered

§ 2. *Climbing; leaves cordate hastate.*

- 2263 Leaves cordate hastate hirsute, Pedunc. about 3-flowered, Bract. linear remote from calyx
 2264 Leaves cordate hastate angular lobed 5-nerved smoothish, Ped. long, Fl. fasc. Sepals lanceol. acuminate

§ 3. *Climbing; leaves cordate lobata.*

- 2265 Leaves cordate villous at the base angular lobed, Peduncles 1-flowered, Outer sepals bract-like
 2266 Pubescent, Leaves broad cordate entire or lobed fiddle-shaped, Pedunc. long, Flowers fasciated

§ 4. *Climbing; leaves quinata or palmate.*

- 2267 Leaves cordate sinuate silky lobes repand, Pedunc. 2-flowered
 2268 Leaves 7-lobed palmate hispid middle lobe sinuated drawn out, Pedunc. axill. solitary very long jointed
 2269 Leaves palmate pedate 5-parted, Pedunc. 1-flowered

- 2270 Very smooth, Leaves digitate quinata, Leaflets stalked acuminate entire, Pedunc. branched divaricating

§ 5. *Climbing; leaves cordate or subcordate.*

- 2271 Leaves oblong cordate acuminate subrepand smooth, Pedunc. umbelled 5-flowered, Flowers sessile

- 2272 Leaves cordate pubescent, Stem perennial villous, Pedunc. many-flowered

- 2273 Leaves cordate acuminate repand, Pedunc. 3-flowered, Stem mealy

- 2274 Leaves cordate ovate acuminate ciliated, Heads stalked very hairy with an involucrem

- 2275 Leaves cordate ovate acuminate entire smooth, Stem and leaf-stalks smooth

- 2276 Tomentose, Leaves cordate oblong obtuse subrepand, Pedunc. longer than stalk, Limb acute

§ 6. *Prostrate; leaves cordate.*

- 2277 Leaves cord. ovate upper acute, Ped. 1-fl. shorter than leaves, Bractes obl. lanc. longer than ciliated cal.

- 2278 Leaves cordate ovate cusp. Ped. 2-fl. longer than leaves, Bractes lin. subul. shorter than parted peduncle

§ 7. *Prostrate; leaves cordate lobed or hastate.*

- 2279 Leaves panduriform or entire emarginate cordate at base, Peduncles 1-flowered, Stem creeping

- 2280 Leaves hastate lanceolate, Auricles rounded, Stem creeping, Peduncles 1-flowered

- 2281 Leaves cordate and somewhat hastate villous, Stem and leaf-stalks hairy, Peduncles many-flowered

§ 8. *Prostrate; leaves ovate or oblong and linear.*

- 2282 Leaves linear lanceolate, Stem ascending villous, Peduncles axillary 1-flowered 3 times as long as leaf

- 2283 Leaves lanceolate obtuse naked lined, Branches declinate, Flowers silky $\frac{1}{2}$ 5-cleft

- 2284 Leaves lanceolate silky lined stalked, Peduncles 2-fl. Cal. silky leafy

- 2285 Very hairy, Leaves linear, Flowers capitate, Calyxes acuminate

- 2286 Leaves lanceolate tomentose, Flowers capitate, Calyxes hairy, Stem nearly erect

- 2287 Stems erect shrubby, Leaves linear acute silky, Flowers terminal umbelled paniced, Cal. hairy

- 2288 Leaves linear lanc. acute, Stem branched nearly erect, Cal. hairy, Pedunc. 2-flowered

- 2289 Leaves nearly linear silky, Stem paniced, Cal. naked obtuse

- 2290 Leaves linear hairy, Peduncles about 3-flowered, Cal. silky ovate acute, Branches twiggy

- 2291 Prostrate hoary, Leaves linear lanceolate smooth, Thyrses terminal pyramidal compound

- 2292 Leaves lanceolate ovate smooth, Stem declinate, Flowers solitary

- 2293 Leaves wedge-shaped emarginate beneath silky, Peduncles 2-flowered

- 2294 The only species

- 2295 Leaves sagittate very acute, behind obtuse or trunc. entire, Bract. ac. longer than cal. twice as short as cor.

- 2296 Leaves cordate, Lobes angular truncated, Pedunc. rounded 1-fl. Bract. ovate obt. inflated, Sepals obtuse

- 2297 Leaves cordate pubescent, Stem erect, Peduncles 1-flowered

- 2298 Leaves reniform, Peduncles 1-flowered, the angles winged



and Miscellaneous Particulars.

pical climates much in the same manner as our potatoe, but with more room for its trailing stalks. Not only the tubers, but the young leaves and tender shoots are boiled and eaten; and as is the case with all plants long in cultivation, there are several varieties.

C. tricolor is a well known border-annual, commonly called C. minor, with reference to another border-flower, Ipomœa purpurea, which gardeners and seedsmen commonly call C. major.

C. reptans, is a common potherb in the East Indies and in China.

385. *Argyreia*. From *αργυρον*, silver, in allusion to the silvery texture of the leaves of the plant. A beautiful genus nearly related to *Convolvulus*.

386. *Nemophila*. From *νεμος*, a grove, and *φιλεω*, to love; the species growing in shady woods. A small hardy N. American plant, with bright blue flowers and divided leaves.

387. *Calystegia*. From *καλος*, pretty, and *στυγη*, a covering, in allusion to the two bractee in which the calyx is inclosed. A very artificial genus, distinguished from *Convolvulus* and *Ipomœa*, only by the presence of bractee, and by its capsule being one-celled. C. sepium, the *Convolvulus sepium* of Willdenow, has medical properties similar to Scammony, for which Withering thinks it may serve as a substitute. Swine, it is said, eat the roots in large quantities, and yet are not purged by them. C. soldanella is an acrid purge.

388. COBÆA Cav.	COBÆA.				<i>Cobæaceæ.</i>	<i>Sp. 1.</i>								
2329 scândens Cav.	climbing	♂	Δ	or 20	my.o Pu	Mexico	1792.	S	pl	Bot. mag.	831			
389. CANTUA W.	CANTUA.					<i>Polemoniaceæ.</i>	<i>Sp. 2-16.</i>							
2300 coronifolia W.	scarlet	♀	□	or 3	au s	Carolina	1726.	C	lp	Ex. bot. 1. t. 13				
2301 inconspicua H. K.	small-blue	♀	○	or 2	s.n - B	America	1793.	S	co	Ex. bot. 1. t. 14				
390. HOITZIA Cav.	HOITZIA.					<i>Polemoniaceæ.</i>	<i>Sp. 2-5.</i>							
2302 coccinea Cav.	scarlet	♀	□	or 3	... S	Mexico	1824.	C	r.m	Cav. ic. 6. t. 365				
2303 cærulea Cav.	blue	♀	□	or 1	... Pa.B	Mexico	1824.	C	r.m	Cav. ic. 6. t. 366				
391. RETZIA Th.	RETZIA.					<i>Convolvulaceæ.</i>	<i>Sp. 1.</i>							
2304 spicata Th.	spiked	♀	□	cu 4	my.jn Br	C. G. H.	...	C	lp	Lam. ill. t. 103				
392. LUBINIA Comm.	LUBINIA.					<i>Primulaceæ.</i>	<i>Sp. 1-8.</i>							
2305 atropurpûrea Lk.	dark-purple	♀	Δ	cu 2	... i Pu	C. G. H.	1820.	C	lp					
393. EPA'CRIS R. Br.	EPA'CRIS.					<i>Epacrideæ.</i>	<i>Sp. 6-18.</i>							
2306 purpurâscens R. Br.	rigid	♀	□	or 3	ja.mr Pu	N. S. W.	1803.	C	s.p	Bot. mag. 844				
2307 pulchella R. Br.	sweet-scented	♀	□	or 4	ap.jn Pk	N. S. W.	1804.	C	s.p	Bot. mag. 1170				
2308 grandiflora R. Br.	crimson	♀	□	or 3	ja.jn S	N. S. W.	1803.	C	s.p	Bot. mag. 982				
2309 obtusifolia R. Br.	blunt-leaved	♀	□	or 2	ap.jn W	N. S. W.	1804.	C	s.p	Ex. bot. 1. t. 40				
2310 exserta R. Br.	exserted	♀	□	or 2	ap.jn W	V. Di. L.	1812.	C	lp					
2311 microphylla R. Br.	small-leaved	♀	□	or 2	... ..	N. S. W.	1822.	C	lp					
394. STYPHELLIA R. Br.	STYPHELLIA.					<i>Epacrideæ.</i>	<i>Sp. 4-8.</i>							
2312 longifolia R. Br.	long-leaved	♀	□	or 3	ap.jn G	N. S. W.	1807.	C	lp	Bot. reg. 24				
2313 viridiflora R. Br.	green-flowered	♀	□	or 4	ap.jn G	N. S. W.	1791.	C	s.p	Bot. rep. 312				
2314 triflora R. Br.	three-flowered	♀	□	or 6	my.au Pk	N. S. W.	1796.	C	s.p	Bot. mag. 1297				
2315 tubiflora R. Br.	crimson	♀	□	or 6	my.au C	N. S. W.	1802.	S	s.p	Smith n. h. t. 14				
395. LISSANTHE R. Br.	LISSANTHE.					<i>Epacrideæ.</i>	<i>Sp. 1-6.</i>							
2316 daphnoïdes R. Br.	Daphne-leaved	♀	□	or 3	jn.jl W	N. Holl.	1818.	C	s.p	Bot. cab. 466				
396. ASTROLO'MA R. Br.	ASTROLOMA.					<i>Epacrideæ.</i>	<i>Sp. 1-5.</i>							
2317 humifusum R. Br.	Juniper-leaved	♀	□	or 2	my.o S	N. S. W.	1807.	C	s.p	Bot. mag. 1439				
397. SPRENGELIA R. Br.	SPRENGELIA.					<i>Epacrideæ.</i>	<i>Sp. 1-2.</i>							
2318 incarnata R. Br.	flesh-colored	♀	□	or 2	ap.jn F	N. S. W.	1793.	C	s.p	Bot. mag. 1719				
398. ANDERSONIA R. Br.	ANDERSONIA.					<i>Epacrideæ.</i>	<i>Sp. 1-6.</i>							
2319 sprengeioides R. Br.	Sprengelia-like	♀	□	or 2	mr.jl Pk	N. Holl.	1803.	C	s.p	Bot. mag. 1645				
399. LYSINE'MA R. Br.	LYSINE'MA.					<i>Epacrideæ.</i>	<i>Sp. 2-5.</i>							
2320 pungens R. Br.	pungent	♀	□	or 2	f.ap W	N. S. W.	1804.	C	lp	Bot. mag. 844				
β rûbrum	red	♀	□	or 2	f.ap R	N. S. W.	1804.	C	lp	Bot. mag. 1199				
2321 attenuatum Lk.	narrow-flower'd	♀	□	or 2	f.ap Pk	N. S. W.	1812.	C	lp	Bot. cab. 38				
400. MONO'TOCA R. Br.	MONO'TOCA.					<i>Epacrideæ.</i>	<i>Sp. 2-5.</i>							
2322 elliptica R. Br.	elliptic	♀	□	or 8	my.au W	N. S. W.	1802.	C	lp					
2323 lineata R. Br.	lined	♀	□	or 6	my.au W	V. Di. L.	1804.	C	s.p	L. nov. holl. 1. t. 61				



History, Use, Propagation, Culture,

388. *Cobæa*. In honor of Barnadez Cobo, a Spanish Jesuit, who wrote upon subjects of natural history about the middle of the 17th century. The name arose with Cavanilles. This is the most rapid growing greenhouse climber known, having been found to grow 300 feet in length in one summer in a conservatory. It will thrive almost equally well in the open air during summer, but is destroyed by frost, and its shoots are only of annual, or at most of biennial duration. It strikes in sand in moist heat, but it generally ripens seeds, which, sown early in spring, and forwarded in a stove, will flower in the greenhouse or open air the same season.

389. *Cantua*. From *Cantu*, the native name of the genus among the Peruvians. Pretty greenhouse plants, rarely seen in gardens.

390. *Hoitzia*. Hoitzit is the name of this plant in Mexico. A handsome plant with brilliant scarlet flowers. It is occasionally raised from Mexican seed, but is very rare in collections.

391. *Retzia*. Named after John Retzia, professor of botany at Lund, in Sweden. His *Observationes Botanice* is a work of reputation. A small upright shrub with whorled lanceolate leaves, and clustered brown flowers, almost hidden among the leaves.

392. *Lubinia*. A genus dedicated by Commerson to M. de Saint Lubin, a French officer who travelled in the East Indies. A small plant with ascending stem and fleshy smooth leaves, of little merit.

393. *Epacris*. Named by Forster from *epi*, upon, and *akros*, the top of a thing; because in New Zealand the species grow on the top of the mountains. A most ornamental genus, which Sweet observes, thrives "best in a sandy peat soil; the rougher and more turfy the soil is, the better the plants will thrive: these should always be shifted in fresh pots before they are turned out of doors in spring, as their roots are so very fine, and are generally matted round the pots, so that the hot sun coming against the pots destroys them, and they look brown all through the summer, and are very difficult to recover. Young cuttings planted in pots of sand under bell-glasses in autumn or winter, or early in spring, will strike root readily, but they will not strike so readily in summer: when rooted, they should be potted singly in small pots, and set in a close frame, and must be hardened to the air by degrees." (*Bot. Cult.* 186.)

394. *Stypheilia*. A name derived from *στυφός*, dense, in allusion to the compact habit of the genus. Erect

2299 The only species

2300 Lobes of leaves linear entire oblong, Flowers paniced terminal, Cor. tubular twice as long as cal.

2301 Plant smaller than the last, Leaves very narrow, Cor. short blue

2302 Stem half shrubby, Leaves sessile ovate acute pubescent

2303 Stem half shrubby, Leaves subsessile linear toothed spinous

2304 Leaves in fours linear sessile erect, Flowers clustered hidden among the leaves

2305 Leaves fleshy dark-green glabrous obovate, Stem ascending

2306 Sepals acuminate as long as tube of cor. Leaves cucullate subsess. with a recurved end longer than base

2307 Sepals acum. as long as tube of cor. Lvs. conc. their base longer than spreading point, Spike flow. at base

2308 Cor. cylindrical 4 times as long as cal. Flowers pendulous, Leaves acuminate flat

2309 Flowers nodding, Leaves lanceolate erect imbricated with a callous obtuse end, Stamens included

2310 Leaves lanceolate acute erect above flat beneath convex, Cal. obtuse as long as tube, Stamens exerted

2311 Sepals obtuse as long as tube of cor. Leaves cucullate acute spreading, Spike flowering at end

2312 Leaves long lanceolate attenuated at end, above concave smooth at edge, Branches pubescent

2313 Leaves obovate oblong obtuse mucronate flat smooth above roughish at edge, Flowers spreading

2314 Leaves oblong lanceolate flat glaucous smooth, Branches smooth, Flowers corymbose, Ped. 1-3-flowered

2315 Leaves linear obovate mucronate rough above revolute at edge, Flowers nodding

2316 Leaves ellipt. lanceolate concave with a short callous point, Segm. of cor. smooth

2317 Prostrate much branched, Leaves lanceolate linear convex above ciliated at edge

2318 Anthers connate bearded, Cal. colored, Leaves long acuminate

2319 Leaves spreading with a flat point

2320 Cor. monopetalous, Tube entire as long as cal. Leaves ovate acuminate spreading

2321 Leaves sessile cordate acuminate pungent recurved, Cal. imbric. as long as narrow tube of cor.

2322 Leaves erect subterminal aggregate or axillary solitary, Leaves ellipt. oblong 4 times broader than long

2323 Spikes axillary few-flowered nodding stalked, Leaves oblong acute flat mucronate



and Miscellaneous Particulars.

branched shrubs, natives of New Holland, with scattered mucronate leaves, and axillary, nodding, very showy flowers. Culture as for *Andersonia*.

395. *Lissanthe*. A New Holland genus of shrubs with small white flowers, the segments of which are smooth, not bearded as in *Leucopogon*, to which the genus is next. From this difference its name has been contrived; *λίσσος*, smooth, and *ανθεος*, a flower.

396. *Astroloma*. From *αστρα*, a star, and *λωμα*, a fringe, in allusion to the stellate disposition of the little bundles of hairs at the bottom of the tube. A genus of neat little bushes, with axillary erect flowers. Culture as for *Andersonia*.

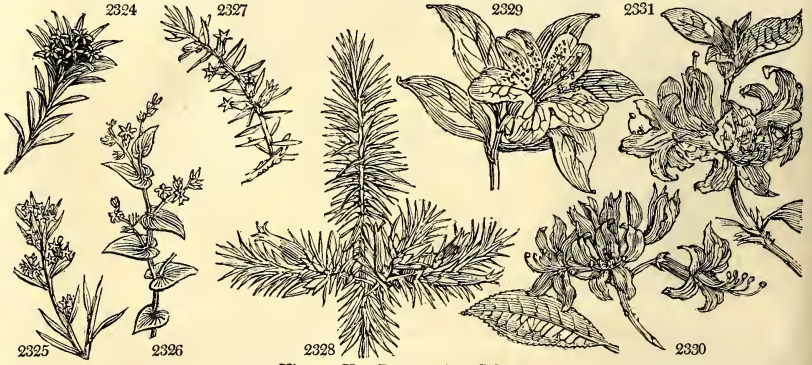
397. *Sprengelia*. So called in honor of Curt Sprengel, professor at Halle, in Saxony, a learned man and respectable botanist. His *Historia Rei Herbariæ* is a monument of industry and information. This is a handsome half-hardy genus, delighting in a shady aspect, sandy peat soil, and dry bottom. They must be watered sparingly when not growing freely. Cuttings root in sand under a bell-glass.

398. *Andersonia*. Named by Mr. Browne, first, after William Anderson, a navy surgeon, who died in Cook's last voyage; secondly, after Dr. Anderson, formerly director of the botanical garden, St. Vincent's; and lastly, after William Anderson, the curator of the apothecaries' garden, Chelsea. According to Sweet, this genus "grows freely in a sandy peat soil with the pots well drained; and care should be taken not to over-water it, as they are very liable to get sodden, when they seldom recover. The very young tops put in for cuttings, under a bell-glass in sand, will root readily. When first potted off, they should be put singly in small thumb-pots, and kept close in a frame for a few days, and hardened to the air by degrees." (*Bot. Cult.* 133.)

399. *Lysinema*. Perhaps derived from *λυσίς*, a separation or solution, and *νημα*, a stamen; but the application of the name is not obvious. Shrubs with the habit of *Epacris*. They prefer rough turfy soil, and cuttings root readily in sand under a bell-glass.

400. *Monotoca*. From *μονος*, one, and *τοκος*, birth, because only one ovulum is borne by the ovarium, a remarkable circumstance in the natural order of the genus. The species are little shrubs, with axillary or terminal spikes of white flowers. They require well drained pots, and their cuttings must be taken off when very young, and planted in sand under a bell-glass.

401. LEUCOPOGON. <i>R. Br.</i> LEUCOPOGON.				<i>Epacrideæ.</i>	<i>Sp. 4—48.</i>			
2324 lanceolatus <i>R. Br.</i>	small-flowered	♂	or 12	my.au W	N. S. W.	1790.	C s p	Bot rep. 287
2325 ericoides <i>R. Br.</i>	Heath-leaved	♂	or 6	... Pk	N. S. W.	1815.	C l p	Cav. ic. 4. t. 347. f. 1
2326 amplexicaulis <i>R. Br.</i>	stem-clasping	♂	or 3	... W	N. S. W.	1815.	C l p	Linn. trans. 8. t. 8
2327 juniperinus <i>R. Br.</i>	Juniper-leaved	♂	or 3	ap.jn W	N. S. W.	1804.	C l p	Bot. cab. 447
402. STENANTHERA. <i>R. Br.</i> STENANTHERA.				<i>Epacrideæ.</i>	<i>Sp. 1.</i>			
2328 piniifolia <i>R. Br.</i>	Pine-leaved	♂	or 6	my.jl S	N. S. W.	1811.	C s p	Bot. reg. 218
403. AZALEA. <i>W.</i>				<i>Rhodoracææ.</i>	<i>Sp. 10—14.</i>			
2329 indica <i>W.</i>	Indian	♂	or 4	mr.my S	China	1808.	C p l	Bot. mag. 1430
β purpurea plena	double-purple	♂	or 4	mr.my Pu	China	1819.	C p l	
γ variegata	variegated	♂	or 4	mr.my St	China	1824.	C p l	
δ alba	pure-white	♂	or 4	mr.my W	China	1819.	C p l	Bot. reg. 811
ε aurantiaca	orange	♂	or 4	mr.my O	China	1822.	C p l	
2330 ponicia <i>W.</i>	yellow	♂	or 6	my.jn Y	Turkey	1793.	L s p	Bot. mag. 433
β glauca	glaucous	♂	or 6	my.jn Y	.....	...	L s p	Bot. mag. 2383
γ albiflora	white-flowered	♂	or 6	my.jn W	.....	...	L s p	
2331 calendulacea <i>Ph.</i>	orange	♂	or 4	my.jn O	N. Amer.	1806.	L s p	Bot. mag. 1721
β flammea	flame-colored	♂	or 4	my.jn R	N. Amer.	1812.	L s p	Bot. reg. 145
2332 canescens <i>Ph.</i>	downy	♂	or 3	my.jn Pk	N. Amer.	1812.	L s p	
2333 nudiflora <i>W.</i>	naked-flowered	♂	or 3	my.jn Pk	N. Amer.	1734.	L s p	
α coccinea	small-scarlet	♂	or 4	my.jn S	N. Amer.	1734.	L s p	Bot. mag. 180
β speciosa	large-scarlet	♂	or 4	my.jn S	N. Amer.	1734.	L s p	Bot. cab. 624
γ aurantia	orange	♂	or 3	my.jn O	N. Amer.	1734.	L s p	
δ cuprea	copper-colored	♂	or 3	my.jn Ful	N. Amer.	1734.	L s p	
ε rutilans	deep-red	♂	or 4	my.jn D.R	N. Amer.	1734.	L s p	
ζ carnea	pale-red	♂	or 3	my.jn L.R	N. Amer.	1734.	L s p	Bot. reg. 120
η alba	early-white	♂	or 3	my.jn W	N. Amer.	1734.	L s p	
θ papilionacea	variegated	♂	or 4	my.jn St	N. Amer.	1734.	L s p	
ι partita	fine-parted	♂	or 4	my.jn W	N. Amer.	1734.	L s p	
κ semiplena	semi-double	♂	or 4	my.jn W	N. Amer.	1734.	L s p	
λ flore pleno	double-flowered	♂	or 4	my.jn W	N. Amer.	1734.	L s p	
2334 bicolor <i>Ph.</i>	two-colored	♂	or 4	my.jn St	N. Amer.	1734.	L s p	Trew. chret. t. 48
2335 viscosa <i>Ph.</i>	viscid	♂	or 2	jl.au W	N. Amer.	1734.	L s p	Meerb. ic. 2. t. 9
α odorata	common-white	♂	or 3	jl.au W	N. Amer.	1734.	L s p	
β vittata	striped-flowered	♂	or 3	jl.au St	N. Amer.	1734.	C l p	
γ fissa	narrow-petaled	♂	or 3	jl.au Pk	N. Amer.	1734.	L s p	
2336 nitida <i>Ph.</i>	shining-leaved	♂	or 4	jl.au Pk	N. Amer.	1812.	C l p	Bot. reg. 414
2337 glauca <i>Ph.</i>	dwarf-glaucous	♂	or 2	jn W	N. Amer.	1734.	L s p	
2338 hispida <i>Ph.</i>	tall-glaucous	♂	or 15	jn Pk	N. Amer.	1734.	L s p	Dend. brit. 6
404. CHAMELEDON. <i>Lk.</i> CHAMELEDON.				<i>Rhodoracææ.</i>	<i>Sp. 1.</i>			
2339 procumbens <i>Lk.</i>	trailing	♂	or ½	ap.my Pk	Britain	sc. mo.	L s p	Eng. bot. 865
405. BREXIA. <i>Nor.</i> BREXIA.				.....	<i>Sp. 1—3.</i>			
2340 madagascariensis <i>P.s.</i>	Madagascar	♂	or 30	jn G	Mauritius	1812.	C s p	Bot. reg. 730
406. OPHIORHIZA. <i>L.</i> SNAKE-ROOT.				<i>Rubiaceæ.</i>	<i>Sp. 1.</i>			
2341 Mungos <i>L.</i>	common	♂	or 3	my.d W	E. Indies	1820.	C s p	



History, Use, Propagation, Culture,

401. *Leucopogon*. From λευκος, white, and πογον, a beard, because the segments of the white flowers are bearded. A very extensive genus of small shrubs, with spiked axillary or terminal flowers. Culture as for Andersonia.

402. *Stenanthaera*. From στενω, narrow, and ανθηρα, an anther; the anther being in this genus not so broad as its filament. A bush with pine-like leaves, and erect large scarlet blossoms. Culture as in Andersonia.

403. *Azalea*. From αζαλιος, dry, arid; either in allusion to the places where the plant grows, or to the brittle dry nature of its wood. This is a very ornamental genus, from its abundance of flowers of almost all colors, and the fragrant smell of most of the species. A. indica is the most delicate, but flowers well in a moist heat in rough peat well drained. According to Sweet, "it thrives best in a sandy peat, and the pots to be well drained with small pieces of potsherd: it should be set in an airy part of the greenhouse in winter, and great care must be taken not to over-water it: in summer it should be exposed to the open air, but not in a very sunny situation. Young cuttings taken off close to the plant, and planted in pots of sand, will root readily, if plunged in heat under a bell-glass." (*Bot. Cult.* 144.) T. Blake keeps his plants "in peat and leaf-mould, always in the greenhouse till they are in a flowering state, and then he removes them to the hothouse, the sudden heat causing the blossom to open the better." (*Hort. Trans.* iv. 133.) J. Nairn uses the most fibrous part of peat-earth and sand; he places them in a considerable state, and always in the shade, and when the plants exhibit blossom buds in March, he then raises the temperature from 50° to 60°. This species strikes by cuttings of the young wood, taken off close to that which is ripened, planted in pots of sand, and plunged under a bell-glass.

The hardy Azaleas are best grown in compartments or groups by themselves, or with other American or European plants requiring a moist peat soil, and rather shady situation. Where peat is not to be had, the

- 2324 Spikes nodding aggregate, Ovaries 2-celled, Drupes oval, Leaves lanceolate flat 3-nerved
 2325 Spikes axillary close together 3-4-flowered, Leaves obl. lin. moderately spreading mucronate
 2326 Spikes axillary and terminal spreading stalked longer than the leaves, Leaves cordate stem clasping
 2327 Flowers subsessile solitary or 2 together, Leaves divaricating lanceolate linear bristly pointed

2328 The only species. Leaves like those of a fir very close together

2329 Flowers nearly solitary, Calyx hairy

2330 Leaves oblong narrowed at the end shining ciliated smooth, Corymb. terminal, Tube of cor. glandular

2331 Nearly naked flowered, Leaves oblong pubescent on both sides, Flowers large not viscid, Cal. teeth obl

2332 Leaves beneath thinly downy nerve not bristly, Flowers rose-colored not viscid, Cal. very minute

2333 Leaves oblong narrowed at the base ciliated smooth, Corymb terminal, Cor. hairy outside, Stam. exsert.

2334 Naked flowered, Leaves oblong slightly pubescent on both sides, Flowers small not viscid, One segment of corolla linear 4 times as long as the others

2335 Branches hispid, Leaves same color on both sides with the nerve hispid, Cal. teeth very short round

2336 Branches smooth, Leaves small oblanceolate mucronate coriaceous with a hispid nerve, Flowers viscid

2337 Branches hispid, Leaves acute smooth on both sides glauc. beneath with a hispid nerve, Fl. very viscid

2338 Branches upright very hispid, Leaves long lanceolate hispid above, Flowers very viscid

2339 The only species

2340 Leaves long narrow entire with a brown edge

2341 The only species



and Miscellaneous Particulars.

next best soil is a soft black sandy loam with leaf-mould, or mould from any decayed vegetable matter unmixed with animal remains, as the mould of decayed thatch, or the sweepings of stack-yards, wood-piles, &c. Seeds are obtained from many of the sorts, and should be sown in pans or shallow wide pots thinly covered, placed in a shady situation, and kept moderately moist. When fit to transplant, they should be pricked into other pots, and placed under a glass, and shaded till they have struck roots afresh. They may then be hardened by degrees, and, when their roots fill the pots, planted out in beds, or where they are finally to remain. Most of the hardy Azaleas are well adapted for growing in pots, and for forcing early in spring. The deciduous sorts flower better than those which are subevergreens.

By intercrossing with Azalea and Rhododendron, some new and curious varieties or hybrid species have been produced, especially in Colvill's nursery, under the direction of Mr. Sweet: and from some thousands of seedlings which have not yet flowered, many more are expected. (See *Encyc. of Gard.* part II. b. i. ch. viii. sect. 7. The juice in the bottom of the flower of *A. pontica* is poisonous, and communicates its bad properties to the unwholesome honey of Pontus. Several fine varieties of the Azalea indica have lately been brought to this country; but many of the best varieties are still among the desiderata of English cultivators.

404. *Chamaeledon*. From *χαμαι*, dwarf, and *λειδον*, a kind of cistus. This has been formed from the well known Azalea procumbens of Linnæus, one of the most interesting of our northern plants.

405. *Brezia*. So named by Noronha, perhaps from *βρέξες*, rain, in allusion to the protection afforded by the fine large leaves of the genus against rain. Fine stove plants with firm, spiny, or entire leaves, and axillary green flowers. In the garden they are commonly called Theophrastas.

406. *Ophiorhiza*. From *οφις*, a snake, and *ρίζη*, a root, from the use which is made of the roots in the East Indies for curing the bites of dangerous snakes. Mungos is an Indian name. A pretty stove plant, whose white flowers are well relieved by the dark red back ground of the calyxes and pedicels.

407. ALLAMAN'DA. <i>W.</i>	ALLAMANDA.	<i>Apocynae.</i>	<i>Sp. 1.</i>						
2342 cathártica <i>W.</i>	willow-leaved	or 12	jn.jl	Y	Guiana	1785.	C	r.m	Bot. mag. 338
408. THEOPHRASTA. <i>L.</i>	THEOPHRASTA.	<i>Myrsineae.</i>	<i>Sp. 1.</i>						
2343 <i>Jussiaei Lindl.</i>	prickly	or 3	...	W	Hispanio.	1818.	S	r.m	Lind. coll. 26
409. CLAVIJA. <i>Fl. per.</i>	CLAVIJA.	<i>Myrsineae.</i>	<i>Sp. 1—4.</i>						
2344 macrophýlla	long-leaved	♂ or 30	...	W	S. Amer.	1816.	C	r.m	
410. VIN'CA. <i>W.</i>	PERIWINKLE.	<i>Apocynae.</i>	<i>Sp. 5—6.</i>						
2345 herbácea <i>W. en.</i>	herbaceous	or 1½	jn.jl	Pu	Hungary	1816.	D	s.l	Bot. mag. 2002
2346 minor <i>W.</i>	lesser	or 4	mr.s	V	Britain	bu. pl.	S	co	Eng. bot. 917
β argenteo variegáta	silver-striped	or 4	mr.s	V	Britain	...	S	co	
γ aureo variegáta	gold-striped	or 4	mr.s	V	Britain	...	S	co	
δ flore pleno	double	or 4	mr.s	V	Britain	...	S	co	
2347 májor <i>W.</i>	greater	or 6	mr.s	B	England	groves.	S	co	Eng. bot. 514
β variegáta	variegated	or 6	mr.s	B	.....	...	S	co	
2348 parviflóra <i>W.</i>	small-flowered	or ½	au	B	E. Indies	1778.	S	s.l	M.co. got. t.2 f.1
2349 rósea <i>W.</i>	Madagascar	or 1	mr.o	R.w	E. Indies	1756.	C	r.m	Bot. mag. 248
β alba	white-flowered	or 1	mr.o	W	E. Indies	...	C	r.m	
γ ocelláta	red-eyed	or 1	mr.o	St	E. Indies	...	C	r.m	
411. NER'IUM. <i>R. Br.</i>	OLEANDER.	<i>Apocynae.</i>	<i>Sp. 2—5.</i>						
2350 oleánder <i>W.</i>	common	or 8	jn.o	R	S. Europe	1596.	L	r.m	Lam. ill. t.174
β álbum	white-flowered	or 8	jn.o	W	S. Europe	...	L	r.m	Bot. cab. 700
γ spléndens	double-hybrid	or 7	jn.o	R	.....	1814.	L	r.m	
δ variegátum	variegated	or 8	jn.o	St	.....	...	L	r.m	Bot. cab. 666
2351 odórum <i>W.</i>	sweet-scented	or 6	jn.au	Pa. R	E. Indies	1683.	C	r.m	Rheed. mal.9.t.2
β cárneum	flesh-colored	or 6	jn.au	Pk	E. Indies	1683.	C	r.m	
γ plénium	double-flowered	or 5	jn.au	Pa. R.	E. Indies	1683.	C	r.m	Bot. reg. 74
412. WRIGH'TIA. <i>R. Br.</i>	WRIGHTIA.	<i>Apocynae.</i>	<i>Sp. 3—5.</i>						
2352 anti-dysentérica	R hr. oval-leaved	or 10	...	W	E. Indies	1778.	C	r.m	Rhed. mal.1.t.47
2353 zeyláncia <i>R. Br.</i>	spear-leaved	or 10	...	W	E. Indies	...	C	r.m	Bur. zeyl.t.12.f.2
2354 tinctória <i>R. Br.</i>	dyer's	or 15	...	W	E. Indies	1812.	L	lp	
413. ECHI'TES. <i>R. Br.</i>	ECHITES.	<i>Apocynae.</i>	<i>Sp. 10—60.</i>						
2355 biflóra <i>W.</i>	twin-flowered	or 20	jl	W	W. Indies	1793.	C	p.l	Jac.amer.30.t.21
2356 suberécta <i>W.</i>	Savanna-flower	or 10	jn.au	Y	Jamaica	1759.	C	p.l	Bot. mag. 1064
2357 torósa <i>W.</i>	climbing	or 10	jn.au	Y	Jamaica	1778.	C	p.l	Jac.amer.33.t.27
2358 umbelláta <i>W.</i>	umbelled	or 15	jl	W	Jamaica	1733.	C	p.l	Jac.amer.30.t.22
2359 difformis <i>Ph.</i>	deformed	or 8	jl	P.y	Carolina	1806.	C	p.l	
2360 bispinósa <i>W.</i>	twin-spined	cul 1	jl.n	Pk	C. G. H.	1795.	C	p.l	
2361 caryophylláta <i>Roxb.</i>	clove-leaved	or 6	o	Pa.Y	E. Indies	1812.	C	p.l	Bot. mag. 1919
2362 grandiflóra <i>Rth.</i>	large-flowered	or 8	...	Pk	E. Indies	1823.	C	p.l	
2363 anti-dysentérica <i>Rth.</i>	Medicinal	m 6	...	Pk	E. Indies	1821.	C	p.l	
2364 sanguinolénta <i>Tuss.</i>	red-veined	or 20	jn.au	Y	W. Indies	1821.	C	p.l	Bot. mag. 2473
414. ICHNOCARPUS. <i>R. Br.</i>	ICHNOCARPUS.	<i>Apocynae.</i>	<i>Sp. 1—2.</i>						
2365 frutésens <i>H. K.</i>	shrubby	or 10	jl.au	Pu	E. Indies	1759.	C	p.l	Bur. zeyl.t.12.f.1



History, Use, Propagation, Culture,

407. *Allamanda*. In memory of Dr. Frederick Allamand, a professor of natural history in the university of Leyden, who went to Guiana about 1769, and to Russia about 1776, and sent descriptions, figures, and specimens of plants to Linnæus. It is a milky shrub, of cathartic qualities; flowers freely, and strikes with ease in a moist heat.

408. *Theophrasta*. Theophrastus was born at Eresus in Lesbos, 310 years before Christ, and died at the age of 83. Linnæus has justly termed him the prince of botanists. The genus which has been selected to commemorate his name, is a curious prickly-leaved, low plant, native of St. Domingo, where it is called by the negroes wild cocoa. In the collections of this country it is rare, and no means has yet been discovered of propagating it, except by seeds.

409. *Clavija*. Named in honor of Joseph Clavijo Faxardo, a Spanish naturalist, who translated into his own language the works of Buffon. A fine genus of plants, exceedingly rare both in gardens and herbaria.

410. *Vinca*. A name, the true origin of which is buried in obscurity. None of the fanciful etymologies which have been formed of it, appear entitled to attention. The Anglo-Saxons called it *perwinck*, the English, *periwinkle*, the French, *perenche*. This is a genus of well-known little shrubs, valued for their early and long continued flowering, and the hardy species as being evergreens which thrive under the shade and drip of trees. V. minor and major, like other plants which run much at the root, very rarely produce seeds. V. rosea is continually in flower, and is easily propagated by cuttings under a hand-glass.

411. *Nerium*. From *νεος*, damp, the plant growing upon the borders of rivulets, in the southern parts of Europe. This is a genus of beautiful evergreen shrubs of easy culture and propagation, and free flowerers great part of the year. N. tinctorium affords a blue equal to that of indigo, and it is thought by Dr. Roxburgh might be cultivated for that purpose.

N. oleander is very common in the Levant, and especially in the Isle of Candia, and in Sicily, Magna Græcia,

- 2342 The only species. Leaves 4 together subsessile ovate oblong, Flowers in villous fascicles
- 2343 A small prickly-leaved bush without branches and with terminal clusters
- 2344 Leaves very long lanceolate retuse toothed spinous
- 2345 Stems herbaceous prostrate, Leaves oblong lanceolate smooth, Flowers stalked, Cal. ciliated
- 2346 Stems procumbent, Leaves ellipt. lanc. smooth at edge, Flowers stalked, Teeth of cal. lanceolate
- 2347 Stems nearly erect, Leaves ovate ciliated, Flowers stalked, Teeth of calyx setaceous elongated
- 2348 Stem herbaceous erect square, Leaves lanceolate, Flowers twin or solitary stalked
- 2349 Stem erect, Flowers twin sessile, Leaves ovate oblong, Stalks 2-toothed at the base
- 2350 Leaves lin. lanc. 3 together ribbed beneath, Sepals squarrose, Nect. flat 3-toothed
- 2351 Leaves linear lanc. 3 together, Corona filamentose, Anthers at end feathery
- 2352 Leaves ovate oblong shortly acuminate smooth, Corymbs terminal, Tube of cor. 6 times as long as calyx
- 2353 Leaves obl. lanceol. subacuminate smooth, Corymbs terminal, Tube of cor. 4 or 5 times as long as calyx
- 2354 Leaves ellipt. lanc. and ovate acum. smooth, Branches and corymbs divar. Tube of cor. twice as long as cal.
- 2355 Stems sarmentose, Leaves oblong, Pedunc. 2-flowered
- 2356 Pedunc. many-flowered, Cor. cylindrical hairy outside, Leaves ovate mucronate pubescent beneath
- 2357 Pedunc. racemose, Leaves lanceolate acuminate, Follicles torulose very long
- 2358 Pedunc. umbelled, Leaves ovate obtuse mucronate
- 2359 Leaves oval lanceolate acute at base the lowest linear, Flowers in fasciated corymbs
- 2360 Prickles two extra-foliaceous, Leaves lanceolate smooth, Cor. hypocrateriform
- 2361 Panicle terminal, Cal. spreading as long as corolla, Leaves ovate mucronate
- 2362 Stem erect rounded, Leaves oval acuminate smooth, Flowers terminal in threes
- 2363 Stem erect angular, Leaves ovate lanceolate obsolete crenate, Corymbs axillary dichotomous
- 2364 Leaves ovate lanceolate entire strongly marked with crimson veins

2365 Stem erect shrubby, Leaves lanceolate oval, Cor. acute, Throat villous



and Miscellaneous Particulars.

&c. by rivers and torrents: the leaves are acrid and poisonous. Young cuttings planted under a hand-glass, and placed on a little heat, root freely.

N. odorum and its varieties, though treated as a greenhouse plant, requires a stove to make it flower freely.

412. *Wrightia*. Named after Dr. William Wright, a Scotch physician, who resided some years in the West Indies at the end of the last century, and the author of one or two botanical tracts. *W. antidysenterica* is reputed to be a specific in the dysentery. The wood is well adapted for the turner, and to make cabinets and other elegant furniture. It is very white, and of a fine grain like ivory, only much lighter. It mixes admirably with ebony.

W. zeylanica is an elegant branched shrub, with whitish yellow flowers and an agreeable odor. Both species may be treated like *Nerium*.

413. *Echites*. A name employed by Pliny as the designation of a kind of Clematis; it is derived from *εχίς*, a viper, on account of the twisting nature of its shoots. This is a genus of plants somewhat singular in habit, with opposite, veined, shining leaves, and flowers in peduncles void of scent. They all flower freely, and root readily under a hand-glass in sand.

E. biflora supports itself partly by stems, and partly by twining on trees, hence frequently acquiring the air of a tree. It grows in salt marshes.

E. suberecta climbs: when it grows in savannahs it does not rise above three feet, and sometimes not more than one foot high.

E. sanguinolenta is remarkable for the beauty of its foliage, the veins of which are stained with crimson.

414. *Ichmocarpus*. An unexplained name, the meaning of which is unknown. Climbing shrubs of Sierra Leone and the East Indies, with long branches covered with smooth entire leaves, and white sweet-scented flowers. Cuttings root freely in sand under a hand-glass.

415. PLUMIERIA. W.	PLUMIERIA.	Apocynææ.	Sp. 7—14.		
2366 rúbra W.	red	♂ □ or 15	jl.au R	Jamaica 1690.	C r m Bot. mag. 279
2367 acumináta H. K.	acuminate	♂ □ or 20	jn.s R.v	E. Indies 1790.	C r m Bot. reg. 114
2368 álba W.	white	♂ □ or 15	jl.au W	Jamaica 1733.	C r m Jac. am. t. 174.f.2
2369 obtúsa W.	blunt-leaved	♂ □ or 10	jl.au W	W. Indies 1733.	C r m Cat. car. 1. t. 93
2370 pudica Jac	wax-flowered	♂ □ or 5	jl.au Y	S. Amer.	C r m
2371 bicolor Fl. per.	two-colored	♂ □ or 15	jl.o W.y	S. Amer. 1815.	C r m Bot. reg. 490
2372 tricolor Fl. per.	three-colored	♂ □ or 15	jl.o Va	W. Indies 1815.	C r m Bot. reg. 510
416. STROPHANTHUS. Dec.	STROPHANTHUS.	Apocynææ.	Sp. 1—5.		
2373 dichótomus Dec.	yellow	♂ □ or 3	fmr Y	China 1818.	C r m Bot. reg. 409
417. CAMERARIA. W.	BASTARD-MANCHINEEL.	Apocynææ.	Sp. 4—6.		
2374 latifólia W.	broad-leaved	♂ □ or 30	au W	Ilavannah1793.	C r m Bot. rep. 261
2375 Tamaquárina Aub.	yellow-flowered	♂ □ or 4	o n Y	Cayenne 1793.	C r m Aub. gui. 1. t. 102
2376 dúbia B. M.	doubtful	♂ □ or 6	my.au Or	E. Indies 1813.	C r m Bot. naag. 1646
2377 angustifólia W.	narrow-leaved	♂ □ or 8	s W	S. Amer. 1752.	C r m Plum. ic. t. 72. f. 2
418. TABERNÆMONTANA. W.	TABERNÆMONTANA.	Apocynææ.	Sp. 4—34.		
2378 citrifólia W.	Citron-leaved	♂ □ or 15	... Y	Jamaica 1734.	C r m Plum. ic. t. 948. f. 2
2379 laurifólia W.	Laurel-leaved	♂ □ or 13	my Y	W. Indies 1768.	C r m Bot. reg. 716
2380 coronária H. K.	Rose-bay-like	♂ □ or 4	my.s W	E. Indies 1770.	C r m Bot. mag. 1865
2381 amygdalifólia Jacq.	almond-leaved	♂ □ or 6	my.s W	S. Amer. 1780.	C r m Bot. reg. 338
419. AMSONIA. Mich.	AMSONIA.	Apocynææ.	Sp. 3—4.		
2382 latifólia Ph.	broad-leaved	♂ △ or 2	my.jn B	N. Amer. 1759.	D co Bot. reg. 151
2383 salicifólia Ph.	Willow-leaved	♂ △ or 2	my.jn B	N. Amer. 1812.	D co Bot. mag. 1873
2384 angustifólia Ph.	hairly-stalked	♂ △ or 2	my.jn B	N. Amer. 1774.	D co Vent. choix. 99
420. CERBERA. W.	CERBERA.	Apocynææ.	Sp. 6—10.		
2385 Ahoúai W.	oval-leaved	♂ □ or 20	jn.jl Y	Brazil 1739.	C r m Bot. mag. 737
2386 Mánghas W.	spear-leaved	♂ □ or 20	s W	India 1759.	C r m Bot. rep. 655
2387 maculáta W.	waved-leaved	♂ □ or 4	jn.jl W	Bourbon 1782.	C r m Bot. rep. 130
2388 ováta Cav.	oval-leaved	♂ □ or 3	... Y	N. Spain ...	C r m Cav. ic. 3. t. 270
2389 Thévetia W.	linear-leaved	♂ □ or 12	jn.jl Y	S. Amer. 1735.	C r m Bot. mag. 2309
2390 fruticosá Rozb.	shrubby	♂ □ or 4	my R	Pegu 1819.	C r m Bot. reg. 391
421. TECOTONA. W.	TEAK-WOOD.	Verbenacææ.	Sp. 1.		
2391 grándis W.	great	♂ □ tm 100	... W	E. Indies 1777.	S Lp Roxb. cor. 1. t. 6
422. CALDASIA. W. en.	CALDASIA.	Verbenacææ.	Sp. 1.		
2392 heterophýlla W. en.	various-leaved	♂ □ or 2	my.d B	N. Spain 1813.	S r m Bot. reg. 92
423. BUMELIA. W.	BUMELIA.	Sapotææ.	Sp. 8—26.		
2393 lycioides Ph.	Boxthorn-leav.	♂ or 10	au W	N. Amer. 1758.	L s.l Duha. arb. 2. t. 68
2394 ténax W.	silvery-leaved	♂ tm 20	jl.au W	Carolina 1765.	C p.l Jac. obs. 3. t. 54



History, Use, Propagation, Culture

415. *Plumieria*. So named by Tournefort, in honor of Charles Plumier of Marseilles, a Franciscan friar, who travelled into South America. He is distinguished for the accuracy of his observations, and for the fidelity of his drawings, which are the only representations of many of the most curious plants of the West Indies and South America. His drawings of flowers have seldom, even in these days of pictorial excellence, been equalled. He was the author of *Plantæ Americanae*, 1693, and other excellent works. This is a fine flowering genus. "It succeeds best in a light loamy soil, and requires but little water. Large cuttings taken off and laid to dry for a considerable time, may be stuck in the tan in a moderate heat, or planted in pots, and they will root freely; they must not be covered with a glass, or it will rot them. To have the plants flower well, they should be kept very dry when not in a growing state, which will throw them into bloom." (*Bot. Cult.* 95.)

416. *Strophanthus*. From *στροφη*, to turn or twist, and *ανθος*, a flower; in allusion to the manner in which the segments of the corolla are twisted together before expansion. A most beautiful genus of tropical shrubs, with bright yellow flowers more or less spotted with red. They require the same treatment as *Echites*.

417. *Cameraria*. So named by Plumier, from Joachim Camerarius, a physician and botanist of Nuremberg, who was born in 1534, and died in 1598. He published an edition of Matthioli, in Latin and German, with new figures, and many observations; but the most celebrated man of the name was Ralph James Camerarius, a German botanist, who published in 1719, a tract, in which the first principles of the arrangement of plants by their seeds were propounded. This is a fine flowering genus, of easy culture, and cuttings root freely under a hand-glass in a pot of sand.

418. *Tabernæmontana*. So named by Plumier, in memory of James Theodore, surnamed Tabernæmontanus, from Berg-Zabern, the place where he was born. He published "Krauterbuch," and figures of plants in 1589-90; was physician to the Elector Palatine, and died in 1590. This is a genus of easy culture but little beauty. All the species root in sand under a hand-glass.

419. *Amsonia*. So named by Clayton in his *Flora Virginiana*; referred to Tabernæmontana by Linnaeus, now separated again. These are pretty plants, which grow in any soil; and may be propagated by cuttings under a hand-glass, or dividing at the root.

420. *Cerbera*. A poetical name formed in allusion to the mythological dog Cerberus, whose bite was poisonous, as is the juice of this genus. Ahoúai and Mánghas are vernacular names of the countries where the spe-

- 2366 Leaves ovate oblong flat, Leafstalks with two glands
 2367 Leaves scattered lanceolate acute, Flowers corymbose terminal
 2368 Leaves lanceolate revolute, Peduncles tuberous above
 2369 Leaves lanceolate stalked obtuse
 2370 Flowers always with the limb closed very sweet-scented
 2371 Leaves oblong acuminate flat at edge, Cor. white and yellow
 2372 Leaves oblong acute, margins flat veiny, Cor. tube red, throat yellow, limb white

2373 Branches dichotomous, Leaves mucronate-acuminate, Cor. infundibuliform

- 2374 Leaves rounded ovate acuminate at the base transversely striated, Flowers terminal corymbose
 2375 Leaves ovate oblong netted, Umbel stalked few-flowered, Flowers large yellow sweet (*C. lutea*).
 2376 Leaves ovate lanceolate wavy, Corona 10-cleft: alternate segm. shorter obtuse
 2377 Leaves linear

- 2378 Leaves ovate, Flowers lateral in clustered umbels
 2379 Leaves ovate, Peduncles few-flowered, Stamens included
 2380 Leaves lanceolate ovate, Branches divaricating
 2381 Leaves oval lanceolate, Stamens longer than tube of corolla

- 2382 Stem smoothish, Leaves oval lanceolate the upper acuminate beneath a little hairy
 2383 Stem smooth, Leaves linear lanceolate acute at each end quite smooth
 2384 Leaves narrow lanceolate close erect pubescent, Stem obviously pubescent

- 2385 Leaves ovate acute
 2386 Leaves lanceolate, Nerves transverse
 2387 Leaves lanceolate attenuate at each end veiny spotted, Cymes axillary branched
 2388 Leaves ovate scattered subsessile, Flowers terminal about 5
 2389 Leaves linear very long, Flowers subsolitary axillary, Fruit roundish
 2390 Dichotomous, Leaves broad lanceolate, Corymbs terminal, Drupes obliquely cup-shaped gaping

2391 Leaves obovate scabrous very large whitish beneath

2392 The only species. A pretty stove annual

- 2393 Prickly, Leaves lanceolate obtuse acute at base attenuate smooth
 2394 Leaves obovate lanceolate beneath silky, Peduncles axillary clustered



and Miscellaneous Particulars.

cies so called are found. *Thevetia* is named after Andrew Thevet, a French monk, who travelled in Brazil about 1530. *C. Ahouai* has thick succulent leaves about three inches long, and near two broad, of a lucid green, smooth, and very full of a milky juice, as is every part of the shrub. The flowers are in loose bunches at the ends of the branches, and are succeeded by nuts, the kernels of which are a most deadly poison. The wood stinks abominably, and is not used even by the Indians for fuel. They put small stones into the empty nuts, string them, and fasten them about their legs when they dance.

C. Manghas is a milky tree with broad lanceolate leaves a foot in length; flowers in terminal racemes, and the drupe ovate, the size of a goose's egg, inclosing two seeds resembling two large chestnuts, poisonous and emetic.

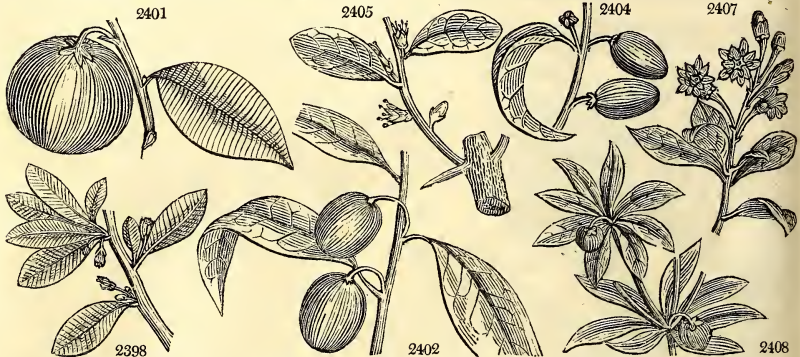
C. Thevetia is an elegant shrub or small tree, with acuminate leaves, and large, specious, nodding, yellow, sweet-smelling flowers. The fruit is a green drupe, containing a nut with a single kernel in it. Cuttings of all the species strike very readily in sand under a hand-glass.

421. *Tectona*. Altered by Linnæus from *Tekka*, its name in Malabar. This is a timber-tree of immense size and great durability, and is justly called the oak of the east. The trunk is erect, and the bark ash-colored; the leaves are obovate, downy underneath, and on young trees from 12 to 24 inches long, and from 8 to 16 broad. The flowers are in panicles, small, white, and fragrant. The seeds are lens-shaped in 4-celled drupes. The tree abounds in the vast forests of Java and Ceylon, Malabar, Coromandel, &c., and especially in the empires of Birman and Pegu. The wood has, by long experience, been found to be the most useful in Asia. It is easily worked, and at the same time both strong and durable. It is considered superior to all others for ship-building. Calcutta and Madras draw all their supplies of wood for ship-building from the teak forests of Ava and Pegu. Some of the finest vessels that have ever arrived in the Thames have been of teak tree, built in Bengal. The tree was introduced to the British possessions by Lord Cornwallis, and is now planted with a view to timber in the mountainous parts of Bengal. In our stoves it thrives in loam and peat, and ripened cuttings root freely in sand under a hand-glass.

422. *Caldasia*. A pretty stove herbaceous plant, with handsome small blue flowers. It was named by Willdenow, after the MSS. of Baron Humboldt, in honor of Joseph Caldas, a meritorious Spanish botanist, residing at Popayan in South America. It may be propagated by cuttings.

423. *Bumelia*. A name given by the Greeks to our common ash. Swartz applied the name to this West Indian

2395 <i>salicifolia</i> W.	Willow-leaved	☐	tm	30	...	W	S. Amer.	1758.	C	p.l	Cat. car. 2. t. 75
2396 <i>nigra</i> W.	black	☐	tm	30	...	W	W. Indies	1806.	C	r.m	
2397 <i>lanuginosa</i> Ph.	woolly-leaved	☐	or	6	...	W	Carolina	1806.	C	r.m	
2398 <i>reclinata</i> Ph.	reclinate	☐	or	3	jn	W	Carolina	1806.	C	r.m	Vent. choix. 22
2399 <i>serrata</i> Ph.	serrated	☐	fr	12	...	W	Missouri	1812.	C	r.m	
2400 <i>rotundifolia</i> Swz.	round-leaved	☐	or	12	...	W	Jamaica	1823.	C	r.m	
424. CHRYSOPHYLL/LUM. W.	STAR-APPLE.										
2401 <i>Cainito</i> W.	common	☐	fr	50	my.jn	W	W. Indies	1737.	C	r.m	Jc.am.51. t.37.f.1
2402 <i>argenteum</i> W.	narrow-leaved	☐	fr	20	...	W	Martiniq.	1758.	C	r.m	Jc.am.53. t.38.f.1
2403 <i>monopyrénum</i> Swz.	one-seeded	☐	fr	30	...	Br	W. Indies	1812.	C	r.m	Burm.amer.t.69
2404 <i>glabrum</i> Jacq.	smooth	☐	fr	15	...	W	Martiniq.	1823.	C	r.m	Jacq.am.t.38.f.2
425. SIDEROXYLON. W.	IRON-WOOD.										
2405 <i>inérmé</i> W.	smooth	☐	or	5	jl	W	C. G. H.	1692.	L	p.l	Lm.ill.2.t.120.f.1
426. JACQUINIA. W.	JACQUINIA.										
2406 <i>armillaris</i> W.	obtuse-leaved	☐	or	6	jn.jl	W	W. Indies	1768.	C	p.l	Jac.amer.53.t.39
2407 <i>aurantiaca</i> H. K.	orange-flower'd	☐	or	4	ap.s	O	Sandw. I.	1796.	C	p.l	Bot. mag. 1639
2408 <i>ruscifolia</i> W.	prickly	☐	or	3	...	W	S. Amer.	1729.	C	p.l	D.et. t.129. f.149
427. A'CHRAS. W.	SAPOTA.										
2409 <i>mammosa</i> W.	Mammoe	☐	fr	40	...	W	S. Amer.	1739.	C	r.m	Jac.am.t.182.f.19
2410 <i>Sapota</i> W.	common	☐	fr	30	...	W	S. Amer.	1731.	C	r.m	Jac.am. 57. t. 41
2411 <i>Zapotilla</i>	Naseberry-tree	☐	fr	10	...	W	S. Amer.	1731.	C	lp	Jac.am.57.t.41.b
428. CORDIA. W.	CORDIA.										
2412 <i>Mýxa</i> W.	smooth-leaved	☐	or	30	...	W	E. Indies	1640.	C	p.l	Rhed.mal.4. t.37
2413 <i>monoica</i> Roxb.	Birch-leaved	☐	or	15	mr.ap	W	E. Indies	1799.	C	p.l	Roxb. cor.1. t.58
2414 <i>Sebesténa</i> W.	rough-leaved	☐	or	15	jn.au	O	W. Indies	1798.	C	p.l	Bot. mag. 794
2415 <i>Gerascánthus</i> W.	Spanish-elm	☐	tm	30	ny	Pk	W. Indies	1789.	C	p.l	Bro. jam. t.29.f.3
2416 <i>macrophylla</i> W.	broad-leaved	☐	tm	60	...	W	W. Indies	1752.	C	p.l	Sl.jam.2.t.221.f.1
2417 <i>Collocóca</i> W.	long-leaved	☐	tm	30	...	G	Jamaica	1759.	C	p.l	Sl.jam.2.t.203.f.2
2418 <i>nodosa</i> Lam.	hairy	☐	or	6	jn.jl	W	Guiana	1803.	C	p.l	Aub. guia.1. t.86
2419 <i>elliptica</i> Sw.	elliptic	☐	tm	50	...	W	W. Indies	1804.	C	p.l	
2420 <i>Patagónula</i> W.	spear-leaved	☐	tm	20	jn.au	W	S. Amer.	1732.	C	p.l	Lam. ill. t. 96
429. VARRONIA. W.	VARRONIA.										
2421 <i>lineata</i> W.	round-spiked	☐	or	4	...	W	W. Indies	1793.	C	s.l	Bro. jam. t.13.f.2
2422 <i>mirabiloides</i> W.	jointed	☐	or	12	s	W	Hispaniola	1798.	C	s.l	Jacq.am.41. t.33



History, Use, Propagation, Culture,

genus. These are plants with good foliage, but no beauty of blossom. Some of the species are robust enough to bear our winters in the open air; but they are rather tender, and require to be placed in a sheltered situation or against a warm wall, and covered with mats during winter. Cuttings root in sand under a hand-glass. The stove species are low West Indian trees, and known there under the name of Bully tree. They thrive well in loamy soil, or loam and peat, and cuttings will root, but, according to Sweet, "not freely, in sand under a hand-glass," being well ripened before they are taken off.

424. *Chrysophyllum*. From χρυσος, gold, and φύλλον, a leaf; all the species having their leaves covered on the under surface with dense shining hairs of a bright yellow or white color. *C. cainito* has large elegant leaves, ferruginous underneath; it forms a tree of considerable size, with slender flexible branches. The leaves and fruit, like the *Achras*, to which the tree is very nearly allied, are full of milk, which the fruit retains even in the most perfect state. This milk is rough and astringent before the fruit ripens; but when it grows to full perfection, it becomes sweet and gelatinous, with an agreeable clamminess. Being mixed with a small quantity of orange juice, it binds the body extremely. The tree is of general and easy culture in Jamaica, and is here grown chiefly for its foliage. Sweet says, ripened shoots of all the species taken off and planted in sand, will root under a hand-glass with a strong moist heat.

425. *Sideroxylon*. From σιδερος, iron, and ξυλον, wood; in allusion to the hardness of the wood. The specific name *melanophleum* (μελας φλοιος) means black-bark. The wood of this tree is very close and hard, and so heavy as to sink in water. It grows well in loam and peat; and cuttings somewhat ripened may be struck in sand under a hand-glass.

426. *Jacquinia*. So named by Linnaeus, in honor of James Nic. Jos. de Jacquin, professor of botany at Vienna, born at Leyden, in 1727, author of many splendid works. A noble genus, well devoted to perpetuating the memory of one of the first of botanists. The name of one of the species *armillaris*, (from *armilla*, a garland,) has been applied in consequence of the shoots being used by women in America as garlands. This beautiful genus requires some care in propagation, but is of easy culture in the bark-stove, in loam and peat, and with a moist heat. "Cuttings," Sweet observes, "will strike root with ease in sand, under a hand-glass, in heat."

427. *Achras*. The Greek name of the wild pear. The root of the word has been thought to have been found in *ac*, the Celtic for a point, in allusion to the many stout spines with which the tree is covered. The word *Sapota*, applied to one of the species, is derived from its Mexican name *Cochit-zapotl*. This is a genus of fruit-bearing timber-trees, chiefly natives of the West Indies. *A. mammosa*, or American marmalade, grows in America to the height of 35 or 40 feet, having a straight trunk covered with an ash-colored bark. The branches form a regular head; the leaves a foot in length, and near three inches broad in the middle. The flowers are

- 2395 Leaves lanceolate ovate acuminate, Peduncles clustered axillary and lateral
- 2396 Leaves terminal oblong lanceolate smooth wavy at edge, Branches lax
- 2397 Spiny, Branches spreading pubescent, Leaves oval lanceolate smooth above beneath woolly
- 2398 Spiny bushy loosely reclinate, Sterile branches divaricate divided, Leaves small obovate smooth
- 2399 Unarmed, Leaves evergreen oblong lanceolate acute at each end prickly serrate, Berries large
- 2400 Leaves rounded edged veiny coriaceous smooth on both sides

- 2401 Leaves ovate with parallel veins beneath tomentose shining
- 2402 Leaves falcate ovate beneath downy shining
- 2403 Leaves oblong acuminate beneath downy gold color, Fruit ovate 1-seeded
- 2404 Leaves ovate oblong smooth on both sides, Fruit elliptical smooth

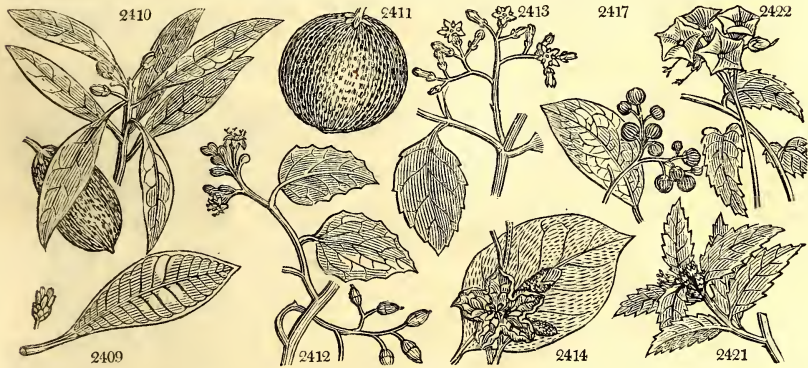
- 2405 Leaves oblong ovate obtuse, Flowers lateral and axillary

- 2406 Leaves wedge-shaped, Branches at the ramifications nodose whorled
- 2407 Leaves obovate lanceolate acuminate pungent
- 2408 Leaves lanceolate acuminate

- 2409 Flowers solitary, Leaves cuneiform lanceolate
- 2410 Flowers solitary, Leaves lanceolate ovate
- 2411 Brachiate diffuse, Fruit rounded with the mucro of the hilum shorter

- 2412 Leaves ovate smooth above, Corymbs lateral, Calyxes 10-striated
- 2413 Leaves roundish ovate toothed veiny scabrous, Corymbs axillary monocious
- 2414 Leaves ovate subrenate subrepand rough, Cal. cylindrical shorter than the tube
- 2415 Leaves lanceolate ovate rough, Panicle terminal, Cal. tomentose 10-striated
- 2416 Leaves ovate villous a foot and half long
- 2417 Leaves oblong ovate entire, Flowers corymbose, Cal. downy inside
- 2418 Leaves in 3s ovate oblong acuminate, Branches nodose hispid, Cal. bearded
- 2419 Leaves oblong attenuated at the end entire coriaceous, Racemes comp. diffuse
- 2420 Leaves oblong lanceolate smooth on each side the upper serrate, Branches pilose

- 2421 Leaves lanceolate linear acuminate hoary beneath, Pedunc. lateral axillary naked
- 2422 Leaves ovate on long stalks, Stalk above the base bent inwards and jointed, Cor. hypocrateriform



and Miscellaneous Particulars.

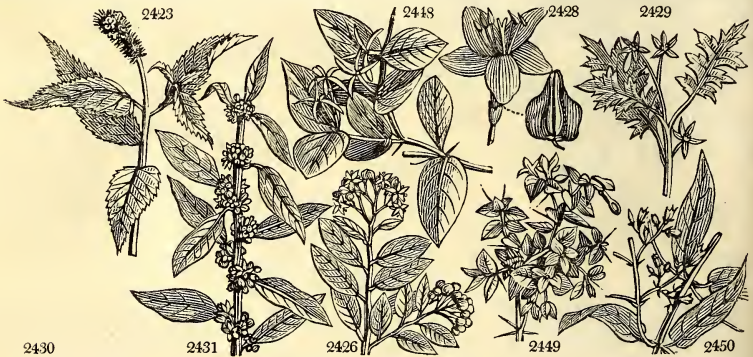
cream-colored, and are succeeded by large oval or top-shaped fruit, covered with a brownish skin, under which is a thick pulp of a russet-color, very luscious, called natural marmalade, from its likeness to marmalade of quinces. It is commonly planted in gardens for the fruit in Jamaica, Barbadoes, Cuba, and most of the West India islands. In this country it has been hitherto grown only as a part of botanic collections, but some attempts have been lately made to cultivate it as a stove fruit, and we have no doubt they will be attended with success. "Cuttings root readily in a pot of sand plunged in heat, under a common hand-glass. The cuttings should be taken off as near the stem of the plant as possible, not being so apt to rot as when cut off in the middle of the shoot. No leaves should be taken off or shortened above the sand." (*Sweet.*)

A. sapota is a large, tall, straight tree, without knots or branches, for twenty feet or more. The head spreads into many small branches; the bark is dark-grey and full of chops; the fruit is bigger than a quince, round, and covered with a thick grey rind, yellow when ripe. The flesh is as yellow as a carrot, with two stones the size of almonds, of a rich smell and taste. The variety called the Naseberry has fruit as big as a bergamot pear, and similarly shaped. When it is green or first gathered, the juice is white and clammy, and will stick like glue; then the fruit is hard; but when it has been gathered two or three days, it grows soft and juicy, and then the juice is clear as spring-water and very sweet; in the midst of the fruit are two or three black stones or seeds, about the bigness of a pompion seed. It is esteemed an excellent fruit in the West Indies. In our stoves it is propagated like the mammee tree.

428. *Cordia*. So named by Plumier after E. Cordus, a German botanist of the 16th century. Valerius Cordus, his son, was born in 1515, and died in 1544. He left a History of Plants, and was the author of some Observations upon Dioscorides. *Sebestena*, the name of a species, is *sebestân* in Persian. *Myxa* is derived from $\mu\upsilon\chi\eta$, a viscosity, on account of its viscid mucous juice, which is used for glue in the east. *Geraschanthus*, from $\gamma\epsilon\rho\alpha\sigma\kappa\alpha$, to grow old, and $\alpha\nu\theta\omicron\varsigma$, a flower, is in allusion to the long duration of the flowers; *collococca*, ($\kappa\omicron\lambda\lambda\eta$, glue, and $\kappa\omicron\kappa\omicron\varsigma$; glutinous fruit) in allusion to the fruit. This is not a delicate genus, but flowers freely. The timber of *C. myxa* is tough and solid, and used in the east for procuring fire by friction. The leaves bruised with those of *Datura metel* are applied to the forehead in the headach; children eat the fruit, from which also a glue is prepared. *C. sebestena* is very ornamental, on account of its large, tubular, scarlet flowers; the most beautiful and agreeable, says Browne, of any I have seen in America. A small piece of the wood put on a pan of lighted coals, will perfume a whole house. From the juice of the leaves, with that of a species of fig, is prepared the fine red color with which they dye their clothes in Otaheite. Poultry in the West Indies feed on the berries of *C. collococca*, which is there called the clammy cherry, or Turkey berry-tree. All the species grow readily in loam and peat, and cuttings strike in sand, under a glass, in heat.

429. *Varronia*. Named after Marcus Terentius Varro, a most learned Roman, born 116 years before Christ,

2423 martinicensis W.	Martinique	☉	or	6	au.s	W	Martinico	1795.	C s.l	Jaoc. am.41. t.32
2424 angustifolia W.	narrow-leaved	☉	or	15	...	W	S. Cruz	1808.	C s.l	
430. EHRE'TIA. W.	EHRETIA.	☉	tm	30	jn.jl	W	Sp. 2—20.			
2425 tinifolia W.	Tinus-leaved	☉	or	10	...	W	Jamaica	1734.	C p.l	Trew. chr.4. t.25
2426 aspera Roxb.	rough-leaved	☉	or	10	...	W	E. Indies	1795.	C p.l	Roxb. cor. 1. t.55
431. BOURRE'RIA. Gært.	BOURRERIA.	☉	tm	45	...	W	Sp. 2.			
2427 succulenta Jac.	fleshy-fruited	☉	or	15	...	W	W. Indies	1758.	C s.l	Ja. obs.2.p.2. t.26
2428 exsucca Jac.	dry-fruited	☉	or	15	...	W	W. Indies	1804.	C s.l	Jac. am.t.173.f.17
432. ELLISIA. W.	ELLISIA.	☉	cu	2	jl.au	W	Hydrophyllace. Sp. 1—2.			
2429 Nyctelia W.	cut-leaved	☉	or	6	...	W	Virginia	1755.	S co	Eh.n.cu.2. t.7.f.1
433. SERSALISIA. R. Br.	SERSALISIA.	☉	or	6	...	W	Sapotee. Sp. 1—2.			
2430 sericea R. Br.	silky-leaved	☉	or	6	...	W	N. Holl.	1772.	C p.l	
434. MANGLILLA. Juss.	MANGLILLA.	☉	tm	30	jn.jl	W	Sapotee. Sp. 1—11.			
2431 milleriána Pers.	Miller's	☉	or	6	...	W	C. G. H.	...	C co	Bot. mag 1858
435. ARDISIA. W.	ARDISIA.	☉	or	7	jl.au	R	Myrsinee. Sp. 13—28.			
2432 acuminata W.	acuminated	☉	or	10	jns.	R	Guiana	1803.	C p.l	Bot. mag. 1678
2433 solanacea Roxb.	Nightsh.-like	☉	or	10	jns.	R	E. Indies	1798.	S p.l	Bot. mag. 1677
2434 crenulata P. S.	crenulated	☉	or	4	jns.	R	W. Indies	1809.	S p.l	Vent. choix. t. 5
2435 littoralis B. R.	side-flowering	☉	or	6	...	W	W. Indies	1793.	S p.l	
2436 lateriflora W.	sea-side	☉	or	4	jl.au	R	E. Indies	1809.	C p.l	Bot. rep. 630
2437 elegans And.	elegant	☉	or	10	jl.au	R	E. Indies	1809.	S p.l	Bot. rep. 49
2438 colorata Lk.	red-flowered	☉	or	10	jl.au	R	E. Indies	1816.	C s.l	Bot. cab. 465
2439 excelsa W.	Laurel-leaved	☉	or	30	jl.au	Pk	Madeira	1784.	C s.l	Gært.sem.1. t.77
2440 paniculata Roxb.	paniced	☉	or	12	jl.au	R	E. Indies	1818.	C s.l	Bot. reg. 638
2441 pyramidalis Rth.	pyramidal	☉	tm	25	jl.au	R	Santa Cruz	1818.	C s.l	Bot. cab. 448
2442 lentiginosa Ker.	dusty	☉	or	6	ja.d	W	China	1814.	C s.l	Bot. reg. 533
2443 punctata Lindl.	dotted	☉	or	10	jn.au	W	China	1823.	C s.l	Bot. reg. 827
2444 coriacea Suz.	coriaceous	☉	or	7	...	S	Antilles	1824.	C s.l	
436. ARDUINA. W.	ARDUINA.	☉	cu	2	mr.au	W	Apocynce. Sp. 1.			
2445 bispinosa W.	two-spined	☉	or	2	...	W	C. G. H.	1760.	C p.l	Bot. cab. 387
437. STRYCHNOS. W.	STRYCHNOS.	☉	p	15	...	G.w	Apocynce. Sp. 2—9.			
2446 Nux-vomica W.	Poison-nut	☉	m	15	...	W	E. Indies	1778.	S p.l	Roxb. cor. 1. t. 4
2447 potatoforum W.	Clearing-nut	☉	m	15	...	W	E. Indies	1794.	S p.l	Roxb. cor. 1. t. 5
438. CARISSA. W.	CARISSA.	☉	fr	15	jl	W	Apocynce. Sp. 2—10.			
2448 Carandas W.	Jasmine-flow.	☉	tm	20	au.d	W	E. Indies	1790.	C s.p	Bot. cab. 663
2449 spinarum W	spiny	☉	or	20	...	W	E. Indies	1809.	C s.p	Bot. cab. 162
439. PÆDERIA. W.	PÆDERIA.	☉	or	6	...	Pu	Rubiacee. Sp. 1—3.			
2450 foetida W.	stinking	☉	or	6	...	Pu	China	1806.	C lp	Icon. Kæmpf. 9



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and lived a hundred years. The work he left upon the agriculture of his time is invaluable. In French a species is called *Monjoli*, (my beauty) on account of its beauty.

430. *Ehretia*. So named by Linnæus in honor of D. G. Ehret, a famous French botanist and draughtsman. He made all the drawings for Patrick Browne's History of Jamaica; and a large collection of his drawings is now extant in the Banksian collection. Large trees of the Tropics, with handsome foliage and white flowers, which are not often produced in Europe.

431. *Bourreria*. A genus divided from *Ehretia*, with which it nearly agrees. It was named after one Bourer, an apothecary at Nuremberg.

432. *Ellisia*. Joseph Ellis was an English naturalist, fellow of the London Royal Society, and correspondent of Linnæus. He published, besides his Natural History of Corallines, many papers in the Transactions of the Royal Society.

433. *Sersalisia*. Named after John Baptiste Sersalis, a Neapolitan clergyman, much praised by Fabius Columna. Culture the same as for *Sideroxylon*.

434. *Manglilla*. This genus is called in Dombry's Manuscript Papers, from which M. de Jussieu obtained his knowledge of it, *Mangille de Perou*. The original species was a Peruvian shrub, with alternate leaves and bunches of numerous axillary flowers.

435. *Ardisia*. A name derived from *ædis*, a point, on account of the acute segments of the corolla. An ornamental genus of plants, much valued by collectors for the beauty of their foliage, flowers, and berries. They are of easy culture: cuttings strike root freely in a pot of sand, plunged in a moist heat, under a hand-glass.

436. *Arduina*. In honor of Pietro Arduini, curator of the economical garden of Padua. A genus scarcely distinct from *Carissa*. It is a pretty little plant not unlike the box, easily propagated by cuttings under a bell-glass in sand.

437. *Strychnos*. A name given by the Greeks to the *Solanum*. The root of the name has been found in the verb *στανω*, to strew, to throw down; the property of the original and modern plants being narcotic. *S. nux-vomica* is a middling sized tree with a crooked trunk and smooth ash-colored bark: the leaves round, shining, smooth,

- 2423 Leaves broad ovate serrate rugose, Spikes terminal, Flowers clustered, Cal. large inflated
 2424 Leaves linear toothed obtuse revolute at edge rough above tomentose beneath, Spikes linear oblong
 2425 Leaves oblong ovate entire smooth, Flowers paniced
 2426 Leaves ovate roughish, Flowers corymbose spiked 1-sided
 2427 Leaves ovate entire smooth, Flowers corymbose, Cal. smooth
 2428 Leaves ovate very smooth reflexed at edge, Berry juiceless 4-cornered
 2429 The only species, resembling a *Hydrophyllum*
 2430 Leaves ovate obtuse downy beneath, Cor. villous outside, Barren filaments lanceolate
 2431 Leaves oblong acute at each end, Flowers solitary lateral
 2432 Panicles axillary and terminal, Leaves oblong acuminate narrowed at base
 2434 Panicles terminal, Leaves lanceolate ovate repand crenate acuminate attenuated at base
 2435 Racemes lateral axillary compound, Leaves oblong acuminate entire
 2436 Corymbs axillary simple, Leaves entire ovate elliptical coriaceous
 2437 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals rounded, Cor. thrice as long as calyx
 2438 Leaves oblong entire coriaceous shining, Pan. terminal, Sepals round, Cor. twice as long as calyx
 2439 Racemes axillary simple, Leaves obovate at the edge cartiliginous serrated
 2440 Leaves wedge-shaped oblong nearly sessile entire smooth reflexed, Panicles decompound
 2441 Raceme terminal pyramidal, Pedunc. altern. umbelliferous, Leaves oblong obtuse smooth entire
 2442 Leaves lanc. crenate, Corymbs compound, Flowers spotted
 2443 Leaves lanceolate coriaceous sinuate narrowed towards the base, Cor. campan. dotted : Lobes obtuse
 2444 Flowers paniced, Leaves oblong entire veinless coriaceous
 2445 Leaves cordate ovate mucronate subsessile, Spines bifid at end
 2446 Unarmed, Leaves ovate stalked, Cymes subterminal
 2447 Leaves opp. ovate acute 5-nerved veiny, Cymes axillary
 2448 Leaves ovate mucronate netted veiny, Segm. of cor. lanceolate
 2449 Leaves ovate acute veiny, Segments of cor. oblong
 2450 Leaves cordate lanceolate, panicles short opp. few-flowered, Bractes very small



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entire; and the berry the size of a pretty large apple. The wood is hard, durable, and very bitter. The seeds, which form the officinal *nux-vomica*, are employed in the distillation of country spirits, to render them more intoxicating. The pulp of the fruit seems perfectly innocent, being eaten greedily by many sorts of birds. The seed consists chiefly of a gummy matter with a little resin, the latter intensely bitter. It is reckoned amongst the most powerful poisons of the narcotic kind. It proves fatal to dogs in a very short time, and to most other quadruped vermin, and even some birds, as crows and ducks. From dissections both of the human subject and of dogs that have been poisoned by it, no injury appears done to the stomach or intestines, which proves that it acts upon the nervous system, and destroys life by the virulence of its narcotic influence.

S. potatorum is a larger tree than the other. The pulp of the fruit when ripe is eaten by the natives: the ripe seeds are dried and sold in every market of the East Indies to clear muddy water. A precious quality in countries where the water is rarely of a good quality. Hence the English name of clearing-nuts. The natives never drink clear well-water, if they can get pond or river water, which is always more or less impure. One of the seeds is rubbed very hard for a minute or two round the inside of the vessel containing the water, which is generally an unglazed earthen one, and the water left to settle; in a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. These nuts are constantly carried about by the more provident part of our officers and soldiers in time of war, to enable them to purify their water; they are easier to be had than alum, and are probably less hurtful to the constitution.

438. *Carissa*. A word of no known meaning. *Carandas* is a slight alteration of *Caraunda*, the Bengalese name of the tree. *C. Carandas* is a small tree, with dichotomous branches, and entire, glossy, ovate leaves, flowers like those of *Jasminum grandiflorum*, and berries black when ripe, eatable, and of a sweet acid flavor. Currant-jelly is made of them in the East Indies.

C. spinarum is a diaceous plant with horizontal branches, coriaceous glossy leaves, and terminal peduncles of five or six small flowers. Neither of the species require much water, and the pots should be well drained to prevent their getting sodden. Cuttings strike root freely under a bell-glass in sand plunged in heat.

439. *Paderia*. From *pædor*, stink, in allusion to the fetid smell of the flowers. A climbing smooth shrub, with opposite stalked entire leaves, and dull purple flowers.

440. GELSEMIUM. J.	GELSEMIUM.			<i>Apocynæ.</i>	<i>Sp. 1.</i>			
2451 sempervirens H. K.	evergreen	fl	or	6	ju.jl	Y	N. Amer. 1640.	C s.p Cat. car. 1. t. 53
441. RAUWOLFIA. W.	RAUWOLFIA.			<i>Apocynæ.</i>	<i>Sp. 4—12.</i>			
2452 nitida W.	shining	fl	cu	12	jn.s	W	S. Amer. 1752.	C s.p Bot. cab. 339
2453 canescens W.	hoary	fl	cu	7	...	Pk	Jamaica 1739.	C l.p Plum. ic. t. 236. f. 2
2454 tomentosa W.	downy	fl	cu	3	ap.o	W	W. Indies 1823.	C l.p
2455 ternifolia Kunth.	three-leaved	fl	cu	3	my	W	W. Indies 1823.	C l.p Bot. mag. 2440
442. VALLESIA. Fl. per.	VALLESIA.						<i>Sp. 1—2.</i>	
2456 glabra Lk.	smooth	fl	or	3	my.jn	W	N. Spain 1822.	C r.m Cav. ic. 3. t. 297
443. BŒOBOTRYIS. Vahl.	BŒOBOTRYIS.						<i>Rhamnæ.</i>	<i>Sp. 1.</i>
2457 indica Roxb.	Indian	fl	or	3	n	W	E. Indies 1817.	C co Bot. mag. 2052
444. SOLAN'DRA. W.	SOLAN'DRA.						<i>Solanæ.</i>	<i>Sp. 2—3.</i>
2458 grandiflora W.	great-flowered	fl	or	15	mr	Pa.Y	Jamaica 1781.	C r.m Jac. schœn. 1. t. 45
2459 viridiflora B. M.	green	fl	or	3	my.jl	G	S. Amer. 1815.	C r.m Bot. mag. 1948
445. CESTRUM. W.	CESTRUM.						<i>Solanæ.</i>	<i>Sp. 19—50.</i>
2460 laurifolium W.	Laurel-leaved	fl	p	7	my.au	W	W. Indies 1691.	C p.l Smith spic. 2. t. 2
2461 macrophyllum Vent.	large-leaved	fl	p	7	my.au	W	W. Indies 1812.	C p.l Vent. choix. 18
2462 foetidissimum W. en.	stinking	fl	p	10	my.au	Y	E. Indies ...	C p.l Jac. schœ. 3. t. 329
2463 nocturnum W.	night-smelling	fl	p	7	n	W	E. Indies 1732.	C p.l Di. elt. t. 153. f. 185
2464 Pâqui W.	Willow-leaved	fl	p	7	jn.jl	Pa.Y	Chili 1787.	C p.l Bot. mag. 1770
2465 auriculatum W.	ear-leaved	fl	p	12	jn.jl	G	Peru 1774.	C p.l L'Her. s. n. 1. t. 35
2466 vespertinum W.	cluster-flower'd	fl	p	12	my.jl	G	W. Indies 1759.	C p.l Jac. schœ. 3. t. 328
2467 fastigiatum Jacq.	Honeysuckle	fl	p	4	n	W	W. Indies ...	C p.l Bot. mag. 1729
2468 diurnum W.	day-smelling	fl	p	10	n	W	W. Indies 1732.	C p.l Di. elt. t. 154. f. 186
2459 venenatum W.	poisonous	fl	p	7	f.ap	W	C. G. H. 1787.	S p.l
2470 salicifolium Jacq.	sallow-leaved	fl	p	5	ap.jn	G.w	Caraccas ...	C l.p Jac. schœ. 3. t. 326
2471 tomentosum W.	downy	fl	p	6	jn.jl	Y	S. Amer. 1790.	C p.l
2472 hirsutum Jacq.	hairy	fl	p	8	jn.jl	G	..... 1818.	C p.l Jac. schœ. 3. t. 324
2473 pendulinum Jacq.	pendulous	fl	p	6	jn.jl	G.w	Caraccas 1824.	C p.l Jac. schœ. 3. t. 327
2474 odontospermum Jac.	tooth-seeded	fl	p	6	jl.au	W	W. Indies 1793.	C p.l
2475 tinctorium Jacq.	dyer's	fl	p	4	ap.jn	W	Caraccas 1823.	C p.l Jac. sch. 3. t. 332
2476 undulatum Fl. per.	wavy	fl	p	15	...	Y	Peru 1822.	C p.l Fl. per. 2. t. 155
2477 cauliflorum Jacq.	stem-flowering	fl	p	4	my.jn	W	..... 1821.	C p.l Jacq. sch. 3. t. 325
2478 citrifolium Retz.	lemon-leaved	fl	p	6	jn.jl	W	..... 1820.	C p.l
446. A'TROPA. W.	ATROPA.						<i>Solanæ.</i>	<i>Sp. 4—14.</i>
2479 Belladonna W.	Deadly-Nights.	fl	p	5	jn.jl	V	Britain rub.	R co Eng. bot. 592
2480 frutescens W.	shrubby	fl	p	5	ja.mr	Y	Spain 1737.	C s.l Cav. ic. 2. t. 102
2481 aristata Poir.	bearded	fl	p	5	...	Y	Canaries 1779.	C s.l
2482 arborecens L.	tree	fl	p	15	jn.au	W	Jamaica 1733.	C s.l Plum. ic. 46. f. 1
447. MANDRAGO'RA. W. en.	MANDRAKE.						<i>Solanæ.</i>	<i>Sp. 1.</i>
2483 officinalis W. en.	official	fl	p	3	mr.ap	W	Levant 1548.	R co Bull. herb. t. 145



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440. *Gelsemium*. One of the ancient names of the jasmine. A beautiful climbing evergreen shrub, rather too delicate to bear the cold of our winters; but with a little protection it produces in abundance its charming yellow flowers of delicious fragrance.

441. *Rauwolfia*. So named by Plumier, in honor of Leonhard Rauwolf, physician at Augsburg, who travelled through Palestine and other countries of the east, in 1753-5. His travels were translated into English, under the revision of Mr. Ray, and with additions by him. The species abound in a milky juice, which is considered more or less of a deleterious nature. They produce berries about the size and color of those of the privet. Cuttings root in sand under a hand-glass.

442. *Vallesia*. In honor of Fr. Vallesio, principal physician to Philip II., king of Spain. He wrote upon the plants of holy writ. Small Peruvian shrubs.

443. *Bœobotryis*. From *baies*, small, and *botrys*, a bunch; the flowers growing in little bunches. An elegant shrub with white flowers, produced freely from the axillæ of the leaves.

444. *Solanandra*. In honor of the celebrated and excellent Daniel Solander, whose botanical merits will never be forgotten in this country. He accompanied Sir Joseph Banks in his voyage with Captain Cook, and the information afforded by his manuscript notes made at that time has not yet been exhausted. The species are very beautiful, and remarkable for the extraordinary size of their flowers. Sweet observes, "if allowed plenty of room and moisture, they grow very rapidly, but produce no flowers. The best way is to plant them in a loamy soil, and allow them to grow fast at first, till they have made a great many shoots; then keep them very dry till their leaves drop off, and they will produce plenty of flowers. Cuttings taken off and stuck in a pot of mould, will root without any further care. The best way to have plants flower young, is to take the cuttings from the flowering shoots." (*Bot. Cult.* 107.)

445. *Cestrum*. A name given by the Greeks to the Betony, but having no relation whatever to the plant which bears the name now. *Cestreau*, Fr. This is a genus of easy cultivation, but of little beauty. The flowers are all white, and in some cases sweet-scented; the fruit of all poisonous.

446. *Atropa*. A mythological name. Atropos was one of the Fates, and it was her especial duty to cut the thread of human life. The fruit of this genus is well adapted to fulfilling her office. A. belladonna (fine lady) has

2451 Scandent quite smooth, Leaves lanceolate, Flowers axillary subsolitary

2452 Leaves 3 or 4 together lanceolate acuminate shining, Flowers terminal

2453 Leaves 4 together oblong ovate acuminate pubescent, Flowers terminal and axillary

2454 Leaves 4 together oblong narrowed both ways tomentose, Flowers terminal and axillary

2455 Leaves 3 together oblong acuminate smooth, Flowers between the petioles corymbose

2456 Leaves lanceolate cymbiform incurved at end

2457 Leaves oblong ovate acuminate coarsely serrated

2458 Leaves smoothish stalked, Anthers of the same shape

2459 Flowers stalked, Segm. of flower long acuminate revolute

2460 Filaments toothed or naked, Leaves elliptical coriaceous shining, Flowers fascicled stalked

2461 Filam. toothed, Leaves ovate oblong acuminate smooth, Flowers fascicled sessile

2462 Filam. naked, Segm. of cor. emarginate, Flowers racemose, Leaves ovate and lanceolate

2463 Filam. toothed, Peduncles racemose as long as leaves

2464 Filam. toothed or naked, Flower-bearing stem paniced, Stipules linear

2465 Filam. naked, Stipules amplexicaule lunate, Leaves ovate, Flowers paniced terminal

2466 Filam. naked shorter than throat of cor. Flowers aggreg. sessile terminal and lateral, Leaves elliptical

2467 Filam. naked, Pedunc. elong. as long as leaves spiked at end, Leaves oblong, Stip. elliptical

2468 Filam. naked, Segm. of cor. rounded reflexed, Leaves lanceolate

2469 Leaves lanceolate oblong coriaceous, Flowers sessile

2470 Filam. toothed, Flowers racemose, Leaves linear lanceolate

2471 Flowers clustered sessile terminal, Branches leaves and calyxes downy

2472 Filam. toothletted, Spikes axillary longer than leafstalks, Leaves obl. pub. on both sides, Stip. falcate

2473 Filam. naked the length of the tube of the corolla, Flowers aggreg. sessile terminal, Leaves elliptical

2474 Filam. naked, Leaves lanceolate, Racemes short axillary and terminal, Cor. revolute

2475 Filam. naked, Leaves lanc. ovate, Racemes axillary and terminal, Flowers pedicellate, Cor. acum. reflex

2476 Filam. toothed, Leaves ovate acute wavy, Pedunc. axillary and terminal few flowered

2477 Filam. naked exserted, Flowers stalked clustered, Cor. campanulate, Leaves elliptical

2478 Leaves large ovate acute entire shining naked on both sides coriaceous nerved, Petioles black shining

2479 Stem herbaceous, Leaves ovate entire

2480 Stem shrubby, Peduncles clustered, Leaves cordate ovate obtuse

2481 Stem shrubby, Leaves oblong entire smooth, Branches downy, Sepals aristate

2482 Stem shrubby, Peduncles clustered, Cor. revolute, Leaves oblong

2483 The only species



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its specific name, according to some, from its being used as a wash among the ladies, to take off pimples or other excrescences from the skin; or, according to others, from its quality of representing phantasms of beautiful women to the disturbed imagination. The inspissated juice of the berries is used in the form of extract for anointing the eyelids in some ophthalmic complaints. Its effect in dilating the pupil is quite remarkable. It has branching stems with the root leaves often a foot long and five inches broad, and the whole plant is more or less tinged with purple. The flowers are void of scent; the berries are larger than cherries, at first green, but when ripe of a beautiful shining black color, full of purple juice, with roundish dotted channelled seeds. The whole plant, and especially the berries, is poisonous. Buchanan relates the destruction of the army of Sweno the Dane, when he invaded Scotland, by the berries of this plant, which were mixed with the drink which the Scots, according to truce, were to supply the Danes with. The Danes became inebriated, and the faithless Scots fell on them in their sleep. Dr. Milne (*Indigenous Botany*) remarks, that nature has been more parsimonious in her warnings with respect to this plant, than to others of the same natural family. Neither the smell nor the taste is offensive; and if the color of the flowers proves in some degree a repellent, that of the fruit, on the other hand, is in an equal degree, at least, attractive and inviting.

47. *Mandragora*. From *μανδρα*, something relating to cattle, and *αγραιο*, hurtful: dangerous to cattle. It is a venomous plant, and was an important engine in the days of medical charlatany, from the roots being supposed to bear a resemblance to the human form. In old herbals the figures display the male mandrake with a long beard, and the female with a prolix head of hair. Miller says, "mountebanks carry about fictitious images, shaped from roots of bryony and other plants, cut into form or forced to grow through moulds of earthenware, as mandrake roots." Happily such mountebanks have ceased to exist in Britain. On the continent they are still common, and Box tells us (in 1810), that by means of a few cuts with a knife, they add the image of the exterior organs of generation, male or female, to mandrake roots, and then sell them to ensure boys or girls to pregnant women, procure happy births, &c. We have ourselves seen them exposed by mountebanks in sea-port towns of France. For an ingeniously indelicate figure of a mandrake root, see the *Flora Græca*, the plates for which have been all selected by Sir James Smith. The plant is of easy culture, but is the better for the protection of a frame or shelter of a south wall during winter.

448. <i>PHYSALIS</i> . <i>W.</i>	WINTER CHERRY.	<i>Solanec.</i>	<i>Sp.</i>	18—37.						
2484 <i>somnifera</i> <i>W.</i>	clustered	△	w	2	jl.au	G.Y	Mexico	1796.	C co	Cav. ic. 2. t. 103
2485 <i>flexuosa</i> <i>W.</i>	flexuose	△	w	2	jl.au	G.Y	E. Indies	1759.	C co	Rhed. mal. 4. t. 55
2486 <i>curassavica</i> <i>W.</i>	Curaçao	△	w	1½	jn.s	St.Y	S. Amer.	1699.	D co	Plu.alm.t.111.f.5
2487 <i>viscosa</i> <i>W.</i>	clammy	△	w	2	jl	St.Y	America	1732.	D co	Jac. vind. 2. t. 136
2488 <i>pensylvanica</i> <i>W.</i>	Pensylvanian	△	w	1	jl.s	Y	N. Amer.	1726.	D p.1	
2489 <i>Alkekengi</i> <i>W.</i>	common	△	w	1	jl.s	W	S. Europe	1548.	D s.1	
2490 <i>peruviana</i> <i>W.</i>	eatable	△	w	1½	ap.o	W	S. Amer.	1772.	S s.1	Bot. mag. 1068
2491 <i>pubescens</i> <i>W.</i>	downy	△	w	1	jl.au	Y	America	1640.	S s.1	Feuill. it. 3. t. 1
2492 <i>angulata</i> <i>W.</i>	angular-branch	△	w	2	jn.s	W	India	1732.	S s.1	D.elt.13.t.12.f.12
2493 <i>chenopodiifolia</i> <i>W.</i>	Goose-foot-lvd.	△	w	2	jl.au	Y	Peru	1798.	S s.1	
2494 <i>barbadensis</i> <i>W.</i>	Barbadoes	△	w	2	jl.au	Pa.Y	W. Indies	1798.	S s.1	Jac. ic. 1. t. 39
2495 <i>minima</i> <i>W.</i>	small	△	w	1½	jl.au	Pa.Y	E. Indies	1759.	S s.1	Rhed. ma.10.t.71
2496 <i>pruinosa</i> <i>W.</i>	hairy-annual	△	w	1	jl.au	Pa.Y	America	1726.	S s.1	Dill.elt.10.t.9.f.9
2497 <i>prostrata</i> <i>W.</i>	trailing	△	w	1	jl.au	L.B	Peru	1782.	S s.p	Bot. rep. 75
2498 <i>tuberosa</i> <i>W. E.</i>	tuberous	△	w	2	jl.au	W	.....	1815.	D s.p	
2499 <i>parviflora</i> <i>W. E.</i>	small-flowered	△	w	1½	jl.au	Y	.....	1820.	S s.p	
2500 <i>dubia</i> <i>Lk.</i>	doubtful	△	w	2	jl.au	Y	Brazil	1821.	S s.p	
2501 <i>foetidissima</i> <i>Lag.</i>	stinking	△	w	2	jl.au	Y	N. Spain	1820.	S s.p	
449. <i>SARACHA</i> . <i>Fl. per.</i>	SARACHA.	<i>Solanec.</i>	<i>Sp.</i>	2.						
2502 <i>procumbens</i> <i>F. p.</i>	procumbent	△	or	3	n.jl	Pa.Y	Peru	1822.	D co	Fl. per. 2. t. 180
2503 <i>umbellata</i> <i>Jacq.</i>	umbelled	△	or	4	jn.jl	Pa.Y	Peru	1822.	D co	
450. <i>LYCIUM</i> . <i>W.</i>	BOX-THORN.	<i>Solanec.</i>	<i>Sp.</i>	12—28.						
2504 <i>áfrum</i> <i>W.</i>	African	△	or	10	jn.jl	V	C. G. H.	1712.	C p.1	Bot. reg. 354
2505 <i>rigidum</i> <i>W.</i>	rigid	△	or	4	ap.my	V	C. G. H.	1796.	C p.1	Tre. chr. t.24. f.1
2506 <i>ruthenicum</i> <i>W.</i>	Russian	△	or	6	...	Pk	Siberia	1804.	C p.1	M.co.go.179. t.2
2507 <i>bárbaram</i> <i>P. S.</i>	Willow-leaved	△	or	12	my.au	V	Barbary	1696.	R co	Dend. brit. 9
2508 <i>turbinátum</i> <i>P. S.</i>	top-shaped	△	or	12	my.au	V	China	1709.	C co	Du.ed.n.119.t.31
2509 <i>europæum</i> <i>P. S.</i>	European	△	or	12	my.au	Pk	S. Europe	1730.	C co	Mic.gen.t.105.f.1
2510 <i>lanceolátum</i> <i>Poir.</i>	spear-leaved	△	or	12	my.au	Pk	S. Europe	...	C co	Duh. ed. n. t. 32
2511 <i>chinense</i> <i>Mill.</i>	Chinese	△	or	6	my.au	Pu	China	...	C co	Dend. brit. 8
2512 <i>hórridum</i> <i>W.</i>	succulent-lvd.	△	or	3	jl.au	W	C. G. H.	1791.	C p.1	
2513 <i>boerhaaviaefólium</i> <i>W.</i>	glaucous-leaved	△	or	6	ap.my	P.Pu	Peru	1780.	C p.1	L'H.es.n.45.t.23
2514 <i>carolinianum</i> <i>Ph.</i>	Carolina	△	or	4	jl.s	B	Carolina	1806.	C p.1	
2515 <i>trewianum</i> <i>Duh.</i>	Trew's	△	or	15	my.au	Pu	China	1818.	C co	Duh. ed. n. t. 30
451. <i>SOLANUM</i> . <i>W.</i>	NIGHTSHADE.	<i>Solanec.</i>	<i>Sp.</i>	79—360.						
2516 <i>peruvianum</i> <i>L.</i>	Peruvian	△	w	2	my.jn	Y	Peru	1823.	D co	Feuill. 3. t. 25
2517 <i>Lycopersicum</i> <i>W.</i>	Love-apple	△	clt	3	jl.s	G	S. Amer.	1596.	S r.m	R.am.s. t.154. f.1
2518 <i>cerasifóme</i> <i>Dun.</i>	Cherry	△	clt	3	jl.s	G	.....	1800.	S r.m	Jac. vind. 1. t. 11
2519 <i>Humboldtii</i> <i>Dun.</i>	Humboldt's	△	clt	2	jl.s	Y	S. Amer.	1822.	S co	W.hort.ber. t.27
2520 <i>pyrifóme</i> <i>Dun.</i>	Pear-shaped	△	clt	2	jl.s	Y	S. Amer.	1823.	S co	Dun. sol. t. 26
2521 <i>tuberosum</i> <i>W.</i>	Potatoe	△	ag	2	jn.au	W	Peru	1597.	R r.m	Bau.prod.89.t.89
β <i>Commersonii</i> <i>Poir.</i>	Wild-Potatoe	△	cul	2	my.o	W	S. Amer.	1822.	R co	Hort. trans.
2522 <i>Seaforthianum</i> <i>And.</i>	Seaforth's	△	or	20	jl.s	Pk	Barbadoes	1804.	C l.p	Bot. rep. 504
2523 <i>betáceum</i> <i>P. S.</i>	Beet-leaved	△	or	4	jn.jl	Pk	S. Amer.	1803.	C l.p	Bot. rep. 511
2524 <i>maricátum</i> <i>W.</i>	warted	△	or	3	jl.au	V	Peru	1785.	C l.p	Feu. per. 772. t. 15
2525 <i>laciniatum</i> <i>W.</i>	cut-leaved	△	or	3	jl.au	V	N. Holl.	1772.	S s.p	Bot. mag. 349
2526 <i>quercifólium</i> <i>W.</i>	Oak-leaved	△	or	2	jn.jl	V	Peru	1787.	C r.m	Feu. per. 772. t. 15
2527 <i>radicans</i> <i>W.</i>	rooting	△	or	3	jl.au	Pu	Peru	1771.	D s.p	Lin. fil. de. 1. t. 10



History, Use, Propagation, Culture.

448. *Physalis*. From *ovis*, a bladder. The fruit is enclosed in an inflated calyx. The berries of *P. alkekengi* are acidulous and slightly bitter; they were esteemed detergent and aperient by the ancients. In Spain, Germany, and Switzerland, they are eaten as a common fruit. *Phy. peruviana* produces a pleasant fruit for tarts, and is in some countries, and even English gardens, cultivated for that purpose.

449. *Saracha*. A plant resembling *Atropa*, or *Physalis*, to which it is too nearly related. It was named by the authors of the Flora Peruviana after Isidore Saracha, a Spanish botanist.

450. *Lycium*. So called because the original species was a native of Lycia, a country of Asia Minor. Some of the Cape species of this genus have elegant flowers and merit cultivation, and *L. barbarum* is valuable for covering naked walls, arbors, &c. It grows four or six feet in a season, flowers freely, and is readily propagated by cuttings at any season of the year. *L. europæum* is used for hedges in Tuscany, being armed with small thorns. Cusius says they eat the small shoots in Spain with oil and vinegar. *L. ruthenicum* is an ornamental shrub from its very white bark. The greenhouse species root readily in sand under a hand-glass.

451. *Solanum*. By some ingenious commentators this word has been derived from *solari*, to comfort. The derivation may be possible, but the application is not evident. This extensive genus, which belongs to the *Luridæ* of Linnæus's system of natural orders, does not contain many handsome plants; but it includes, besides the Tomato and egg plant, celebrated in cookery, the potatoe, whose tubers, as a human food, if equalled, are not surpassed by those of any other plant. Some of the species are singular on account of their leaves and

- 2484 Stem shrubby rounded, Branches upright, Flowers clustered
 2485 Stem shrubby, Branches flexuose, Flowers clustered
 2486 Stem shrubby, Leaves ovate tomentose
 2487 Leaves in pairs repand obtuse subtomentose, Stem herbaceous paniced above
 2488 Leaves ovate subrepand obtuse nearly naked, Flowers in pairs, Stem herbaceous
 2489 Leaves in pairs entire acute, Stem herbaceous branching below
 2490 Pubescent, Leaves cordate entire
 2491 Pubescent, Stem angular, Leaves in pairs cordate nearly entire soft, Teeth of cal. acuminate
 2492 Much branched, Branches angular smooth, Leaves ovate toothed
 2493 Pubescent, Stem erect $\frac{1}{2}$ shrubby, Leaves subcordate toothed angular, Petioles decurrent
 2494 Much branched, Leaves ovate cordate pub. Flowers pendulous, Calyx in fruit ovate acuminate angular
 2495 Much branched, stalk of fruit much longer than the villous leaf
 2496 Much branched, Leaves villous, Peduncles erect
 2497 Much branched, Stem procumbent rounded hairy. Leaves rather fleshy
 2498 Pubescent, Leaves ovate angular, Stem herbaceous, Berries viscid, Root tuberous
 2499 Hairy, Leaves cordate acute toothed, Pedunc. at length reflexed, Cal. with segm. twice as short as cor.
 2500 Leaves oval unequal acute toothed smoothish, Flowers solitary, Calyx powdered, Cor. tomentose
 2501 Leaves in pairs toothed repand tomentose-viscid oval, Stem herbaceous paniced above

- 2502 Leaves in pairs unequal ovate smooth, Flowers in umbels
 2503 Stem erect hairy, Umbels axillary stalked cernuous, Flowers plaited

- 2504 Branches diffuse spiny, Leaves linear fleshy attenuated at base fascicled, Pedunc. longer than cal.
 2505 Branches upright spiny, Leaves linear fascicled, Pedunc. shorter than calyx, Stam. as long as tube of cor.
 2506 Branches droop, spiny, Lvs. lin. lanc. atten. at base fasc. Ped. longer than cal. Stam. as long as limb of cor.
 2507 Branches drooping, Buds spiny, Cal. trifid, Stam. as long as limb of cor.
 2508 Branches drooping spiny rounded, Leaves sessile lanceolate acuminate, Cal. trifid, Berry turbinate
 2509 Branches lax spiny, Leaves oblong lanc. obtuse obliquely bent, Stam. shorter than limb of cor.
 2510 Branches erect flexuose at end recurved rounded much spreading spiny, Leaves subsessile lanc. acute
 2511 Stem and branc. droop. striated rarely spiny, Lvs. stalked ov. obt. Cal. 5-toothed, Style longer than stam.
 2512 Spiny, Leaves obovate fleshy smooth, Peduncles very short
 2513 Spiny, Leaves ovate entire acute glaucous, Flowers paniced
 2514 Unarmed, Leaves narrow spatulate oblong, Flowers 4-cleft tetrandrous
 2515 Erect spiny, Branc. dif. angular, Lvs. stalked lanc. acute, Cal. 2 or 3-fid, Style scarcely longer than stam.

§ 1. *Lycopersicon* (Love Apples.) *Anthers conical, joined at end. Berry many-celled.*

- 2516 Villous hoary, Leaves stipulaceous unequally pinnatifid, Segm. obtuse, Pedunc. and pedicel bracteated
 2517 Hairy, Leaves unequally pinnatifid, Segments cut glaucous beneath, Berries torulose furrowed smooth
 2518 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Sepals as long as cor. Berries round rather hairy
 2519 Hairy, Lvs. unequally pinnat. Segm. cut glauc. beneath, Pedunc. with bract. Sepals twice as long as cor.
 2520 Hairy, Lvs. unequally pinnatifid, Segm. cut glaucous beneath, Pedunc. without bract. Berries obconical

§ 2. *Unarmed. Leaves pinnate, pinnatifid, or entire.*

- 2521 Root tuberous, Stem herbac. Segm. of lvs. unequal, the altern. ones minute, Pedicels stalked, cor. 5-ang.
 2522 Root tuberous, Stem herbaceous, Leaves pinnate sublyrate pilose, Pedic. jointed, Cor. 5-cleft
 2523 Leaves pinnate waved, upper simple lanc. Racemes in paniced cymes sometimes longer than petioles
 2524 Leaves cordate ovate oblong hairy on each side waved at edge, Racemes pendulous as long as petioles
 2525 Stem half shrubby rooting ascending runners muricated, Lvs. obl. lanc. pubescent simple, Racemes 2-fid
 2526 Smooth, Leaves pinnatifid segments linear lanceolate terminal elongated, Racemes lateral corymbose
 2527 Stem angular wavy rough, Leaves pinnatifid, Racemes cymose



and Miscellaneous Particulars.

spines; and others retain their fruit in our stoves during winter, which may be a recommendation to some to admit them in collections.

S. dulcamara has roots which smell like the potatoe; being chewed, a sensation of bitterness is first felt, and then of sweetness, whence the specific name. The berries excite vomiting and purging, and the twigs and leaves have been used in rheumatic and scorbutic cases with good effect.

S. tuberosum, *Pomme de Terre*, Fr., *Kartoffel*, Ger., *Pomo de Terra*, Ital., *Potades*, Span., &c. is supposed to be a native of South America, and to be found in a wild state in elevated places in the tropical regions, and in the more temperate districts of the western coasts of that country. Some tubers, said to be of the wild potatoe, have been received from these parts by the Horticultural Society, and cultivated by them; their produce differs very little, if at all, from that of the common cultivated sort; they are small, roundish, and pink and white colored. (*Hort. Trans.* 5. 257.) It appears probable that the potatoe was first brought into Europe from the mountainous parts of South America in the neighbourhood of Quito, where they were called *papas*, to Spain, early in the 16th century. From Spain, where they were called *battatas*, they found their way to Italy, and there received the same name as the truffe, *taratouffi*. From Italy they went to Vienna, through the governor of Mons in Hainault, who sent some to Clusius in 1598. To England the potatoe found its way from North America, being brought from Virginia by the colonists sent out by Sir Walter Raleigh in 1584, and who returned in July 1586; and, "probably," says Sir Joseph Banks, "brought with them the potatoe." Gerarde,

2528	<i>corymbosum W.</i>	corymbed	葇	□	or	2	jl.au	V	Peru	1786.	D	co	Jac. ic. 1. t. 40
2529	<i>oliganthum Lk.</i>	few-flowered	葇	□	or	3	...	W	.....	1824.	C	co	
2530	<i>Dulcamara W.</i>	Bitter-sweet	葇	□	p	3	jn.jl	V	Britain	hed.	C	s.p	Eng. bot. 565
2531	<i>macrocarpon W.</i>	large-fruited	葇	□	or	1	my.s	B	Peru	1759.	C	s.p	Mill. ic. 2. t. 294
2532	<i>aethiopicum W.</i>	Ethiopian	葇	□	or	1½	jn.s	W	Ethiopia	1597.	C	l.p	Jac. vind. 1. t. 12
2533	<i>Zuccagnianum Dun.</i>	scabrous	葇	□	or	1½	jn.jl	W	.....	1823.	S	co	Dun. vol. 1. t. 11
2534	<i>Pseudo-capsicum W.</i>	Winter-cherry	葇	□	or	4	jn.s	W	Madeira	1596.	S	r.m	Sabb. rom. t. 59
2535	<i>nodiflorum Jacq.</i>	thick-jointed	葇	□	or	10	jn.jl	W	I. France	1822.	S	co	Jacq. ic. 2. t. 326
2536	<i>guineense W.en.</i>	large-berried	葇	□	p	4	jn.s	G	Guinea	...	S	s.l	Di.elt.t.274.f.354
2537	<i>melanocerasum W.en.</i>	small-berried	葇	□	p	2	jn.s	W	Virginia	...	S	s.l	Di.elt.t.275.f.356
2538	<i>suffruticosum W.en.</i>	fringed-leaved	葇	□	or	4	my.s	W	Barbary	1804.	C	l.p	
2539	<i>nigrum W.</i>	black-berried	葇	□	p	3	jn.s	W	Britain	rub.	S	s.l	Eng. bot. 566
2540	<i>miniatum Bern.</i>	red-berried	葇	□	w	4	jn.jl	W	S. Europe	1823.	S	co	
2541	<i>humile Bern.</i>	green-berried	葇	□	w	1	jn.jl	W	S. Europe	1823.	S	co	
2542	<i>villosum W.en.</i>	orange-berried	葇	□	w	5	jn.s	W	Barbadoes	...	S	s.l	Di.elt.t.274.f.353
2543	<i>pátulum W.</i>	spreading	葇	□	or	4	jn.s	V	India	...	S	s.l	Di.elt.t.275.f.355
2544	<i>crispum Fl. per.</i>	Natre	葇	□	or	18	jn.jl	W	Chili	1824.	C	co	Fl. per. 2. t. 158
2545	<i>bombense Jacq.</i>	Bomba	葇	□	or	12	jn.jl	W	Mexico	1822.	C	co	
2546	<i>Cervantesii Lag.</i>	Cervantes's	葇	□	or	4	my.jn	W	Mexico	1818.	C	co	
2547	<i>verbascifolium W.</i>	Mullein-leaved	葇	□	or	7	jn.jl	W	W. Indies	1749.	S	p.l	Jac. vind. 1. t. 13
2548	<i>auriculatum W.</i>	ear-leaved	葇	□	or	4	...	V	Madagasc.	1773.	S	p.l	Scop. insub. 3. t. 8
2549	<i>diphylum W.</i>	two-leaved	葇	□	or	3	jn.jl	W	W. Indies	1699.	C	s.l	Jac. ic. 2. t. 322
2550	<i>havanense W.</i>	Havannah	葇	□	or	5	jl.au	B	W. Indies	1793.	C	co	Jac. amer. 4. t. 35
2551	<i>lycioides W.</i>	spiny	葇	□	or	4	my.jn	Pa.B	Peru	1791.	C	s.p	Jac. ic. 1. t. 46
2552	<i>uniflorum Lag.</i>	one-flowered	葇	□	or	3	my.jn	B	N. Spain	1820.	D	co	
2553	<i>stellatum Jacq.</i>	stellate	葇	□	or	6	jn.jl	B	.....	1822.	C	co	Jac. ic. 2. t. 325
2554	<i>elaagnifolium Cav.</i>	Oleaster-leaved	葇	□	or	6	jn.jl	B	Chili	1823.	C	co	Cav. ic. 3 t. 243
2555	<i>racemosum W.</i>	wave-leaved	葇	□	or	4	jl.au	W	W. Indies	1781.	C	co	Jac. amer. 50. t. 36
2556	<i>igneum W.</i>	red-spined	葇	□	or	3	mr.n	W	S. Amer.	1714.	C	s.p	Jac. vind. 1. t. 14
2557	<i>subarmatum W.</i>	half-armed	葇	□	or	6	my.jn	W	.....	1820.	C	co	
2558	<i>bahamense W.</i>	Bahama	葇	□	or	6	jn.jl	V	Bahama	1732.	S	p.l	Di.elt.t.271.f.350
2559	<i>tomentosum W.</i>	woolly	葇	□	or	2	jn.jl	B	C. G. H.	1662.	C	p.l	Bocc. sic. 8. t. 5
2560	<i>lancaefolium Jacq.</i>	lance-leaved	葇	□	or	10	jl.au	W	W. Indies	...	C	co	Jacq. ic. 2. t. 329
2561	<i>bonariense W.</i>	Buenos Ayres	葇	□	or	10	jn.s	W	B. Ayres	1727.	C	s.l	De.364.t272.f.351
2562	<i>subinerve W.</i>	spear-leaved	葇	□	or	7	jl.au	B	W. Indies	1752.	C	p.l	Jac. amer. 4. t. 40. f. 3
2563	<i>lanceolatum Cav.</i>	lanceolate	葇	□	or	7	jn.jl	Pa.B	Mexico	...	C	s.l	Bot. mag. 2173
2564	<i>giganteum W.</i>	tall	葇	□	or	15	jn.jl	V	C. G. H.	1792.	C	s.p	Bot. mag. 1921.



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in his Herbal, published in 1597, gives a figure of the potatoe, under the name of Potatoo of Virginia, whence he says he received the roots; and this appellation it appears to have retained, in order to distinguish it from the battatas or sweet potatoe (*Convolvulus battatas*) till the year 1640, if not longer. "The sweet potatoe," Sir Joseph Banks observes, "was used in England as a delicacy long before the introduction of our potatoes; it was imported in considerable quantities from Spain and the Canaries, and was supposed to possess the power of restoring decayed vigor. The kissing comfits of Falstaff, and other confections of similar imaginary qualities, with which our ancestors were duped, were principally made of these and of eringo roots." Gough says the potatoe was first planted by Sir Walter Raleigh on his estate of Youghall near Cork, and that they were soon after carried into Lancashire. Gerrarde and Parkinson, however, mention them as delicacies for the confectioner, and not as common food. Even so late as Bradley's time they are spoken of as inferior to skirrets and radishes.

The use of potatoes, however, became more and more known after the middle of the 18th century, and has greatly increased in all parts of Britain within the last thirty years. It is also very general in Holland, and many parts of France and Germany, and is increasing rapidly in Russia. In Spain, and the East and West Indies they are not much cultivated, owing to the heat of the climate; but in all the temperate parts of North America, Australasia, and South America they are grown by the colonists. In China they are cultivated, but not extensively, owing to the slow progress which every thing new makes in that country. Indeed, no root hitherto discovered is so well adapted for universal use as the tubers of the potatoe; for, having no peculiarity of taste, and consisting chiefly of starch, their farina is nearly the same as that of grain. Hence, with the flower of potatoes, puddings, and such preparations as do not call the gluten of wheat-flower into action, may be made equal to those of millet or rice, and excellent bread with a moderate proportion of good wheat-flour. Potatoe starch, independently of its use in the laundry, and as a hair powder, is considered an equally delicate food as sago or arrow-root. As starch and sugar are so nearly the same, that the former is easily converted into the latter, the potatoe yields a spirit equal to that of malt by distillation, and a wine or beer by the fermentative process.

The varieties of the potatoe are very numerous, differing in earliness, lateness, form, size, color, and quality. The names for these are quite arbitrary or local. In general, every district has its peculiar or favorite varieties. Some of these degenerate, and others improve when removed from one district to another. New varieties

§ 3. *Unarmed. Leaves lobed, sinuate, angular, toothed, or entire.*

- 2528 Leaves ovate lanceolate entire or lobed, Racemes cymose opp. to the leaves, Cor. 5-parted
 2529 Leaves lanceolate sinuate tomentose bright-green, Pedunc. few-flowered, Sepals ovate acute
 2530 Stem wavy, Leaves ovate cordate upper lanceolate, Corymbs opposite the leaves
 2531 Stem smooth, Leaves cuneate at the base sinuate smooth, Peduncles few-flowered short
 2532 Leaves ovate repand angular smooth, Peduncles 1-flowered cernuous, Berries torulose
 2533 Leaves ovate angular repand smooth unequal at base, Pedunc. 1-flowered cernuous, Berries round
 2534 Leaves oblong lanceolate subrepand, Peduncles 1-flowered outside the leaves
 2535 Branches rounded, and leaves smooth ovate entire, Flowers umbelled
 2536 Branches smooth angular toothed, Leaves ovate smooth entire, Flowers numerous umbelled
 2537 Stem and branches angular toothed, Leaves subovate sinuate angular, Flowers umbelled
 2538 Leaves ovate toothed angular ciliated, Umbels extrafoliaceous stalked
 2539 Stem angular, Leaves ovate toothed naked, Flowers in umbels
 2540 Branches strigose pubescent angular winged, Wings toothed, Leaves ov. rep. smooth, Flowers in umbels
 2541 Branches angular toothed pubescent, Leaves ovate repand upper entire, Flowers in umbels
 2542 Stem rounded villous, Leaves ovate angular toothed villous hoary, Flowers in umbels

§ 4. *Unarmed. Leaves quite entire.*

- 2543 Stem shrubby, Branches powdery, Leaves oblong lanceolate powdery on both sides, Racemes spreading
 2544 Leaves ovate and subcordate wavy curled acuminate, Flowers corymbose
 2545 Leaves oval pointed at each end smooth, Racemes cymose
 2546 Stem erect, Leaves ovate lanceolate attenuated at each end pubescent, Racemes 2 and 3-chotomous
 2547 Leaves ov. obl. acuminate entire downy, Surface discol. Axils leafless, Corymbs terminal dichotomous
 2548 Leaves ovate oblong acuminate woolly axillary, Leaflets semicircular, Corymbs di-trichotomous
 2549 Lvs. in pairs one obl. narrow, towards each end obt. other smaller obov. ellipt. Cymes stalk. opp. the lvs.
 2550 Leaves ovate lanceolate acute shining smooth, Peduncles 1-flowered, Berries oval
 2551 Branches spiny, Leaves elliptical, Peduncles filiform 1-flowered
 2552 Stalks axillary 1-flowered, Cal. 10-cleft, Leaves mostly in pairs subsessile elliptical
 2553 Stem climbing flexuose, Lvs. ovate lanc. smooth acuminate, Pedunc. in pairs, Cal. unequally toothed

§ 5. *Prickly. Leaves entire or sinuate-angular.*

- 2554 Leaves discolored the lower sinuate prickly upper entire unarmed, Pedunc. few-flowered
 2555 Stem unarmed, Leaves lanceolate repand undulated acute
 2556 Leaves lanceolate acuminate revolute on both sides at the base
 2557 Stem prickly, Leaves lanceolate pubescent beneath entire edge revolute at base
 2558 Leaves lanceolate repand obtuse reflexed at edge
 2559 Stem prickly, Prickles acerose, Leaves cordate unarmed repand wavy, the young ones purple
 2560 Leaves lanceolate oblong attenuate at each end roughish beneath prickly, Raceme short unarmed
 2561 Stem nearly unarmed, Leaves ovate oblong sinuate repand rough, Corymb extrafoliaceous stalked
 2562 Stem nearly unarmed, Leaves lanceolate ellipt. entire above smooth beneath tomentose, Cymes mealy
 2563 Stem downy, Leaves lanceolate long entire hoary beneath, Racemes terminal, Sepals subulate
 2564 Stem with downy prickles, Leaves lanceolate acute unarmed above smooth beneath hoary



and Miscellaneous Particulars.

are readily procured by sowing the seeds, which, with care, will produce tubers the third year, and a full crop the fourth. As few of the early sorts produce blossoms, to procure seeds from them deprive the plant of its tubers as they appear, and keep the runners from which they proceed above ground, by not earthing up the plant, and blossoms and seeds will soon be produced. This Mr. Knight completely proved, and the rationale is developed in the Philosophical Transactions for 1806. It appears that the same sap gives existence both to the tuber and blossom, and that whenever a plant of the potatoe affords either seeds or blossoms, a diminution of the crop of tubers, or an increased expenditure of the richness of the soil, must necessarily take place. This led Mr. Knight to attempt the practice adopted by the Dutch florists with their bulbous flowers, viz. to pinch off the flowers to strengthen the bulbs. This, in the potatoe, Mr. Knight thinks may add an ounce in weight to the tubers of each plant, or considerably above a ton per acre. The practice is now general among scientific cultivators even in field culture.

The curl is a well known disease of potatoes, which frequently disappoints the cultivator of a crop, or renders that produced of little value. A great variety of opinions exist as to this disease: without enumerating these, we may state, as the general result of experiments by different persons, that the curl arises in most, or at least in many cases, from using over ripe tubers as seed stock, or from the employment of seed stock which has been injured or improperly kept during the winter; that is, kept exposed to the light and air instead of being covered with earth, or sand, or straw, so as to preserve their juices. The experiments of various farmers and gardeners, as recorded in the Farmer's Magazine and Caledonian Hort. Mem., lead to the above conclusions.

The culture of the potatoe, both in the field and garden, is universally known. It may be forced in pots or on dung or tan beds; and, for this purpose, using sets from tubers that have been retarded a year in an ice-house or cold place, is found a great advantage. Thus, in planting in December 1823, use tubers of crop of much more rapid growth than sets of the preceding crop. As matter of curiosity, boxes containing alternate layers of light earth and potatoes of the last season but one may be placed in any dry covered place, free from frost, in November, and they will produce a brood of young tubers in contact with the old ones on the December following, without either leaves, roots, or runners. (*Hort. Trans.* i. 225.)

Potatoes are best preserved by burying in pits in dry ground, so deep as to be under the influence of surface temperature, or so enveloped with thatch as to produce the same effect. At a certain depth, they will keep

2565	Melongéna <i>W.</i>	Egg-plant	cul	2	jn.jl	B	Africa, &c.	1597.	C	l p	Pluk.phy.226.f.2
2566	insánum <i>P. S.</i>	Mad-apple	□	2	aus	B	E. Indies	1815.	S	l p	Plu.alm.t.226.f.3
2567	ovigerum <i>Dun.</i>	oval-egg-plant	or	2	jn.jl	B	Arabia	1597.	S	co	
2568	sodómeum <i>W.</i>	black-spined	■	3	jn.jl	V	Africa	1688.	C	r m	Her. lugd. t. 575
2569	indicum <i>W.</i>	Indian	■	6	jl	Pu	India	1732.	S	p l	Di.elt.t.270.f.349
2570	coágulans <i>W.</i>	scolloid-leaved	or	3	jl	W	Arabia Fe.	1802.	C	s p	Jac. sch.5.4. t.469
2571	marginátum <i>W.</i>	white-edged	■	4	jn.s	Pu	Africa	1775.	C	s p	Bot. mag. 1928
2572	campechiénsé <i>W.</i>	purple-spined	■	2	jl	W	America	1732.	C	s p	Di.elt.t.268.f.347
2573	aculeatissimum <i>Jac.</i>	most-prickly	■	3	ap.jl	Pa.B	S. Amer.	1816.	C	co	Jacq. ic. 1. t. 41
2574	mammósium <i>W.</i>	nipple	or	4	jl.au	Pa.B	W. Indies	1699.	S	s p	Plu.alm.t.226.f.1
2575	stramónifólium <i>W.</i>	broad-leaved	■	6	jn.s	Pu	W. Indies	1778.	C	s p	Jac. ic. 1. t. 44
2576	férox <i>W.</i>	Malabar	■	2	aus	Pu	E. Indies	1795.	C	l p	
2577	Milléri <i>W.</i>	Miller's	■	3	jl.au	W	C. G. H.	1762.	C	s l	Jac. ic. 2. t. 330
2578	trilobátum <i>W.</i>	three-lobed	□	12	au	W	India	1759.	C	s p	Bu. in.57.t.22.f.2
2579	carolinénsé <i>W.</i>	Carolina	or	2	jl.s	Pa.B	Carolina	1732.	S	p l	Jac. ic. 2. t. 331
2580	Pyracántha <i>Sm.</i>	orange-thorned	■	4	aus	Y	Madagasc.	1789.	C	s p	Ex. bot. 2. t. 64
2581	virginiánum <i>W.</i>	Virginian	□	1½	my.au	W	Virginia	1662.	S	s p	Di.elt.t.267.f.346
2582	Jacuíni <i>W.</i>	Jacuin's	□	2	sn	Pu	E. Indies	1804.	S	s p	Jac. ic. 2. t. 332

2583	Balbísii <i>Dun.</i>	decurrent	■	4	ap.s	W	S. Amer.	1816.	C	co	Bot. reg. 140
2584	téctum <i>P. S.</i>	covered	■	3	ap.s	Y	Mexico	1824.	C	co	Cav. ic. 4. t. 309

452.	NYCTERIUM. <i>Vent.</i>	NYCTERIUM.					<i>Solaneæ. Sp. 4-7.</i>					
2585	cordifólium <i>Vent.</i>	heart-leaved	■	or	2	ap.my	Pu	Can. Isl.	1779.	C	co	Vent. malm. 85
2586	amazonium	purple	■	or	3	jn.au	Pu	Mexico	1800.	C	co	Bot. reg. 71
2587	lobátum <i>Nutt.</i>	yellow	□	or	2	jl.au	Y	Louisiana	1813.	S	co	Pursh. am.2. t. 7
2588	fontanesiánum <i>Dun.</i>	Desfontaines'	○	or	2	jl.s	Y	Brazil	1813.	S	co	Bot. reg. 177

453.	CAP'SICUM. <i>W.</i>	CAP'SICUM.					<i>Solaneæ. Sp. 18-24.</i>					
2589	ánnuum <i>W.</i>	common	□	cul	1	jn.jl	W	India	1548.	S	r m	Knor. th. 2. t.c.6
2590	sphæ'ricum <i>W. en.</i>	globular-fruited	■	cul	2	ap.jl	W	.....	1807.	C	r m	
2591	baccátum <i>W.</i>	Bird-pepper	■	cul	3	jn.s	W	.....	1731.	C	r m	Sl. ja. 1. t. 145.f.2
2592	sinénsé <i>W.</i>	oval-fruited	■	cul	2	jn.s	W	China	1807.	S	r m	Jac. vind. 3. t. 67
2593	gróssum <i>W.</i>	large	■	cul	½	jl	W	India	1759.	S	r m	B. ey. a. 1.t.11.f.1
2594	frutéscens <i>W.</i>	shrubby	■	cul	1	jn.s	Pa.Y	India	1656.	C	r m	Ru. amb. 5. t. 83
2595	bicolor <i>Jacq.</i>	dark-fruited	■	cul	4	jn.s	Pu	W. Indies	1804.	C	r m	Bot. mag. 1835
2596	cerasifórmé <i>W.</i>	Cherry-pepper	■	cul	1	jn.s	Pa.Y	W. Indies	1739.	S	r m	
2597	péndulum <i>W. en.</i>	pendulous	■	cul	2	ap.jl	W	.....	1804.	C	r m	
2598	lóngum <i>Dec.</i>	long-fruited	□	cul	1	jn.jl	W	India	1548.	S	r m	
2599	cordifórmé <i>Mill.</i>	heart-fruited	□	cul	1	jn.jl	W	India	.....	S	r m	
2600	tetragónum <i>Mill.</i>	quince-fruited	□	cul	1	jn.jl	W	India	.....	S	r m	
2601	angulósium <i>Mill.</i>	angular-fruited	□	cul	1	jn.jl	W	India	.....	S	r m	
2602	conoides <i>Mill.</i>	conical	■	cul	2	ap.jl	W	India	1750.	C	r m	
2603	pyramidále <i>Mill.</i>	pyramidal	■	cul	2	ap.jl	W	Egypt	1750.	C	r m	
2604	microcárpum <i>Dec.</i>	small-fruited	■	cul	2	ap.jl	W	.....	1820.	C	r m	
2605	cerasiflórum <i>Lk.</i>	cherry-flowered	■	cul	2	jn.s	W	1823.	C	r m	
2606	micránthum <i>Lk.</i>	small-flowered	■	cul	3	my.jn	W	Brazil	1824.	C	r m	



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for years without vegetation. Where there is an ice-house, they may, when taken out of the pits, be kept in small quantities in it till wanted for use.

S. lycopersicum. (From *lycos*, a wolf, and *persica*, a peach, in poetical allusion to the beautiful appearance and deceitful value of the fruit.) *Tomate*, Fr., and *Pomo d'oro*, Ital., is cultivated extensively about Naples and Rome for the use of the berry in sauces, stewing, and soups. It is one of the most common articles used in Italian cookery, and makes an excellent sauce for fish, meat, and general purposes. Its use for sauce in this country is greatly on the increase, and it is cultivated to considerable extent near London, against walls and artificial banks, being raised on a hot-bed, and transplanted like other tender annuals.

S. nigrum, a very common plant on dunghills, is narcotic and poisonous like *S. dulcamara* and *Atropa belladonna*. A Spanish cure for the consumption is burying up to the chin in garden earth, and afterwards rubbing the body over with an ointment made from the leaves of this plant.

S. aethiopicum is cultivated in China for the fruit, which is served at the tables of mandarins like our cherries.

S. melongena, (M. from *byendjân*, its Arabic name, according to Forskahl) is cultivated both in Europe and the East and West Indies for its fruit, which is used boiled, stewed in sauces, &c. like that of the love-apple. The plant is more tender, and in this country requires to be matured under glass, like the balsam and other tender annuals. *S. muricatum* resembles it in habit, and may be cultivated for the same purpose.

452. *Nycterium.* From *νύξ* *nyx*, night. A small tribe of plants cut off from their ancient genus *Solanum*. *N. amazonium* is quite a beautiful shrub, growing well in pots in a moderate stove.

453. *Capsicum.* From *καίω*, *mordeo*, to bite, on account of the biting heat of the seed and pericarp. *Poivre d'Inde ou de Guinée*, Fr. The fruit of *C. baccatum*, commonly called bird pepper, is gathered when

§ 6. *Prickly. Leaves sinuate, angular and lobed.*

- 2565 Stem prickly, Leaves ovate subsinuate downy prickly, Flowers many-parted, Seeds naked
 2566 Stem prickly, Leaves ovate tomentose, Pedunc. pendulous thick, Cal. prickly
 2567 Stem nearly unarmed, Leaves ovate subrepand tomentose unarmed, Berries ovate oblong, Seeds pulpy
 2568 Stem diffuse, Prickles straight dilated at base, Lvs. obl. sinuate pinnatifid, Pedunc. 2-fid, Berries globose
 2569 Stem prickly, Leaves oblong tomentose sinuate angular, Segm. sinuate toothed, Sepals reflexed
 2570 Leaves ovate oblong sinuate repand downy white beneath, middle nerve beneath with smooth prickles
 2571 Leaves subordinate sinuate lobed beneath hoary above white at edges, Berries 3-celled globose
 2572 Stem very prickly hairy, Lvs. cord. obl. lob. Lobes tooth. Fertile cal. very prickly, Berries cher.-shaped
 2573 Stem very prickly, Lvs. cordate lob. Lobes acute toothed villous and prickly on both sides, Berries round
 2574 Stem vil. with scat. prickl. Lvs. subcord. lob. prickly on both sides very vil. Ber. like the teat of an animal
 2575 Stem prickly, Lvs. cordate sinuate acutely lob. vil. and prickly on both sides, Pedunc. and cal. unarmed
 2576 Stem prickly, Lvs. cord. angular toment. with the racemes and calyxes prickly, Ber. hairy cov. by calyx
 2577 Stem prickly, Leaves smoothish lobed obtuse prickly, Peduncles in pairs
 2578 Stem prickly, Leaves 3-lobed obtuse smooth, Flowers racemose viloid
 2579 Stem prickly, Leaves ovate oblong tomentose sinuate acutely acuminate, Racemes simple .ax
 2780 Stem prickly, Leaves oblong acute sinuate pinnatifid downy, Prickles straight scarlet
 2581 Stem erect prickly, Lvs. pinnat. sinuate prickly on both sides, Segm. sinuate obtuse, Racemes prickly
 2582 Stem decumbent diffuse prickly, Leaves sinuate pinnatifid prickly on both sides smooth, Calyxes prickly

§ 7. *Prickly. Leaves pinnatifid or bipinnatifid, Berries covered by the enlarged and prickly calyx.*

- 2583 Stem villous prickly, Lvs. pinnatifid, Segm. acute sinuate toothed, Racemes cymose lateral and terminal
 2584 Stem shrubby rounded prickly, Leaves bipinnatifid prickly on both sides villous
 2585 Leaves cordate entire, Racemes divided, Cal. unarmed
 2586 Leaves elliptical sinuate tomentose, Flowers several large terminal
 2587 Stem and leaves prickly, Leaves ovate pinnatifid hairy on both sides
 2588 Stem woody prickly hairy, Leaves deeply pinnatifid, Anthers small

- 2589 Fruit oblong pendulous and erect their stalks smooth, Stem herbaceous
 2590 Fruit globose pendulous, Stalks smooth, Stem shrubby
 2591 Fruit globose ovate erect in pairs, Stalks smooth, Stem shrubby
 2592 Fruit ovate pendulous in pairs, Stalks pubescent, Stem shrubby
 2593 Fruit oblong ovate subcompressed erect, Stalks smooth, Stem herbaceous
 2594 Fruit oblong obtuse, Stalks smooth, Stem erect
 2595 Fruit oblong mucronate, Stalks smooth, Stem shrubby
 2596 Fruit globose, Stalks smooth, Stem shrubby
 2597 Fruit oblong, Stalks pubescent, Stem shrubby
 2598 Fruit oblong acuminate incurved, Stalks smooth, Stem herbaceous
 2599 Fruit heart-shaped, Stem herbaceous
 2600 Fruit very large angular obtuse, Stem herbaceous
 2601 Fruit heart-shaped angular, Stem herbaceous
 2602 Fruit ovate conical erect, Stem half shrubby
 2603 Leaves linear lanceolate, Fruit pyramidal erect yellow, Stem shrubby
 2604 Fruit ovate erect, Footstalks and leaves pubescent, Teeth of the calyx 5 subulate spreading
 2605 Young stalks ciliated, Berries erect globose
 2606 Leaves ovate acuminate, Stalks ciliated, Cal. obtuse



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ripe, dried in the sun, pounded and mixed with salt: it is then kept stopt in bottles, and is commonly known by the name of Cayenne-pepper. A mixture of sliced cucumbers, shallots or onions cut very small, a little lime juice and Madeira wine, with a few pods of bird pepper, well mashed and mixed with the liquor, seldom fails to provoke the most languid appetite in the West Indies. It is there called Man-dram. Gathered fresh from the plant, the pods of all the species are liberally used both in the East and West Indies, to assist digestion and correct flatulencies.

C. frutescens and *minimum*, the latter by many considered only a variety of the former, low shrubs with an oval red berry more sharp and biting than any of the others, furnish the Cayenne pepper of the shops. The ripe pods are dried in the sun, and then in an oven after bread is baked, in an earthen or stone pot, with flour between the strata of pods. When quite dry they are cleaned from the flour, and beaten or ground to fine powder. To every ounce of this, a pound of wheat flour is added, and it is made into small cakes with leaven; these are baked, cut into small pieces, baked again that they may be as dry and hard as biscuit, and then are beaten into powder and sifted. It is then fit for use as a pepper, or for being packed up, in a compressed state, and so as to exclude air, for exportation.

C. annuum, *Piment*, Fr., *Spanischer Pfeffer*, Ger., *Peberone*, Ital, is cultivated for its fruit, which is used in a green state for pickling, and ripe for mixing with other ingredients, as Tomatos, &c. to form sauces. They are also dried and ground, and used like Cayenne pepper. The seed is sown in the end of March or beginning of April on a moderate hot-bed, and covered a quarter of an inch. When the plants are two or three inches in growth, some are transplanted into a new slight hot-bed to forward them for final planting; or in default of such a hot-bed, they are placed in a bed of light rich earth, from twelve to eighteen inches apart, where they are finally to remain in the end of May, and protected during night by mats. They will flower in July, and

454. LEE/A. W.	LEEAE.	...	cu	10	Meliaceae.	Sp. 4-6.				
2607 sambucina W.	Elder-leaved	...	cu	10	...	W	E. Indies	1790.	C l p	Cav. dis. 7. t. 218
2608 aquata W.	shrubby	...	cu	10	...	G	E. Indies	1777.	C l p	
2609 crispata L.	curled	...	cu	3	o	W	C. G. H.	1767.	C l p	Bot. rep. 355
2610 macrophylla Roxb.	long-leaved	...	cu	4	o	G	E. Indies	1806.	C l p	
455. SPERMADICTYON. Roxb. SPERMADICTYON.	sweet-scented	...	or	4	Rubiaceae.	Sp. 1-2.				
2611 suaveolens Roxb.	upright	...	or	4	o	W	E. Indies	1818.	C l p	Bot. reg. 348
456. DENTEL/LA. W. DENTELLA.	creeping	...	or	1/2	jl	W	N. Holl.	1802.	S co	Lam. ill. t. 118
2612 repens W.	upright	...	or	14	Rubiaceae.	Sp. 2-6.				
457. MACROCENMUM. W. MACROCENMUM.	upright	...	or	10	...	W	Jamaica	1806.	C p l	Sw. obs. 68. t. 3. f. 1
2613 jamaicensis W.	upright	...	or	10	...	W	E. Indies	1804	C p l	
2614 strictum Roxb.	many-flowered	...	or	20	Rubiaceae.	Sp. 2-12.				
458. EXOSTEMMA. Rich. EXOSTEMMA.	many-flowered	...	or	40	...	W	W. Indies	1780.	C l p	Bot. rep. 481
2615 caribaeum W.	many-flowered	...	or	40	...	W	W. Indies	1794.	C l p	Lamb. cin. 27. t. 7
2616 floribundum W.	many-flowered	...	or	40	...	W	W. Indies	1794.	C l p	
459. BURCHEL/LIA. R. Br. BURCHELLIA.	laurel-leaved	...	or	3	Rubiaceae.	Sp. 1.				
2617 bubalina R. Br.	laurel-leaved	...	or	3	my.jn	S	C. G. H.	1818.	C r.m	Bot. mag. 2339
460. RONDELETIA. W. RONDELETIA.	smooth-leaved	...	or	10	Rubiaceae.	Sp. 3-18.				
2618 americana W.	smooth-leaved	...	or	10	au	W	W. Indies	1752.	C s.p	Plu. ic. t. 242. f. 1
2619 laevigata H. K.	smooth-leaved	...	or	12	jl.au	W	W. Indies	1790.	C s.p	
2620 hirta H. K.	hairy	...	or	10	jn.au	Pk	Jamaica	1776.	C s.p	Bot. cab. 350
461. COUTARE/A. Aub. COUTAREA.	laurel-leaved	...	or	12	Rubiaceae.	Sp. 1.				
2621 speciosa Aub.	laurel-leaved	...	or	12	...	Pu	Guiana	1803.	C s.p	Aub. gui. t. 122
Portlandia hexandra W.	laurel-leaved	...	or	12	...	Pu	Guiana	1803.	C s.p	
462. PORTLANDIA. W. PORTLANDIA.	great-flowered	...	or	12	Rubiaceae.	Sp. 2.				
2622 grandiflora W.	great-flowered	...	or	12	jn.au	W	Jamaica	1775.	C s.p	Bot. mag. 286
2623 coccinea P. S.	scarlet	...	or	3	...	S	Jamaica	1812.	C s.p	
463. CAMPANULA. W. BELL-FLOWER.	ciliated	...	or	1/2	Campanulaceae.	Sp. 75-240.				
2624 censis W.	small-leaved	...	or	1/2	jn.jl	B	Switzerl.	1775.	R co	All. ped. 1. t. 6. f. 2
2625 microphylla Kit.	small-leaved	...	or	1/2	jn.jl	B	Hungary	1820.	R co	
2626 Bellardi's All.	Bellardi's	...	or	1/2	jn.jl	B	Italy	1813.	R co	All. ped. 1. t. 85. f. 5
2627 púlla W.	russet	...	or	1/2	jn.jl	B	Austria	1779.	R co	Bot. cab. 554
2628 Zoysii W.	blunt-leaved	...	or	1/2	jn.au	D.B	Carniola	1813.	D co	Jac. ic. 2. t. 334
2629 carpatica W.	Carpathian	...	or	1/2	jn.au	B	Carp. Alps	1774.	D p.l	Bot. mag. 117
2630 rotundifolia E. B.	round-leaved	...	or	1/2	jn.au	B	Britain	1774.	D p.l	Eng. bot. 866
2631 pusilla Hænke.	dwarf	...	or	1/2	jn.jl	Pa.B	Switzerl.	1821.	R co	Bauh. pr. 94. t. 34
2632 púmila B. M.	dwarf	...	or	1/2	jn.au	B	Switzerl.	...	D p.l	Bot. mag. 512
2633 pubescens W.	pubescent	...	or	1	jn.au	B	Bohemia	1813.	R co	Bot. mag. 691
2634 gracilis R. Br.	slender	...	or	1	ap.au	B	N. S. W.	1794.	D co	Bot. cab. 485
2635 Scheuchzeri Vill.	Scheuchzer's	...	or	1	jn.au	B	Europe	1813.	S p.l	Eng. bot. 42
2636 pátula W.	spreading	...	or	1	jl.au	V	Britain	past.	S r.m	Eng. bot. 283
2637 Rapunculus W.	Rampion	...	or	3	jl.au	Pu	Britain	hed. v.	D p.l	Fl. dan. 1067
2638 persicifolia W.	Peach-leaved	...	or	3	jl.s	B	Europe	1596.	D p.l	Bot. mag. 397
β máxima	large-peach-ld.	...	or	3	jl.s	B	Europe	1596.	D p.l	
2639 pyramidalis W.	pyramidal	...	or	4	jl.s	Pa.B	Carniola	1596.	D p.l	
2640 obliqua W. en.	oblique	...	or	3	jn.jl	B	1813.	D p.l	Jac. sch. 3. t. 336
2641 americana W.	American	...	or	1	jl	B	Pensylv.	1763.	C s.l	



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produce plenty of pods from August till the end of September. They may be also raised under hand-glasses, and in very warm situations treated as common annuals. C. cerasiforme is sometimes cultivated for the same purposes as the common capsicum.

454. *Leea*. Named after the first James Lee, of the Hammersmith Nursery, an excellent cultivator and most worthy man. The plants have little more beauty than a hemlock. Cuttings root easily under a hand-glass in heat.

455. *Spermadictyon*. From *σπερμα*, seed, and *δικτυον*, a net, on account of the manner in which the seeds cover the placenta. A pretty stove plant with sweet white flowers.

456. *Dentella*. A diminution of *dens*, a tooth; the divisions of the corolla having each three little teeth.

457. *Macrocnemum*. From *μακρος*, long, and *νημα*, a stamen.

458. *Exostemma*. From *εξ*, out, and *στυμμα*, a crown, in allusion to the protrusion of the stamens; one of the characters on account of which the genus has been separated from *Cinchona*.

The genus *Cinchona*, which was so named after the Countess of Cinchon, who being cured by the use of this plant, first brought it into notice, is very nearly related to this, and is a most important genus, as furnishing the Peruvian or Jesuit's bark. The bark is taken from various species; but that which produces the best is said to be C. officinalis, a native of Peru, and not yet introduced to this country. The Jesuit's bark tree of Jamaica is the *Exostemma caribaeum*, but land there is too valuable for its culture. Our species are not very common in collections, being of slow growth, and not very easily propagated. Sweet

- 2607 Stem furrowed angular smooth, Leaves nearly bipinnate
 2608 Stem rounded pubescent, Leaves pinnated
 2609 Stem angular fringed, Leaves pinnated
 2610 Stem angular, Stalks smooth, Leaves broad ovate serrated

2611 Leaves opposite ellipt. Flowers terminal in umbels

2612 Stem creeping much branched smooth, Leaves stalked opposite oval flat entire

2613 Corymbs axillary long naked

2614 Leaves elliptical acute opposite, Flowers whorled sessile

2615 Peduncles axillary and terminal 1-flowered, Leaves ovate lanceolate

2616 Flowers terminal paniced smooth, Caps. terminal smooth, Leaves elliptical acuminate smooth

2617 The only species. A fine plant with tubular red flowers like a honeysuckle

2618 Leaves sessile, Panicle dichotomous

2619 Leaves stalked elliptical acute smooth

2620 Leaves oblong acuminate hairy rigid nerved beneath, Stalks axillary erect

2621 The only species. An hexandrous plant

2622 Flowers pentandrous, Leaves lanceolate elliptical

2623 Flowers pentandrous, Leaves ovate coriaceous

§ 1. *Leaves smooth.*

2624 Stems 1-flowered, Leaves ovate smooth subciliated

2625 Lower leaves obovate wedge-shaped crenate, Upper linear entire, Stem simple 1-flowered

2626 Stem 1-flowered naked, Leaves stalked elliptical lanceolate deeply toothed

2627 Little stems 1-flowered, Radical and cauline leaves ovate subrenate, Cal. cernuous

2628 Stems about 3-ft. Lvs. entire, the rad. ov. on long stalks, the cauline obl. ov. sessile obtuse, Fls. nodding

2629 Lvs. all cordate serrate stalked smooth, Branches filiform 1-flow. Cal. reflex. glutinous, Cor. spreading

2630 Smooth, Radical leaves oblong and kidney-shaped serrate: cauline linear entire

2631 Smooth, Leaves all serrate: radical cordate ovate firm shining; cauline linear alternate remote

2632 Radical leaves ovate crenate with flattened stalks, Flowers racemose 1-sided cernuous

2633 Stem hairy decumb. angular, Lvs. stalk. ser. smooth, rad. cordate, lower cauline ovate, Cor. short large

2634 Stem filiform angular striated, Branches about 1-flowered, Leaves lanceolate or linear, Flowers 5-cleft

2635 Pubescent, Lvs. rather hairy: rad. obov. rounded serrated; cauline clustered lin. entire, Sepals setaceous

2636 Leaves upright: radical lanceolate-oval, Panicle spreading

2637 Leaves wavy: radical lanceolate-oval, Panicle contracted

2638 Stem angular, Lvs. stiff obsoletely crenate serrate: rad. obl. obovate; cauline lanc. lin. Flow. large

2639 Lvs. smooth ov. cord. cartilaginous-serrated, the caul. lanc. Stem upright elong. branch. Lower ped. 3-ft.

2640 Lvs. obl. lanc. point, at each end serr. with veins hairy beneath, Stem erect, Rac. term. Seg. of cor. obliq.

2641 Lvs. cord. and lanc. serr. lower stalks ciliated, Fls. axill. sessile, Cor. 5-parted flat, Style longer than cor.



and Miscellaneous Particulars.

advises cuttings to be "taken off when ripe, planted in a pot of sand, plunged in moist heat, and covered with a bell-glass."

459. *Burchellia*. Named by Mr. Robert Brown, after William Burchell, a traveller in the southern part of Africa, from whom we have two volumes of travels, and the promise of other works hereafter. The species is a beautiful dwarf shrub with scarlet flowers in terminal clusters.

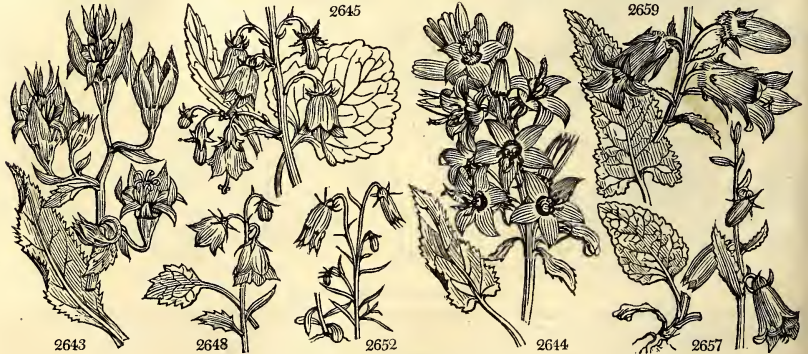
460. *Rondetia*. Plumier established this genus in memory of William Rondelet, a scientific physician, whose attention was chiefly occupied by fishes and algæ. He was born in 1507, and died in 1566. Rabelais ridicules him under the name of Rondibilis. He is said to have given a disgusting proof of his fondness for anatomy by dissecting his own son.

461. *Coutarea*. So named by Aublet from its vernacular name in Guiana, *Coutari*. A most beautiful plant, requiring the utmost heat of the stove; but very rare in gardens, if it indeed exists in cultivation at all now.

462. *Portlandia*. In honor of the Duchess of Portland, once a famous patroness of botany. Splendid plants of the natural order Rubiaceæ. *Portlandia grandiflora* is common and easily grown. *P. coccinea* is perhaps not in the country, although stated to have been introduced in 1775.

463. *Campanula*. A diminution of *campana*, a bell; on account of the form of the corolla, which resembles a little bell. *Rapunculus* is a diminution of *rapa*, a radish, in allusion to the nature of its root. *C. speculum* is so called because the corolla in its form resembles a little round and elegant mirror (*speculum*), whence in

2642	<i>nítida W.</i>	smooth-leaved	3	Δ	or	½	jl	W	N. Amer.	1731.	D	p.l	Dod. me. 4. t. 111
2643	<i>aúrea W.</i>	golden-flowered	3	□	or	3	jl.s	Y	Madeira	1777.	S	s.p	Bot. reg. 57
2644	<i>versicolor H. K.</i>	various-colored	4	□	or	4	jl.s	St	Greece	1788.	D	s.l	Bot. rep. 396
2645	<i>lilifolia W.</i>	Lily-leaved	3	Δ	or	2	my.s	Pa.B	Siberia	1784.	D	p.l	Bot. rep. 236
2646	<i>stylósa Lam.</i>	long-styled	2	Δ	or	1½	my.jn	Pa.B	Siberia	1820.	D	co	Gmel. sib. 3. t. 27
2647	<i>grandiflora W.</i>	great-flowered	1	Δ	or	1	jn.au	B	Siberia	1782.	D	p.l	Bot. cab. 252
2648	<i>rhombóidea W.</i>	German-ld.	2	Δ	or	2	jl	Pa.B	Switzerl.	1775.	D	p.l	Bot. cab. 603
2649	<i>verticilláta W.</i>	whorled	2	Δ	or	2	jn	L.B	Siberia	1783.	D	s.l	Pal. it. 3. t. G. f. 1
2650	<i>verticilliflora Fisch.</i>	cernuous	1½	Δ	or	1½	jn.jl	Pa.B	.....	1818.	R	co	
2651	<i>Lobelioides W.</i>	small-flowered	1	Δ	or	1	jl.au	W.P	Madeira	1777.	S	s.l	
2652	<i>excisa Sch.</i>	bitten	3	Δ	or	½	my.jn	B	Switzerl.	1820.	R	co	Bot. cab. 561
2653	<i>latifolia W.</i>	giant	4	Δ	or	4	jl	Pu.	Britain	s. m. p.	S	p.l	Eng. bot. 302
2654	<i>eriocarpa Bieb.</i>	woolly-fruited	2	Δ	or	2	jn.jl	B	Caucasus	1823.	R	co	
2655	<i>urticifolia W.</i>	Nettle-leaved	3	Δ	or	3	au	Pu	Germany	1800.	D	co	
2656	<i>Trachélium W.</i>	Throatwort	4	Δ	or	4	jn.au	V	Britain	woods.	D	p.l	Eng. bot. 12
2657	<i>Rapunculoides W.</i>	Creeping	3	Δ	or	3	jn.jl	B	England	woods.	D	p.l	Eng. bot. 1369
2658	<i>sarmostácha Panz.</i>	large-spiked	1½	Δ	or	1½	jn.jl	B	Hungary	1814.	S	co	
2659	<i>sarmática B. Reg.</i>	Betony-leaved	2	Δ	or	2	jn.au	Pa.B	Siberia	1803.	D	co	Bot. reg. 237
2660	<i>bononiensis W.</i>	panicked	2	Δ	or	2	aus	B	Italy	1773.	D	co	M. h. 2. s. 5. t. 4. f. 38
2661	<i>ruthénica W. en.</i>	Russian	2	Δ	or	2	jn.au	B	Caucasus	1815.	D	co	
2662	<i>glomeráta W.</i>	clustered	2	Δ	or	2	my.s	V	Britain	ch. pl.	D	p.l	Eng. bot. 90
2663	<i>speciosa Horn.</i>	showy	2	Δ	or	2	my.jn	Pu	Siberia	1824.	R	co	
2664	<i>Cervicária W.</i>	wave-leaved	3	Δ	or	3	jl	L.P	Germany	1768.	S	s.p	Bot. cab. 452
2665	<i>collina E. M.</i>	Sage-leaved	1	Δ	or	1	jl.au	B	Caucasus	1803.	D	p.l	Bot. mag. 927
2666	<i>azúrea E. M.</i>	azure	1½	Δ	or	1½	jn.jl	L.B	Switzerl.	1778.	D	p.l	Bot. mag. 551
2667	<i>lactiflora Bieb.</i>	milk-colored	2	Δ	or	2	jl.s	W	Siberia	1814.	C	s.p	Bot. reg. 241
2668	<i>aggregáta W. en.</i>	crowded-flower.	2	Δ	or	2	jl.s	Pa.B	Bavaria	1817.	C	s.p	Bot. cab. 505
2669	<i>thyrsóidea W.</i>	long-spiked	2	Δ	or	2	jn.au	B	Switzerl.	1785.	S	s.p	Bot. mag. 1290
2670	<i>peregrina W.</i>	rough-leaved	2	Δ	or	2	jn.au	B	C. G. H.	1794.	S	p.l	Bot. mag. 1257
2671	<i>cérnua Th.</i>	nodd.-flowered	1	Δ	or	1	jn.au	W	C. G. H.	1804.	S	p.l	
2672	<i>capénsis W.</i>	Cape	1	Δ	or	1	jn.au	B	C. G. H.	1803.	S	s.p	Bot. mag. 782
2673	<i>barbáta W.</i>	bearded	1½	Δ	or	1½	jn.jl	L.B	Italy	1752.	R	p.l	Bot. mag. 1258
2674	<i>punctáta W.</i>	dotted-flowered	1	Δ	or	1	my.jn	W	Siberia	1813.	D	co	Bot. mag. 1723
2675	<i>Médium W.</i>	Cantherb.-bells	4	Δ	or	4	jn.s	B	Germany	1597.	S	co	Knor. th. 1. t. G. 2
2676	<i>longifolia La Peyr.</i>	long-leaved	4	Δ	or	4	jn.s	D.B	Pyrenees	1820.	R	co	La. peyr. pyr. t. 6
2677	<i>spicáta W.</i>	spiked	1	Δ	or	1	jl	L.B	Switzerl.	1786.	S	s.p	All. p. 1. t. 46. f. 2
2678	<i>alpina W.</i>	alpine	1½	Δ	or	1½	jl	B	Switzerl.	1779.	D	p.l	Bot. mag. 957
2679	<i>möllis W.</i>	soft	1	Δ	or	1	my.au	Pu	Sicily	1788.	C	s.l	Bot. mag. 404
2680	<i>saxátillis W.</i>	rock	1	Δ	or	1	my.au	B	Candia	1768.	D	p.l	Barr. ic. 79. t. 813
2681	<i>alliariefolia W.</i>	Alliaria-leaved	1	Δ	or	1	jl.s	B	Caucasus	1803.	C	p.l	Pur. lond. 26.
2682	<i>lamifolia Bieb.</i>	Nettle-leaved	3	Δ	or	3	jn.jl	Pa.Y	Iberia	1823.	R	co	Buxb. cen. 5. t. 18
2683	<i>sibirica W.</i>	Siberian	1	Δ	or	1	jl.s	B	Siberia	1783.	C	s.p	Bot. mag. 659
2684	<i>divérgens W. en.</i>	spreading	1½	Δ	or	1½	jn.jl	B	Hungary	1814.	S	s.l	
2685	<i>linguláta W. en.</i>	tongue-leaved	1	Δ	or	1	jl.au	V	Hungary	1804.	D	co	Pl. rar. hun. t. 64
2686	<i>caucásica Bieb.</i>	Caucasian	2	Δ	or	2	jl.au	V	Caucasus	1804.	D	co	
2687	<i>laciniáta W.</i>	jagged-leaved	2	Δ	or	2	my.au	S.B	Greece	1788.	D	p.l	Bot. rep. 385
2688	<i>coronáta E. Reg.</i>	crowned	2	Δ	or	2	jl	B	Siberia	1815.	D	s.l	Bot. reg. 149
2689	<i>cichorácea Sib. capitáta B. M.</i>	headed	2	Δ	or	2	jn.jl	B	Greece	1768.	D	co	Bot. mag. 811
2690	<i>lanuginósa W. en.</i>	woolly-leaved	2	Δ	or	2	my.au	B	.....	1814.	S	s.l	
2691	<i>Erinus W. en.</i>	forked	1	Δ	or	1	jl.au	Pa.B	S. Europe	1768.	S	s.l	M. h. s. 5. t. 3. f. 25
2692	<i>hederácea W.</i>	Ivy-leaved	1	Δ	or	1	my.jn	B	England	m.s.p.	D	co	Eng. bot. 73



History, Use, Propagation, Culture,

English it is called Venus' looking-glass. Ancient mirrors were always round, on which account the astrological sign of Venus was ♀, or a figure of the antique mirror and its handle. This is a shewy genus; some of the species are beautiful, and all of them of easy culture in the borders of the flower garden or shrubbery. One or two species are used in dietetics, and probably the roots of the whole might be eaten. Almost all the species have long thick white roots, which abound in an acrid milky juice.

C. rapunculoides is much cultivated in France and Italy, and sometimes in Britain, for the roots, which are boiled tender and eaten hot with sauce, or cold with vinegar and pepper. It is sown in Spring on deep light soil in drills, and will be ready for use by the autumn of the same year. *C. persicifolia* and *Rapunculoides* may also be cultivated for the same purpose.

C. pyramidalis was a very fashionable plant thirty years ago, and is still cultivated, but has given way to *Lobelia splendens* and fulgens. It is still in demand in Holland as an ornament to halls, staircases, and for being placed before fire-places in the summer season; for which purpose it is planted in large pots, and trained in the fan manner, so as to cover a large surface. In the shade it will continue in flower for two or three

- 2642 Caps. oblong crenulate rigid sessile, Flowers erect flat
 2643 Caps. 5-celled, Leaves elliptical serrate smooth, Flowers paniced 5-parted, Stems shrubby fleshy
 2644 Leaves cordate serrate smooth, Thyrses terminal, Sepals subulate, Corolla rotate spreading
 2645 Leaves lanceolate : cauline acutely serrated, Flowers paniced nodding
 2646 Leaves stalked subcordate acutely serrated, Flowers small nodding, Style exserted
 2647 Leaves ternate oblong finely serrated, Stem 1-flowered, Flower spreading
 2648 Leaves rhomboidal serrated, Spike one-sided, Cal. toothed
 2649 Leaves about 6 lanceolate toothed, Flowers whorled [very long
 2650 Stem erect, Lvs. altern. opp. and ternate lin. lanc. entire, Pan. pyram. Flowers cernu. glob. trunc. Style
 2651 Stem branched upright twiggly, Lvs. lin. lanc. toothed, Pedunc. filiform long, Cor. funnel-shaped 3-4-cleft
 2652 Smooth, Stem. 1-fl. Lower lvs. obl. cauline lin. subsetaceous, Cor. cernuous with the bott. of seg. cut out

§ 2. *Leaves rough.*

- 2653 Stem rounded striated smooth, Lvs. ovate lanc. doubly serrated, Pedunc. axillary 1-fl. erect, Cal. smooth
 2654 Stem furrowed pubescent, Leaves ovate-lanceolate doubly serrate, Pedunc. axillary solitary, Cal. woolly
 2655 Stem angular hispid, Lvs. ov. lanc. coarsely serrated, Pedunc. axillary 1-flowered cernuous, Cal. hispid
 2656 Stem angular, Leaves stalked, Cal. ciliated, Peduncles trifid
 2657 Leaves cordate-lanceolate, Stem branched, Flowers one-sided scattered nodding, Cal. reflexed
 2658 Leaves oblong unequally toothed rough beneath, Stem paniced, Bractes and calyx ciliated
 2659 Leaves downy : lower cord. lanc. stalked, Flower nodding, Germens woolly
 2660 Leaves ovate lanceolate beneath scabrous sessile, Stem paniced [very long
 2661 Stem rounded and lvs. beneath tomentose, Lower lvs. cordate lanc. stalked, upper sessile, Raceme term.
 2662 Stem angular simple smooth, Leaves scabrous oblong lanceolate cordate sessile, Head clustered
 2663 Stem angular subsimple hispid, Rad. lvs. ovate cordate stalked : cauline cordate sessile, Flowers clustered
 2664 Hispid, Flowers sessile, Head terminal, Leaves lanceolate linear wavy
 2665 Stem simp. few-fl. Lvs. hairy, lower cord. lanc. stalked, upper obl. sessile, Flowers nodding, Cal. hispid
 2666 Leaves ovate-oblong sessile serrated, Stem simple angular, Flowers paniced
 2667 Leaves lanc. twin serr. and branched stem hispid, Flowers paniced, Calyxes hispid, Seg. dilated serrated
 2668 Stem angular smooth, Caul. leaves sessile equally toothed wavy lanceolate, Floral cordate, Cor. tubular
 2669 Hispid, Raceme ovate oblong terminal, Stem quite simple, Leaves linear lanceolate
 2670 Leaves ovate rugose, Leafstalks with a dilated and serrated edge, Stem simple hispid, Flowers spreading
 2671 Leaves oblong waved hairy, Flowers terminal cernuous, Cal. smooth
 2672 Leaves lanceolate toothed hispid, Pedunc. very long 1-flowered with strigose capsules

§ 3. *Capsules covered by the reflexed recesses of the calyx.* Medium.

- 2673 Stem simple erect pubescent, Lvs. lanc. crenate, Racemes simple with nodd. flowers, Cor. bearded inside
 2674 Hairy, Radical leaves stalked ovate acute serrate, Flowers cernuous dotted inside villous
 2675 Stem undivided erect hispid. Leaves lanceolate obtusely serrated sessile 3-nerved at base, Flowers erect
 2676 Hispid, Caps. 5-celled, Branches pyramidal, Peduncles axillary, Flowers erect solitary
 2677 Hispid, Spike lax, Flowers alternate, Leaves linear entire
 2678 Stem simple, Pedunc. axillary 1-flowered 2-leaved
 2679 Caps. 5-celled covered stalked, Stem prostrate, Leaves very soft nearly round
 2680 Caps. 5-keeled covered, Flowers alternate nodding, Leaves obovate crenate
 2681 Radical leaves reniform coarsely doubly serrate : cauline ovate toothed sessile
 2682 Leaves reniform cordate doubly crenate stalked tomentose beneath, Flowers one-sided reflexed
 2683 Stem paniced pubescent, Leaves lanceolate obtuse wavy
 2684 Stem simple diverging pubes. Lvs. lanc. obtusely serrated sessile veiny, Pedunc. axill. 3-fl. and terminal
 2685 Hispid, Stem simple, Flowers capitate terminal, Leaves lanceolate obtuse crenate
 2686 Lvs. obovate wavy rough, Stem creeping, Branches erect few-flow. Segm. of the hispid cal. nearly equal
 2687 Caps. stalked, Leaves serrated : radical lyrate ; cauline lanceolate nearly wedge shaped
 2688 Radical leaves stalked cord. doubly serr. Raceme few-flowered lax
 2689 Caps. covered, Leaves oblong wavy hispid ; radical sinuated, Flowers clustered sessile terminal

- 2690 Leaves woolly : radical lyrate ; cauline rounded ovate serrate, Flowers cernuous

§ 4. *Corolla in some degree unequal, Stigma nearly simple, Capsule opening at the end.*

- 2691 Stem dichotomous, Leaves sessile, the upper opp. 3-toothed
 2692 Leaves cordate 5-lobed stalked smooth, Stem lax



and Miscellaneous Particulars.

months. The art of producing a very large plant is to begin with pots of a small size, and shift frequently during two years, till at last the plant occupies a pot of a foot or more in diameter. Rich light soil should be used, but no animal manures or recent dung, as these are found very injurious. Cuttings of the roots flower the second, and seedlings the third year. *C. carpatica* and *grandiflora* may be treated in a similar manner.

C. lilifolia has a singular anomaly in the leaves, which before the panicle is produced come out in a kind of rose on the summit of the stem, but are, through its prolongation, afterwards dispersed. The flowers vary much both in size and color, and the roots are eaten in China both raw and boiled.

C. glomerata is a handsome rock or pot plant ; it requires a dry lean soil, otherwise, as in most plants, the flowers lose the intensity of their color in that which is very rich.

C. hederacea is a very small plant, with the leaves so much resembling those of *Veronica hederifolia*, that Linnaeus suspected it to be a hybrid.

C. medium is a very ornamental border flower of the easiest culture, and with varieties, double and single,

2693	<i>fruticosa W.</i>	shrubby	or	1	au	B	C. G. H.	1787.	S	p.l
2694	<i>Prismatocarpus W.</i>	shining	or	1	my.au	B	C. G. H.	1787.	S	s.l
2695	<i>Spéculum W.</i>	Venus'Look-gl.	or	1	my.au	Pu	S. Europe	1596.	S	s.l
	<i>β alba</i>	white	or	1	my.au	W				
2696	<i>hybrida W.</i>	corn	or	1	my.au	Pu	England	cha. fi.	S	s.l
2697	<i>pentagonia W.</i>	five-angled	or	1	my.au	B,P	Turkey	1686.	S	s.l
2698	<i>perfoliata P. S.</i>	perfoliate	or	1	my.au	Pu	N. Amer.	1680.	S	s.l
464.	LOBELIA. W.	LOBELIA.					<i>Campánulacæ.</i>	<i>Sp. 46—170.</i>		
2699	<i>simplex W.</i>	simple-stalked	or	1	my.au	B	C. G. H.	1794.	C	l.p
2700	<i>linearis W.</i>	linear-leaved	or	1	my.au	B	C. G. H.	1791.	C	l.p
2701	<i>pinifolia W.</i>	Pine-leaved	or	1	my.au	V	C. G. H.	1752.	S	s.p
2702	<i>unidentata H. K.</i>	single-toothed	or	1	my.au	V	C. G. H.	1794.	R	l.p
2703	<i>Dortmanna W.</i>	water	or	1	jl.au	B	Britain	lakes.	R	l.p
2704	<i>salicifolia</i>	willow-leaved	p	6	jn.au	S	Chili	1794.	R	s.p
	<i>Tupa H. K. gigantea B. M.</i>	Kalm's	or	1	jl.au	B	Carolina	1820.	S	co
2705	<i>Kalmii L.</i>	Kalm's	or	5	jl.au	B	W. Indies	1818.	C	co
2706	<i>racemosa B. M.</i>	racemose	or	1	my.au	B	C. G. H.	1790.	C	s.p
2707	<i>bellidifolia W.</i>	Daisy-leaved	or	1	my.au	B	C. G. H.	1774.	C	s.p
2708	<i>triquetra W.</i>	triangular	or	1	my.au	W	Jamaica	1752.	S	s.p
2709	<i>longiflora W.</i>	long-flowered	or	1	my.au	B	C. G. H.	1790.	S	s.p
2710	<i>secunda W.</i>	side-flowering	or	1	jn.au	Pa.B	N. Amer.	1799.	D	s.l
2711	<i>goodenioides H. K.</i>	Goodenia-like	or	3	jn.o	S	W. Indies	1787.	C	s.p
2712	<i>assurgens W.</i>	purple	or	3	my.s	S	Mexico	1809.	C	s.p
2713	<i>fulgens W. en.</i>	fulgent	or	6	my.jn	R	Nepal	1822.	D	r.m
2714	<i>verbascifolia Sm.</i>	Mullein-leaved	or	3	my.s	S	Virginia	1629.	C	s.p
2715	<i>cardinalis W.</i>	Cardinal-flower	or	3	my.s	S	Mexico	1814.	C	s.p
2716	<i>splendens W. en.</i>	splendid	or	1	jl.au	B	C. G. H.	1774.	S	s.p
2717	<i>debilis W.</i>	feeble	or	1	my.au	B	N. S. W.	1804.	S	s.p
2718	<i>alata R. Br.</i>	winged-stalked	or	2	au.o	L.B	Virginia	1665.	C	s.p
2719	<i>siphilitica W.</i>	blue-cardinal	or	2	ja.jl	O	W. Indies	1786.	C	s.p
2720	<i>surinamensis W.</i>	shrubby	or	2	ja.jl	R	W. Indies	1890.	C	s.p
	<i>β rubra</i>	red	or	1	jl.o	D.B	N. S. W.	1801.	S	s.p
2721	<i>gracilis R. Br.</i>	slender	or	1	jn.au	B	N. S. W.	1809.	D	s.p
2722	<i>purpurascens R. Br.</i>	purplish	or	1	jl.au	Pa.B	N. Amer.	1759.	S	s.p
2723	<i>inflata W.</i>	bladder-podded	or	1	jl.au	Pk	N. Amer.	1733.	S	s.p
2724	<i>cliffortiána W.</i>	purple-flowered	or	1	jl.au	B	Nepal	1822.	S	s.p
2725	<i>micrantha Hook.</i>	small-flowered	or	1	jn.jl	B	England	hea.	S	s.l
2726	<i>orens W.</i>	acid	or	3	jn.au	B	N. Amer.	1812.	D	s.l
2727	<i>ame'na Mich.</i>	beautiful-blue	or	1	in.jn.s	W	C. G. H.	1772.	R	s.p
2728	<i>minóta W.</i>	small	or	1	jl	B	Italy	1778.	S	s.p
2729	<i>Lauréntia W.</i>	Italian	or	1	my.jl	P.v	Sicily	1821.	D	co
2730	<i>tenella Biv.</i>	slender	or	1	my.au	W	China	1820.	D	co
2731	<i>campanuloides Th.</i>	chinese	or	1	jn.s	B	C. G. H.	1752.	S	s.p
2732	<i>Erinus W.</i>	ascending	or	1	jn.au	B	C. G. H.	1759.	R	s.p
2733	<i>erinoides W.</i>	trailing	or	1	jn.au	Pa.B	C. G. H.	1795.	C	s.p
2734	<i>bicolor H. K.</i>	spotted	or	1	my.s	Pk	C. G. H.	1815.	D	s.p
2735	<i>ilicifolia B. M.</i>	Holly-leaved	or	1	jn.au	B	C. G. H.	1780.	R	s.p
2736	<i>pubeszens W.</i>	downy-leaved	or	1	jn.jl	Y	C. G. H.	1774.	S	s.p
2737	<i>lutea W.</i>	yellow	or	1	my.s	B	C. G. H.	1759.	C	s.p
2738	<i>hirsuta W.</i>	hairy	or	1	my.s	B	C. G. H.	1759.	C	s.p



History, Use, Propagation, Culture,

of blue, red, purple, and white flowers. Like other biennials, it may either be sown where it is to remain any time after midsummer, or sown in beds in spring for transplantation.

C. speculum and *hybrida* are annual border flowers of considerable beauty.
 464. *Lobelia*. In honor of M. Lobel, author of various works, and particularly of that called *Icones Plantarum*; he was born at Lisle in 1538, became physician and botanist to James I., and died in London in 1616. This genus furnishes some of our most splendid herbaceous plants, as *L. cardinalis*, *fulgens*, and *splendens*. The predominant color of the corollas is blue.

L. Dortmanna (from Dortmann, an apothecary, who first sent it to Clusius), is a beautiful aquatic with leaves reflected into an elegant curve at the end, and the flowers in loose spikes.

L. longiflora, which grows by moist places and rivulets in the West Indies, is a very poisonous plant. Taken internally it brings on an invincible purging. If the plant be handled, and the hand be unawares applied to the eyes or lips, it brings on an inflammation. In the Spanish West Indies it is called *Reventa-cavallos*, because horses are reported to burst with eating it.

L. fulgens, *splendens*, and *cardinalis*, are the three grand ornaments of the genus. They are readily multiplied by cuttings or slips, or by seeds when they ripen, and grow well in light rich soil. The culture of *L. cardinalis* is given at length by Justice, who designates it "a flower of most handsome appearance, and which should not be wanting in curious gardens, on account of the rich color of its flowers." The culture of *L.*

§ 5. *Capsules prismatical*. Prismaticarump.

- 2693 Caps. columnar 5-celled, Stem shrubby, Leaves linear subulate, Peduncles very long, Panicles terminal
 2694 Caps. linear 2-celled, Leaves lanceolate, Coarsely serrated smooth, Stem decumbent
 2695 Stem very much branched diffuse, Leaves oblong crenate, Flowers solitary
 2696 Stem branched at base upright, Leaves oblong crenate, Cal. aggregated longer than corolla
 2697 Branching diffuse, Lower leaves oblong obtuse, Upper lanceolate, Flower solitary, Cor. longer than calyx
 2698 Stem simple, Leaves cordate toothed stem-clasping, Flowers sessile clustered

- 2699 Leaves linear villous, Stem erect
 2700 Leaves linear smooth, Stem erect
 2701 Shrubby, Leaves linear erect close together
 2702 Leaves linear one toothed on each side
 2703 Leaves linear 2-celled, Scape simple naked racemose
 2704 Leaves lanceolate, Raceme spiked

- 2705 Stem erect, Leaves lin. lanc. obtuse alternate entire, Raceme terminal
 2706 Stem half shrubby erect, Leaves lanc. ovate serrate toothed, Rac. term. Pedic. as long as flowers
 2707 Leaves ovate toothed hairy, Stem simple
 2708 Leaves lanceolate pinnatifid toothed, Raceme terminal
 2709 Leaves lanceolate toothed, Peduncles very short lateral, Tube of cor. filiform very long
 2710 Smooth, Lower leaves oblong toothed, upper lanceolate entire, Peduncles racemose 1-sided
 2711 Erect simple slightly pubescent, Lvs. obl. obt. almost entire, the lower spatulate, Spike naked small flow.
 2712 Leaves broad lanceolate serrate below toothed decurrent, Racemes compound terminal
 2713 Leaves narrow lanceolate toothed revolute at edge and stem pubescent, Raceme terminal
 2714 A tall plant with rugose coarse leaves, and a long spike of fine red flowers
 2715 Leaves oblong lanceolate cartilaginous-toothed and erect stem smooth, Raceme terminal 1-sided leafy
 2716 Leaves narrow lanceolate toothletted flat at edge and stem quite smooth, Raceme terminal
 2717 Leaves lanceolate serrated smooth, Peduncles lateral longer than the leaf
 2718 Flowers axillary, Stem winged, Radical leaves ovate lanceolate with glandular reflexed teeth
 2719 Lvs. ovate-obl. acute at each end unequally serrated, Flowers axillary solitary, Recesses of calyx reflexed
 2720 Lvs. obl. acuminate serrated smooth, Pedunc. axill. 1-f. Sepals linear lanc. spreading, Anthers bearded
 2721 Leaves ovate cut, Stem divided, Racemes terminal naked, Upper lip of cor. bearded
 2722 Smooth, Stem ascending 4-cornered, Leaves ovate-lanceolate cut serrate twice as short as leafstalk
 2723 Stem hairy, Lvs. toothed serrate, the lower ov. obl. the upper ovate, Pedunc. axillary 1-f. Caps. inflated
 2724 Stem erect, Leaves cordate obsoletely toothed stalked, Corymb terminal
 2725 Smooth erect, Stem 3-cornered, Leaves ovate round repand, Pedunc. longer than leaves
 2726 Stem erect, Lower leaves obovate toothletted, upper lanceolate serrate, Raceme terminal 1-sided
 2727 Quite smooth, Lvs. broad lanc. serr. Spike many-flowered 1-sided, Sepals entire, Lower petals ov. acute
 2728 Radical leaves ovate, Scapes capillary
 2729 Stem prostrate, Leaves lanceolate oval-crenate, Stem branched, Peduncles solitary 1-flowered very long
 2730 Radical leaves spatulate repand, Cauline setaceous, Stems simple 1-flowered erect
 2731 Leaves somewhat stalked lanceolate oblong toothed, Stems decumbent, Peduncles elongated
 2732 Stem spreading, Lvs. toothed, lower ellipt. stalked, upper sess. narrow lanc. Pedunc. longer than leaves
 2733 Stems prostrate filiform, Leaves stalked oblong toothed
 2734 Stems spreading, Lower leaves oblong toothed pubescent subsessile, Upper lip of cor. reflexed
 2735 Leaves ovate lanceolate deeply toothed, Peduncles axillary 2 or 3 times as long as leaves
 2736 Stems angular prostrate and leaves lanceolate toothed hairy, Peduncles axillary 1-flowered
 2737 Stems procumbent, Leaves lanceolate serrated, Flowers sessile spiked
 2738 Shrubby hairy prostrate, Leaves ovate toothed, Flowers lateral with very long stalks 2 or 3-flowered



and Miscellaneous Particulars.

fulgens is given by J. B. Van Mons, and W. Hedges, in the Hort. Trans. Both confess that very little art is required. Hedges, to procure strong flower stalks, keeps the plants in pots, shifts very frequently from a smaller to a larger size, places them first in cucumber frames, and when they begin to flower in a stove. The pots in which they are allowed to flower are nine inches in diameter, and, in order to supply abundant moisture, pans are placed under the pots constantly filled with water. The soil used is equal parts of loam and leaf-mould, with a third of the whole of sand. They begin to flower in July, and continue flowering through the autumn. One plant so treated produced a flower-stalk which measured six inches in circumference at the base; the height of the centre spike of flowers was five feet and a half; the shoots from the bottom and sides of the main stem were in number seventeen, and rising four and a half feet.

L. splendens and *cardinalis* may either be treated as above, or as a tender border, or as frame plants. Van Mons observes, that *L. cardinalis* perishes in sandy soil, but becomes strong and multiplies in loam, while, at the same time, it produces the most brilliant colors in the former. The same thing may doubtless be predicted of the other species; it being a well known law of nature as to living beings, that their energies are concentrated in proportion to the obstacles thrown in the way of their expansion.

L. siphilitica has its specific name from its supposed efficacy in the cure of siphilis, among the North American Indians. Sir William Johnston purchased the secret from them, but Woodville says, its virtues have not been confirmed by any instances of European practice.

2739 variifolia B. M.	various-leaved	Y Δ	or	1	jn.jl	Y	C. G. H.	1812.	C	s p	Bot. mag. 1692
2740 corónopifolia W.	Buck's-horn	Y Δ	or	2	jl.au	B	C. G. H.	1752.	S	s p	Bot. mag. 644
2741 crenata W.	notched-leaved	Y Δ	or	2	ap.my	B	C. G. H.	1794.	C	s p	
2742 speculum B. M.	Looking-glass	Y Δ	or	2	jl.au	Pu	C. G. H.	1812.	S	s p	Bot. mag. 1499
2743 pedunculata B. M.	long-stalked	Y Δ	or	1	o.n	B	C. G. H.	1819.	D	co	Bot. mag. 2251
2744 decumbens B. M.	decumbent	Y Δ	or	2	o.n	B	C. G. H.	1820.	D	co	Bot. mag. 2277
2745 pyramidalis B. M.	pyramidal	Y Δ	or	4	s	Pu	Nepal	1822.	D	co	Bot. mag. 2387
465. PHYTEU/MA. W. RAMPION.											
2746 pauciflorum L.	few-flowered	Y Δ	pr	2	my.jn	B	Switzerl.	1823.	D	p l	
2747 Scheuchzéri W.	Scheuchz's	Y Δ	pr	1	my.jn	B	Switzerl.	1813.	C	o	Bot. mag. 1797
2748 scorzoneriifolium Vill.	scorzonera-lvd.	Y Δ	pr	1	jl.au	B	Alps	1819.	D	p l	
2749 Michélii All.	Micheli's	Y Δ	pr	1	jn.jl	B	Switzerl.	1822.	D	p l	
2750 hemisphæricum W.	linear-leaved	Y Δ	pr	1	jl	B	Switzerl.	1752.	p l		Jac. ic. 2. 333
2751 comosum Wulf.	tufted	Y Δ	pr	1	jn.jl	B	Austria	1752.	S	s l	Jac. au. 5. t.ap.50
2752 orbiculare W.	round-headed	Y Δ	pr	1	jn.au	V	England	ch. pa.	D	p l	Eng. bot. 142
2753 cordatum B. M.	heart-headed	Y Δ	pr	2	jl.au	B	Hungary	1804.	co	o	Bot. mag. 1466
2754 betonicifolium Vill.	Betony-leaved	Y Δ	pr	2	jn.jl	Pa.B	S. Europe	1818.	D	p l	
2755 spicatum W.	spiked	Y Δ	pr	2	jn.au	B	Europe	1597.	D	p l	Bot. mag. 2347
2756 ovatum W.	oval-spiked	Y Δ	pr	2	jn.au	D.V	Europe	1814.	D	p l	
2757 virgatum W.	twiggy	O	pr	1	my.jn	B	Lebanon	1820.	D	p l	Bot. cab. 667
2758 campanuloides H. K.	Campanula-fl.	Y Δ	pr	1	jn.au	B	Caucasus	1804.	D	p l	Bot. mag. 1015
2759 canescens W. en.	hoary	Y Δ	pr	2	jn.au	Li	Hungary	1804.	D	p l	Pl. rar. hu. t. 14
2760 pinnatum W.	winged-leaved	Y Δ	pr	2	jn.au	B	Candia	1640.	D	p l	Vent. cels. 52
2761 strictum B. M.	upright	Y Δ	pr	2	jn.jl	B	S. Europe	1819.	D	p l	Bot. mag. 2145
466. TRACHELIUM. W. THROATWORT.											
2762 caeruleum W.	blue	O	or	2	jl.s	B	Italy	1640.	S	r m	Bot. reg. 72
2763 diffusum W.	spreading	Y Δ	cul	2	jl.s	B	C. G. H.	1787.	S	r m	
467. ROEL/IA. W. ROELLA.											
2764 ciliata W.	ciliated	Y Δ	or	1	jn.s	Pu	C. G. H.	1774.	S	s p	Bot. mag. 378
2765 squarrosa W.	trailing	Y Δ	or	1	jl	B	C. G. H.	1787.	S	s p	
2766 decurrens W.	decurrent	O	or	1	jl.s	B	C. G. H.	1787.	S	l p	L'He. se.an.4. t.6
2767 muscosa W.	Moss-like	O	cu	1	jl.s	B	C. G. H.	1802.	S		
468. GOODE/NIA. R. Br. GOODENIA.											
2768 ovata R. Br.	oval-leaved	Y Δ	or	2	jn.o	Y	N. S. W.	1793.	S	s p	Bot. rep. 68
2769 grandiflora R. Br.	large-flowered	Y Δ	or	4	jn.au	Y	N. S. W.	1803.	S	s p	Bot. mag. 890
469. EU/THALES. R. Br. EUTHALES.											
2770 trinervis R. Br.	three-nerved	Y Δ	or	1	my.s	P.Y	N. Holl.	1803.	C	l p	Bot. mag. 1137
470. DAMPI/ERA. R. Br. DAMPIERA.											
2771 stricta R. Br.	upright	Y Δ	or	1	jn.au	B	N. S. W.	1814.	C	l p	Ann. mus. 18. t.2
471. SAMO/LUS. W. BROOK-WEED.											
2772 Valerandi R. Br.	common	Y Δ	pr	2	jn.au	W	Britain	mar.	D	co	Eng. bot. 703
2773 littoralis R. Br.	sea-side	Y Δ	pr	2	jl.s	W	N. S. W.	1806.	D	s l	Bot. cab. 435
472. VELLE/IA. Sm. VELLEIA.											
2774 lyrata R. Br.	lyrate	Y Δ	or	1	ap	Y	N. Holl.	1819.	D	s p	Bot. reg. 551
473. SCE/VOLA. R. Br. SCEVOLA.											
2775 Lobelia H. K.	Purslane-lvd.	Y Δ	or	2	...	W	W. Indies	1724.	C	l p	Plu. ic. t. 165. f.1
2776 crassifolia R. Br.	thick-leaved	Y Δ	or	3	au.o	W	N. Holl.	1805.	C	s p	La. no. hol.1. t.79
2777 microcarpa R. Br.	small-fruited	Y Δ	or	1	my.s	P.V	N. S. W.	1790.	D	s p	Bot. mag. 287
2778 savaeolens R. Br.	sweet-scented	Y Δ	or	2	aus	B	N. S. W.	1793.	D	s p	Bot. rep. 22



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465. *Phyteuma*. Φυτεύμα, was the name of a plant much used among the ancients for aphrodisiacal purposes. No qualities of such a kind have been ascribed to the modern plant. This is a handsome genus, and with *Roella* is well adapted for rock-work or pots. The roots of *P. spicatum* are edible, and used in Switzerland like those of the rampion.

466. *Trachelium*. From τράχηλος, rough, which its leaf is in a high degree. A pretty little favorite of the flower border, easily cultivated and preserved.

467. *Roella*. Named after G. Roelle, professor of anatomy at Amsterdam. He procured this plant for Clifford. A pretty little leafy bush, with beautiful flowers of blue and white.

468. *Goodenia*. So named by Sir J. E. Smith, in honor of his friend Dr. Goodenough, Bishop of Carlisle, and a lover of natural history. Herbs or small shrubs, with alternate leaves, and terminal or axillary flowers, which are generally yellow, sometimes blue.

469. *Euthales*. From ευ, well, and θαλάσσιον, to push or sprout. Very like the last in all external characters.

- 2739 Stems erect, Leaves linear entire and toothed, Flowers solitary terminal
 2740 Leaves lanceolate toothed, Peduncles very long
 2741 Leaves lanceolate crenate smooth, Stem twining
 2742 Stem prostrate, Ped. axillary solitary 1-flow. very long, Cor. hypocrateriform
 2743 Leaves stalked recurved pinnatifid, Pedunc. elong. lat. solitary 2-flowered
 2744 Leaves obovate toothed shorter than the axillary solitary peduncles
 2745 Leaves lanc. serrulate with long points, Racemes leafy paniced, Cal. as long as cor.

§ 1. *Flowers in heads.*

- 2746 Head leafy, Leaves all lanceolate
 2747 Head rather leafy shorter than the linear bractes, Leaves lanceolate toothed
 2748 Spike elongated cylindrical, Lower flowers remote, Leaves lanceolate crenate, Upper linear
 2749 Head roundish, Bractes oblong lanceolate, Leaves linear rigid nearly entire
 2750 Head roundish, Bractes ovate, Leaves linear nearly entire scarcely shorter than stem
 2751 Head terminal sessile, Leaves toothed: radical cordate
 2752 Head roundish longer than bractes, Radical leaves ovate cordate bluntly serrated, Cauline lin. lanceolate
 2753 Bractes cordate acum. shorter than the roundish head, Rad. lvs. obl. cord. crenate, Caul. $\frac{1}{2}$ stem-clasping
 2754 Spike oblong, Leaves simply crenate: radical lanceolate cordate; cauline lanceolate
 2755 Spike oblong lengthened, Styles downy trifid, Radical leaves cordate doubly toothed
 2756 Spike ovate, Styles hairy longer than the flower bifid, Radical leaves cordate doubly toothed

§ 2. *Flowers axillary scattered.*

- 2757 Branches twiggy, Lvs. lanc. acute at each end uneq. toothed roughish, Flowers deeply divided in pairs
 2758 Lvs. ovate acute sessile serrated rough, Stem angular quite simple, Fl. racemose sessile, lower clustered
 2759 Leaves sessile, Lower obovate crenate-serrate, Upper lanceolate entire, Flowers racemose
 2760 Leaves pinnate, Flowers very large in cymes
 2761 Rad. leaves lin. spatulate entire, Flowers $\frac{1}{2}$ -whorled in 3-flowered alternate parcels

- 2762 Branches erect, Leaves ovate serrated flat
 2763 Much branched diffuse, Branches divaricating recurved, Leaves subulate

- 2764 Leaves linear ciliated upright, Flowers sessile
 2765 Diffuse, Leaves ovate recurved toothed, Flowers terminal aggregate
 2766 Leaves lanceolate ciliated entire decurrent, Flowers solitary terminal
 2767 Leaves ovate toothed reflexed smooth, Flowers terminal solitary

- 2768 Erect smooth, Leaves ovate acute toothed serrated, Axillæ bearded, Sepals subulate filiform
 2769 Erect pubescent, Branches angular, Lower leaves lyrate, Upper obovate acute

- 2770 A small herbaceous plant with large entire radical leaves

- 2771 Leaves lanceolate entire or toothed fleshy smooth, Cor. hairy outside

- 2772 Stems diffuse branching, Racemes axillary and terminal
 2773 Stem rounded branched leafy, Radical leaves spatulate: cauline lanceolate

- 2774 Smooth, Bractes of the dichotomies distinct, Leaves lyrate or toothed-cut at base

- 2775 Leaves obovate smooth entire
 2776 Spikes terminal and axillary, Leaves fleshy obovate toothed
 2777 Leaves alternate obovate toothed smooth, Fruit very small
 2778 Leaves entire obovate thick rough, Drupe berried (*Goodenia calendulacea*.)



and Miscellaneous Particulars.

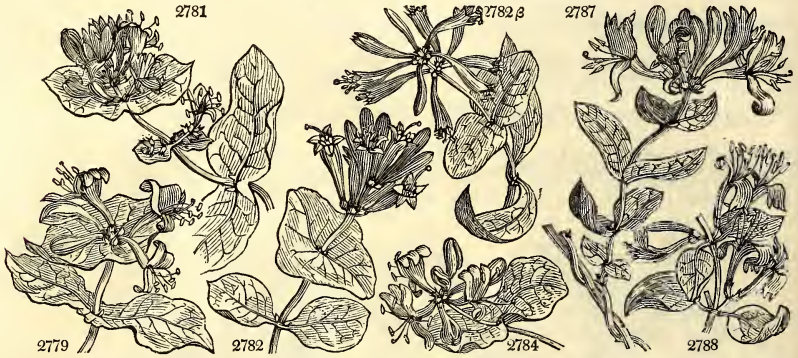
470. *Dampiera*. Named by Mr. Robert Brown, in honor of Captain William Dampier, a famous voyager, whose knowledge and attention, in matters connected with botany, are attested by the remains of the collections made during his voyages, and now preserved in the Sherardian Herbarium at Oxford.

471. *Samolus*. Derived from two Celtic words, *san*, salutary, and *mos*, pig; a plant which is salutary to pigs. Pliny says, it was considered among the Gauls as a specific in all maladies of swine. The plant was collected with mystic ceremonies. S. Valerandi was named after Dourez Valerand, a botanist of the 16th century, mentioned by Bauhin. Small marsh plants with white flowers.

472. *Velleia*. Named by Sir James Smith, after Major Velley, a gentleman who paid much attention to marine algae. The genus resembles *Goodenia* in appearance.

473. *Scavola*. So named from *scava*, the Latin word to express the left hand, the flower having the appearance of being defective of one half of its corolla. An extensive New Holland genus resembling *Goodenia*.

474. CAPRIFOLIUM. <i>R. S. HONEY-SUCKLE.</i>		<i>Caprifoliaceæ. Sp. 11.</i>	
2779 italicum <i>R. S.</i>	white-Italian	or 10	my.jn P.Y England woods. C co Eng. bot. 799
β rābrum	red-Italian	or 10	my.jn R S. Europe ... C co Schm. arb. t. 106
2780 etrōscum <i>R. S.</i>	Roman	or 15	my.jn O Italy ... C co
2781 diocōm <i>R. S.</i>	small-flowered	or 6	jn.jl Pu N. Amer. 1766. C co Bot. reg. 138
2782 sempervirens <i>R. S.</i>	trumpet	or 15	my.au S N. Amer. 1656. C s.p Bot. mag. 781
β minus	small-trumpet	or 15	my.au S Carolina 1656. C s.p Bot. mag. 1753
2783 grātum <i>R. S.</i>	evergreen	or 20	ju.au R N. Amer. 1730. C s.l H. an. 15.n.10.t.8
2784 flavum <i>B. M.</i>	bright-yellow	or 10	my.jn Y Carolina 1810. C s.l Bot. mag. 640
2785 pubescens <i>Hook.</i>	hairy-yellow	or 20	my.jn Y Canada 1822. C co Hook. ex. fl. 27
2786 implexum <i>R. S.</i>	Minorca	or 8	jn.s R.Y Minorca 1772. C s.l Bot. mag. 640
2787 Periclymenum <i>R. S.</i>	Woodbine	or 20	my.jl Y Britain hedg. C co Eng. bot. 800
β serotinum	late-red	or 20	my.jl Y.R C co Schm. arb. t. 108
γ bēgicium	Dutch	or 20	my.jl Y.R C co Ho. an. 15.n.5.t.6
δ que. cifolium	Oak-leaved	or 20	my.jl Y.R C co
2788 japonicum <i>R. S.</i>	Japanese	or 15	jl.s O China 1806. C p.l Bot. reg. 70
2789 flexuosum <i>Ker.</i>	flexuose	or 15	jl.s O China 1806. C p.l Bot. reg. 712
475. LONICERA. R. S. LONICERA.		<i>Caprifoliaceæ. Sp. 8—19.</i>	
2790 Xylōstem <i>W.</i>	Fly	or 8	jn.jl Y England woods. C co Eng. bot. 916
2791 pyrenāica <i>W.</i>	Pyrenean	or 4	my W Pyrenees 1739. C co Magn. hort. 209
2792 alpigena <i>W.</i>	red-berried	or 6	ap.my Y Switzerl. 1596. C s.l Schm. arb. t. 112
2793 cærūlea <i>W.</i>	blue-berried	or 4	mr.ap Y Switzerl. 1629. C co Bot. mag. 1965
2794 nīgra <i>L.</i>	black	or 4	mr Pa.Y Switzerl. 1597. C co Schm. arb. 110
2795 tatārica <i>L.</i>	Tartarian	or 10	ap.my Pk Russia 1752. C co Bot. reg. 31
β rābra	red	or 10	ap.my R Russia 1752. C co
2796 cillāta <i>Psh.</i>	ciliated	or 4	ap.my W.R N. Amer. 1824. C co
β alba	white-berried	or 4	ap.my W.R N. Amer. 1824. C co
2797 ibērica <i>Bieb.</i>	Iberian	or 6	ap.my O Iberia 1824. C co
476. SYMPHORIA. Ph. ST. PETER'S WORT.		<i>Caprifoliaceæ. Sp. 3.</i>	
2798 glomerāta <i>Ph.</i>	common	or 4	au.s Pk N. Amer. 1730. C s.l Schm. arb. t. 115
2799 racemōsa <i>Ph.</i>	Snow-berry	or 4	jl.s Pk N. Amer. 1817. C s.l Bot. mag. 2211
2800 punicea <i>Sims.</i>	crimson	or 4	jl.s R N. Amer. 1815. C s.l Bot. mag. 2469
477. DIERVIL'LA. J. DIERVILLA.		<i>Caprifoliaceæ. Sp. 1.</i>	
2801 hūmilis <i>P. S.</i>	yellow-flowered	or 3	jn.jl Y N. Amer. 1739. C s.l Bot. mag. 1796
478. TRIOS'TEUM. W. FEVERWORT.		<i>Caprifoliaceæ. Sp. 2—3.</i>	
2802 perfoliātum <i>W.</i>	perfoliate	cu 2	jn.jl D.R N. Amer. 1730. D p.l Schk. ha. 1. t. 41
2803 angustifolium <i>W.</i>	narrow-leaved	cu 1	jn.jl Y Virginia 1699. D p.l Plu. al. t. 104. f.2
479. COFFEA. W. COFFEE-TREE.		<i>Rubiaceæ. Sp. 2—28.</i>	
2804 arābica <i>W.</i>	Arabian	or 20	au.n W Yemen 1696. S r.m Bot. mag. 1303
2805 occidentālis <i>W.</i>	western	or 6	... W W. Indies 1793. C lp Jac. amer. t. 47



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474. *Caprifolium*. A poetical name, signifying goat-leaf; that is to say, a leaf which climbs like a goat. *Chevrefeuille*, Fr., *Geisblatt* or *Baumillie*, Ger., and *Caprefoglio*, Ital. This is a beautiful genus of flowering odoriferous mostly twining shrubs, valuable in the flower garden, shrubbery, and against walls, arbors, or trunks of trees. Like most British twiners, the honeysuckle follows the sun. Like other twiners, it bears pruning well, for, as Professor Martyn observes, "those plants which in a state of nature cannot ascend without the assistance of others, are often liable to lose large branches; they have therefore a proportionate vigor of growth to restore accidental damages." Against a wall, the climbing kinds are very liable to attacks from aphides, and the caterpillar of *Phalœna tortrix*; and the sphinges, or hawkmoths, according to Withering, extract the honey from the very bottom of the tubular flowers with their long tongues.

In raising the honeysuckle from seeds, they should be sown the autumn after they are ripe, otherwise they will not come up the first year. Cuttings are sometimes apt to rot, owing to water lodging in their tubular stems above the last joint. To obviate this inconvenience, some make the cuttings of double the usual length, and insert both ends in the ground, leaving the part above ground in the form of a semicircle. Commonly, however, such cuttings root only at one end; or if at both, but very weakly at what was the top end.

475. *Lonicera*. Named after Adam Lonicer, a German, who was born in 1528, and died in 1586. There was another Lonicer, John, who wrote commentaries upon Dioscorides. A section of what was formerly called *Lonicera*, comprising the species with a shrubby upright stem, neither climbing nor prostrate plants. All hardy and easily increased by layers or cuttings.

476. *Symphoria*, is a syncope of *symphoricarpos*, from *συν*, together, *φειω*, to bear, and *καρπος*, fruit; a plant which bears its fruit together in clusters. A small genus of low branching shrubs, formerly constituting part of *Lonicera*.

477. *Diervilla*. Dierville, a French surgeon, travelled in Acadia, whence he sent this plant to his friend Tournetfort, who named it after him. A pretty low shrub, with yellow flowers appearing in the spring.

478. *Triosteum*. From *τρις*, three, and *οστρον*, bone, three bones, on account of its three hard seeds. The roots of this genus and of *Diervilla* are used indiscriminately in N. America for *Ipecacuanâ*. (*Viola. Ipec.*)

479. *Coffea*. An alteration of the Arabic name *qahoueh*, which is the name for the liquor of coffee; the grain is called *boun*. *Cahwa*, Pers., *Cahvey*, Turk., and *Elcaue*, Egypt.

2779 Flowers whorled terminal, Leaves deciduous, the upper perfoliate

2780 Heads term. generally 3 together, Lvs. decid. pubes. opp. upper perfo. smooth, lower with stalks only conn.

2781 Whorls in heads with bractæ, Lvs. deciduous glaucous beneath, Upper perfoliate, Cor. gibbous at base

2782 Spikes nearly naked terminal, Lvs. oblong evergreen, the upper perfoliate, Tube of cor. ventricose above

2783 Flowers whorled terminal, Leaves evergreen obovate glaucous beneath, Upper perfoliate

2784 Whorls in heads, Cor. ringent, Segm. obl. obt. Lvs. deciduous ovate glaucous beneath, Upper perfoliate

2785 Whorls terminal capitate glandular, Leaves pubescent the upper connate perfoliate

2786 Flowers capitate terminal, Leaves evergreen all distinct

2787 Flowers capitate terminal, Leaves deciduous all distinct

2788 Flowers in pairs terminal sessile, Leaves evergreen all distinct

2789 Flowers sessile with distinct berries, Leaves ovate entire smooth, Stem wavy

2790 Pedunc. 2-flowered longer than flowers, Leaves entire ovate-elliptical pubescent

2791 Pedunc. 2-flowered, Leaves obovate lanceolate smooth glaucous beneath

2792 Berries united, Leaves oval-lanceolate

2793 Berries globose united, Styles undivided

2794 Leaves elliptical entire

2795 Leaves cordate obtuse

2796 Leaves ovate and cordate ciliated, Cor. with an evident spur

2797 Pedunc. 2-flowered shorter than flowers, Berries twin, Leaves cordate roundish tomentose

2798 Flowers axillary capitate clustered

2799 Raceme terminal, Cor. bearded inside

2800 Leaves cordate ovate, Berries distinct, Pedunc. axillary 2-flowered shorter than leaf

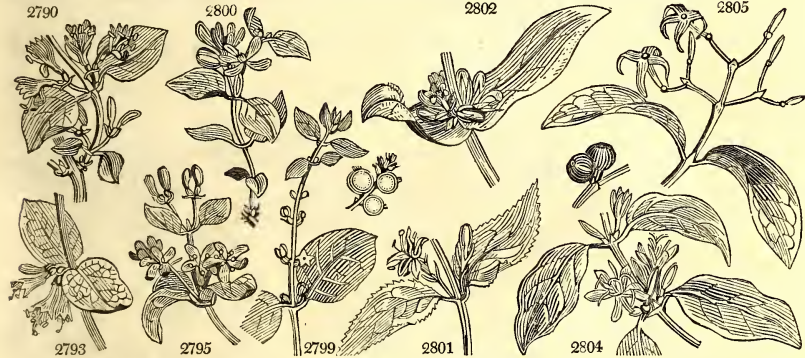
2801 The only species. Racemes terminal, Leaves serrated

2802 Leaves oval acuminate, Leaves abruptly narrowed at base, Axillæ 1-many-flowered

2803 Stem hispid, Leaves oval-lanceolate somewhat connate, Axillæ 1-flowered

2804 Leaves oblong ovate acuminate, Peduncles axillary aggregate, Cor. 5-cleft

2805 Leaves oblong lanceolate acuminate, Panicle few-flowered trifid terminal, Cor. 4-cleft



and Miscellaneous Particulars.

C. arabica is an erect, conica-shaped, low tree, with a light brown bark, and opposite, oblong, wavy, shining, light green leaves; flowers in clusters at the base of the leaves, white, of a grateful odor, but of short duration; berries green, red when fully grown, and black when ripe. A decoction of this berry forms the well known beverage which is said to have been drank in Ethiopia from time immemorial. It was introduced into Arabia from Persia about the middle of the 15th century, and proceeded by Mecca, Medina, and Grand Cairo, Damascus, and Aleppo to Constantinople, where two coffee-houses were opened in 1554. It is thought to have been introduced to Venice soon after 1615: it was known at Marseilles in 1644, and Thevenot, a French traveller, brought it to Paris in 1657. Till 1660, it was drank by such only as had been accustomed to it in the Levant. About the end of the 17th century a coffee-house was opened at Paris, by one Pascal, an Armenian, who, not succeeding, came to London, where coffee had been previously introduced by Daniel Edwards, a Turkey merchant, who brought home with him a Greek servant, Pasqua Roffee, who understood the roasting and making of coffee, and afterwards set up a coffee-shed, which he was enabled in time to turn to a house in the churchyard of St. Michael's, Cornhill. In 1688 Ray affirms that London might rival Grand Cairo in the number of its coffee-houses.

The coffee-tree was first introduced to Europe through the Dutch, who procured some berries at Mocha to be sown at Batavia; which being done in the year 1680, Governor Witsen presented a plant to the botanic garden of Amsterdam, where it bore fruit and produced many young plants. From these the East Indies and most of the gardens of Europe have been furnished. Coffee was afterwards cultivated by the Dutch in Surinam in 1718, and by the French in Cayenne and the Mauritius soon afterwards. It was next grown in Martinique, and so spread to the neighbouring islands and to Jamaica in 1730, or earlier. The plants are raised from seeds, then transplanted into nurserylines. Plantations are made chiefly on hills and the skirts of mountains, and, if possible, where the soil is moist and shaded. The trees are planted from five to ten feet apart, according to the goodness of the soil and situation. They produce fruit the next year after planting; and the produce of a good tree is from $1\frac{1}{2}$ to 2 lbs. of berries. The berries are gathered when they begin to fall, and in this state their pulpy bark begins to shrivel. They are further dried under sheds, and there passed between wooden rollers to separate the husk from the kernel; and afterwards sifted, winnowed, and put into casks for sale. In Arabia the plant and berries are much smaller than in the West Indies, and the flavor in

480. CHIOCOC'CA. W.	SNOW-BERRY.				<i>Rubiaceæ.</i>	Sp. 1-7.			
2806 racemosa W.	cluster-flower'd	☐	or	6	f	W	Jamaica	1729.	C p.l Hook ex. fl. 93
481. SERISSA. W.	SERISSA.				<i>Rubiaceæ.</i>	Sp. 1.			
2807 fr'tida W.	Japanese	☐	or	2	my.s	W	Japan	1787.	L r.m Bot. mag. 361
β flore-pleno	double-flower'd	☐	or		my.s		Japan	1787.	L r.m
482. CAN'THIUM. Pers.	CANTHIUM.				<i>Rubiaceæ.</i>	Sp. 2-4.			
2808 chinése Pers.	spiny	☐	or	3	jl.s		China	1804.	C r.m Thun. G. t. 2. f. 4
2809 dumetorum Roxb.	thicket	☐	or	3	jl.s		E. Indies	1777.	C r.m Roxb. cor. t. 136
483. PSYCHOTRIA. W.	PSYCHOTRIA.				<i>Rubiaceæ.</i>	Sp. 8-100.			
2810 asiática W.	Indian	☐	or	4	...	W	W. Indies	1806.	C l.p Lam. ill. t. 161
2811 citrifolia W.	Citron-leaved	☐	or	4	...	W	W. Indies	1793.	C r.m
2812 parasitica W.	parasitic	☐	or	3	my.au	W	W. Indies	1802.	C l.p
2813 brachiata W.	cross-branched	☐	or	7	...	W.y	W. Indies	1793.	C l.p
2814 herbacea W.	herbaceous	☐	or	1	ap.jn	W	Jamaica	1793.	C l.p Jac. amer. t. 46
2815 pubescens W.	pubescent	☐	or	6	...	Y.g.	Jamaica	1812.	C l.p
2816 undata Jacq.	wavy	☐	or	3	my.jn	W	Bahamas	1823.	C l.p Jac. sch. 3. t. 260
2817 elliptica B.R.	elliptical	☐	or	3	my.jn	G	Brazils	1821.	C l.p Bot. reg. 607
484. HAMEL/LIA. W.	HAMELLIA.				<i>Rubiaceæ.</i>	Sp. 4-7.			
2818 patens W.	spreading	☐	or	5	jl.au	S	Hispaniola	1752.	C p.l Ex. bot. 1. t. 24
2819 sphaerocarpa P. S.	round-fruited	☐	or	10	jl.au	O	Mexico	1811.	C p.l Fl. per. 2. t. 291
2820 ventricosa Swz.	large-flowered	☐	or	8	s.n	Y	W. Indies	1778.	C p.l Bot. mag. 1894
2821 chrysantha Swz.	yellow	☐	or	8	o.d	Y	Jamaica	1822.	C p.l Jacq. ic. 2. t. 335
485. POSOQUE'RIA. Aub.	POSOQUERIA.				<i>Rubiaceæ.</i>	Sp. 1-3.			
2822 longiflora Aub.	long-flowered	☐	or	6	...	W	Guiana	1822.	C p.l Aubl. gui. t. 51
486. VANGUIERA. W.	VANGUIERA.				<i>Rubiaceæ.</i>	Sp. 2.			
2823 edulis W.	eatable	☐	or	15	...	G	India	1809.	C p.l Lam. ill. t. 159
2824 spinosa Hort.	prickly	☐	or	4	jn.jl	G	Madagas.	1816.	C p.l
487. GARDE'NIA. P. S.	GARDENIA.				<i>Rubiaceæ.</i>	Sp. 12-41.			
2825 radicans W.	rooting	☐	or	1	mr.jn	W	China	1804.	C r.m Bot. reg. 73
2826 florida W.	Cape Jasmine	☐	or	5	jl.o	P.Y	China	1754.	C l.p Bot. reg. 449
β flore pleno	double	☐	or	5	jl.o	P.Y	China	1754.	C l.p Ehret. pict. t. 15
2827 Thunbergia W.	starry	☐	or	6	ja.mr	W	C. G. H.	1773.	C l.p Bot. mag. 1004
2828 latifolia W.	broad-leaved	☐	or	7	...	W	E. Indies	1787.	C r.m Rox. cor. 2. t. 134
2829 Rothmännia W.	spotted-flower.	☐	or	10	jl	P.Y	C. G. H.	1774.	L p Th.ac.st. 1776. t. 2
2830 uliginosa W.	marsh	☐	or	3	jl.s	W	E. Indies	1802.	C l.p Roxb.cor. 2. t. 135
2831 armata Sw.	armed	☐	or	10	...	W	W. Indies	1813.	C l.p
2832 micrantha W.	small-flowered	☐	or	4	...	W	China	1806.	C r.m Th. g. n. 8. t. 1. f. 1
2833 amœ'na B. M.	crimson-tipped	☐	or	4	jn.au	Pk	China	...	C r.m Bot. mag. 1904
2834 hexandra W.	hexandrous	☐	or	6	jl.s	W	S. Amer.	1803.	C r.m
2835 campanulata Roxb.	bell-flowered	☐	or	...	...	W	E. Indies	1815.	C r.m
2836 angustifolia Lodd.	narrow-leaved	☐	or	3	jl	W	.....	1823.	C r.m Bot. cab. 512
488. GENI'PA. P. S.	GENIP-TREE.				<i>Rubiaceæ.</i>	Sp. 2-5.			
2837 americana P. S.	American	☐	or	30	...	P.Y	S. Amer.	1779.	C l.p Pl. ic. 127. t. 136
2838 Meriana P. S.	hairy	☐	or	10	...	W	Cayenne	1800.	C l.p
489. OXYAN'THUS. Dec.	OXYANTHUS.				<i>Rubiaceæ.</i>	Sp. 1.			
2839 speciosus H. K.	tube-flowered	☐	or	3	jl	W	S. Leone	1789.	C p.l Lind. coll. 13



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consequence greater; bulk being, in these richer soils and more humid climates, obtained at the expence of flavor. In our stoves the coffee-tree is raised from the berry, which must be sown soon after being gathered; otherwise if kept six weeks it loses its vital powers. Cuttings of ripened wood root in sand under a glass in moist heat: transplanted, and furnished with plenty of water and pot room, they flower and fruit abundantly.

480. *Chiococca*. Snowberry, (χιον, snow, and κοκκος, berry). Its berries are of a bright whiteness.

481. *Serissa*. A name of Comerson's, the meaning of which is not known. The genus is remarkable for the trifid segments of corolla.

482. *Canthium*. From *canti*, the Malabar name of the plant. Spiny rigid plants with small opposite leaves, and solitary, sessile, usually fragrant, white flowers.

483. *Psychotria*. From ψυχο, life; in allusion to the powerful medicinal effects of one of the species, P. emetica; or, as others say, from ψυχοροζον, an ancient name for an herb loving shade. The genus consists of a great number of stove plants, nearly all bearing white flowers. Some of them are very beautiful on account of their foliage: one species, P. parasitica, is parasitical upon trees in the West Indies.

484. *Hamellia*. In honor of the celebrated Henry Louis Du Hamel Du Monceau, born in 1700, died in 1782, author of numerous works on vegetable physiology. The genus consists of handsome shrubs of the West Indies, with tubular yellow or orange-colored flowers.

485. *Posoqueria*. The Galibis in French Guiana call this plant *aymara-posoqueri*. A fine shrub, with white flowers more than a foot long, and an eatable yellow berry as big as a hen's egg.

2806 Leaves ovate acuminate, Racemes subdivided axillary 1-sided nodding

2807 Leaves opposite ovate lanceolate, Stipules spiny, Flowers axillary sessile

2808 Spiny, Flowers sessile hairy

2809 Spiny, Leaves ovate wedge-shaped obtuse, Sepals leafy, Berries crowned

2810 Stipules emarginate, Leaves lanceolate ovate

2811 Stipules ovate persistent, Leaves elliptical acuminate subcoriaceous, Berries ribbed

2812 Stipules stem-clasping retuse, Leaves ovate acuminate succulent veinless, Cymes stalked as long as leaves

2813 Stipules ovate oblong bifid, Raceme terminal compound, Flowers clustered sessile

2814 Stem herbaceous creeping, Leaves cordate stalked

2815 Stipules 2-toothed, Leaves lanceolate ovate acuminate pubescent, Panicles cymose spreading

2816 Stipules connate entire deciduous, Leaves oblong ribbed wavy acuminate

2817 Leaves ellipt. narrowed each way, Panicles term. erect lax brachiate shorter than the leaves

2818 Racemes terminal colored, Leaves 3 together villous pubescent

2819 Branches rounded, Leaves ternate oblong hairy on both sides, Flowers corymbose

2820 Racemes terminal and axillary, Cor. campanulate ventricose, Leaves ternate

2821 Racemes terminal, Leaves oblong wedge-shaped acuminate smooth, Flowers stalked

2822 Stipules and leaves oblong-acuminate, Corymbs terminal about 6-flowered, Tube of cor. much curved

2823 Stem unarmed, Leaves large ovate stalked

2824 Stem spiny, Leaves small nearly sessile

2825 Leaves lanceolate, Cor. hypocrateriform, Cal. angular, Stem rooting

2826 Leaves elliptical, Cor. hypocrateriform, Sepals subulate lanceolate vertical

2827 Leaves elliptical, Cor. hypocrateriform, Calyx bursting at side, Sepals dilated at end

2828 Leaves obovate roundish, Cor. hypocrateriform, Sepals subulate bifidly keeled

2829 Leaves oblong, Stipules subulate. Sepals subulate rounded, Tube smooth dilated short

2830 Branches scarred with two spines at the end, Leaves oblong ovate obtuse, mouth of cor. villous

2831 Terminal spines of the branches 4, Sepals linear wedge-shaped, Flowers clustered

2832 Leaves elliptical acute at each end longer than the spines, Flowers sessile smooth

2833 Spines axillary straight shorter than the oval smooth leaf, Flowers terminal solitary

2834 Unarmed, Lvs. ovate pubescent beneath, Fls. usually hexandrous, Cor. hairy on each side, Tube short

2835 A fine species, of which no detailed character has yet been given

2836 Very like *G. florida*, from which it chiefly differs in being smaller with narrower leaves

2837 Leaves oblong lanceolate, Peduncles axillary many-flowered, Tube short

2838 All over hairs, Leaves oblong-obovate, Flowers clustered on the summit, Fruit rounded flat

2839 The only species, with very long white flowers



and Miscellaneous Particulars.

496. *Vanguiera*. An abbreviation of the Madagascar name of one species, *Voa-vanguier*. A fine looking bush, with broad, green, entire leaves. It is said to bear a fine fruit as big as an orange.

487. *Gardenia*. So named by Ellis, in honor of his friend and correspondent A. Garden, M. D. of Charleston, in Carolina, who sent home many new species of plants. This is a beautiful genus, and most of the species are highly odoriferous, and free flowerers. *G. florida*, on the first approach, smells like the flower of the orange, but on being more closely smelled to, like Narcissus. According to Thunberg, there are hedges of it in Japan, and the Japanese are very fond of it near their houses, and in the walks of their gardens. The fruit and seeds are used there to dye yellow. *G. Rothmannia* smells most during night: it bears an ovate, fleshy, angular berry, black when ripe, and about the size of a small pear. Almost all the species are spiny in their wild state; but lose their spines at an advanced age, or under high culture and keeping. In the stove they require a moist heat to make them flower freely, as do the cuttings to make them strike. According to Sweet, the best way to flower the greenhouse species is to set them in a close frame on a little bottom heat, but not to plunge the pots.

488. *Genipa*. A name contrived by Plumier from the name, *Genepapo*, it bears in Guiana and Brazil. *G. americana* is an exceedingly rare plant in collections. It bears an excellent fruit, in much request in Dutch Guiana, where it is called Marmalade-box.

489. *Ozyanthus*. From *oëus*, acute, and *anθoc*, a flower, on account of the acute segments of the corolla. A genus divided from *Gardenia*, from which it is readily distinguished by the long tube of the flower.

490. RAN'DIA. P. S.	RANDIA.	long-flowered	♂	□	or	Rubiaceæ. Sp. 2—10.	4 aus	W	E. Indies	1796.	C	l p	Par. lond. 93
2840 longiflora P. L.		round-leaved	♀	□	or		12 my.jn	W	W. Indies	1733.	C	l p	Br. ja. 143.t.8.f.1
2841 latifolia P. S.													
491. MUSSËN'DA. W.	MUSSËNDA.	pubescent	♂	□	or	Rubiaceæ. Sp. 1—18.	3 mys.s	Y	China	1805.	C	p l	Bot. mag. 2099
2842 pubescens H. K.													
492. PINCKNEYA. Mi.	PINCKNEYA.	downy	♀	□	tm	Rubiaceæ. Sp. 1.	20 jn.jl		Georgia	1786.	L	p l	Mich. amer.t.13
2843 pubeus Mi.													
493. ERITHALIS. W.	ERITHALIS.	shrubby	♀	□	fr	Rubiaceæ. Sp. 1—4.	15 jl.au	W	Jamaica	1793.	C	p l	Br. jam. t. 17.f.3
2844 fruticosa W.													
494. WEBERA. W.	WEBERA.	corymbose	♂	□	or	Rubiaceæ. Sp. 2—4.	6 ...	W	E. Indies	1759.	C	l p	Rh. mal. 2. t. 23
2845 corymbosa W.		cymose	♀	□	or		20 ...	W	E. Indies	1811.	C	l p	
2846 cymosa W.													
495. PLOCAMA. W.	PLOCAMA.	pendulous	♂	□	or	Rubiaceæ. Sp. 1—3.	...	W	Canaries	1779.	C	l p	
2847 pèndula W.													
496. MORIN'DA. W.	MORINDA.	umbellèd	♂	□	or	Rubiaceæ. Sp. 3—8.	6 ...	W	E. Indies	1809.	C	l p	
2848 umbellata W.		broad-leaved	♂	□	or		8 ...	W	E. Indies	1793.	C	l p	Rhe. mal. 1. t. 52
2849 citrifolia W.		Laurel-leaved	♂	□	or		10 jl.o	W	W. Indies	1793.	C	r m	Jac. vind. 1. t. 16
2850 Rôyoc W.													
497. CEPHAE'LIS. W.	CEPHAELIS.	tall	♂	□	or	Rubiaceæ. Sp. 3—24.	15 ...	W	Jamaica	1793.	C	l p	
2851 elata W.		long-peduncled	♂	□	or		2 f ...	W	S. Leone	...	C	l p	Par. lond. 99
2852 pedunculata P. L.		calycine	♂	□	or		4 ap.my	W	Brazil	1816.	C	l p	Lind. coll. 21
2853 calycina Lindl.													
498. SARCOCEPHALUS	Afz. GUINEA-PEACH.	common	♂	□	fr	Rubiaceæ. Sp. 1.	15 ...	Pk	S. Leone	1822.	C	p l	Hor.trans.5.t.18
2854 esculentus Afz.													
499. HIRTEL'LA. W.	HIRTELLA.	American	♀	□	tm	Rosaceæ. Sp. 1—13.	25 ...	V	W. Indies	1782.	C	l p	Aub. gui. 1. t. 98
2855 americana W.													
500. TRIPHA'SIA. Lour.	TRIPHASIA.	three-leaved	♂	□	fr	Aurantiacæ. Sp. 1.	2 jn.jl	W	China	1798.	C	r m	Bot. rep. 143
2856 Auran tiola Lour.		Limonia trifoliata W.											
501. VIT'IS. P. S.	VINE.	common Grape	♂	□	fr	Viniferæ. Sp. 9—24.	30 jn.jl	G	Various	...	C	r m	Jac. ic. 1. t. 50
2857 vinifera W.		Indian	♂	□	or		20 ...	G	Indies	1692.	C	s l	Rhed. mal. 7. t. 6
2858 indica W.		downy-leaved	♂	□	fr		10 ...	G	N. Amer.	1656.	L	s p	Jac. schen. 426
2859 Labrúcia W.		Bland's Grape	♂	□	fr		10 ...	G	N. Amer.	1805.	L	s p	
β bicôis álbis		Fox-grape	♂	□	or		20 ...	G	N. Amer.	1656.	C	s p	Jac. schen. 425
2860 vulpina W.													



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490. *Randia*. So named in honor of Isaac Rand, F.R.S., who published the first catalogue of the Apothecaries' Garden at Chelsea.

491. *Mussenda*. A name by which Burmann designates a plant of this genus. *V. fl. Zeyl.* t. 76. The species are all of singular beauty, and especially distinguished by the large colored segment of the calyx, which is either white or purple, and very remarkable.

492. *Pinckneya*. So named by Michaux, after some American gentleman of the name of Pinckney, who is now forgotten. The genus is nearly the same as *Mussenda*. It thrives best, according to Sweet, when turned out against a south wall, and protected by a mat in frosty weather.

493. *Erithalis*. A name given by Pliny to a plant remarkable for the verdure of its foliage; *εετ*, a particle signifying augmentation, and *βαλλω*, to be green. It is now applied to a pretty genus of South American plants.

494. *Webera*. In honor of G. Henry Weber, a German botanist, who published *Flora Gotingensis*, in 1773, and other works of merit. He is chiefly known for the attention he bestowed upon mycology. Small plants with bunches of white flowers.

495. *Plocama*. From *πλοκαμος* interwined hair, on account of its pendulous twisted branches. A little bush with the habit of some kind of Galium. The flowers are very small, and not much longer than the calyx.

496. *Morinda*. *Morus indica*, Indian mulberry; so named by Vaillant, from the shape and color of its fruit. The bark of the roots of this genus is used in the E. Indies to dye yellow.

497. *Cephaelis*. From *κεφαλη*, a head, on account of the flowers being united in heads, remarkable for the large, often colored, involucrem in which they are enveloped. Species are very rare in collections; and require a high temperature.

498. *Sarcoccephalus*. From *σαρκος* flesh, and *κεφαλη*, a head, in allusion to the large fleshy fruit of the genus. This is like a pine-apple without its crown, of a dull uniform color, and consisting of a solid fleshy mass containing many minute seeds. The flavor is said to be excellent. A plant now common in gardens near London, but it has not yet fruited.

499. *Hirtella*. Derived from *hirtus*, hairy. Its branches are covered with fine hair. Some of these are tall trees of the tropics, usually supporting themselves upon other plants. Flowers, which are generally blue or purple, are rarely seen in this country. Cuttings root in sand under a hand-glass.

- 2840 Leaves ovate stalked, Spines curved, Flowers in terminal umbelled cymes
 2841 Spines of the branches terminal in pairs, Leaves ovate roundish, Cor. hypocrateriform
- 2842 Branches and leaves pubescent, Tube of corolla much longer than calyx
- 2843 A large tree with downy long leaves dividing but little into branches
- 2844 Leaves obovate, Cymes compound stalked terminal
- 2845 Leaves oblong acute, Corymb terminal
 2846 Leaves ovate acuminate, Cymes many-flowered axillary stalked
- 2847 A small shrub with the appearance of Galium
- 2848 Erect, Leaves lanceolate ovate, Flowers clustered.
 2849 Leaves ovate acuminate smooth on both sides, Flowers solitary
 2850 A long trailing plant with ovate entire smooth leaves
- 2851 Heads globose terminal, Peduncles elongated, Involucre 2-leaved, Leaves smooth
 2852 Leaves coriaceous lanceolate smooth, Heads on very long stalks
 2853 Heads not in an involucre so long as the flowers, Leaves lanceolate wavy
- 2854 The only species
- 2855 Racemes simple axillary solitary, Common peduncle villous, Leaves oblong, acuminate
 2856 Leaves 3-leaved
- 2857 Leaves sinuated naked
 2858 Leaves cordate toothed villous beneath, Tendrils bearing the fruit
 2859 Leaves cordate angular 3-lobed toothed, beneath downy clear white
- 2860 Leaves cordate 3-lobed coarsely toothed smooth, Teeth unequal with long-pointed divisions



and Miscellaneous Particulars.

500. *Triphasia*. A name of Loureiro, derived from *τριφασιος*, triple, on account of the triple divisions of its flowers, and ternary disposition of its leaves. It is the *Limonia trifoliata* of gardens, a common bush, sometimes covered over with the little orange berries, which have an agreeable orange-like taste.

501. *Vitis*. From the Celtic *gwyd*, a tree or shrub. The *G* being suppressed in the pronunciation, according to the usage of Celtic nations, the Latins have made of it *vitis*; the Spaniards *vid*; the French *vigne*; and the English *vine*. The term *muscat*, applied to particular kinds of grape, is not derived from the perfumed or musky flavor of those varieties, but from the berries attracting flies, *musca*, for which reason the Latins called the kind *vitis apiaria*.

V. vinifera is universally known for its fruit, and for producing the first liquor in the world; a liquor which, notwithstanding all that is said of its dangerous qualities, is yet eagerly drank by all who can procure it, and preferred before all others by those who are unlimited in their means and choice. The grape vine is among fruits what wheat is among the cereal grasses, or the potatoe among the farinaceous roots; and, like them, in every country where it will grow, it is cultivated with pre-eminent care. In Britain, its culture is now confined to the garden as a dessert fruit; though formerly grown in many places for the wine-press. Besides the *V. vinifera*, the *V. labrusca* (from *busca*, the Hebrew for grape) and *laciniosa* are all cultivated, and both are now so intermingled with the first species by hybrid products, that for all practical purposes they may be considered as only varieties.

The varieties of the grape in countries where it is grown for the wine-press, are almost as numerous as the vineyards; for as these for the most part differ in soil, aspect, elevation, or otherwise, and as the vine is greatly the child of local circumstances, its habits soon become adapted to those in which it is placed. When it is considered that a vineyard once planted will last two or three centuries, it will readily be conceived that the nature of a variety may be totally changed during only a part of that time. The varieties most in esteem for wine making, are small berries, and bunches with an austere taste. The Burgundy, as modified by different soils and situations, may be considered the most general vineyard grape of France, from Champagne or Marne to Marseilles and Bourdeaux. The best wine in Italy and Spain is also made from grapes of this description; but in both countries many of the larger berried sorts are grown as being more productive of liquor. The sweet vines, as the Malmsey, Madeira, Constantia, Tokay, &c. are made from sweet-berried grapes allowed to remain on the plants till over ripe. That wine is the strongest, and has most flavor, in which both the skins and stones are bruised and fermented. The same thing is the case in making cider; but in both processes bruising the stones or kernels is often neglected.

2861 cordifolia Ph.	Winter-grape	fr	or 10	...	G	N. Amer.	1866.	C s p	Jac. schen. 427
2862 riparia Ph.	sweet-scented	fr	or 20	my.jn	G	N. Amer.	1806.	C s p	Bot. mag. 2429
2863 rotundifolia Ph.	Bull-grape	fr	or 20	...	G	N. Amer.	1806.	C s p	
2864 laciniosa W.	Parsley-leaved	fr	or 20	jn.jl	G	.....	1648.	C s p	Schm. ic. 34. t. 8
2865 caesia Sab.	Sierra-Leone	fr	or 10	...	G	S. Leone	1822.	C s p	
502. AMPELOPSIS. Mich.	AMPELOPSIS.					Vinifera. Sp. 4-6.			
2866 cordata Mich.	heart-leaved	fr	or 20	ap.my	P.G	N. Amer.	1803.	C co	
2867 bipinnata Mich.	Pepper-vine	fr	or 15	jl.au	P.G	N. Amer.	1700.	C co	Act. bon. 3. t. 24
2868 quinquefolia Mich.	Virgin-creeper	fr	or 60	jn.jl	P.G	N. Amer.	1629.	C co	Corn. can. t. 100
2869 hirsuta Donn.	hairy	fr	or 60	ap.my	P.G	N. Amer.	1806.	C co	
503. RHAMNUS. W.	BUCK-THORN.					Rhamni. Sp. 24-70.			
2870 colubrina L.	Bahama red wd.	fr	tm 20	jn	G	Bahamas	1762.	L co	Jac. vind. 3. t. 50
2871 elliptica H. K.	oval-leaved	fr	or 5	au	G	Jamaica	1758.	L co	Brow. jam. t. 29
2872 erythroxylon Pall.	Red-wood	fr	or 6	jl.au	Y.g	Siberia	1823.	L co	Pall. ross. t. 63
2873 longifolia Desf.	long-leaved	fr	or 6	...	G	.....	1825.	L co	
2874 cathartica W.	purging	fr	or 15	my.jn	G	England	hed. 1762.	L co	Eng. bot. 1629
2875 infectoria W.	yellow-berried	fr	or 6	jn.jl	G	S. Europe	1683.	L co	Ard. me. 78. t. 14
2876 lycioides W.	Boxthorn-like	fr	or 6	s.d	G	Spain	1752.	L co	Cav. ic. 2. t. 182
2877 oleoides W.	Olive-leaved	fr	or 4	jn.jl	G	Spain	1752.	L co	
2878 crenulata W.	Teneriffe	fr	or 8	mr	G	Teneriffe	1778.	L p.l	
2879 saxatilis W.	rock	fr	or 1	my.jn	G	Europe	1752.	C co	Jac. aust. 1. t. 53
2880 Theezans W.	Tea	fr	or 3	my.jn	G	China	...	C p.l	
2881 tetragona W.	square-branch.	fr	or 6	...	G	C. G. H.	1816.	C p.l	
2882 lanceolata Ph.	spear-leaved	fr	or 12	...	G	N. Amer.	1812.	C p.l	
2883 alpina W.	Alpine	fr	or 3	my.jn	G	Switzerl.	1752.	L co	Hall. his. 1. t. 40
2884 pomila W.	dwarf	fr	or 1	jl	G	Carniola	1752.	L co	Jac. coll. 2. t. 11
2885 frangula W.	berry-bearing	fr	or 12	ap.my	W	Britain	woods. 1752.	S co	Eng. bot. 250
2886 latifolia W.	broad-leaved	fr	or 4	jl	G	Azores	1778.	L co	Dend. brit. 11
2887 glandulosa W.	Madeira	fr	or 15	jn.jl	G	Canaries	1785.	C p.l	Vent. malm. 34
2888 prinoides W.	Winter-ber.-lv.	fr	or 15	au.s	W	C. G. H.	1778.	C p.l	L'Her. sert. t. 9
2889 mystacina W.	wiry	fr	or 13	n	W.G	Africa	1775.	S p.l	
2890 alnifolia W.	Alder-leaved	fr	or 4	my	G	N. Amer.	1778.	L co	
2891 hybrid	hybrid	fr	or 12	my.jn	G	.....	...	L co	L'Her. sert. t. 5
2892 Alaternus W. en.	bd.-lvd.-Alater.	fr	or 40	ap.jn	G	S. Europe	1629.	L co	
2893 Clusii W.	narrow-leaved	fr	or 30	ap.jn	G	S. Europe	1629.	L co	
504. CENOPTILIA. Mich.	CENOPLIA.					Rhamni. Sp. 2.			
2894 lineata W.	lined	fr	or 8	...	G	China	1804.	C l p	Osb. it. t. 7
2895 volubilis W.	twining	fr	or 15	jn.jl	G	Carolina	1714.	S s p	Jac. ic. 2. t. 336



History, Use, Propagation, Culture,

The varieties of dessert grapes on the continent are few: the best they have, as the Muscats and Frontignacs, have been obtained from this country. The Chasselas or frame grape (our Muscadine), is almost the only eating grape known in the Paris fruit market. In Britain, we have not our best varieties, but we grow the fruit to a larger size and of a higher flavor than is done any where else in the world. This is owing to the perfection of our artificial climates, and the great attention paid to soil and subsoil, and other points of culture.

The vine is universally propagated by cuttings, either a foot or more long, with a portion of two year old wood, or short with only one bud, or one bud and half a joint, &c. Varieties without end are raised from seed; and it is thought that by propagating from the seeds of successive generations some sorts may ultimately be procured better adapted for ripening their fruit in the open air than now known. A seedling vine carefully treated will show blossoms in its fourth or fifth year; say that it produces a fair specimen of its fruit in the sixth year, then a new generation may be obtained so often.

The vine will thrive in any dry soil, or in any soil with a dry subsoil; but it produces the best flavored fruit among granitic and calcareous fragments, and loamy soil in thin strata, with little manure, and when the vine is old and the berry and bunch small: on the contrary, the most luxuriant crops, large bunches and berries, in a good depth of friable loam, dry below and richly manured with the strongest of animal manures.

There are three methods of pruning the vine in hot-houses; the fruit tree method, in which the plant is spread out in the fan manner, and treated like a common fruit tree; the long or young wood method, in which all the wood above a year old is cut out down to the stool or stock; and the spurring-in method, in which the fruit is produced from young wood grown annually from the sides of a main shoot or shoots of old wood. The two last methods are the best.

Vitis vulpina, the foxgrape, (so called from the foxy flavor of its berries) is cultivated much in North America, of which country it is a native. Many improved varieties have been raised by the American gardeners, and have been sent to Europe under the name of the Bland, the Isabella, the Oswego Tokay, &c. &c.; but they are all tainted with the bad taste peculiar to the species, and can be in no estimation when even an early July grape is to be procured.

502. *Ampelopsis*. From *αμπελος*, a vine, and *οψις*, resemblance. The genus resembles the vine in habit, leaves, and flowers; is commonly employed for covering old walls, for which the rapidity of its growth renders it very suitable.

503. *Rhamnus*. From the Celtic *ram*, signifying branching. From this word the Greeks have gained *ραμνος*, the Latins *ramus*, and the French *rame*, or in old French *reim*; for which reason the arms of the

- 2861 Leaves cordate acuminate nearly equally toothed smooth on both sides, Racemes loosely many-fruited
 2862 Leaves unequally cut toothed shortly trifid, Stalk nerves and edge pubescent
 2863 Leaves shining on both sides reniform cordate equally toothed, Flowers in many little heads
 2864 Leaves quinately, Leaflets many-cleft
 2865 Shoots very casious, Leaves cordate angular

- 2866 Leaves cordate acute toothed 3-lobed, Nerves villous beneath, Racemes twin bifid
 2867 Leaves bipinnate smooth, Leaflets cut-lobed, Racemes stalked twin bifid
 2868 Leaves palmate 3-5-leaved smooth on both sides, Leaflets stalked oblong acuminate
 2869 Leaves palmate 3-5-leaved on each side pubescent, Leaflets ovate acuminate coarsely toothed

- 2870 Flowers monogynous hermaphrodite erect, Caps. 3-coccous, Stalks rusty tomentose
 2871 Flowers hermaphrodite trigynous axillary in umbels, Leaves elliptical acute entire villous beneath
 2872 Spines terminal, Leaves linear-lanceolate serrate acute
 2873 Unarmed, Leaves lanc. acute at each end serrate with hairs at the axilla, Flowers axillary clustered
 2874 Spines terminal, Flowers 4-cleft diœcious, Leaves ovate, Stem erect, Berry 4-seeded
 2875 Spines terminal, Flowers 4-cleft diœcious, Stems procumbent
 2876 Spines terminal, Leaves linear entire obtuse
 2877 Spines terminal, Leaves oblong entire
 2878 Branches spiny, Flowers 4-cleft or trifid diœcious, Leaves oblong obtuse evergreen
 2879 Spines terminal, Flowers 4-cleft hermaphrodite
 2880 Spines terminal, Leaves ovate serrulate, Branches divaricating
 2881 Leaves ovate entire smooth sessile, Branches square
 2882 Unarmed, Leaves lanceolate serrulate acute at each end pubescent beneath
 2883 Flowers diœcious, Leaves ovate-lanceolate glandular crenulate
 2884 Creeping, Flowers hermaphrodite, Leaves stalked ovate crenate
 2885 Flowers monogynous hermaphrodite, Leaves entire smooth, Berry 2-seeded
 2886 Flowers monogynous hermaphrodite, Cal. villous, Leaves elliptical entire acuminate rounded at base
 2887 Flowers hermaphrodite racemose, Leaves ovate bluntly serrated smooth at the base glandular
 2888 Flowers polygamous, Style triple, Leaves ovate serrated
 2889 Flowers hermaphrodite, Stigma triple, Leaves cordate, Branches with tendrils
 2890 Flowers hermaphrodite, Leaves oval acuminate serrated veiny beneath
 2891 Flowers hermaphrodite, Leaves oblong acuminate scarcely perennial
 2892 Flowers diœcious, Stigma triple, Leaves evergreen elliptical serrated acute at the base obtuse
 2893 Flowers diœcious, Stigma triple, Leaves evergreen lanceolate acute at each end mucronate toothed

- 2894 Leaves ovate ribbed veiny repand, Flower-stalks one flowered, Stem erect
 2895 Diœcious unarmed, Stem twining, Leaves ovate mucronate repand subcrenate striated



and Miscellaneous Particulars.

town of Rheims are two branches intertwined. *R. catharticus* was formerly used in medicine, and is still employed in color-making, and sometimes in dying. The juice of the unripe berries has the color of saffron, and is used for staining maps or paper. They are sold under the name of French berries, as those of *R. Clusii* are, under the name of Avignon berries. The juice of the French berries when ripe, and mixed with alum, is the sap green of the painters; but if the berries be gathered late in the autumn, the juice is purple. The bark affords a beautiful yellow dye. The inner bark, like that of elder, is said to be a strong cathartic, and to excite vomiting. The berries operate briskly with stool, but occasion thirst and griping. It is said by Woodville that the flesh of birds which feed on them is purgative.

R. lycioides furnishes the wood of which the Monguls make their images, on account of its hardness and orange red color.

R. saxatilis greatly resembles *R. catharticus*. The berries are used to dye the Maroquin or Morocco leather yellow.

R. theezans has leaves like the common tea, which are used as such by the poor of China, and called Tia. (Osbeck.)

R. frangula has dark purple berries, which are purgative, like those of the common buckthorn. Gathered before they are ripe they dye wool green and yellow; when ripe, blue-gray, blue, and green. The bark dyes yellow, and with preparations of iron, black. From a quarter to half an ounce of the inner bark boiled in small beer, is a sharp purge. In dropsies or constipations of the bowels in cattle, it is a very certain purgative. The flowers are particularly grateful to bees. Goats devour the leaves voraciously; and sheep will eat them. Charcoal prepared from the wood is used by the makers of gunpowder. The berries of this species, and also of the cornus, are said to be brought to market and sold for those of the buckthorn; but they are easily distinguished, the true buckthorn having four seeds, this two, and the cornus one.

R. hybridus is the offspring of *R. alpinus* and *alaternus*, first procured by L'Heritier about 1778. *R. alaternus* is an ornamental evergreen, with mellifluous blossoms, much frequented by bees. It is sometimes confounded with the *Phillyrea*; but they may be easily distinguished by the position of their leaves, which are alternate in these, but placed opposite by pairs in that. It is a rapid growing shrub, and useful for thickening screens, clothing walls, &c.

504. *Ænopia*. From *αινωπιος*, vinous. Its little fruit, full of juice, resembles the berry of a grape. The *Rhamnus volubilis* and *lineatus* belong to this genus, and are beautiful little climbing plants, but rather impatient of cold.

505. PALIURUS. <i>Gært.</i>	CHRIST'S-THORN.				<i>Rhamni. Sp. 1-4.</i>							
2896 australis <i>Gært.</i>	European	♂	or	4	jn.jl	P.G	S. Europe	1596.	S	co	Lam. illus. t.210	
506. ZIZYPHUS. <i>W.</i>	ZIZYPHUS.											
2897 Lótus <i>W.</i>	Lote-tree	♂	fr	4	...	P.Y	Africa	1731.	S	p.l	De.ac.s.1788.t.21	
2898 Napéca <i>W.</i>	oblique-leaved	♂	fr	15	...	W	Ceylon	1816.	C	l.p	Rum. amb. 2.t.37	
2899 Jájuba <i>W.</i>	blunt-leaved	♂	fr	6	ap.my	P.G	E. Indies	1759.	C	l.p	Rum. amb. 2.t.36	
2900 vulgaris <i>W.</i>	common	♂	fr	6	aus.	P.G	S. Europe	1640.	C	l.p	Pall. ross. 2. t. 59	
507. CELASTRUS. <i>W.</i>	STAFF-TREE.											
2901 lúcida <i>W.</i>	shining	♂	or	2	ap.s	W	C. G. H.	1722.	C	p.l	Meerb. ic. 1. t. 12	
2902 bulláta <i>W.</i>	Virginian	♂	or	20	jl	W	Virginia	1759.	L	s.l	Plu. alm. t.28.f.5	
2903 scánnides <i>W.</i>	climbing	♂	or	15	my.jn	W	N. Amer.	1776.	L	s.l	Sch. handb.1.t.47	
2904 cassinoides <i>W.</i>	crenated	♂	or	4	aus	W	Canaries	1739.	C	p.l	L'Hér.ser.6.1.t.10	
2905 tetragóna <i>P. S.</i>	four-sided	♂	or	6	...	W	C. G. H.	1816.	C	p.l		
2906 buxifólia <i>W.</i>	Box-leaved	♂	or	4	my.jn	W	C. G. H.	1752.	C	p.l	Bot. mag. 2114	
2907 pyracántha <i>W.</i>	Pyracantha-ldv.	♂	or	2	my.jn	W	C. G. H.	1742.	C	p.l	Bot. mag. 1167	
2908 cymósa <i>B.M.</i>	cymose	♂	or	3	jl	W	C. G. H.	1815.	C	p.l	Bot. mag. 2070	
508. SENA'CIA. <i>Lam.</i>	SENACIA.											
2909 unduláta <i>Lam.</i>	wave-leaved	♂	or	12	...	W	Bourbon	1785.	C	l.p		
2910 octogóna <i>Lam.</i>	angular-leaved	♂	or	6	o.n	G	Peru	1786.	C	l.p	Fl. per. 3. t. 229	
509. EUO'NYMUS. <i>W.</i>	SPINDLE-TREE.											
2911 japonica <i>W.</i>	Japan	♂	or	6	jn.au	G	Japan	1804.	C	p.l	Kæmpf ic. t. 8	
2912 europæa <i>W.</i>	European	♂	or	15	my.jl	G	Britain	hed.	S	s.l	Eng. bot. 362	
β pumila	dwarf	♂	or	4	my.jl	G	.....	.....	S	s.l		
2913 verrucósa <i>W.</i>	warted	♂	or	6	my.jn	G	Austria	1763.	L	p.l	Schm. arb. t. 72	
2914 latifólia <i>W.</i>	broad-leaved	♂	or	10	jn.jl	G	Austria	1730.	L	s.l	Bot. mag. 2384	
2915 atropurpúrea <i>W.</i>	purple	♂	or	6	jn.jl	Pu	N. Amer.	1752.	L	p.l	Schm. arb. t. 73	
2916 americana <i>W.</i>	evergreen	♂	or	6	jn.jl	Pk	N. Amer.	1683.	L	s.p	Schm. arb. t. 75	
2917 angustifólia <i>Ph.</i>	narrow-leaved	♂	or	6	jn.jl	G	N. Amer.	1806.	L	p.l		
510. CEANO'THUS. <i>W.</i>	CEANO'THUS.											
2918 americana <i>W.</i>	New Jersey Tea	♂	or	2	jl.o	W	N. Amer.	1713.	S	p.l	Bot. mag. 1479	
2919 intermédia <i>Ph.</i>	intermediate	♂	or	2	jn.jl	W	N. Amer.	1812.	C	l.p	Pl. alm. t. 28. f. 6	
2920 sanguinea <i>Ph.</i>	red-stalked	♂	or	2	my.jl	W	Missouri	1812.	C	l.p		
2921 micropkýlla <i>Ph.</i>	small-leaved	♂	or	12	jn.jl	W	N. Amer.	1806.	L	p.l		
2922 asiática <i>W.</i>	Asiatic	♂	or	1½	jl.au	Pa.Y	Ceylon	1691.	C	p.l	Cav. ic. 5. t. 440. f. 1	
2923 africána <i>W.</i>	African	♂	or	6	mr.ap	W	C. G. H.	1712.	C	p.l	Pl. ph. t. 126. f. 1	
2924 globulósa <i>H. K.</i>	round-headed	♂	or	6	ap.my	Co	N. Holl.	1803.	C	p.l	Lab. no. h.1. t.85	
2925 azúrea <i>Desf.</i>	blue	♂	or	10	ap	Pa.B	Mexico	1818.	C	p.l	Bot. reg. 291	
511. ST'A'AVIA. <i>W.</i>	STAAVIA.											
2926 radiáta <i>W.</i>	rayed	♂	or	2	my.jn	W	C. G. H.	1787.	C	p.l	Br. cen. 165. t. 82	
2927 glutinósa <i>W.</i>	clammy	♂	or	3	ap.my	Y	C. G. H.	1793.	C	p.l	Wend. coll. t. 22	



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505. *Paliurus*. Παλιυρος is the Greek name of a place. The city of Paliurus was situated on the coast of Africa over against Candia. *Paliurus australis* is a handsome free flowering, but very prickly shrub; it has broad roundish buckler-shaped seed-vessels, which have borders like the brims of a hat, the footstalks being fastened to the middle. From this singular appearance of the fruit, like a head with a broad-brimmed hat on, the French call it *porte chapreau*. This shrub is by many persons supposed to be that from which the crown of thorns which was put upon the head of Jesus Christ was composed; the truth of which is supported by many travellers of credit, who affirm that this is one of the most common shrubs in the country of Judea; and from the pliability of its branches, which may easily be wrought into any figure, it may afford a probability. Hasselquist, however, is of opinion, that it was a species of *Rhamnus*, called therefore by Linnæus *R. Spina Christi*.

506. *Zizyphus*. A name altered by the Greeks from *asaffa*, its name in the East. Vide *Shaw's Voyage*, 47. Suppl. It is called *Zizyph* in Arabic, *Golius*. *Z. Lotus*, is the true *Lotus* of the Lotophagi. It is a prickly branching shrub, with alternate, small, blunt, three-nerved leaves, solitary flowers, and the fruit a spherical drupe, the size of a wild plum, sweet and harmless; inclosing a small, round, bony, two-celled nucleus; first green, but when ripe tinged with saffron-color. It is found on the eastern as well as the western extremity of the African desert; and Major Rennel thinks he has seen it on the Ganges. Dr. Shaw found the fruit common in Barbary; it was sold in the markets, cattle fed with it, and a liquor drawn from it. Mr. Park found it very common in all the kingdoms which he visited; he describes the fruit as small farinaceous berries, of a yellow color and delicious taste. The natives, he says, convert them into a sort of bread, by exposing them some days to the sun, and afterwards pounding them gently in a wooden mortar, until the farinaceous part is separated from the stone. This meal is then mixed with a little water, and formed into cakes, which, when dried in the sun, resemble in color and flavor the sweetest gingerbread. A gruel is next made from the meal which still adheres to the stones. The Greeks supposed the people who ate the lotus to be confined to an extent of sea-coast on the north of Africa, including the gulphs of Syrtis. The plant grows readily in our greenhouses, and might be fruited if thought desirable. It is propagated by ripened cuttings planted in sand under a hand-glass.

2896 Prickles stipulary twin, one straight one recurved, Leaves ovate crenulate smooth stalked

2897 Prickles twin, one recurved, Leaves ovate oblong obsolete crenate

2898 Prickles in pairs recurved, Pedunc. corym. Fls. half digynous, Leaves ov. oblique smooth on both sides

2899 Prickles solitary recurved, Leaves rounded ovate obtuse downy beneath, Peduncles aggregate

2900 Prickles in pairs, one recurved, Leaves ovate retuse toothed smooth

2901 Leaves oval acute shining margined smooth, Flowers axillary

2902 Leaves ovate acute, Panicles terminal

2903 Leaves oblong acuminate serrated, Racemes terminal, Stem twining

2904 Leaves ovate acute at each end serrated evergreen, Flowers axillary

2905 Leaves ovate serrated, Branches square

2906 Spines axillary, the larger leafy, Leaves lanceolate obovate serrated obtuse, the younger acute

2907 Spines naked, Branches rounded acute

2908 Spines naked, Branches angular, Leaves obovate serrate toothed, Cymes axillary

2909 Leaves lanceolate stalked wavy at edge, Cymes umbelled terminal, Caps. 2-celled 2-seeded

2910 Leaves elliptical angular nerveless evergreen, Caps. 1-seeded

2911 Flowers 4-cleft, Leaves rounded ovate toothed

2912 Flower-stalks compressed 3-flowered, Flower usually tetrandrous, Leaves oblong-lanceolate smooth

2913 Flower-stalks filiform rounded, Leaves ovate acuminate smooth, Branches warted

2914 Flower-stalks filiform rounded many-fl. Lvs. ovate oblong acuminate, Branches smooth, Petals roundish

2915 Flower-stalks compressed many-flowered, Stigmas square truncated, Lvs. obl. acuminate pubes. beneath

2916 Flower-stalks rounded 3-flowered, Fl. pentan. Lvs. obl. lanc. smooth subsess. acute serr. Branches square

2917 Branches square, Leaves subsessile long linear elliptical subfalcate entire, Fruit warted

2918 Leaves ovate oblong acute subcordate serrate 3-nerved beneath soft with hairs, Corymbs contracted

2919 Leaves oblong acuminate mucronate serrulate 3-nerved, Corymbs loose

2920 Leaves obovate serrated pubescent beneath, Panicles on very short stalks, Branches deep red

2921 Decumbent smooth, Leaves very small in bundles oblong entire, Corymbs of the branches terminal

2922 Leaves ovate acuminate veiny, Cymes axillary

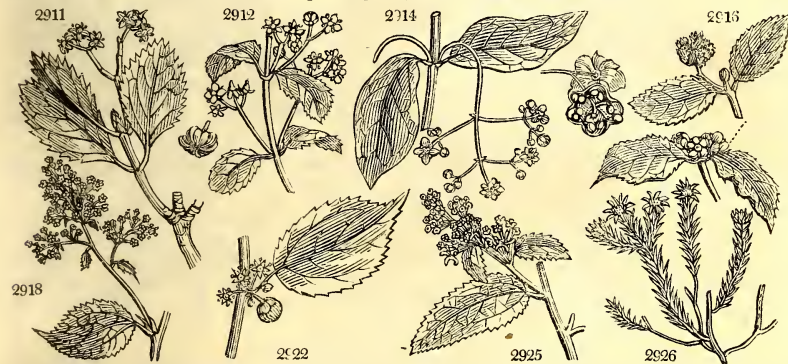
2923 Leaves lanceolate obtuse netted with veins, Panicle terminal

2924 Leaves obovate tomentose beneath, Heads of flowers in panicles

2925 Leaves oblong somewhat cordate serrate tomentose beneath, Racemes compound stalked

2926 Leaves lanceolate 3-cornered spreading, Ray of calyx shorter than the head

2927 Leaves linear lanceolate 3-cornered spreading, Ray of calyx longer than the head



and Miscellaneous Particulars.

Z. jujuba is a middle-sized tree, with ovate leaves, pale yellowish flowers, and red oval fruit, about the size of olives, inclosing a stone of the same shape. They are sweet, and eaten in the East Indies and China.

Z. vulgaris is a middle-sized branching tree, bearing a saffron-colored drupe shaped like an olive, but smaller. The plant grows wild in Calabria, and is cultivated in other parts of Italy, and in Spain. The fruit is eaten green or dried as a sweatmeat. It is common in China, Japan, Syria, &c. and is said to have been first introduced into Italy from the latter country in the time of Augustus. All the species are readily increased by ripened cuttings planted under a hand-glass.

507. *Celastrus*. From *κελαστός*, the latter season. The ancients considered the holly, the Genista, and the Celastros, the trees which ripened their fruit latest. The Celastros of the ancients is thought to have been a kind of *Eunonymus*, to which this genus is nearly allied. It consists of shrubs or small trees, with alternate leaves, and numerous small flowers. The plants are of easy culture, but of no great beauty.

508. *Senecia*. A genus divided by M. de Lamarck from *Celastrus*, and founded upon the *Celastrus undulatus* of L'Heritier.

509. *Eunonymus*. From *εὖ*, well, and *νόμιμα*, a name, well named. The application of the name is, however, obscure to us. *Eunonymus* was also a Heathen divinity; according to Epimenides she was the mother of the Furies by Saturn. *Fusain*, or *Bonnet de Prêtre*, Fr., *Spindelbaum*, Ger., and *Fusaggine*, Ital. The species form neat little trees of no great beauty or use. *E. europæa* is called prick-wood, from the use of the wood formerly as skewers. *E. americana* best merits culture, and next, *E. latifolia*. They are easily increased by seed or ripened cuttings.

510. *Ceanothus*. *Κεανωθός* is a name used by Theophrastus to designate a prickly plant, from *κεῖνω*, to prick. This is a genus of North American plants, one species of which, *C. americana*, is very common in gardens. The leaves are dried in Carolina and used as tea, and the root to dye wool a Nankeen cinnamon color. The species are of the easiest culture, but of very little beauty.

511. *Staavia*. Named after Martin Staaf, a correspondent of Linnæus. Little Cape shrubs, with heads of flowers resembling those of some compound plant. Young cuttings in sand, and covered with a bell, soon strike root.

512. POMADERRIS. <i>Lab.</i> POMADERRIS.				<i>Rhamni. Sp. 4.</i>													
2928	<i>apétala H. K.</i>	apetalous	☐	or	7	my.jn	Pa. Y	N. Holl.	1803.	C	s.p	Lab. no. h. 1. t. 87					
2929	<i>elliptica H. K.</i>	oval-leaved	☐	or	10	my.jl	Pa. Y	N. Holl.	1805.	C	s.p	Bot. mag. 1510					
2930	<i>lanigera B. M.</i>	woolly	☐	or	3	ap.jn	Pa. Y	N. Holl.	1806.	C	s.p	Bot. mag. 1823					
2931	<i>phycifolia Lodd.</i>	Phylica-leaved	☐	or	2	ap.jn	Pa. Y	N. Holl.	1819.	C	s.p	Bot. cab. 130					
513. MANGIFERA. <i>W.</i> MANGO-TREE.								<i>Terebinthaceae. Sp. 1—3.</i>									
2932	<i>indica W.</i>	Indian	☐		20	jn.s	R.G	E. Indies	1690.	S	r.m	Bot. rep. 425					
514. SCHREBERA. <i>Retz.</i> SCHREBERA.								<i>Celastrineae. Sp. 1.</i>									
2933	<i>billardieri Retz.</i>	whitish	☐		6	...	G	Ceylon	1824.	C	p.l	N. ac. h. 2. t. 4. f. 1					
515. BILLARDIERA. <i>Sm.</i> APPLE-BERRY.								<i>Pittosporaceae. Sp. 4.</i>									
2934	<i>scandens W.</i>	climbing	☐	or	12	jn.au	G	N. S. W.	1790.	S	s.p	Bot. mag. 801					
2935	<i>mutabilis H. K.</i>	changeable	☐	or	8	jn.s	Pu	N. S. W.	1795.	S	s.p	Bot. mag. 1313					
2936	<i>longiflora Lab.</i>	blue-berried	☐	or	20	jn.s	G	V. Di. L.	1810.	S	s.p	Bot. mag. 1507					
2937	<i>fusififormis Lab.</i>	spindle-fruited	☐	or	8	jn.au	B	V. Di. L.	1823.	S	s.p	Lab. n. h. 1. t. 90					
516. ELEODENDRUM. <i>W.</i> OLIVE-WOOD.								<i>Rhamni. Sp. 3—6.</i>									
2938	<i>A'gram W.</i>	spiny	☐	or	15	jl	G.Y	Morocco	1711.	C	lp	Com. hor. 1. t. 83					
2939	<i>orientale W.</i>	oriental	☐	or	12	...	W	Mauritius	1771.	C	p.l	Jac. ic. 1. t. 48					
2940	<i>australe H. K.</i>	thick-leaved	☐	or	3	jn.au	W	N. S. W.	1796.	C	s.l	Vent. malm. 117					
517. DIOSMA. <i>W. en.</i> DIOSMA.								<i>Diosmeae. Sp. 9—36.</i>									
2941	<i>oppositifolia W.</i>	opposite-leaved	☐	or	3	mr.jl	W	C. G. H.	1752.	C	p.l	Com. rar. 1. t. 1					
2942	<i>linearis W.</i>	linear-leaved	☐	or	1	mr.jl	W	C. G. H.	1800.	C	p.l	Com. rar. 1. t. 8					
2943	<i>hirsuta W.</i>	hairy-leaved	☐	or	4	mr.jl	Pk	C. G. H.	1731.	C	p.l	Com. rar. 3. t. 3					
2944	<i>pectinata W. en.</i>	pectinated	☐	or	1	ap.jn	W	C. G. H.	1812.	C	lp	We. co. pl. 1. t. 8					
2945	<i>ericoides W.</i>	Heath-leaved	☐	or	2	mr.jl	W	C. G. H.	1756.	C	p.l	Bot. mag. 2332					
2946	<i>cupressina W.</i>	Cypress-leaved	☐	or	1½	jn.jl	Pk	C. G. H.	1790.	C	p.l	Pl. al. t. 279. f. 2					
2947	<i>tenuifolia W. en.</i>	slender-leaved	☐	or	2	ap.jn	W	C. G. H.	...	C	p.l						
2948	<i>succulenta W. en.</i>	succulent-ldv.	☐	or	2	ap.jn	W	C. G. H.	...	C	p.l	We. co. pl. 1. t. 1					
2949	<i>capitata W.</i>	pale-purple	☐	or	2	my.jn	Pu	C. G. H.	1790.	C	p.l						
518. ADENANDRA. <i>W. en.</i> ADENANDRA.								<i>Diosmeae. Sp. 5—8.</i>									
2950	<i>uniflora W. en.</i>	one-flowered	☐	or	1	ap.jl	Pk	C. G. H.	1775.	C	p.l	Bot. mag. 273					
2951	<i>umbellata W. en.</i>	umbel-flowered	☐	or	2	ap.jl	Pk	C. G. H.	1789.	C	p.l	Bot. mag. 1271					
2952	<i>fragrans B. M.</i>	red-flowered	☐	or	3	my.jl	Pk	C. G. H.	1812.	C	p.l	Bot. mag. 1519					
2953	<i>alba Th.</i>	white-flowered	☐	or	2	mr.jl	W	C. G. H.	1800.	C	p.l						
2954	<i>marginata Th.</i>	margined	☐	or	2	mr.jl	Pk	C. G. H.	1806.	C	p.l	Pl. al. t. 411. f. 3					
519. BARYOSMA. <i>W. en.</i> BARYOSMA.								<i>Diosmeae. Sp. 2—3.</i>									
2955	<i>serratifolia W.</i>	saw-leaved	☐	or	3	mr.jn	Pk	C. G. H.	1789.	C	p.l	Bot. mag. 456					
2956	<i>latifolia W.</i>	broad-leaved	☐	or	2	jl.au	W	C. G. H.	1789.	C	p.l	Bot. rep. 33					



History, Use, Propagation, Culture,

512. *Pomaderris*. From *πώμα*, a lid, and *δέρις*, a skin, on account of the membranous lid with which the cells of the capsule are covered. New Holland shrubs, with the habit of *Ceanothus*, from which they are distinguishable only by their fruit. Cuttings root freely in sand under a hand-glass.

513. *Mangifera*. From *Manga* or *Manghos*, the vernacular name of the fruit, and *fero*, to bear. This is a large spreading tree, bearing a fruit in great estimation in the East. The wood is brittle, brown, and used only for indifferent works. The leaves are seven or eight inches long, and two or more broad, lanceolate, entire, of a shining green, and sweet resinous smell. The flowers are produced in loose bunches at the ends of the branches. The fruit is a berried drupe, large, flattened like a lens, kidney-shaped; the flesh soft and pulpy, like a damascene plum; the shell almost kidney-shaped, of a leathery crustaceous substance, and one-celled. This fruit, when fully ripe, is yellow and reddish, replete with a fine agreeable juice; some are full of fibres, and the juice runs out of these on cutting, or with a little handling; but those which have few or no fibres are much the finest; they cut like an apple, but are more juicy, and some are as big as a large man's fist. It is esteemed a very wholesome fruit, and, except very fine pine-apples, is preferable to any fruit in India; gentlemen there eat little other fruit in the hot months; but if no wine be drank with it, the Mango is apt to throw out troublesome boils, at least with new comers, which are, however, conducive to health. In Europe we have only the unripe fruit brought over in pickle.

Loureiro remarks, that there are many varieties, differing chiefly in the figure, size, color, and taste of the fruit, as apples and pears do in Europe. Retzius, on the contrary, affirms, that there are certainly several distinct species; the number of stamens in some being double; the racemes in others compound; the fruit kidney-shaped, globular, fleshy, almost juiceless, &c.

According to Sweet, "the Mango ripens fruit in this country, when the plants are of a good size. Sandy loam, or a mixture of loam and peat, is most suitable to it, and the pots should be well drained, as the plants are apt to get sodden with too much water. Fresh seeds from the West Indies vegetate freely. The plant may also be increased from cuttings, which root best in sand under a hand-glass." (*Bot. Cult.* 77.)

Knight, Hallet, and some other horticulturists are at present cultivating this tree with a view to its fruit. Knight recommends for such trees, training the shoots downwards, and at no great distance from the glass. There are trees in the garden of Earl Powis which must bear very soon.

514. *Schrebera*. Named after John Chr. Daniel Schreber, a German botanist, chiefly known by an edition of

- 2928 Leaves ovate-oblong doubly-serrated tomentose beneath, Flowers apetalous in racemes
 2929 Leaves oval tomentose beneath, Heads of flowers in umbels panicled
 2930 Cymes panicled terminal, Leaves ovate lanceolate entire coriaceous rusty beneath
 2931 Leaves linear, Flowers in axillary clusters as long as leaves

2932 Leaves lanceolate wavy, Panicles terminal many-flowered, Stamen 1

2933 The only species

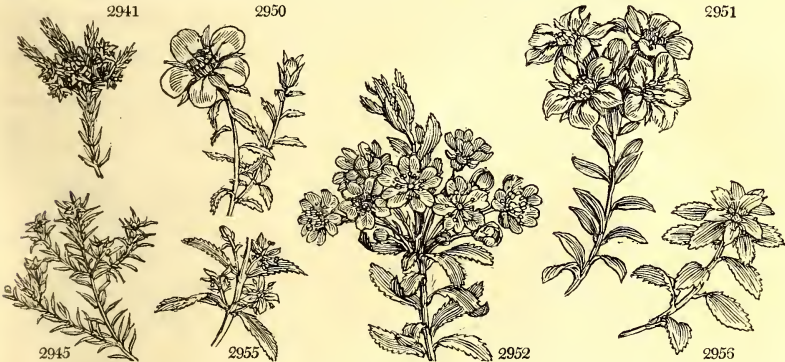
- 2934 Peduncles solitary 1-flowered, Leaves somewhat hairy
 2935 Leaves lanceolate linear, Peduncles solitary 1-flowered smooth, Fruit smooth
 2936 Leaves smooth, Cor. cylindrical, Peduncles solitary 1-fl. Petals very long rolled inwards at edge
 2937 Panicles few-flowered, Leaves somewhat hairy, Anthers connivent

- 2938 Branches spiny, Leaves ovate obtuse
 2939 Leaves lanceolate acute with red veins
 2940 Leaves elliptical coriaceous toothletted, Petals and stamens four

- 2941 Leaves 3-cornered obtuse ciliated, Flowers terminal
 2942 Leaves linear obtuse smooth spreading, Flowers terminal solitary
 2943 Leaves linear carinate mucronate villous, Peduncles 1-flowered terminal corymbosae
 2944 Leaves 3-cornered acute dotted ciliated
 2945 Leaves 3-cornered obtuse smooth, Flowers terminal solitary
 2946 Leaves oblong lanceolate carinate appressed rough at edge, Flower terminal nearly solitary
 2947 Leaves linear carinate mucronate ciliated upright, Peduncles 1-2 flowered corymbosae terminal
 2948 Leaves linear carinate acute thickish fringed upright, Flowers terminal subsessile solitary or 4 together
 2949 Leaves 3-cornered villous-hispid imbricated, Flowers in spiked heads

- 2950 Leaves lanceolate smooth, Flowers terminal solitary, Calyxes fringed
 2951 Leaves oblong smooth ciliated, Flowers terminal in umbels, Calyxes smooth
 2952 Leaves ovate oblong glandular scattered, Peduncle glutinous aggregate terminal twice as long as leaves
 2953 Leaves linear carinate mucronate at the edge cartilaginous and rough, Flowers axillary and solitary
 2954 Leaves cordate, Lower ovate, Upper lanceolate, Umbels terminal

- 2955 Leaves linear lanceolate serrulate
 2956 Leaves ovate crenate pubescent, Peduncles lateral 1-flowered, Branches downy



and Miscellaneous Particulars.

Linnaeus's *Genera Plantarum*, which he published in 1789, in which he unwisely altered all the names of Aublet, without ever having seen the plants.

515. *Billardiera*. Named in honor of Jacques Julien Labillardière, a French botanist, who visited Syria, and afterwards New Holland, in D'Entrecasteaux's expedition. His reputation as a botanist was almost annihilated by the Prodomus Novæ Hollandiæ of Brown. The species of this genus are desirable as climbers for a conservatory, especially *B. longiflora*, which is a fast grower and an abundant flowerer; and when in fruit, its fine blue berries make a handsome appearance. They thrive well in an equal portion of loam and peat; and cuttings root readily in sand under a bell-glass: they may also be raised from seeds, which are produced in abundance. (*Bot. Cult.* 149.)

516. *Etæodendrum*. From *ελαία*, an olive, and *δένδρον*, a tree; a tree resembling an olive. E. argam furnishes an oil by expression from the fruit as in the common olive: it is used at table by the Moors, and in various works by Europeans. The tree is rather tender, and requires protection during winter.

E. australe, and the stove species, "grow freely in a mixture of loam and peat; and ripened cuttings will soon root in sand under a hand-glass." (*Sweet.*)

517. *Diosma*. From *διος*, divine, and *οσμη*, smell; that is to say, a smell divine among the Hottentots, who rub their greasy bodies with the powdered leaves of all the species, which they call *Bucku*. To Europeans the smell is unpleasant. This is a genus of handsome shrubs, bearing a general resemblance to heaths, but with larger leaves. The flowers are in corymbs at the ends of the branches. D. ericoides, and other species, are the kinds chiefly used by the Hottentots to scent the ointments with which they anoint their skin. Young cuttings root freely in sand under a bell-glass.

518. *Adenandra*. From *ἀνήρ*, a gland, and *ανηρ ανδρῆς*, a male; or, in composition of botanical names, a stamen; on account of the appendage of the stamens. This is a very natural genus, easily recognized by its glandular anthers. Sweet "found it succeed best in sandy peat, but some prefer mixing a little sandy loam with it. The young tender tops strike best, made into cuttings, and planted in a pot of sand under a bell-glass: it does not require to be plunged in heat." (*Bot. Cult.* 127.)

519. *Baryosma*. From *βαρύς*, strong, and *οσμη*, smell, in allusion to its fetid leaves. Plants with the habit of *Diosma*. Cuttings root readily, taken off in ripened wood, and planted in sand under a bell-glass.

520. AGATHOS'MA. <i>W. en.</i> AGATHOSMA.		<i>Diosmeae.</i> Sp. 12.				
2957 hispidum <i>W.</i>	rough-leaved	or 1	jn.au	V	C. G. H.	1786. C p.l
2958 ciliatum <i>W.</i>	ciliated	or 2	ap.my	W	C. G. H.	1774. C p.l
2959 villösium <i>W.</i>	shaggy	or 14	jn.au	V	C. G. H.	1786. C p.l
2960 imbricatum <i>W.</i>	imbricated	or 3	ap.jn	Pk	C. G. H.	1774. C p.l
2961 acuminatum <i>W. en.</i>	acuminate	or 5	ap.jn	V	C. G. H.	1812. C p.l
2962 cerefolium <i>Ven.</i>	Chervil-scented	or 2	ap.jn	W	C. G. H.	1790. C p.l
2963 pubescens <i>W. en.</i>	pubescent	or 1	my.au	W	C. G. H.	1798. C p.l
2964 crenatum <i>W.</i>	crenated	or 2	ja.mr	W	C. G. H.	1774. C p.l
2965 ovatum <i>W.</i>	oval-leaved	or 2	f.s	W	C. G. H.	1790. C p.l
2966 pulchellum <i>W.</i>	blunt-leaved	or 3	f.s	Pu	C. G. H.	1787. C p.l
2967 rubrum <i>W.</i>	red	or 2	f.my	R	C. G. H.	1752. C p.l
2968 tetragonum <i>W.</i>	square-branch.	or 1	jl.au	W	C. G. H.	1789. C p.l
521. NAUC'LEA. <i>W.</i>	NAUCLEA.				<i>Rubiaceae.</i> Sp. 1-12.	
2969 orientalis <i>W.</i>	oriental	♀ □ or 30	...	Y	E. Indies	1800. L r.m Rhe. mal. 3. t. 33
522. PITTOSPORUM. <i>W.</i> PITTOSPORUM.					<i>Pittosporae.</i> Sp. 6-11.	
2970 coriaceum <i>W.</i>	thick-leaved	or 10	my	B	Madeira	1787. L p.l Bot. rep. 151
2971 viridiflorum <i>B. M.</i>	green-flowered	or 6	my.jn	G	C. G. H.	1806. C p.l Bot. mag. 1684
2972 Tobira <i>H. K.</i>	glossy-leaved	or 6	mr.au	W	China	1804. C p.l Bot. mag. 1396
2973 undulatum <i>H. K.</i>	wave-leaved	or 3	f.jn	W.Y	N. S. W.	1789. C s.p Bot. reg. 16
2974 revolutum <i>H. K.</i>	downy-leaved	or 6	f.ap	Y	N. S. W.	1795. G s.p Bot. reg. 186
2975 ferrugineum <i>H. K.</i>	rusty-leaved	or 6	f.my	Y	Guinea	1787. G s.p
523. LASIOPE'TALUM. <i>Smith.</i> LASIOPETALUM.					<i>Büttneriaceae.</i> Sp. 2.	
2976 parviflorum <i>L. T.</i>	small-flowered	or 3	ap.jl	Br	N. Holl.	1810. C l.p L. t. v. 10. t. 19. f. 2
2977 ferrugineum <i>B. R.</i>	rusty	or 4	ap.jl	Y	N. Holl.	1791. C s.p Bot. mag. 1766
524. THOMA'SIA. <i>Gay.</i> THOMASIA.					<i>Büttneriaceae.</i> Sp. 3.	
2978 purpurea <i>Gay.</i>	purple	or 3	ap.jl	Pu	N. Holl.	1803. C s.p Bot. mag. 1755
2979 solanacea <i>Gay.</i>	Solanum-like	or 3	ap.jl	Pu	N. Holl.	1803. C s.p Bot. mag. 1486
2980 quercifolia <i>Gay.</i>	oak-leaved	or 3	ap.jl	Br	N. Holl.	1803. C s.p Bot. mag. 1485
525. SERINGIA. <i>Gay.</i> SERINGIA.					<i>Büttneriaceae.</i> Sp. 1.	
2981 platyphylla <i>Gay.</i>	Nettle-tree-lyd.	or 12	ap.jl	W	N. Holl.	1802. C s.p Mem. mu. vol. 7
526. BUTTNERIA. <i>W.</i> BUTTNERIA.					<i>Büttneriaceae.</i> Sp. 2-14.	
2982 scabra <i>W.</i>	rough-leaved	or 6	jl	Pu	W. Indies	1793. C p.l Ca. d. 5. t. 148. f. 1
2983 microphylla <i>W.</i>	small-leaved	or 5	...	W.pu	S. Amer.	1816. C l.p Ca. d. 5. t. 148. f. 2
527. AYE'NIA. <i>W.</i> AYENIA.					<i>Malvaceae.</i> Sp. 2-4.	
2984 pusilla <i>W.</i>	small	or 1	jl.s	Pu	Jamaica	1756. C r.m Mill. ic. 79. t. 118
2985 laevigata <i>P. S.</i>	smooth	or 2	...	S	Jamaica	... C r.m
528. CALODEN'DRUM. <i>W.</i> CALODENDRUM.					<i>Rutaceae.</i> Sp. 1.	
2986 capense <i>W.</i>	Cape	or 40	...	Pk	C. G. H.	1789. C l.p H. na. h. 4. t. 22
529. TODDA'LIA. <i>Lam.</i> TODDALIA.					<i>Terebintaceae.</i> Sp. 1-5.	
2987 asiatica <i>Lam.</i>	prickly	or 6	...	W	E. Indies	1790. C s.p Lam. ill. t. 139
	<i>Scopolia aculeata</i> Sm.					
530. BURSA'RIA. <i>Cav.</i> BURSARIA.					<i>Pittosporae.</i> Sp. 1.	
2988 spinosa <i>Cav.</i>	thorny	or 10	aud	W	N. S. W.	1793. C s.p Bot. mag. 1767
531. CEDRE'LA. <i>W.</i> BASTARD-CEDAR.					<i>Cedreleae.</i> Sp. 2.	
2989 odorata <i>W.</i>	Barbadoes	or 50	...	Pk	W. Indies	1739. C l.p Br. ja. 158. t. 10. f. 1
2990 Toona <i>Roxb.</i>	E. Indian	or 50	...	Pk	E. Indies	1823. C l.p



History, Use, Propagation, Culture,

520. *Agathosma*. From *αγαθος*, good, and *σμου*, smell; to be understood as *Diosma*. This genus resembles that, and requires the same culture. The Hottentots use the leaves of *A. pulchella* dried and powdered, under the name of *Bucku*, to mix with the grease with which they anoint themselves. It gives them so rank an odor, that Thunberg says, he sometimes could not bear the smell of the men who drove his waggon.

521. *Nauclea*. A noble genus of Rubiaceae plants, bearing their flowers in round heads. The meaning of the name is nowhere explained. One species, *N. Gambir*, is said to yield the gamboge gum of the shops.

522. *Pittosporum*. From *πιττα*, resin, and *σπορος*, a seed. The capsule is resinous. These are handsome shrubs, with good foliage and pretty flowers. *P. tobira*, a native of Japan, is nearly hardy. Ripened cuttings root freely in sand under a hand-glass, or one species may be grafted on another.

523. *Lasiopetalum*. From *λασιος*, woolly, and *πεταλον*, a petal; in allusion to the flowers. Ripened cuttings planted in sand under a hand-glass will root freely.

524. *Thomasia*. Named by M. Gay, after M. Thomas, an industrious collector of Swiss plants. Divided lately from *Lasiopetalum*.

525. *Seringia*. Also named by M. Gay, in honor of M. Seringe, an ingenious Swiss botanist, author of *Melanges de Botanique*, and other useful works. Divided from *Lasiopetalum*, with which it agrees in habit and appearance.

526. *Büttneria*. David Sigismund Augustus Buttner, was a professor of botany at Gottingen, who published,

- 2957 Leaves 3-cornered blunt villous hispid spreading, Umbels terminal
 2958 Leaves lanceolate carinated ciliated, Umbels terminal
 2959 Lvs. aggregate linear lanceolate channelled glandular villous imbricated, Heads of branches terminal
 2960 Leaves aggregate ovate acuminate imbricated dotted fringed, Heads of branches terminal umbelled
 2961 Leaves alternate aggregate subcordate acuminate pubesc. dotted, Flowers in terminal umbelled branches
 2962 Leaves imbricate spreading lanceolate ciliated, Heads terminal, Five stamens sterile
 2963 Leaves aggregate oval obtuse glandular ciliated spreading, Heads of branches terminal
 2964 Leaves ovate crenate dotted beneath, Flowers axillary solitary
 2965 Leaves opposite smooth ovate entire revolute at edge beneath rusty with dots
 2966 Leaves ovate glandular-crenate smooth, Flowers axillary in pairs
 2967 Leaves 3-cornered mucronate smooth below dotted in two rows, Segments of calyx smooth
 2968 Leaves ovate carinate ciliated imbricated 4 ways, Flowers terminal solitary

2969 Leaves oblong acute, Peduncles equal, Stamens the length of corolla

- 2970 Leaves obovate obtuse smooth coriaceous, Capsules 2-valved
 2971 Leaves obovate blunt shining netted beneath, Panicle globose terminal
 2972 Leaves obovate obtuse smooth coriaceous, Capsules 3-valved
 2973 Leaves oval lanceolate narrowed at each end and stalks smooth, Peduncles of the branches terminal
 2974 Leaves elliptical obtuse pubescent beneath revolute at the edge
 2975 Leaves elliptical acuminate smooth, Leafstalks rusty with down

2976 Sepals smooth inside
 2977 Sepals hoary on both sides

- 2978 Leaves linear elliptical entire, Stipules leafy, Petals 5, Stamens
 2979 Petals 5, Stamens 10
 2980 Leaves 3-lobed beneath hispid downy, Petals O

2981 Leaves ovate lanceolate coarsely toothed

- 2982 Leaves lanceolate toothed hastate at base, Rachis stem and leafstalks angular prickly
 2983 Leaves elliptical entire emarginate, Prickles stipulary, Branches wavy smooth

2984 Leaves cordate smooth
 2985 Leaves ovate entire smooth, Ovary stalked, Nectary 10 cleft rayed

2986 Leaves ovate obtuse entire with parallel veins, Flowers terminal paniced

2987 Stem branches and leaves prickly, Leaflets ovate lanceolate subserrated

2988 Stem spiny, Leaves emarginate, Flowers racemose

- 2989 Cal. and cor. naked
 2990 Cal. and cor. fringed



and Miscellaneous Particulars.

in 1750, a catalogue of the plants in the garden of an amateur named Cunon. Ripened cuttings planted in sand under a hand-glass will root freely.

527. *Ayenia*. In honor of the Duke D'Ayen, of the house of Noailles. He was a great patron of botany. Cuttings root freely in sand in a moist heat.

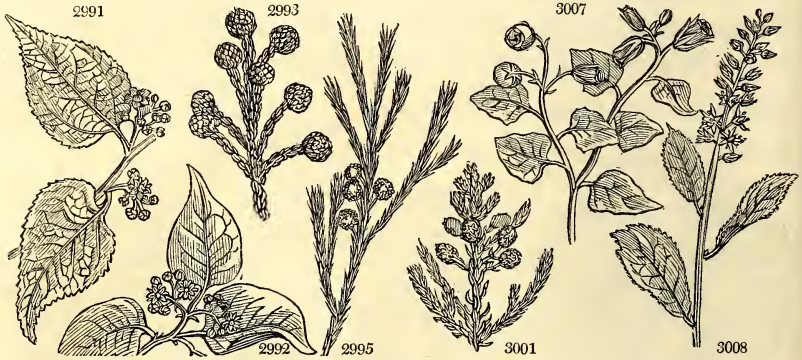
528. *Calodendrum*. From *καλος*, fine, and *δενδρον*, a tree. Fine indeed, with its beautiful foliage and splendid flowers. This is a Cape genus, and is generally supposed to be one of the finest trees known there; its fruit bears great resemblance to a chestnut, but seldom arrives here perfect. It grows freely in an equal mixture of loam and peat; and ripened cuttings root readily in pots of sand under a hand-glass. (*Bot. Cult.* 159.)

529. *Toddalia*. Kaka Toddali is the Malabar name of the shrub. Cuttings root readily in sand under a bell-glass.

530. *Bursaria*. From *bursa*, a pouch; the capsules resemble those of *Thlaspi Bursa Pastoris* so much, that Labillardiere fancied he had found a cruciferous tree when he discovered the plant in New Holland. "This is a pretty plant. It is very desirable for a greenhouse or conservatory, being an abundant flowerer, and very showy when covered all over with its elegant little white flowers; an equal mixture of sandy loam and peat is the best soil for it; and young cuttings are not difficult to root in sand under a bell-glass." (*Bot. Cult.* 155.)

531. *Cedrela*. From *cedrus*, the cedar-tree. The wood of plants of this genus is one of the kinds of cedar of commerce. All that comes from New Holland in the form of packing cases, is supposed to be the wood of a spe-

532. HOVENIA. <i>Th.</i>	HOVENIA.	辛	□	fr	8	jl.au	W	Japan	1812.	C	p.1	Bot. mag. 2360
2991 dulcis <i>Th.</i>	sweet	辛	□	or	8	jl.au	W	Nepal	...	C	p.1	Bot. reg. 501
2992 acerba <i>Lindl.</i>	sour											
533. BRUNIA. <i>W.</i>	BRUNIA.	辛	□	or	6	jl.au	W	Rhamn. Sp. 14—24.				
2993 nodiflora <i>W.</i>	imbricated	辛	□	or	2	jn.au	W	C. G. H.	1786.	C	p.1	Bre. cent. 22. t. 10
2994 paleacea <i>W.</i>	chaffy	辛	□	or	2	jn.au	W	C. G. H.	1791.	C	p.1	Wendl. coll. t. 21
2995 lanuginosa <i>W.</i>	woolly	辛	□	or	3	jn.au	W	C. G. H.	1774.	C	p.1	Bot. cab. 572
2996 verticillata <i>W.</i>	whorled	辛	□	or	3	jn.au	W	C. G. H.	1794.	C	p.1	
2997 deusta <i>Th.</i>	black-tipped	辛	□	or	1	jn.au	W	C. G. H.	1804.	C	p.1	
2998 microphylla <i>Th.</i>	small-leaved	辛	□	or	1	jn.au	W	C. G. H.	1804.	C	p.1	
2999 laxa <i>Th.</i>	spiked	辛	□	or	2	jn.au	W	C. G. H.	1805.	C	p.1	
3000 alopecuroides <i>Th.</i>	Fox-tail	辛	□	or	1	...	W	C. G. H.	1816.	C	p.1	
3001 abrotanoides <i>W.</i>	Thyme-leaved	辛	□	or	1	my.jl	W	C. G. H.	1787.	C	p.1	Bot. cab. 355
3002 superba <i>Donn.</i>	superb	辛	□	or	4	my.jl	W	C. G. H.	1791.	C	p.1	
3003 fragarioides <i>W.</i>	Strawberry-like	辛	□	or	1	my.jl	W	C. G. H.	1794.	C	p.1	
3004 ciliata <i>L.</i>	ciliated	辛	□	or	1	my.jl	W	C. G. H.	1812.	C	p.1	
3005 ericoides <i>Wendl.</i>	heathy	辛	□	or	3	jl.au	W	C. G. H.	1804.	C	p.1	Wend. coll. 2. t. 57
3006 phylloides <i>Th.</i>	Phylla-like	辛	□	or	2	jn.au	W	C. G. H.	1805.	C	p.1	
534. BROSSÆA. <i>L.</i>	BROSSÆA.	辛	□	or	4	...	S	S. Amer.	...	C	l.p	Plum. ic. 64. f. 2
3007 coccinea <i>L.</i>	scarlet											
535. ITEA. <i>L.</i>	ITEA.	辛	□	or	6	jn.au	W	N. Amer.	1744.	L	s.p	Bot. mag. 2409
3008 virginica <i>W.</i>	Virginian											
536. CYRILLÆA. <i>L.</i>	CYRILLÆA.	辛	□	or	6	jn.au	W	Carolina	1765.	C	l.p	Bot. mag. 2456
3009 caroliniana <i>Ph.</i>	Carolina											
537. CLAYTONIA. <i>W.</i>	CLAYTONIA.	辛	△	pr	3	mr.my	St	N. Amer.	1748.	D	s.p	Bot. mag. 941
3010 virginica <i>Ph.</i>	Virginian	辛	△	pr	3	mr.my	Pk	N. Amer.	1789.	D	s.p	Par. lond. 71
3011 caroliniana <i>H. K.</i>	spatula-leaved	辛	△	pr	3	mr.my	W	N. Amer.	1812.	D	p.1	Pursh. am. 1. t. 3
3012 lanceolata <i>Ph.</i>	spear-leaved	辛	△	pr	3	mr.my	W	N. Amer.	1812.	D	p.1	Pursh. am. 1. t. 3
3013 sibirica <i>Ph.</i>	Siberian	辛	△	pr	3	my.au	R	Siberia	1768.	S	p.1	Bot. mag. 2243
3014 alsinoides <i>W.</i>	Chickweed-like	辛	△	pr	3	mr.jn	W	Nootk. Sd.	1794.	S	p.1	Bot. mag. 1309
3015 perfoliata <i>Donn.</i>	small-flowered	辛	△	pr	3	my.au	W	N. Amer.	1794.	S	s.p	Bot. mag. 1336
538. IMPATIENS. <i>W.</i>	BALSAM.	辛	□	or	3	jl.o	R	E. Indies	1596.	S	r.m	Blackw. t. 583
3016 Balsamina <i>Ph.</i>	garden	辛	□	or	3	jn.s	R	E. Indies	1808.	S	r.m	Bot. mag. 1256
3017 coccinea <i>H. K.</i>	glandular-leav.	辛	□	or	2	jn.s	O	N. Amer.	...	S	r.m	Sweet fl. g. 43
3018 biflora <i>Ph.</i>	two-flowered	辛	□	or	2	jn.s	O	N. Amer.	...	S	r.m	Sweet fl. g. 43
3019 Nolitangere <i>W.</i>	Touch-me-not	辛	□	or	2	jn.s	Y	England	w.s.pl	S	s.p	Eng. bot. 937



History, Use, Propagation, Culture,

cies of Cedrela. This tree shoots out many side branches towards the top, which are furnished with winged leaves, composed of 16 or 18 pair of leaflets, so that they are sometimes near three feet long. The flowers are on a branching raceme, and the fruit a woody capsule about the size of a pigeon's egg. The bark, leaves, and fruit have, when fresh, a smell like assafetida, but the timber has a pleasant smell. In the British West India islands the tree has the common name of cedar. The trunk is so large as to be hollowed out into canoes and periaquas, for which purpose it is extremely well adapted; the wood being soft, it may be cut out with great facility, and being light, it will carry a great weight on the water. There are canoes in the West Indies which have been formed out of these trunks forty feet long and six broad: the wood is of a brown color, and has a fragrant odor, whence the title of cedar has been given to it. It is frequently cut into shingles for covering houses, and is found very durable; but as the worms are apt to eat this wood, it is not proper for building ships, though it is often used for that purpose, as also for sheathing of ships. It is often used for wainscoting of rooms, and to make chests, because vermin do not so frequently breed in it, as in many other sorts of wood, this having a very bitter taste, which is communicated to whatever is put into the chests, especially when the wood is fresh; for which reason it is never made into casks, because spirituous liquors will dissolve part of the resin, and thereby acquire a very bitter taste. Cuttings of Cedrela strike root under a hand-glass in sand.

532. *Hovenia*. Named after David Hoven, a Dutch commissary in Japan, who gave facilities and encouragement to Thunberg while in that country. A small tree, nearly hardy. Its fruit is eaten in China and Japan, and is said to resemble a Bergamot pear in taste.

533. *Brunia*. So named after Cornelius Brun, a traveller into the Levant and Russia at the end of the last and beginning of the present century. This, Sweet observes, "is a pretty Cape genus; its species are pretty bushy shrubs, with heath-like leaves, and are handsomest while young. The flowers are not so showy as in many other genera, but some of them are very elegant. A sandy peat soil suits them best, with a moderate supply of water; and young cuttings planted in sand under a bell-glass will strike root freely." (*Bot. Cult.* 153.)

534. *Brossæa*. Gui de la Brosse was physician to Louis XIII, and in 1626 procured the establishment at Paris of the Jardin des Plantes, of which he was the first director. A very doubtful plant. It is said to be a shrub like a *Cistus*, with scarlet flowers half an inch long.

535. *Itea*. From *itea*, the Greek name of the willow. The name *Salix* having been given to the modern willow, that of *Itea* has been applied to a plant resembling the willow in leaves and place of growth. This is a handsome plant which thrives well either in peat-soil or sandy loam, and is increased by layers.

2991 Fruit sweet fleshy, Leaves glabrous a little shining
 2992 Fruit austere, Leaves downy quite opaque

2993 Leaves 3-cornered incurved acute, Flowers terminal on the lateral branches
 2994 Leaves 3-cornered brown at end, Chaff of the heads exerted colored
 2995 Leaves half round erect-spreading withered at end at the base and branches hairy, Heads round latera
 2996 Leaves 3-cornered obtuse smooth, Heads terminal, Branches whorled clustered
 2997 Leaves 3-cornered black at the end smooth, Heads terminal
 2998 Leaves ovate 3-cornered fleshy smooth, Heads terminal, Branches divaricating
 2999 Leaves 3-cornered and spiked, Flowers smooth
 3000 Leaves 3-cornered acute smooth, Heads lateral globose smooth
 3001 Leaves linear-lanceolate reflexed spreading: their edge fringed at base, Heads terminal corymbose
 3002 Leaves half rounded spreading incurved hairy at the end with a withered beard
 3003 Leaves 3-cornered appressed ciliated at edge
 3004 Leaves ovate acuminate ciliated. A very doubtful species
 3005 Leaves short acute 3-cornered at the end spreading fuscous and callous, Heads round at end of branches
 3006 Leaves ovate convex imbricated, Heads terminal hairy

3007 A little shrub like a *Cistus*, with ovate stalked alternate pale-green leaves

3008 Leaves ovate acute serrated, Spikes pubescent

3009 Leaves wedge-lanceolate acute membranous nerved, Spikes slender

3010 Leaves very long linear, Petals entire
 3011 Leaves short oval abruptly narrowed into the stalk
 3012 Leaves lanceolate, Raceme solitary elongated, Root tuberous
 3013 Leaves nerved: radical and cauline ovate, Raceme 1-sided, Petals bifid
 3014 Radical leaves spatulate ovate: cauline ovate distinct, Root fibrous
 3015 Radical leaves spatulate rhomb-shaped: cauline perfoliate

3016 Flower-stalks clustered, Leaves lanceolate: the upper alternate, Spur shorter than flower
 3017 Leaves alternate oblong oval serrated, Leafstalks with many glands, Spur incurved as long as flower
 3018 Flower-stalks generally 2-flowered, Leaves ovate serrated, Flowers orange-brown spotted inside
 3019 Flower-stalks clustered, Leaves ovate, Points of stem tumid



and Miscellaneous Particulars.

536. *Cyrilla*. In honor of Dominico Cyrilli, professor of medicine at Naples, and a fellow of the Royal Society of London. He published, in 1788, a work upon the rare plants of Naples, which is now one of the rarest of botanical works. This is a pretty shrub. Young cuttings will root under a bell-glass in sand, but not very freely.

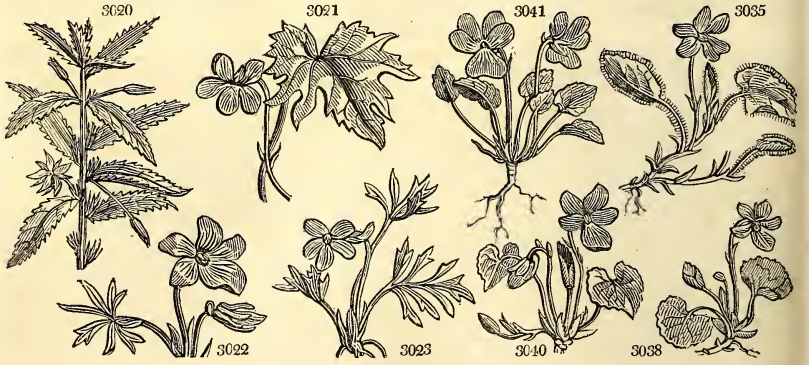
537. *Claytonia*. In memory of Mr. John Clayton, who collected plants chiefly in Virginia, and sent them to Gronovius, who published them in his *Flora Virginica*. *C. perfoliata* is very hardy, and is not easily eradicated where once introduced. It grows on the poorest soil, vegetates early, and the whole of the herbage gathered and boiled makes a very tender spinach.

538. *Impatiens*. A metaphorical name given to these plants on account of the elastic force with which their capsules burst, and scatter their seeds upon the slightest touch. I. *Balsamina* is one of the most beautiful of popular annuals, forming a showy one of finely variegated carnation-like flowers. The prevailing colors of the petals are red and white, the former extending to every shade of orange, purple, scarlet, lilac, pink, and especially carnation or flesh color. These are esteemed the most beautiful varieties which have the flowers double, and striped in the manner of a flake or bizarre carnation: but none of the varieties are permanent or can be continued by seeds, and the plant does not root readily by cuttings. The way to procure very large plants is to sow early in the season, as in March, to commence transplanting into 3-inch pots as soon as the plants have two proper leaves, and to shift every week or ten days into pots a size larger every time, till at last they are in pots of the largest or of a very large size, and in the richest light mould. The plants should be kept all the time in a hot-bed or pit, plunged, and with abundance of room and air, and the heat of the melon or pine. Fairweather, by transplanting only three or four times from No. 43. pots to those of eight inches diameter raised, produced balsams "four feet high, and fifteen feet in circumference, with strong thick stems, furnished with side branches from bottom to top, and these covered with large double flowers." (*Hort. Trans.* iii. 406.)

The juice of the balsam, prepared with alum, is used by the Japanese to dye their nails red. (*Thunberg*.)
 I. *Nolitangere*, *Ne me touchez pas*, Fr., *Springame*, Ger., and *Erya Impatiens*, Ital., is the only species found wild in Europe. When the seeds are ripe, upon touching the capsules, they are thrown out with considerable force: hence the names *Impatiens* and *Nolitangere*. In the day-time the leaves are expanded, but at night they hang pendent, contrary to what is observed in plants, which from a deficiency of moisture, or a too great perspiration from heat, commonly droop their leaves during the day. Only the goat is said to eat this plant.

I. *biflora*, the American *Noli-me-tangere*, resembles this plant, but is handsomer.

539. SAUVAGESIA. Jacq. SAUVAGESIA.		erect		cu	1		Violacæ. Sp. 1—6.		S. Amer. 1820.		S	co	Jacq.am. t.51. f.3
3020	<i>erecta L.</i>				1	my.jn	Pk	S. Amer.	1820.	S	co		Jacq.am. t.51. f.3
540.	VIOLA. W.	VIOLET.						<i>Violacæ. Sp. 50—120.</i>					
3021	<i>palmata W.</i>		Δ	or	½	my.jn	Pu	N. Amer.	1752.	D	p.l		Bot. mag. 535
3022	<i>pedata W.</i>		Δ	or	½	my.jn	B	N. Amer.	1759.	D	p.l		Bot. mag. 89
3023	<i>pinната W.</i>		Δ	or	½	my.jn	V	S. Europe	1752.	D	p.l		Gm.sib.4. t.49. f.4
3024	<i>sagittata W.</i>		Δ	or	½	jn.jl	W.B	N. Amer.	1775.	D	p.l		
3025	<i>lancoellata W.</i>		Δ	or	½	jn.jl	W	N. Amer.	1759.	D	p.l		Gm.sib.4. t.49. f.2
3026	<i>obliqua W.</i>		Δ	or	½	my.jl	Y.B	N. Amer.	1762.	D	p.l		
3027	<i>cucullata W.</i>		Δ	or	½	my.jl	B	N. Amer.	1772.	D	p.l		Bot. mag. 1795
3028	<i>roraria Ph.</i>		Δ	or	½	ap.jn	B	N. Amer.	1802.	D	p.l		Will.hort.ber.72
3029	<i>papilionacea Ph.</i>		Δ	or	½	my.jn	B	N. Amer.	1800.	D	p.l		
3030	<i>ambigua W. K.</i>		Δ	or	½	ap.my	P.V	Hungary	1823.	D	co		W.K.hung.t.190
3031	<i>uliginosa Schr.</i>		Δ	or	½	ap.my	Pu	Carinthia	1823.	D	co		
3032	<i>clandestina Ph.</i>		Δ	or	½	my	Br	Pensylv.	1800.	D	p.l		
3033	<i>blanda Ph.</i>		Δ	or	½	my.jl	W	N. Amer.	1802.	D	p.l		Will.hort.ber.24
3034	<i>primulifolia Ph.</i>		Δ	or	½	ap.jn	P.B	N. Amer.	1783.	D	p.l		
3035	<i>hirta W.</i>		Δ	or	½	ap.my	B	England	ch. so. D	p.l			Eng. bot. 894
3036	<i>collina Bess.</i>		Δ	or	½	mr.my	B	Poland	1822.	D	co		
3037	<i>campēstris Bieb.</i>		Δ	or	½	ap.my	Pu	Tauria	1824.	D	co		
3038	<i>palustris Sm.</i>		Δ	or	½	my.jn	B	Britain	mos. b. D	p.l			Eng. bot. 444
3039	<i>Schmidtiana Sch.</i>		Δ	or	½	my.jn	B	Austria	1821.	D	co		
3040	<i>odorata W.</i>		Δ	or	½	mr.my	Pu	Britain	sha. pl. D	p.l			Eng. bot. 619
	<i>α purpurea</i>		Δ	or	½	mr.my	Pu	Britain	gard. D	p.l			
	<i>β alba</i>		Δ	or	½	mr.my	W	Britain	gard. D	p.l			
	<i>γ cærulea</i>		Δ	or	½	mr.my	B	Britain	gard. D	p.l			
	<i>δ purpurea plena</i>		Δ	or	½	mr.my	Pu	Britain	gard. D	p.l			
	<i>ε alba plena</i>		Δ	or	½	mr.my	W	Britain	gard. D	p.l			
	<i>ζ cærulea plena</i>		Δ	or	½	mr.my	B	Britain	gard. D	p.l			
	<i>η pallida plena</i>		Δ	or	½	mr.my	Pa.B	Britain	gard. D	p.l			
	<i>Neapolitan</i>		Δ	or	½	my.jn	D.Pu	Austria	1823.	D	co		Jac. aust. t. 242
3041	<i>alpina Jacq.</i>		Δ	or	½	my.jn	D.Pu	Austria	1823.	D	co		Jac. aust. t. 242
3042	<i>canina W.</i>	dog's	Δ	w	½	ap.jn	B	Britain	hea. D	p.l			Eng. bot. 620
3043	<i>sylvestris Kit.</i>	wood	Δ	or	½	my.jn	B	Hungary	1820.	D	co		
3044	<i>neglecta Schm</i>	neglected	Δ	or	½	my.jn	P.B	Crimea	1821.	D	co		
3045	<i>glauca Bieb.</i>	glaucous	Δ	or	½	my.jn	P.B	Poland	1822.	D	co		
3046	<i>lactea E. B.</i>	cream-colored	Δ	or	½	my	Cr	England	moi. h. D	p.l			Eng. bot. 445
3047	<i>montana W.</i>	mountain	Δ	or	1	my.jn	L.B	Al. of Eur.	1683.	D	p.l		Bot. mag. 1595
3048	<i>Nuttallii Ph.</i>	Nuttall's	Δ	or	½	my.jn	B	Missouri	1812.	D	co		
3049	<i>débilis Mich.</i>	weak	Δ	or	½	ap.my	W	N. Amer.	1820.	D	co		
3050	<i>valderia W. en.</i>	fringed-leaved	Δ	or	½	my.jn	P	Mt. Cenis	1805.	D	p.l		Al. p. 2. t. 24. f.3
3051	<i>cenisia W.</i>	Alpine	Δ	or	½	jn.jl	B	Mt. Cenis	1759.	D	p.l		Al. p. 2. t. 22. f.6
3052	<i>canadensis W.</i>	Canadian	Δ	or	½	my.jn	L.B	N. Amer.	1783.	D	p.l		
3053	<i>striata W.</i>	streaked	Δ	or	½	jn.jl	St	N. Amer.	1772.	D	p.l		
3054	<i>pubescens W.</i>	downy	Δ	or	½	jn.jl	B	N. Amer.	1772.	D	p.l		Bot. reg. 390
3055	<i>côncolor L. T.</i>	green-flowered	Δ	or	1	jn.jl	G	N. Amer.	1788.	D	co		Linn. tr. 6. t. 28
3056	<i>mirabilis W.</i>	broad-leaved	Δ	or	½	jn.au	L.B	Germany	1732.	D	p.l		Flor. dan. 1045
3057	<i>biflora W.</i>	two-flowered	Δ	or	½	ap.my	Y	Al. of Eur.	1752.	D	p.l		Bot. mag. 2089
3058	<i>uniflora W.</i>	Siberian	Δ	or	½	jn.jl	Y	Siberia	1774.	D	co		Gm. si. 4. t. 48. f.5
3059	<i>arborœscens W.</i>	shrubby	Δ	or	1½	ap.my	P.B	Spain	1779.	L	r.m		Barr. ic. 568
3060	<i>tricolor L.</i>	Heart's-ease	○	or	½	ap.s	Y.Pu	Britain	co. f. S	co			Eng. bot. 1287
3061	<i>banatica Kit.</i>	Banatian	○	or	½	ap.s	Y.Pu	Germany	1820.	S	co		
3062	<i>arvensis Murr.</i>	corn	○	or	½	ap.s	Y	Britain	...	S	co		
3063	<i>altaica Pall.</i>	Tartarian	Δ	or	½	mr.jn	P.Y	Siberia	1805.	D	co		Bot. reg. 54
3064	<i>rothomagensis P. S.</i>	Rouen	Δ	or	½	my.au	B	France	1783.	D	co		Bot. mag. 1498
3065	<i>sudetica W. en.</i>	tooth-flowered	Δ	or	½	my.au	Y	Germany	1805.	D	co		
3066	<i>lutea E. B.</i>	yellow-flowered	Δ	or	½	my.au	Y	Britain	m.pas. D	p.l			Eng. bot. 721
3067	<i>grandiflora L.</i>	great-flowered	Δ	or	½	my.au	D.B	Switzerl.	...	D	p.l		Ha. hel. 565. t.17
3068	<i>Zôysii W.</i>	crenated	Δ	or	½	jl.s	Y	Carinthia	...	D	co		Jac. co. 4. t.11. f.1



History, Use, Propagation, Culture,

539. *Sauvagesia*. In honor of Jacques Boissier de Sauvages, a French botanist, who died in 1767. He published a Flora of Montpellier, and other works. A genus of small herbaceous plants, more singular than beautiful.

540. *Viola*. The ancients feigned that violets were the first food of the cow *Io*, one of Jupiter's mistresses. This is an extensive genus of low herbs, mostly with violet and white flowers, and well adapted for the flower-border, rock-work, or for growing in pots. *V. odorata* is a favorite flower, on account of its fragrance and early appearance. It is a native of every part of Europe, in woods, amongst bushes, in hedges, and on warm banks.

3020 Stem simple, Leaves narrow lanceolate, Stipules very long

§ 1. *Stemless, Stipules membranous.*

3021 Pubescent, Leaves palmated 5-lobed toothed and undivided

3022 Leaves pedate 7-parted

3023 Leaves many-cleft, Segments lobed

3024 Leaves obl. acute cord. sagittate serr. cut at base, Flowers inverted, Three lower petals bearded at base

3025 Smooth, Leaves shining lanceolate obsoletely toothed or crenulate, Flowers whitish [middle

3026 Smth. Lvs. cord. ac. cren. serr. flattish, Fls. erect, Pet. obliquely turned : lateral longer bearded below the

3027 Smooth, Leaves cordate serrate smooth hooded at base, Petals obliquely turned : lateral bearded

3028 Leaves cordate crenate pubesc. beneath, Lower petal bearded at base, Flower-stalks shorter than leaves

3029 Lvs. triang. cord. ac. cren. somewhat hood. Pet. obov. : 3 low. beard. below mid. conniv. : 2 upper reflexed

3030 Leaves oblong cordate obtuse crenate naked at the base with unequal inflexed hooded lobes

3031 Stemless, Leaves cordate smooth, Peduncles bracted above the middle

3032 Smoothish, Lvs. roundish obt. at base cord. cren. serrate, Runners flowering, Pet. lin. not longer than cal.

3033 Leaves cordate obtuse acutish flat smooth, Petals not bearded, Flower-stalks as long as leaves

3034 Leaves oblong subcordate, Stalks membranous

3035 Leaves cordate and stalks hispid with hairs, Cal. obtuse

3036 Subhirsute, Runners none, Leaves cordate, Calyxes obtuse, Flowers sweet-scented

3037 Leaves cordate vertilinear at base pubescent, Runners none

3038 Leaves reniform smooth, Root creeping, Calyx obtuse

3039 Leaves cordate acuminate subcrenate smooth, Bractes close under the flower, Lower petal truncate

3040 Creeping runners and stalks smoothish, Cal. obtuse

3041 Nearly stemless, Leaves roundish elliptical crenate stalked, Stipules lin. serrated, Spur as long as calyx

§ 2. *Cauliscent, Stipules membranous.*

3042 Old stem ascending, Leaves oblong cordate obt. dotted, Stipules setaceous toothed, Cal. lanceolate acute

3043 Stem square erect, Radical leaves cordate reniform, Flower-stalks longer than the leaves

3044 Stem erect angular, Lvs. cord. toothed crenat. smooth, Stip. tooth. on one side, Bract. above midd. of stalk

3045 Stem spread, compressed, Lower lvs. cord. ovate : upper ovate-lanceol. crenul. Stip. toothed on each side

3046 Stem ascending rounded, Leaves ovate lanceolate, Stipules cut serrated

3047 Stem erect, Leaves cordate oblong, Stipules toothed on one side, Anthers free

3048 Pubescent, Stem simple erect, Leaves ovate obl. acute, Petals lanc. entire, Flower-stalks length of leaves

3049 Cauliscent weak, Stipules membranous lanceolate slightly torn, Leaves shortly cordate toothed

3050 Stems erect and procumbent, Leaves oblong entire sinuated ciliated hispid, Stipules undiv. Calyxes acute

3051 Stems filiform undiv. procumb. Leaves ovate stalked : their edge at the base ciliated, Stipules undivided

3052 Smoothish, Leaves subcordate acuminate serrated, Flower-stalks length of leaves, Stipules short entire

3053 Leaves cordate acuminate serrated flattish, Stipules lanceolate serrated ciliated

3054 Villos pubescent, Stem erect leafy at top, Leaves broad cordate, Stipules oblong serrated at end

3055 Erect, Leaves broad lanceolate, Stipules linear lanc. entire, Flower-stalks axillary in pairs very short

3056 Stem erect and leaf-stks. 3-corner. Rad. fl. with cor. but sterile : caul. apert. fertile, Lvs. reniform cord. cren.

3057 Stem weak about 2-flowered, Leaves reniform serrate, Calyxes acute, Stipules entire

3058 Stem 1-flowered, Leaves cordate toothed

3059 Leaves linear lanc. toothed, Stipules linear entire, Spur very obtuse much shorter than calyx

§ 3. *Stipules pinnatifid, Stigma cup-shaped.*

3060 Stem ang. diffuse, Leaves oblong toothed crenate, Stipules lyrate pinnat. Cor. twice as long as smooth cal.

3061 Stem. ang. dec. diffuse, Lower lvs. cord. upper ovate obl. toothed cren. Cor. scarcely longer than smooth cal.

3062 Stem angular decumb. diffuse, Leaves ovate oblong toothed crenate, Cor. scarcely longer than hairy cal.

3063 Caulis. smooth, Leaves thickish ovate and oval cren. Flowers inverted wavy, Petals rounded broad renif.

3064 Stem angular diffuse and leaves oblong serrated hairy, Stipules lyrate pinnatifid, Cor. twice as long as cal.

3065 Stem 3-cornered simple, Lvs. obl. toothed, Stipules palm. many-cleft, Petals crenate, Spur as long as cal.

3066 Stem 3-cornered simple, Leaves ovate oblong crenate ciliated, Stipules palmate cut

3067 Stem 3-cornered simple, Leaves oblong, Stipules pinnatifid

3068 Stem very short erect, Leaves roundish crenate, Stipules entire, Flower-stalks 3-cornered



and Miscellaneous Particulars.

Desfontaines says it is frequent about Cassa and Tozzer, in Barbary, in the palm groves ; the blue and white growing promiscuously and flowering in winter. Hasselquist found it in Palestine, Thumberg in Japan, and Loureiro in China, near Canton. The double purple and the Neapolitan are the most esteemed varieties : the latter forces well, and where there is a stove or warm pit, may be had from Christmas to April, when others are in flower in the open air.

In medicine, the flowers of violets act as a laxative, and the syrup is used by chemists to detect an acid or an alkali : for this purpose the *V. odorata* is cultivated to some extent at Stratford upon Avon. (*Withering.*)

3069 calcarata W.	spurred	♂ Δ or	½	mr.jn	L.B	Switzerl.	1752.	D	p.l	
3070 cornuta W.	horned	♂ Δ or	½	my.jn	B	Pyrenees	1776.	D	p.l	Bot. mag. 791
541. IONIDIUM. Vent.	IONIDIUM.									
3071 polygalafolium V.	whorl-leaved	♂ □ or	1	ap.au	G.Y	S. Amer.	1797.	C	l.p	Vent. malm. 27
3072 Ipeacuanha Vent.	New Ipecac	♂ □ m	1½	jl	W	S. Amer.	1822.	C	l.p	Bot. mag. 2453
542. PHYLICA. W.	PHYLICA.									
3073 ericoides W.	Heath-leaved	♂	3	ap.s	W	C. G. H.	1731.	C	p.l	Bot. mag. 224
3074 parviflora W.	small-flowered	♂	2	ap.jl	W	C. G. H.	1790.	C	p.l	
3075 lanceolata W.	lance-leaved	♂	3	ap.my	W	C. G. H.	1790.	C	p.l	
3076 capitata W. en.	headed	♂	1	my.au	W	C. G. H.	1800.	C	p.l	Bot. reg. 711
3077 pubescens W.	downy	♂	2	fap	W	C. G. H.	1774.	C	p.l	Bot. cab. 695
3078 eriophora W.	pale-flowered	♂	3	n	W	C. G. H.	1774.	C	p.l	Pl. an. t. 445. f. 1
3079 rosmarinifolia P. S.	Rosemary-lvd.	♂	3	...	W	C. G. H.	1815.	C	p.l	Bot. cab. 849
3080 axillaris P. S.	axillary-flower.	♂	2	my.jn	W	C. G. H.	1812.	C	p.l	
3081 plumosa W.	feathered	♂	2	mr.my	W	C. G. H.	1752.	C	p.l	Bot. cab. 253
3082 villosa W.	villous	♂	2	my	W	C. G. H.	1790.	C	p.l	
3083 stipularis W.	horned	♂	3	my.s	W	C. G. H.	1786.	C	p.l	Bur. afr. t. 43. f. 2
3084 cordata W.	heart-leaved	♂	2	my.jn	P.Y	C. G. H.	1789.	C	p.l	Com. rar. 62. t. 12
3085 buxifolia W.	Box-leaved	♂	2	my.s	W	C. G. H.	1759.	C	p.l	Bot. cab. 848
3086 spicata W.	spiked	♂	2	n.d	W	C. G. H.	1774.	C	p.l	Bot. cab. 323
3087 myrtifolia P. S.	Myrtle-leaved	♂	3	...	D.Y	C. G. H.	1816.	C	p.l	
3088 callosa W.	callous-leaved	♂	1	mr.ap	W	C. G. H.	1774.	C	p.l	
3089 imbricata W.	imbricated	♂	1	au.n	W	C. G. H.	1801.	C	p.l	
3090 cylindrica W. en.	cylindrical	♂	2	ap.au	W	C. G. H.	...	C	p.l	Wendl. coll. t.
3091 racemosa W.	cluster-flower.	♂	5	my.s	W	C. G. H.	1790.	C	p.l	
3092 pinifolia W.	Pine-leaved	♂	6	my	W	C. G. H.	1789.	C	p.l	
3093 squarrosa W.	squarrose	♂	2	au.n	W	C. G. H.	1800.	C	p.l	Bot. cab. 36
543. ELECTRONIA. W.	ELECTRONIA.									
3094 corymbosa P. S.	corymbed	♂ □ or	20	...	W.G	C. G. H.	1816.	C	p.l	Burm. afr. t. 94
544. CONOCARPUS. W.	BUTTON-TREE.									
3095 erecta W.	upright	♂ □ tm	30	...	Pa.Y	Jamaica	1752.	C	p.l	Cat. car. 2. t. 33
3096 procumbens W.	procumbent	♂ □ or	6	...	Pa.Y	Cuba	1730.	C	p.l	Jac. am. t. 52. f. 2
545. CYPHIA. W.	CYPHIA.									
3097 volubilis W.	twining	♂ □ or	1	...	P.B	C. G. H.	1795.	D	l.p	
3098 bulbosa W.	bulbous	♂ □ or	½	au.s	P.B	C. G. H.	1791.	D	l.p	Bur. afr. t. 38. f. 1
3099 Phyteuma										Bot. reg. 625
546. LIGHTFOOTIA. L'Her.	LIGHTFOOTIA.									
3100 oxycoccoides W.	lance-leaved	♂ □ or	½	jl	B.w	C. G. H.	1787.	C	s.l	Ex. bot. 2. t. 69
3101 subulata W.	awl-leaved	♂ □ or	½	au	B	C. G. H.	1787.	D	s.l	L'He. s. an. 4. t. 5
547. JASIONE. W.	SHEEP'S SCABIOUS.									
3102 montana W.	mountain	○ pr	1	jn.jl	B	Britain	sa. pa.	S	co	Eng. bot. 882
3103 perennis W.	perennial	♀ Δ pr	1	jn.jl	B	France	1787.	D	co	Bot. inag. 2198
548. LAGECIA. W.	CUMIN.									
3104 cuminoides W.	wild	○ cu	1	jn.jl	G.Y	Levant	1640.	S	co	Lam. ill. t. 142
549. HE'DERA. W.	IVY.									
3105 Hélix W.	common	♂	40	o.n	G	Britain	woods.	L	co	Eng. bot. 1267
β poetica	poet's	♂	20	o.n	G	.....	...	L	co	
γ vegeta	Irish	♂	50	o.n	G	Madeira	...	L	co	
δ arborea	tree	♂	8	o.n	G	.....	...	L	co	
ε chrysoearpa	yellow-berried	♂	30	o.n	G	Greece	1815.	L	co	
3106 capitata Suz.	capitate	♂ □ or	12	o.n	G	W. Indies	1823.	C	p.l	Jac. am. t. 61



History, Use, Propagation, Culture.

V. hirta and canina bear a considerable resemblance to V. odorata; but the first may be distinguished by its hairy petioles, and the last by its flowers being inodorous.
 V. arborescens is readily propagated by young cuttings planted under a hand-glass.
 541. Ionidium. From Ion, a violet, and idos, similar, on account of its resemblance to a violet, from which it is by some thought not to be generically distinct.
 542. Phytica; in Greek φυλλα, and should therefore be written Phylca. The plant of the ancients is not known. Some think it was the Holly. P. ericoides occupies large tracts of ground about Lisbon, in the same manner as heath occupies many lands in England. Young cuttings of all the species root readily in sand under a bell-glass.
 543. Plectronia. From πλετρον, a spur. The tree is furnished with stiff spines like the spurs of a cock.
 544. Conocarpus. From κονος, a cone, and καρπος, a fruit: its fruit resembles the cone of an alder. Tropical trees, with alternate entire leaves and small heads of yellowish flowers.
 545. Cyphia. From κυφος, curved, on account of its curved stigma. Small Cape plants resembling Lobelia.

- 3069 Stem short, Spur subulate longer than petals, Leaves somewhat ovate, Stipules toothed
 3070 Stem ascending 3-cornered, Leaves cordate crenate, Spur subulate longer than calyx, Upper petal acum.
- 3071 Stem ascending, Leaves opposite sessile and stipules lanceolate, Flowers nodding longer than leaves
 3072 Leaves ovate obl. Pedunc. axillary solitary drooping, Lower lip very large emarginate
- 3073 Leaves linear lanceolate obtuse revolute at edge smooth, Branches umbelled, Heads round downy
 3074 Leaves subulate acute rough somewhat hairy, Branches paniced many-flowered
 3075 Leaves scattered linear lanceolate hoary beneath, Heads terminal hairy
 3076 Leaves linear lanceolate villous, Bractes woolly, Heads terminal
 3077 Leaves linear lanceolate acute spreading villous hoary beneath, Bractes colored villous very long
 3078 Leaves linear hairy tomentose beneath revolute at edge, Heads terminal, Flowers downy
 3079 Leaves linear flattish hoary beneath erect, Heads ovate downy
 3080 Leaves linear lanceolate revolute at edge hoary beneath, Flowers axillary solitary racemose
 3081 Leaves linear subulate very villous, Flowers terminal axillary, Cor. spreading
 3082 Leaves linear upper villous, Flowers racemose
 3083 Leaves linear revolute at edge rough hoary beneath, Stipules filiform colored, Bractes bifid naked
 3084 Leaves cordate ovate spreading, Stem proliferous
 3085 Leaves ovate scattered opposite and three together beneath netted veiny tomentose
 3086 Leaves oblong cordate acuminate beneath hoary, Spikes cylindrical, Flowers length of bractes
 3087 Leaves ovate mucronate smooth above and shining beneath hoary, Racemes leafy paniced
 3088 Leaves oblong cordate acuminate hairy beneath white, Flowers in heads
 3089 Leaves cordate ovate smooth, Flowers racemose
 3090 Leaves linear lanc. revolute at edge villous hairy beneath, Flowers cylind. Bractes as long as flowers
 3091 Leaves ovate smooth, Flowers simple paniced racemose
 3092 Leaves aereose flat on each side very smooth, Flowers paniced racemose
 3093 Leaves linear ciliated arcuate spreading, Head terminal
- 3094 Branches square, Leaves opposite stalked lanceolate ovate entire smooth
- 3095 Erect, Leaves lanceolate
 3096 Procumbent, Leaves obovate
- 3097 Leaves entire and toothed linear, Stem twining
 3098 Leaves digitate, Leaflets pinnatifid, Stem erect
 3099 Leaves oblong crenated ciliated, Scape erect
- 3100 Leaves and petals lanceolate
 3101 Leaves subulate, Petals linear
- 3102 Leaves linear lanceolate narrow at the base hispid wavy curled
 3103 Leaves linear smoothish flat obtuse
- 3104 The only species
- 3105 Leaves ovate 3-5-angular and 3-5-lobed floral ovate acuminate veiny, Umbels erect
- 3106 Leaves elliptical entire, Racemes compound terminal, Flowers sessile in small heads



and Miscellaneous Particulars.

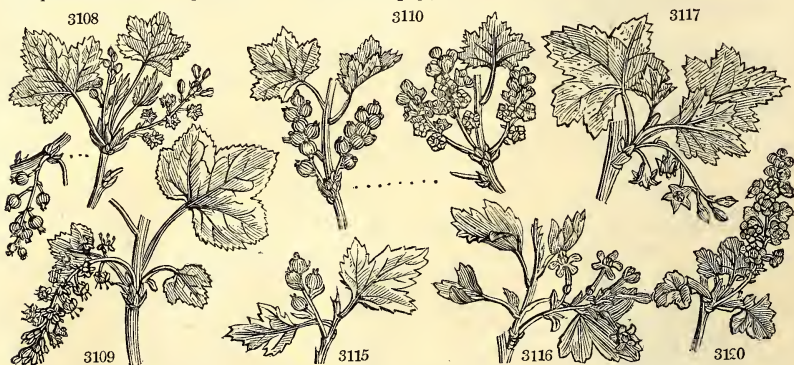
546. *Lightfootia*. Named after the Rev. John Lightfoot, an English clergyman, and author of the first Flora Scotica. The genus is very nearly related to *Campanula*, from which it is by some thought not different.

547. *Jasione*. A name applied by Pliny to an eatable plant. *J. montana* so resembles *Scabiosa*, as to be often mistaken for a plant of that genus. Linnæus gives a curious account of the process of fecundation in this plant, from which may be observed its affinity to Syngenesia, where it was first placed.

548. *Lagocia*. From *λαγος*, a hare, and *οικος*, a residence. The little seeds enveloped in the downy involucreum have been likened to young leverets in a hare's form. The seeds should be sown in autumn soon after they are ripe, otherwise, if this is deferred till spring, they commonly remain a year, and sometimes two or three years, before they grow.

549. *Hedera*. A name for which many etymologies have been offered. The best explanation is, that it has been derived from *hedra*, cord, in Celtic. *Lierre*, Fr. *H. helix* is a valuable ornamental evergreen for covering naked buildings or trees, for training into fanciful shapes, as of human figures, &c. on skeletons of wire-work, or trained up a stake so as to form a standard. Flowering so late in the season, it is much resorted to by

550. RIBES. <i>W.</i>	CURRENT.				<i>Grossulaceae.</i>	Sp. 25—49.			
3107 rubrum <i>W.</i>	red	莖	fr	4	ap.my	G	Britain	riv. ba.	C r m Eng. bot. 1289
β album	white	莖	fr	4	ap.my	G	Britain	...	C r m
γ sylvestre	wild	莖	or	4	ap.my	G	Britain	...	C r m
3108 petraeum <i>W.</i>	rock	莖	or	4	my	R	England	moun.	C co
3109 multiflorum <i>Kil.</i>	many-flowered	莖	or	5	ap.my	Gr	Hungary	1822.	C co Bot. mag. 2363
3110 spicatum <i>Sm.</i>	acid	莖	or	4	ap.my	G	England	m. wo.	C co Eng. bot. 1290
3111 trifidum <i>Mich.</i>	trifid	莖	or	4	ap.my	Pu	Quebec	1823.	C co
3112 procumbens <i>Pall.</i>	trailing	莖	fr	3	my.jn	Pu	Dahuria	1804.	L m.s Pall. ross. 2. t. 65
3113 rigens <i>Mich.</i>	stiff	莖	or	6	ap.my	G	N. Amer.	1777.	C co
3114 prostratum <i>Ph.</i>	glandulous	莖	or	1½	ap.my	Pu	N. Amer.	1777.	L s.l L'Her. st. 1. t. 2
3115 alpinum <i>W.</i>	Alpine	莖	or	3	ap.my	G	Britain	woods.	C co Eng. bot. 704
3116 aureum <i>Ph.</i>	golden	莖	or	8	ap.my	Y	Missouri	1812.	C r m Bot. reg. 125
3117 nigrum <i>W.</i>	black	莖	fr	5	ap.my	G	Britain	m. hed.	C r m Eng. bot. 1291
3118 floridum <i>W.</i>	Pensylvanian	莖	or	4	ap.my	G	N. Amer.	1729.	C co Dil. el. t. 244. f. 315
3119 laxiflorum <i>Ph.</i>	loose-flowered	莖	or	4	ap.my	Y.g	N. Amer.	1812.	C co
3120 resinosum <i>Ph.</i>	clammy	莖	or	3	ap.my	Y.g	N. Amer.	1800.	L co Bot. mag. 1583
3121 hirtellum <i>Ph.</i>	hairy	莖	or	3	ap.my	Y.g	N. Amer.	1812.	L s.l
3122 gracile <i>Ph.</i>	slender	莖	or	4	ap.my	Y.g	N. Amer.	1812.	L s.l
3123 triflorum <i>Ph.</i>	three-flowered	莖	or	4	ap.my	G.r	N. Amer.	1812.	L r.l W. ho. be. 1. t. 61
3124 orientale <i>Desf.</i>	easteri	莖	or	4	my.jn	G.y	Syria	1824.	C co
3125 diacantha <i>W.</i>	two-spined	莖	or	4	my.jn	G.y	Siberia	1781.	L r.l Schm. arb. t. 97
3126 reclatum <i>W.</i>	procumbent	莖	or	2	ap.my	P.G	Germany	1683.	L co
3127 Grossularia <i>W.</i>	rough-Gooseb.	莖	fr	4	mr.ap	G	England	hed.	C r m Eng. bot. 1292
3128 Uva-crispa <i>W.</i>	smth.-Gooseb.	莖	fr	4	mr.ap	G	England	hed.	C r m Eng. bot. 2057
3129 oxycanthoides <i>W.</i>	Hawthorn-lvd.	莖	or	3	ap.my	W.y	N. Amer.	1705.	L co D. el. t. 139. f. 166
3130 lacustris <i>Ph.</i>	swamp	莖	or	4	ap.my	Y.g	N. Amer.	1812.	C p.l
3131 Cynobati <i>W.</i>	prickly-fruited	莖	or	4	ap	G	Canada	1759.	C s.l Schmidt. arb. 98
551. GRONO'VIA. <i>W.</i>	GRONOVIA.	莖	cl	6	jn.jl	G.y	Jamaica	1731.	C p.i Jac. ic. 2. t. 338
3132 scandens <i>W.</i>	climbing	莖	cu						
552. ACHYRANTHES. <i>W.</i>	ACHYRANTHES.						<i>Amaranthaceae.</i>	Sp. 6—28.	
3133 argentea <i>W.</i>	upright	莖	cu	1	my.o	W	Sicily	1713.	C l.s Bocc. sic. 16. t. 9
3134 aspera <i>W.</i>	rough	莖	cu	3	my.o	Pk	India	1751.	C l.s Mill. ic. 1. t. 11. f. 2
3135 porrigens <i>H. K.</i>	crimson-flower.	莖	cu	2	ap.au	Pu	.....	1802.	C r m Bot. mag. 830
3136 nivea <i>W.</i>	white	莖	cu	2	my.jl	W	Canaries	1780.	C r m
3137 fruticosa <i>Lam.</i>	shrubby	莖	cu	6	my.jl	Pu	E. Indies	1820.	C r m
3138 pubescens <i>Roth.</i>	pubescent	莖	cu	1½	ap.jl	Pk	.....	1821.	C r m



History, Use, Propagation, Culture,

bees and flies, when little other food is to be had. The berries increase during the winter, are full formed in February, and ripen in April; furnishing food for wild pigeons, blackbirds, thrushes, &c. in the spring. Black-birds, and several other birds, build their nests in the stumps of ivy tufts. Sheep are fond of the leaves, especially during severe weather. The ancients held ivy in great esteem, and Bacchus is represented crowned with it to prevent intoxication.

H. Helix vegeta, the giant or Irish ivy, perhaps a distinct species, is a native of the island of Madeira.
 550. *Ribes*. The name of an acid plant mentioned by the Arab physicians, and supposed to be the plant now called Rheum Ribes. *R. grossularia* is so called because its berries resemble little half-ripe figs.—*grossi*. This is a genus of well known shrubs; some of them much cultivated for their fruit. *R. rubrum*, the common red currant, is the *Groseilles en grappes*, or *Groseilles d'outre mer*, Fr., *Gemeine Johannisbeere*, Ger., and *Uvetta*, Ital. The English name currant is evidently from the similitude of the fruit to that of the grape of Zante, which dried forms the corinths or currants of the shops. The fruit has an agreeable sub-acid taste, and is generally relished both at the dessert and in pies and tarts. Equal weights of fruit and pure sugar, put over the fire, yield a liquor which forms a most agreeable jelly, used as a sweetmeat to eat with hare, venison, and Welch mutton, to flavor punch, and as a medicine. It is also much used for making wine, and is grown to a considerable extent for that purpose in Essex, Kent, and about Pershore in Worcestershire. The principal varieties are the white, and pale or Champagne; but any number of varieties may be procured from sowing the seeds; from which, however, none superior to those in general use have been hitherto originated.

The culture of the red currant is known to every countryman. It grows freely by cuttings of last year's wood, which should be of sufficient length to form a handsome plant, with a clean stem, ten inches high. It grows in any soil, but prospers best in one loamy and rich. The best flavored fruit is produced from plants in an open free situation, but they will grow under the shade of walls or trees, and either as low bushes or trained against walls or espaliers. They bear chiefly from spurs, and therefore, in pruning, most of the young wood is cut to within two or three buds of that where it originated.

R. nigrum, the black currant, is common in moist woods in Russia and Siberia, where a wine is made of the berries alone, or fermented with honey, and with or without spirits. In Siberia they make a drink of the leaves: these tincture common spirits so as to resemble brandy; and a few of them dried and mixed with black tea, answer all the purposes of the green material. Many persons dislike the very peculiar flavor of the berries

1. *Unarmed.* CURRANTS.

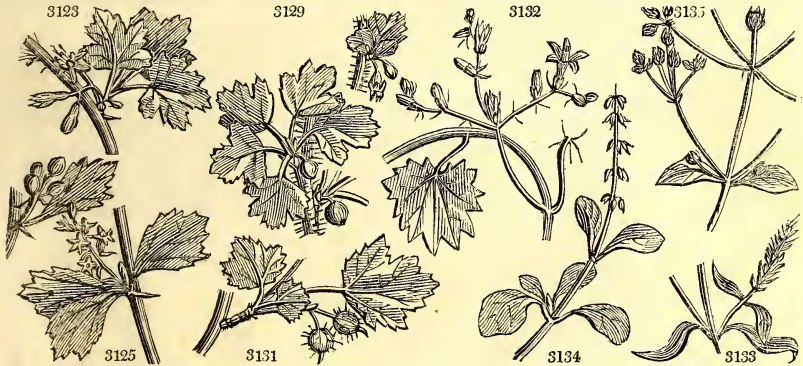
- 3107 Leaves smooth pendulous, Flowers flattish, Petals obovate, Leaves obtuse 5-lobed, Stem erect
 β Berries yellow
 γ Lobes of leaves shortish, Leaf-stalks, Flower-stalks, and Flowers pubescent [Stem erect
 3108 Rac. rather hairy when in flow. erect afterw. pendul. Brac. shorter than flow. Lvs. acum. lob. cut toothed,
 3109 Racemes spiked pendulous, Petals oblong, Bractes shorter than flowers
 3110 Spikes erect, Petals oblong, Bractes shorter than flower
 3111 Leaves moderately lobed smoothish above pub. beneath, Flowers small, Sepals trifid, Berries red hairy
 3112 Racemes erect, Flowers flat, Leaves obtusely lobed, Stem procomb. [fruit stiffly upr. Ber. rough red
 3113 Branc. upr. Leaves smooth above beneath pub. nett. Lob. and teeth acute, Rac. loosely many-fl. always in
 3114 Stems prost. Lvs. lobed smoothish younger pub. Rac. nearly erect, Petals deltoid, Bract. min. Herr. hispid
 3115 Racemes erect, Bractes as long as flowers or longer, Peduncles hairy with glands, Lvs. shining beneath
 3116 Very smooth, Lvs. 3-lobed, Lobes spreading with a few teeth, Bract. lin. as long as fl.-stalks, Berries smooth
 3117 Lvs. dotted beneath, Racemes hairy loose, Flow. campan. Brac. shorter than fl.-stalks, Ped. simple at base
 3118 Leaves dotted on each side, Racemes pendulous, Flowers cylindrical, Bractes longer than germen
 3119 Leaves cordate 5-lobed cut-toothed smooth, Stalks slender, Racemes loose erect the length of leaves
 3120 Glandular hairy, Rac. erect, Lvs. 5-lobed obtuse cren. roundish, Bractes linguulate longer than fl.-stalk

2. *Prickly.* GOOSEBERRIES.

- 3121 Spine one under the axillæ, Branches hispid, Lvs. small $\frac{3}{4}$ -trifid: lobes toothed, Berry solitary smooth red
 3122 Spine under axillary very short, Lvs. on slender stalks pub. on both sides: lobes acute cut and toothed, Ped.
 3123 Prickles solitary, Peduncles 2 or 3-flowered, Berries polished [capillary
 3124 Somewhat prickly, Leaves round cut-lobed hairy, Racemes short, Berries rough with hairs
 3125 Prickles twin or solitary, Leaves wedge-shaped 5-parted and obsolete 3-lobed toothed, Fl. racemose erect
 3126 Branches somewhat prickly reclinate, Bract. of the peduncle 3-leaved
 3127 Leaf-stalks hairy, Peduncles 1-flowered, Bractes 2, Fruit hairy
 3128 Peduncles 1-flowered, Bractes connate-tubular, Fruit smooth
 3129 Branches prickly all over
 3130 Spine sub-axillary compound, Stem hispid all over, Leaves lobed beyond middle, Berries racemose hispid
 3131 Prickles sub-axillary, Berries prickly racemose dull brown

3132 Leaves like those of the vine stinging cirrhose

- 3133 Leaves roundish ovate acuminate, Calyxes reflexed pressed close to the spike
 3134 Leaves obovate acute narrowed at base, Calyxes reflexed pressed close to the spike
 3135 Leaves ovate lanceolate opposite, Spikes elliptical corymbose on long stalks, Stem shrubby
 3136 Branches whorled ovate downy, Corymbs compact dichotomous, Flowers with corollas
 3137 Stem erect, Ovate leaves and calyxes smooth
 3138 Stem erect rounded and elliptical oblong leaves pubescent, Spikes axillary and terminal stalked



- and Miscellaneous Particulars.

of the black currant, which are therefore not much used in the kitchen or dessert, and seldom in wine making. They make a jelly or jam in estimation as a gargle for inflammatory sore throats.

The culture of the black currant is similar to that of the red; but as it is less apt to bear on spurs than on young wood, the shoots are not so much shortened in this as in the other. It is singular that no varieties have been raised of this species, nor will it produce hybrids, as far at least as has been tried with the other cultivated sorts of Ribes.

R. Grossularia and R. uva crispa are the rough and smooth gooseberries; *Grosselle*, Fr., *Johannisbeere*, Ger., and *Uvaspina*, Ital.; in universal culture and estimation in Britain, but not much known or esteemed in any other country. The climate of France, Italy, and Spain is too warm; and the summers of many parts of the north of Europe too rapid for their attaining a good size. They are, however, more in vogue now in the latter countries than they have ever been before; but as the quality of the fruit soon degenerates when the plants are not kept in high cultivation, it can never become very popular in countries where the pear, vine, fig, and olive grow freely, and which being planted and once established in the soil, grow and bear for ages with very little care.

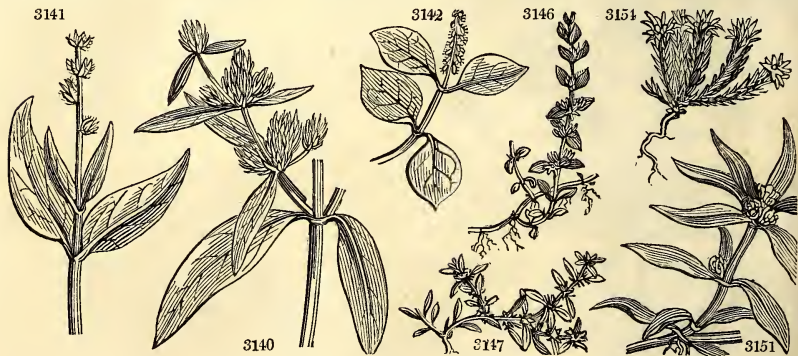
The varieties of the gooseberry are very numerous, and yearly increasing in Lancashire and other counties where the fruit is grown for prizes, by raising from the seed. These new varieties, however, are valued more according to the size of the berry, than its flavor, or the prolificacy of the plant; so that few so originated are fit to be added to the list of table or kitchen fruit. Twenty-five pennyweights is considered a great weight for a gooseberry, but some have been raised a few dwts. heavier. (See the *Manchester Gooseberry Book*, pub. annually.)

The gooseberry is generally propagated by cuttings, and trained as a dwarf bush, or sometimes on espalier rails: one variety, the green-gage, makes very neat half-standards, and bears better in that state than as a bush. They require a loamy soil, an open airy situation, and yearly attention to pruning, and refreshing their roots with manure and stirring the surface.

551. *Gronovia*. In honor of John Frederick Gronovius, a learned botanist at Leyden. This is a trailing plant like the cucumber, with broad hairy leaves, which sting like the nettle. Treated like the melon, it will produce ripe seeds, but is a plant of neither beauty nor use.

552. *Achyranthes*. From ἀχρῆς, chaff, and ἀνθός, a flower, in allusion to the chaffy nature of the floral envelopes. This genus is of easy culture, but little beauty. All root freely by cuttings. A. porrigens is the only handsome species.

553. PHILOXERUS <i>R. Br.</i> PHILOXERUS.		<i>Amaranthaceae. Sp. 2—6.</i>					
3139 <i>vermiculatus R. Br.</i> creeping	☒	△	w	2	jlo	Pk	S. Amer. ...
3140 <i>brasiliensis R. Br.</i> upright	☒	△	w	3	jlo	W	Brazil 1790.
554. DESMOCHÆTA <i>D. C.</i> DESMOCHÆTA.		<i>Amaranthaceae. Sp. 5—12.</i>					
3141 <i>lappacea J.</i> Bur	☒	△	or	1	au.o	Pu	E. Indies 1759.
3142 <i>prostrata D. C.</i> prostrate	☒	△	or	2	jl.au	G.Pu	E. Indies 1793.
3143 <i>muricata D. C.</i> prickly	☒	△	or	3	au.n	G	India 1777.
3144 <i>alternifolia D. C.</i> alternate-leaf'd	☒	△	or	2	jl.au	P	E. Indies 1789.
3145 <i>pátula R. S.</i> spreading	☒	△	or	3	au.o	W	E. Indies 1823.
555. ILLECEBRUM <i>Juss.</i> KNOT-GRASS.		<i>Amaranthaceae. Sp. 3—15.</i>					
3146 <i>verticillatum W.</i> whorled	☒	△	w	1	jl	W	England bog.pl
3147 <i>cymosum Poir.</i> cymose	☒	△	w	1	jl	W	S. Europe 1820.
3148 <i>echinatum Poir.</i> prickly	☒	△	w	1	jl	G	Barbary 1821.
556. ALTERNANTHERA <i>R. Br.</i> ALTERNANTHERA.		<i>Amaranthaceae. Sp. 5—25.</i>					
3149 <i>Achyrantha R. Br.</i> creeping	☒	△	cu	1	jn.au	W	Buenos A. 1732.
3150 <i>polygonoides R. Br.</i> Persicaria-leav.	☒	△	cu	1	jn.au	W	America 1731.
3151 <i>séssilis R. Br.</i> sessile-flowered	☒	△	cu	1	jl.o	Br	E. Indies 1777.
3152 <i>ficoides R. Br.</i> fleshy-leaved	☒	△	cu	1	jn.jl	G	S. Amer. 1821.
3153 <i>spinosa Horn.</i> spiny	☒	△	cu	1	my.jn	Y	..... 1823.
557. PARONYCHIA <i>Juss.</i> PARONYCHIA.		<i>Amaranthaceae. Sp. 4—18.</i>					
3154 <i>capitata Juss.</i> capitate	☒	△	w	1	jn.au	W	Spain 1683.
3155 <i>nivea D. C.</i> villous	☒	△	w	1	jn.au	W	Spain 1812.
3156 <i>alsinifolia J.</i> Chickweed-lvd.	☒	△	w	3	jn.au	W	Spain ...
3157 <i>hispanica D. C.</i> Spanish	☒	△	w	1	jn.au	W	Spain 1683.
558. CHENOLEA <i>W.</i> CHENOLEA.		<i>Chenopodeae. Sp. 1.</i>					
3158 <i>diffusa W.</i> silky	☒	△	w	1	au.s	G	C. G. H. 1758.
559. ANYCHIA <i>Michx.</i> ANYCHIA.		<i>Amaranthaceae. Sp. 1—3.</i>					
3159 <i>dichotoma Mich.</i> forked	☒	△	w	1	my.au	G	N. Amer. 1806.
560. ÆRUA <i>Juss.</i> ÆRUA.		<i>Amaranthaceae. Sp. 2.</i>					
3160 <i>lanata J.</i> woolly	☒	△	cu	1	ap.au	W	E. Indies 1691.
3161 <i>javanica J.</i> spear-leaved	☒	△	cu	2	ap.au	W	E. Indies 1768.
561. LESTIBUDESIA <i>R. Br.</i> LESTIBUDESIA.		<i>Amaranthaceae. Sp. 3—5.</i>					
3162 <i>paniculata R. Br.</i> panicled	☒	△	cu	3	jn.s	P.Y	Jamaica 1733.
3163 <i>trigyna R. Br.</i> oval-leaved	☒	△	cu	1	au.o	W	Senegal 1777.
3164 <i>virgata R. Br.</i> wave-leaved	☒	△	cu	4	au.o	G	..... 1815.
562. RHAGODIA <i>R. Br.</i> RHAGODIA.		<i>Chenopodeae. Sp. 2—7.</i>					
3165 <i>hastata R. Br.</i> spear-leaved	☒	△	cu	1	jn.jl	G	N. Holl. 1823.
3166 <i>Billardiéri R. Br.</i> Labillardiere's	☒	△	cu	5	jn.jl	G	N. Holl. 1823.
563. DEERINGIA <i>R. Br.</i> DEERINGIA.		<i>Amaranthaceae. Sp. 1.</i>					
3167 <i>celosioides R. Br.</i> Berry-bearing	☒	△	cu	6	au.o	W	E. Indies 1804.
564. TRIANTHEMA <i>L.</i> TRIANTHEMA.		<i>Portulacae. Sp. 1—6.</i>					
3168 <i>monogyna L.</i> monogynous	☒	△	w	1	my.jn	P.G	Jamaica 1820.
565. CELOSIA <i>R. Br.</i> COCK'S-COMB.		<i>Amaranthaceae. Sp. 8—22.</i>					
3169 <i>argentea W.</i> silvery-spiked	☒	△	or	1	jn.s	L.F	China 1714.
3170 <i>cristata W.</i> common	☒	△	or	2	jn.s	D.R	Asia 1570.
3171 <i>comosa W.</i> tufted	☒	△	or	1	jn.s	Pk	E. Indies 1802.
3172 <i>coccinea W.</i> scarlet	☒	△	or	5	jn.s	Pu	China 1597.
3173 <i>cérnua B. Rep.</i> drooping	☒	△	or	3	jl.au	Pu	E. Indies 1809.
3174 <i>castrénsis W.</i> branched	☒	△	or	2	jl.s	Pu	E. Indies 1739.
3175 <i>Monsóniæ W.</i> downy	☒	△	or	3	jl.s	W	E. Indies 1778.
3176 <i>nodiflora W.</i> knotted	☒	△	or	2	jl.s	Gr	E. Indies 1780.



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553. *Philoxerus*. From *φίλος*, a lover, and *ἔργος*, arid; a plant delighting in sandy soil. The species resemble *Gomphrena* or *Achyranthes*.

554. *Desmochæta*. From *δεσμος*, a bond, and *χαίτα*, a sheath, in allusion to the coherence of the flowers in their heads. It was called *Pupalia* by Jussieu, from its Malabar appellation. Plants nearly related to *Achyranthes*, in which they were included by Linnæus.

555. *Illecebrum*. A name of Pliny, designating a kind of wild purslane. It is now applied to singular little weed-like plants, with white scarios stipules to their leaves.

556. *Alternanthera*; that is to say, alternate anthers, those organs being by turns fertile and barren.

557. *Paronychia*. Something which cures whitlows, or maladies of the finger nails, called by the Greeks *παρονυχία*. These are dwarf plants which grow in light soil, and are well adapted for pots or rock-work.

558. *Chenolea*. From *χην*, a goose, and *olea*, an olive. The leaves are silvery, like those of the olive; the plant humble like the Goosefoot. This plant is noticed for its silvery leaves: it is propagated by young cuttings planted under a hand-glass.

559. *Anychia*. A word with the same meaning as *Paronychia* (in No. 557.), and a genus with similar habits.

- 3139 Stems erecting, Leaves rounded fleshy, Heads solitary terminal oblong
 3140 Stem erect shrubby, Leaves ovate oblong acuminate, Heads round stalked leafless
- 3141 Stem $\frac{1}{2}$ -shrubby spreading smooth, Leaves opp. ovate acum. roughish, Flowers with long purple bristles
 3142 Stems shrubby prostrate, Leaves opposite ovate, Fascicles of flowers remote spreading at length reflexed
 3143 Stem shrubby spreading, Leaves alternate ovate naked, Fasc. of flowers remote ovate, Bristles callous
 3144 Stem erect, Leaves alternate ovate smooth, Racemes many, Fascicles ovate remote, Bristles callous
 3145 Stem shrubby spreading pubescent, Flowers in round prickly spikes
- 3146 Stems filiform smooth, Leaves roundedish, Calyxes 5-cornered bearded
 3147 Stem branched erect, Leaves rounded smooth bearded, Flowers cymose, Bractes very short
 3148 Stem branched prostrate, Flowers clustered axillary naked, Calyxes ventricose beneath hairy
- 3149 Heads sessile, Flowers smooth three times as long as utricle, Leaves ovate mucronate unequal
 3150 Stems creeping hairy, Leaves broad lanceolate stalked, Heads round naked
 3151 Heads subsessile, Calyx ovate acuminate nearly as short again as utricle, Leaves ovate lanceolate
 3152 Stems creeping smooth, Leaves broad lanceolate stalked, Heads round pubescent
 3153 Leaves ovate lanceolate deflexed, Flowers axillary clustered, Cal. spiny, Stem tomentose dichotomous
- 3154 Stems rising, Leaves carinate oblong ciliated at base, Flowers terminal mixed among the bractes
 3155 Stems sub-erect much branched, Leaves spreading villous, Bractes very large concealing the flowers
 3156 Stems diffuse, Leaves ovate, Flowers heaped, Bractes shining
 3157 Flowers surrounded by shining bractea, Stems procumbent, Leaves smooth
- 3158 The only species
- 3159 Stem dichotomous, Leaves lanceolate: of the stem opposite, of the branches altern. Flowers sol. axillary
- 3160 Stem herbaceous erect, Flowers lateral woolly, Leaves alternate ovate
 3161 Leaves lanceolate downy, Spikes cylindrical numerous terminal
- 3162 Leaves ovate oblong, Stem rising panicled, Spikes alternate terminal remote
 3163 Leaves ovate acuminate flat, Raceme loose, Bractes scarious, Pistil trifid
 3164 Shrubby smooth, Cauline leaves spatulate, Stem leaves lanceolate, Flowers heaped spiked
- 3165 Half shrubby erect, Branches diffuse, Leaves nearly opp. hastate entire smooth
 3166 Shrubby erect, Branches unarmed, Leaves entire linear oblong and lanceolate flat beneath powdery
- 3167 Leaves cordate acuminate, Raceme spiked loose, Flowers trigynous
- 3168 Stems depressed jointed smooth, Leaves oval obtuse entire red at edge
- 3169 Leaves linear lanceolate, Stipules falcate, Peduncles angular, Spikes scarious ovate cylindrical
 3170 Leaves ovate acuminate, Stipules falcate, Common peduncle striated, Spike oblong compressed
 3171 Spikes cylindrical comose, Leaves lanceolate
 3172 Leaves ovate upright without auricles, Stem furrowed, Spikes multiple crested
 3173 Flowers panicled nodding, Leaves lanceolate, Stem ribbed
 3174 Leaves lanceolate ovate lined very much acuminate, Spikes crested, Stipules falcate
 3175 Leaves subulate whorled, Stem branched straggling, Spikes compact cylindrical
 3176 Leaves wedge-shaped acutish, Spikes globose lateral



and Miscellaneous Particulars.

560. *Ærua*. From its Arabic name *erōdā*. Little weeds like *Illecebrum*.
 561. *Lestibudesia*. Named by M. du Petit Thouars, after Fr. Jos. Lestiboudois, a Flemish botanist, author of a work called *Botanographie Belgique*, published in 1781. The species are readily increased either by seeds or cuttings.
 562. *Rhagodia*. From *ῥαγώδης*, bearing berries. The fruit is a small berry, by which character the genus is chiefly distinguished from *Chenopodium*.
 563. *Deeringia*. Named by Mr. Brown, in memory of Dr. Charles Deering, author of a *Flora of Nottingham*, and a skilful botanist of his day. Weak shrubs, with terminal spikes of flowers, and a berried inflated pericarp.
 564. *Trianthesia*. From *τρεις*, three, and *ανθος*, flowers. The flowers are frequently placed in threes in the axilla of the leaves. Little tropical weeds.
 565. *Celosia*. From *κελος*, burnt, because the flowers of some species appear as if they were singed. *C. cristata* is a well known tender annual, of which there are many varieties, as in the balsam, and which, like that plant, will attain a large size and singular beauty by repeated shiftings. Thunberg states that the flowers or crests are frequently a foot in length and breadth in Japan. T. A. Knight sent a flower to the Horticultural Society

566. GOMPHRE'NA. R. Br. GLOBE AMARANTH.	<i>Amaranthaceae. Sp. 4—25.</i>									
3177 globosa W.	annual	☐ or	1½	my.o	P.W	India	1714.	S	r.m	Rhd.mal.10. t.37
3178 perennis W.	perennial	☐ or	2	jl.o	P.Y	S. Amer.	1732.	C	r.m	Di.el.24.t.20.f.22
3179 arborescens W.	tree	☐ or	3	jl.o	W	S. Amer.	1802.	C	r.m	
3180 interrupta W.	trailing	☐ or	2	jl.au	Gr	W. Indies	1733.	C	r.m	Jac. ic. 1. t. 51
567. MOL/LIA. W.	MOLLIA.				<i>Amaranthaceae. Sp. 2—3.</i>					
3181 diffusa H. K.	forked	☐ w	½	jl.au	W	Canaries	1779.	S	lp	Will.hort.ber.11
3182 aristata H. K.	bearded	☐ w	½	jn.jl	W	Canaries	1780.	C	lp	
568. GLA'UX. W.	BLACK SALTWORT.				<i>Salicariae. Sp. 1.</i>					
3183 maritima W.	sea	☐ cu	¼	my.jn	F	Britain	salt m. S.1	Eng. bot. 13		
569. THE'SIUM. W.	BASTARD TOAD FLAX.				<i>Santalaceae. Sp. 5—33.</i>					
3184 linophyllum W.	common	☐ cu	½	jn.jl	W	England	ch.pa. D.p1	Eng. bot. 247		
3185 alpinum Hayne.	Alpine	☐ cu	½	jn.jl	W	Germany	1814. D.p1	Jac. aust.5. t.416		
3186 ebracteatum Hayne.	obtuse-leaved	☐ cu	½	jn.jl	W	Germany	1814. D.p1	Sch.bo.j.1800. t.7		
3187 umbellatum W.	umbelled	☐ cu	1	jn	G	N. Amer.	1782. D.p1	Pl. mant.342.f.1		
3188 alexicaule W.	heart-leaved	☐ cu	4	...	W	C. G. H.	1787. C.s1			
570. HELICONIA. W.	HELICONIA.				<i>Musaceae. Sp. 3—12.</i>					
3189 Bihai W.	Plantain-leav'd	☐ or	12	jl.au	O	W. Indies	1786. S.sp	Sw. ob.96. t.5. f.2		
3190 humilis W.	dwarf	☐ or	6	jl.au	S	Caracas	1798. D.s.p	Jac.sch.1.t.48,49		
3191 Psittacorum W.	Parrot-beaked	☐ or	8	aus.	O	W. Indies	1797. S.sp	Bot. mag. 502		
571. STRELIT'ZIA. H. K. STRELITZIA.					<i>Musaceae. Sp. 8.</i>					
3192 augusta H. K.	august	☐ or	18	f.my	Y	C. G. H.	1791. S.p1			
3193 reginae H. K.	Canna-leaved	☐ or	8	ap.my	Y	C. G. H.	1773. S.p1	Red. lil. 77, 78		
3194 ovata H. K.	ovate-leaved	☐ or	8	f.ap	Y	C. G. H.	1771. S.p1	Bot.mag.119,120		
3195 farinosa H. K.	mealy-stalked	☐ or	5	f.mr	Y	C. G. H.	1795. S.p1			
3196 angustifolia H. K.	narrow-leaved	☐ or	6	my.jn	Y	C. G. H.	1778. S.p1			
3197 parvifolia H. K.	small-leaved	☐ or	6	my.jl	Y	C. G. H.	1796. S.p1	Bot. reg. 516		
3198 humilis Lk.	dwarf	☐ or	6	my.jn	Y	C. G. H.	...	S.p1		
3199 juncæa Lk.	rush-leaved	☐ or	6	my.jn	Y	C. G. H.	...	S.p1		

DIGYNIA.

572. APO'CYNUM. R. Br. DOG'S-BANE.	<i>Apocynaceae. Sp. 4—8.</i>									
3200 androsamifolium W.	Tutsan-leaved	☐ or	2	jl.s	Str	N. Amer.	1688. S.p1	Bot. mag. 280		
3201 cannabinum W.	Hemp-like	☐ or	3	jl.s	W	N. Amer.	1689. S.co	Mor. h.3. t.3.f.14		
3202 hypericifolium W.	Hyperic.-lvd.	☐ or	2	jn.jl	W	N. Amer.	1758. S.co	Jac. vind. 3. t.66		
3203 venetum W.	Venetian	☐ or	2	jn.jl	W	Adriat. Is.	1690. S.co	Lobel. ic. t. 372		
573. MELODI'NUS. Forst. MELODINUS.					<i>Apocynaceae. Sp. 2.</i>					
3204 scandens W.	climbing	☐ or	15	jl.au	W	N. Caled.	1775. C.s.p	Lam. ill. t. 179		
3205 monogynus Roxb.	East Indian	☐ or	10	jl	W	E. Indies	1820. C.r.m	Bot. reg. 834		
574. PERIPL'O'CA. R. Br. PERIPL'O'CA.					<i>Asclepiadeae. Sp. 2—13.</i>					
3206 gra'ca W.	common	☐ or	10	jl.au	Br	Syria	1597. R.s1	Bot. reg. 803		
3207 laevigata W.	smooth	☐ or	6	...	G.V	Canaries	1779. C.p1	Cav. ic. 3. t. 217		



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which measured eighteen inches in width, and seven inches in height from the top of the stalk thick, full, and of the most intense purplish red. (*Hort. Trans.* iv. 322.) To produce this, the great object was to retard the protrusion of the flower-stalk. Hence, a rich compost was employed, the plants put first into pots of four inches diameter, and then transplanted to others a foot in diameter; the object being not to compress the roots, as that has a tendency to accelerate the flowering of all vegetables. The plants were placed close to the glass in a heat of from 70 to 100 degrees, all side branches removed, and pigeon-dung water used in watering. Had the shiftings from pot to pot been more frequent, it appears probable the size might have been still greater.

566. *Gomphrena*. *Gromphrena* is a name applied by the ancients to a plant bearing red and green leaves on the same stem; probably our *Amaranthus tricolor*. *G. globosa* is a popular tender annual, valued for its heads of flowers, which, if gathered before they are too far advanced, will retain their beauty several years. The other species propagate readily by cuttings under a glass.

567. *Mollia*. So called from its softness. The species are small weeds.

568. *Glaux*. From *γλαυσιον*, a name under which Dioscorides describes a maritime plant with glaucous leaves. This plant is maritime, and has glaucous leaves. A pretty little plant, and well adapted for pots and rock work. It will grow at a considerable distance from the sea in sand kept moist.

569. *Thesium*. Athenæus says, on the authority of Timachides, that this plant was called *θησιον*, because it formed part of the garland presented by Theseus to Ariadne. If this be so, the accent should be placed on the penultimate and not on the antepenultimate syllable. It is, however, very certain that the *Thesium* of the ancients had no resemblance to that of the moderns, which is a genus of little obscure plants or weeds.

570. *Heliconia*. A name given to this plant in an ingenious sense, as indicating its affinity with *Musa*. *H. Bihai* is a large herbaceous plant, bearing considerable resemblance to *Strelitzia*. It grows in rich well

- 3177 Stem erect hairy, Leaves oblong pubescent, Heads globose solitary 2-leaved, Keels of bractæ winged
 3178 Leaves lanceolate, Heads 2-leaved, Florets distinguished by a peculiar perianthium
 3179 Hairy twining
 3180 Stem ascending, Leaves oblong silky beneath, Spikes clustered paniced terminal interrupted
 3181 Stem branched diffuse, Leaves spatulate whorled about 7, Calyxes with a membranous margin
 3182 Stem branched diffuse, Leaves lanceolate silky bearded
 3183 The only species
 3184 Spike branched, Bractes 3, Leaves linear lanceolate with a very short tube to the calyx
 3185 Stems prostrate simple, Raceme terminal leafy 1-sided, Flowers sessile surrounded by bractæ
 3186 Stem erect simple, Raceme leafy, Flowers stalked without smaller bractæ
 3187 Leaves obovate mucronate, Flowers racemose
 3188 Leaves cordate stem-clasping, Racemes terminal
 3189 Leaves at the base and end acute, Spadix erect radical, Spathes 2-ranked many-flowered
 3190 Leaves narrowed at base at end acuminate. Spadix erect flexuose radical, Spathes 2-ranked many-flowered
 3191 Leaves very smooth nerved rounded at base, Inflorescence very smooth, Spadix erect without bractæ
 3192 Scape half as short as leaf-stalks which are hardly twice as long as the 6 feet leaf
 3193 Scape scarcely longer than the leaf-stalks which are three times as long as the oval leaf
 3194 Scape longer than leaf-stalk and leaves, Leaf-stalk twice as long as the ovate oblong leaf
 3195 Scape a little longer than the leaf-stalks which are half as long again as the obl. leaf unequal at the base
 3196 Scape as long as leaf-stalk which is 7 times longer than the lanceolate leaf
 3197 Scape the length of the leaf-stalk which is 20 times longer than the linear lanceolate leaf
 3198 Scape as long as leaf-stalk which is twice as long as the ovate concave leaf
 3199 Leaf-stalk very long with no leaf

DIGYNIA.

- 3200 Stem upright herbaceous, Leaves ovate smooth on each side, Cymes terminal smooth
 3201 Stem upright herbaceous, Leaves oblong tomentose beneath, Cymes lateral longer than the leaves
 3202 Stem erect herbaceous, Leaves oblong cordate smooth, Cymes shorter than the leaves
 3203 Stem erect herbaceous, Leaves elliptical lanceolate mucronate at the edge rough with little teeth
 3204 Leaves oblong ovate thick at edge, Panicle downy
 3205 Leaves oval lanceolate acuminate, Panicle smooth
 3206 Flowers terminal hairy inside
 3207 Flowers smooth, Segments obtuse, Cymes trichotomous. Leaves oblong lanceolate veiny smooth



and Miscellaneous Particulars.

shaded gullies in moist woods. The berries are small and succulent, and each contain three hard rugged seeds.

H. Psittacorum bears a great resemblance to *Canna*: it grows in the wet parts of woods, and on the highest mountains. All the species require a strong heat to make them flower freely.

571. *Strelitzia*. So named by Sir Joseph Banks, in honor of Charlotte, queen of George III., of the family of Mecklenburgh Strelitz, and said to have patronized botany. This is a splendid genus, generally kept in the stove; but which, Sweet observes, "will thrive, and flower as well in the greenhouse or conservatory. A light sandy loam is the best soil for the species, and they may be increased, but slowly, by suckers. By rubbing the pollen on the stigma, when the plants are in bloom, perfect seeds are readily obtained." (*Bot. Cult.* 111.)

572. *Apocynum*. From *απο*, away, and *κυν*, a dog; that is to say, a plant from which dogs must be driven. Pliny says his *Apocynum* is mortal to them. This is a genus of plants of little beauty, but of easy culture in any soil. The first species is acrid and blisters the skin. From the stalks of *A. cannabinum* the Indians of North America prepare a substitute for hemp, of which they make twine, bags, fishing-nets and lines, and linen for their own wear.

573. *Melodinus*. So named by Forster, from *μυλον*, an apple, and *δινω*, to turn round; this plant bearing a round fruit like an apple, and having a twining stem by which it climbs trees. It is a very smooth shrub, with oblong-ovate leaves, and nearly allied to *Rauwolfia*. Cuttings root readily in sand under a hand-glass. This, and the succeeding genera, as far as No. 592, are all Asclepiadeous plants, and require nearly similar management.

574. *Periploca*. From *περιπλακειν*, intertwining, in allusion to the habit of the plants. *P. græca* is a handsome climber, and grows freely in common garden soil, and is propagated by cuttings under a glass, or by layers.

575. <i>CRYPTOSTEGIA</i> <i>R. Br.</i> <i>CRYPTOSTEGIA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1.</i>			
3208 <i>grandiflora R. Br.</i> large-flowered $\frac{1}{2}$ \square or	6 jn.jl Pk	India	1818.	C r.m	Bot. reg. 435
576. <i>HEMIDESMUS</i> <i>R. Br.</i> <i>HEMIDESMUS</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—2.</i>			
3209 <i>indicus H. K.</i> Indian $\frac{1}{2}$ \square or	6 ... G	Ceylon	1796.	C l.p	Bur.zeyl.t.83.f.1
577. <i>SECAMONE</i> <i>R. Br.</i> <i>SECAMONE</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 2—4.</i>			
3210 <i>egyptiaca H. K.</i> Egyptian $\frac{1}{2}$ \square cu	6 jl W	Egypt	1752.	C s.l	Alp.æg.t.134
3211 <i>emética R. Br.</i> narrow-leaved $\frac{1}{2}$ \square m	6 ... W	India	1816.	C s.l.p	Wil.ph.1.t.5.f.2
578. <i>MICROLOMA</i> <i>R. Br.</i> <i>MICROLOMA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—2.</i>			
3212 <i>sagittatum H. K.</i> arrow-leaved $\frac{1}{2}$ \square cu	3 jl.au G.P	C. G. H.	1775.	C s.l	Jac. sch. 1. t. 38
579. <i>SARCOSTEMMA</i> <i>R. Br.</i> <i>SARCOSTEMMA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—12.</i>			
3213 <i>variniale H. K.</i> twisting $\frac{1}{2}$ \square cu	6 jl W	E. Indies	1731.	C r.m	Alp.æg.t.190
580. <i>DÆMIA</i> <i>R. Br.</i> <i>DÆMIA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—4.</i>			
3214 <i>extensa H. K.</i> smooth-leaved $\frac{1}{2}$ \square or	3 jl.au W	E. Indies	1777.	C p.l	Jac. ic. 1. t. 54
581. <i>CYNANCHUM</i> <i>R. Br.</i> <i>CYNANCHUM</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 11—50.</i>			
3215 <i>acutum R. Br.</i> acute-leaved $\frac{1}{2}$ Δ or	3 jl W	Spain	1596.	D co	Tre.oh.44.t.82
3216 <i>monspeliacum R. Br.</i> Montpellier $\frac{1}{2}$ Δ or	3 aus Pk	S. Europe	1596.	D co	Jac. ic. 2. t. 340
3217 <i>crispifolium R. Br.</i> obtuse-leaved $\frac{1}{2}$ \square or	3 ... G	C. G. H.	1816.	C co	
3218 <i>pilosum R. Br.</i> hairy $\frac{1}{2}$ \square or	2 jn.s W	C. G. H.	1726.	C p.l	Bot. reg. 111
3219 <i>inæcotoxicum R. Br.</i> officinal $\frac{1}{2}$ Δ or	2 my.au W	Europe	1596.	D s.l	Flor. dan. 849
<i>æ luteum</i> yellow-flowered $\frac{1}{2}$ Δ or	2 my.au Y	Europe	1596.	D s.l	
3220 <i>nigrum R. Br.</i> black $\frac{1}{2}$ Δ or	3 jn.au W	S. Europe	1596.	D s.l	Flor. mag. 2390
3221 <i>sibiricum R. Br.</i> Siberian $\frac{1}{2}$ Δ or	3 jl.au G	Siberia	1775.	D co	Mur. gott. 2. t. 7
3222 <i>médium R. Br.</i> intermediate $\frac{1}{2}$ Δ or	3 my.au W	.....	.....	D co	
3223 <i>undatum B. Rep.</i> wave-leaved $\frac{1}{2}$ \square or	6 jl.au G	W. Indies	1803.	C l.p	Bot. rep. 410
3224 <i>mucronatum B. Rep.</i> sharp-pointed $\frac{1}{2}$ \square or	6 jl.au G	Trinidad	1804.	C l.p	Bot. rep. 515
3225 <i>viridiflorum B. M.</i> green-flowered $\frac{1}{2}$ \square or	6 o.d G	E. Indies	1814.	C l.p	Bot. mag. 1929
582. <i>OXYSTELMA</i> <i>R. Br.</i> <i>OXYSTELMA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—2.</i>			
3226 <i>esculentum R. Br.</i> esculent $\frac{1}{2}$ \square cu	4 ... Y	E. Indies	1816.	D s.l	Rox. cor. 1. t. 11
583. <i>GYMNEMA</i> <i>R. Br.</i> <i>GYMNEMA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—4.</i>			
3227 <i>sylvestre R. Br.</i> netted-leaved $\frac{1}{2}$ \square or	8 ... Gr	Ceylon	1816.	C l.p	Wil.ph.1.t.5.f.3
584. <i>CALOTROPIS</i> <i>R. Br.</i> <i>CALOTROPIS</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 2.</i>			
3228 <i>procera H. K.</i> bell-flowered $\frac{1}{2}$ \square or	6 jls W.P	Persia	1714.	C s.l	Bot. rep. 271
3229 <i>gigantæa H. K.</i> curled-flowered $\frac{1}{2}$ \square or	6 jls W.P	E. Indies	1690.	C r.m	Bot. reg. 58
585. <i>DISCHIDIA</i> <i>R. Br.</i> <i>DISCHIDIA</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—2.</i>			
3230 <i>bengalensis Coleb.</i> Bengal $\frac{1}{2}$ \square or	$\frac{1}{2}$... W	India	1818.	C s.l	Lin.trans.12.t.15
586. <i>XYSMALOBIMUM</i> <i>R. Br.</i> <i>XYSMALOBIMUM</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 1—2.</i>			
3231 <i>undulatum H. K.</i> waved-leaved $\frac{1}{2}$ \square cu	1 jl Gr	C. G. H.	1783.	C p.l	Comm. rar. t. 16
587. <i>GOMPHOCARPUS</i> <i>R. Br.</i> <i>GOMPHOCARPUS</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 3—4.</i>			
3232 <i>arborescens H. K.</i> broad-leaved $\frac{1}{2}$ \square or	5 d W	C. G. H.	1714.	C l.p	Jac. sch. 1. t. 50
3233 <i>crispus H. K.</i> curled-leaved $\frac{1}{2}$ \square or	1 jl Y	C. G. H.	1774.	C p.l	Comm. rar. t. 17
3234 <i>fruticosus H. K.</i> Willow-leaved $\frac{1}{2}$ \square or	5 jn.s W	C. G. H.	1714.	C p.l	Bot. mag. 1628
588. <i>ASCLEPIAS</i> <i>R. Br.</i> <i>SWALLOW-WORT</i> .	<i>Asclepiadeæ.</i>	<i>Sp. 15—65.</i>			
3235 <i>syriaca W.</i> Virginian $\frac{1}{2}$ Δ or	4 jl.au Pu	N. Amer.	1629.	D co	Blackw. t. 521
3236 <i>phytolaccoides Ph.</i> Phytolacca-like $\frac{1}{2}$ Δ or	3 jl.au Pu	N. Amer.	1812.	D co	
3237 <i>amœna W.</i> oval-leaved $\frac{1}{2}$ Δ or	3 jl.au Pu	N. Amer.	1732.	D p.l	Dil. el. t. 27. f. 30



History, Use, Propagation, Culture,

575. *Cryptostegia*. From *κρυπτος*, concealed, and *στυγη*, a covering. The name was suggested to Mr. Brown by the circumstance of the enclosure of the corona within the tube of the corolla, and its not being exposed to view, as in the other neighbouring genera.

576. *Hemidesmus*. From *ἡμιος*, half, and *δεσμος*, a bandage; in allusion to the incomplete coherence of the anthers with the stigma, by which the genus is principally distinguished from *Periploca*. Cuttings root readily in sand in heat.

577. *Secamone*. The meaning of this word is very obscure. None of the explanations which have been offered of it are even tolerable. Culture as in *Periploca*.

578. *Microloma*. From *μικρος*, small, and *λωμα*, a fringe; but the application is unexplained by the author of the name. Small climbing shrubs, with opposite leaves and interpetiolar umbels.

579. *Sarcostemma*. From *σαρκος*, flesh, and *στεμμα*, a crown; on account of the thick succulent nature of the coronal processes.

580. *Dæmia*. *Dæmia* appears to be an Arabic name. It has been applied by Forskål to a species of *Asclepias* referred hither. A genus of twining plants.

581. *Cynanchum*. From *κυν*, a dog, and *αγκυνη*, to strangle. A word having the same meaning and application as *Apocynum*. This is a genus of low shrubs and herbaceous plants, for the most part twining, and all of easy culture and propagation.

582. *Oxystelma*. From *οξυς*, sharp, and *στέμμα*, a crown; the corona being very much pointed.

583. *Gymnema*. From *γυμνος*, naked, and *νήμα*, a thread, or, in botanical language, stamen; in allusion to

- 3208 The only known species
- 3209 Spikes axillary imbricated, Leaves elliptical obtuse mucronate, Stem smooth
- 3210 Flowers hairy inside paniced, Leaves lanceolate elliptical
- 3211 Flowers smooth, Corymbs few-flowered axillary, Leaves linear lanceolate without veins
- 3212 Leaves sagittate pubescent, Limb of the corolla acute
- 3213 Stem twining perennial leafless
- 3214 Stem twining shrubby, Leaves cordate acute, Flowers hairy at edge
- 3215 Leaves oblong ovate cordate acute, Segments of cor. oblong obtuse
- 3216 Leaves reniform contracted at end $\frac{1}{2}$ lanceolate, Segm. of cor. lanceolate obtuse
- 3217 Leaves cordate ovate obtuse fleshy with a little point smooth, Crown 10-cleft as long as corolla
- 3218 Leaves ovate acute and calyxes hairy, Crown 10-cleft as long as corolla
- 3219 Stem erect, Flowers beardless, Partial stalks of umbel twice as long as common stalks, Crown 5-lobed
- 3220 Stem climbing upwards, Fl. bearded, Partial stalks of simple umbel scarcely longer than common stalk
- 3221 Leaves lanceolate linear opposite and three together, Stem decumbent
- 3222 Stem twining upwards, Corollas beardless, Stalks of umbel divided, Corona 5-lobed
- 3223 Leaves oblong cordate acuminate wavy, Umbels axillary proliferous
- 3224 Stem hairy, Leaves heart-shaped mucronate, Umbels axillary proliferous
- 3225 Leaves cordate ovate acuminate, Umbels simple solitary, Partial flower-stalks longer than common one
- 3226 Cor. smooth rotate, Racemes axillary, Leaves linear lanceolate veiny
- 3227 Leaves rounded ovate netted pubescent beneath, Flowers in umbels
- 3228 Segments of cor. spreading
- 3229 Segments of cor. reflexed involute
- 3230 Leaves thick fleshy ovate
- 3231 Leaves sessile oblong lanceolate wavy smooth, Umbels lateral, Petals ciliated
- 3232 Leaves ovate oblong smooth obtuse with a point
- 3233 Leaves cordate lanceolate wavy hispid
- 3234 Leaves linear lanceolate smooth
- 3235 Leaves oval downy beneath, Stem simple, Umbels nodding
- 3236 Stem erect simple, Leaves broad ovate oblong acute smooth paler beneath, Umbels nodding
- 3237 Stem simple downy in two rows, Leaves subsessile oblong oval downy beneath



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the peculiar structure of the stamens. The milk of *Gymnema lactiferum* is used instead of the *Vaccine* ichor, and the leaves are employed in sauces in the room of cream.

584. *Calotropis*. From *καλος*, beautiful, and *τροπω*, to turn, in allusion to the beauty of the flowers, which continually turn towards the sun. This is a handsome free-flowering genus. Young cuttings root freely in sand under a hand-glass, but not crowded, as, if the leaves are injured, they are very apt to damp and get mouldy.

585. *Dischidia*. From *δισ*, twice, and *σχίζω*, to split; but the application is unexplained. Little trailing plants with small opposite fleshy leaves.

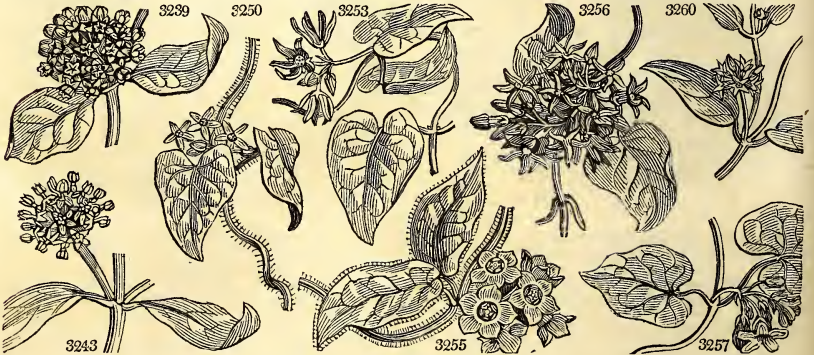
586. *Xysmalobium*. From *ξυσμα*, a fragment of a thing, and *λοβος*, a division, on account of the minute alternate divisions of the corona. The flowers of this genus are very large; those of *X. grandiflorum* are of the size and color of *Fritillaria meleagris*.

587. *Gomphocarpus*. From *γυφος*, a club, and *καρπος*, fruit. A genus resembling *Asclepias* in habit, but well distinguished by the inflated club-like fruit.

588. *Asclepias*. The name of many ancient physicians. It is the Greek name of the *Æsculapius* of the Latins. This is a genus of tall-growing herbaceous plants, which thrive best in peat or any very light soil. They require a good deal of room to show their characters, and are readily propagated by seeds or dividing the roots. *A. syriaca* is very odoriferous, and in Canada, when in flower, charms the traveller, especially when passing through woods in the evening. The French then eat the tender shoots in spring as we do asparagus. The natives make a sugar of the flowers, gathering them in the morning when they are covered with dew, and collect the cotton from the pods to fill their beds. On account of the silkiness of this cotton, Parkinson calls the plant *Virginian silk*.

A. nivea has jointed fleshy roots, the juice of which is very effective in bringing away worms. The root

3238 purpurascens W.	purple	△ or	3	jl.au	P.G	N. Amer.	1732.	D	p.l	Dil. el. t. 28. f. 31
3239 variegata W.	variegated	△ or	4	jl.au	W	N. Amer.	1597.	D	p.l	Bot. mag. 1182
3240 curassavica W.	Curassavian	△ or	3	jn.s	S	S. Amer.	1692.	S	r.m	Bot. reg. 81
β alba	white	△ or	3	jn.s	W	S. Amer.	...	S	r.m	
3241 nivea W.	Almond-leaved	△ or	3	jl.s	W	N. Amer.	1730.	D	p.l	Bot. mag. 1181
3242 parviflora W.	small-flowered	△ or	3	ilo	W	N. Amer.	1774.	C	r.m	Jacq. ecl. t. 28
3243 incarnata W.	flesh-colored	△ or	2	jl.au	Pu	N. Amer.	1710.	D	p.l	Bot. reg. 250
3244 polchra W. en.	hairy	△ or	2	jl.au	Pu	N. Amer.	...	D	p.l	
3245 decumbens W.	decumbent	△ or	2	jl.au	O	N. Amer.	1731.	D	p.l	
3246 verticillata W.	whorl-leaved	△ or	3	jl.au	P.G	N. Amer.	1759.	D	p.l	Pl. ma. t. 336. f. 3
3247 longifolia Ph.	long-leaved	△ or	2	jl.au	P.Pu	N. Amer.	1816.	D	p.l	
3248 tuberosa W.	tuberous-rooted	△ or	2	jl.s	O	N. Amer.	1690.	D	s.l	Bot. reg. 76
3249 Linaria W.	Flax-leaved	△ or	2	...	W	Mexico	1802.	D	s.l	Cav. ic. t. 1. 57
589. GONOLOBUS. R. Br.	GONOLOBUS.					<i>Asclepiadæe.</i>	<i>Sp. 6—</i>			
3250 hirsutus Mich.	hairy	△ or	6	jn	P	N. Amer.	1806.	C	lp	Bot. cab. 365
3251 laevis Mich.	smooth	△ or	6	jn	G	N. Amer.	1806.	C	lp	
3252 suberosus H. K.	Cork-barked	△ or	6	jl.s	G	America	1732.	C	p.l	D. el. t. 229. f. 296
3253 discolor B. M.	Virginian	△ or	8	jl.au	G	N. Amer.	1809.	C	p.l	Bot. mag. 1273
3254 spiriflorus H. K.	curled-flower	△ or	2	jl.au	W.G	S. Amer.	1741.	C	s.p	Pl. ic. t. 216. f. 1
3255 diadematus Ker.	red-crowned	△ or	12	s.o	G	Mexico	1812.	C	s.p	Bot. reg. 252
590. PERGULARIA. R. Br.	PERGULARIA.					<i>Asclepiadæe.</i>	<i>Sp. 3—</i>			
3256 odoratissima H. K.	large	ft	15	jn.jl	G	E. Indies	1784.	C	r.m	Bot. rep. 185
3257 minor H. K.	small	ft	8	my.au	Y.G	E. Indies	1790.	C	r.m	Bot. mag. 755
3258 sanguinolenta Lind.	bloody	cu	6	jl.au	G.Y	S. Leone	1822.	C	r.m	Bot. mag. 2532
591. MARSDENIA. R. Br.	MARSDENIA.					<i>Asclepiadæe.</i>	<i>Sp. 2—</i>			
3259 erecta R. Br.	upright	ft	2	jl.au	W	Syria	1597.	C	s.l	Jac. vind. 1. t. 38
3260 suaveolens R. Br.	sweet-scented	ft	3	jl.au	W	N. S. W.	1816.	C	s.l	Bot. reg. 489
592. HOYA. R. Br.	HOYA.					<i>Asclepiadæe.</i>	<i>Sp. 5—</i>			
3261 carnosa R. Br.	fleshy-leaved	or	10	jl.au	Pk	Asia	1802.	L	r.m	Bot. mag. 788
3262 lanceolata Hort.	lanceolate	or	2	...	...	E. Indies	1815.	C	r.m	
3263 crassifolia Haw.	thick-leaved	or	10	...	...	China	1821.	C	r.m	
3264 Pottsii Hort.	cordate	or	10	...	...	China	1824.	C	r.m	
3265 trinervis Hort.	three-nerved	or	10	...	...	China	1824.	C	r.m	
593. CEROPEGIA. Roxb.	CEROPEGIA.					<i>Asclepiadæe.</i>	<i>Sp. 3—</i>			
3266 dichotoma Haw.	dichotomous	cu	1	jl.s	Y	E. Indies	1804.	C	s.l	Roxb. cor. 1. t. 10
3267 jincea Roxb.	rushy	cu	1	...	Y	E. Indies	1822.	C	s.l	Bot. reg. 626
3268 africana Hort.	African	cu	6	...	Y	E. Indies	1823.	C	s.l	
594. STAPELIA. R. Br.	STAPELIA.					<i>Asclepiadæe.</i>	<i>Sp. 65—</i>			
3269 grandiflora Mass.	great-flowered	cu	1	s.d	D.Pu	C. G. H.	1795.	C	s.l	Mass. stap. t. 11
3270 spectabilis Haw.	showy	cu	1	n.ja	D.Pu	C. G. H.	1802.	C	s.l	Bot. mag. 585
3271 ambigua W.	ambiguous	cu	2	jn.n	P.Br	C. G. H.	1795.	C	s.l	Mass. stap. t. 12
3272 sororia W. en.	sister	cu	1	jn.au	D.Pu	C. G. H.	1797.	C	s.l	Bot. cab. 94
3273 patula W. en.	spreading	cu	1	jn.au	O	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3274 reflexa Haw.	reflexed	cu	1	jn.au	G.P	C. G. H.	...	C	s.l	
3275 lucida D. C.	shining	cu	1	jn.au	P	C. G. H.	1812.	C	s.l	
3276 Juvencula W. en.	short-flowered	cu	1	jn.au	Br.P	C. G. H.	...	C	s.l	Jac. stap. c. ic.
3277 Massonii Haw.	Masson's	cu	2	...	...	C. G. H.	...	C	s.l	
3278 Astéries W.	Star-fish	cu	2	my.n	P.St	C. G. H.	1795.	C	s.l	Bot. mag. 536
3279 stellaris Haw.	starry	cu	...	...	...	C. G. H.	...	C	s.l	
3280 hirsuta W.	hairy	cu	1	jn.au	P	C. G. H.	1710.	C	s.l	Jac. misc. 1. t. 3
β atra Jacq.	dark-flowered	cu	...	...	...	C. G. H.	...	C	s.l	Bot. reg. 756
3281 hamata Jacq.	hooked	cu	1	jl.au	Bd.R	C. G. H.	1820.	C	s.l	Bot. cab. 242
3282 comata Jacq.	shaggy	cu	1	s	Y.Br	C. G. H.	1819.	C	s.l	
β multiflora D. C.	many-flowered	cu	1	s	V.R	C. G. H.	1817.	C	s.l	
3283 rufa W.	rusty-brown	cu	1	jn.n	Br	C. G. H.	1795.	C	s.l	Bot. cab. 239
3284 pulvinata W.	cushioned	cu	1	jn.n	D.V	C. G. H.	1795.	C	s.l	Bot. mag. 1240



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dried and reduced to powder, is frequently used by the negroes as a vomit, and hence its name of wild or bastard Ipecacuanha.

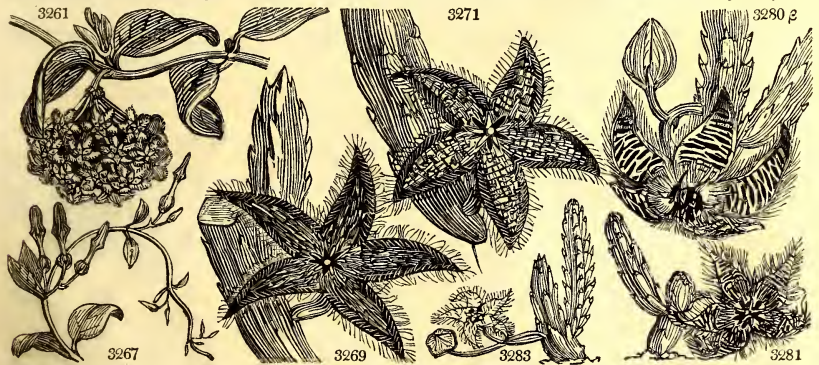
A. vincetoxicum (tame-poison) is so named because it was formerly esteemed an alexipharmick; and it is called swallow-wort from the fancied resemblance of the follicles or seeds to a swallow flying.

589. *Gonolobus*. The derivation and meaning of this word have not been explained. The genus consists chiefly of climbers of little beauty but easy culture.

590. *Pergularia*. From *Pergula*, trellis-work, which the plants are very proper for covering. This is a climbing genus, much valued for the fragrance of its flowers. It grows well in loam and peat, and cuttings root freely in sand under a hand-glass.

591. *Marsdenia*. So named by Mr. R. Brown, after William Marsden, Esq. the author of the excellent

- 3238 Stem simple, Leaves ovate villous beneath, Umbels erect, Nect. resupinate
 3239 Leaves ovate rugose naked, Stem simple, Umbels subsessile, Flower-stalks downy
 3240 Leaves stalked lanceolate smooth shining, Stem simple, Umbels erect solitary lateral
 3241 Leaves ovate-lanceolate smooth, Stem simple, Umbels erect lateral solitary
 3242 Leaves lanceolate acuminate smooth narrowed at base, Stem half shrubby erect, Umbels lateral solitary
 3243 Leaves lanceolate smooth, Stem divided upwards, Umbels erect in pairs
 3244 Leaves lanceolate pubescent beneath, Stem divided upwards, Umbels erect in pairs
 3245 Leaves villous, Stem decumbent
 3246 Stem erect simple downy in lines, Leaves very narrow linear mostly whorled
 3247 Stem decumbent and leaves very long linear pubescent, Appendages of crown without horns
 3248 Stem erect hairy with spreading branches at end, Leaves scattered lanceolate hairy
 3249 Leaves linear subulate channelled, Umbels stalked nodding: lateral many-flowered
 3250 Runners and leafstalks very hairy, Lvs. acum. by degrees perceptibly hairy on both sides, Foll. muricated
 3251 Runners smoothish, Leaves conical cordate acute by degrees, Flowers and follicles smooth
 3252 Leaves cordate acuminate with the sinus open
 3253 Leaves cordate, Corymbs axillary, Common flower-stalk longer than the leafstalks Cor. discolored
 3254 Leaves oblong cordate with the sinus closed, Petals crisp at end
 3255 Villous, Leaves oblong elliptical lanceolate cordate, Crown at bottom of tube
 3256 Leaves cordate acuminate, Cal. shorter than tube of cor.
 3257 Leaves cordate obtuse with a point, Cal. as long as tube of cor.
 3258 Leaves ovate lanc. very smooth, Cymes shorter than leaves, Sap blood-colored
 3259 Stem erect, Leaves cordate ovate acute, Cymes umbellate, Flowers not bearded
 3260 Stem somewhat erect, Leaves oval-lanceolate smooth veinless, Tube inflated, Orifice bearded
 3261 Leaves ovate, Flowers bearded
 3262 Leaves ovate-lanceolate acute small
 3263 Leaves obovate obtuse very thick
 3264 Leaves cordate
 3265 Leaves oblong slightly cordate at base with 3 distinct nerves
 3266 Stems upright jointed rounded, Leaves linear acute
 3267 Leaves lanceolate sessile, Peduncles 2-flowered, Stem fleshy
 3268 Leaves smooth with an edge, Peduncles simple, Calyx very smooth
 § 1. Cor. 5-cleft with no ball. Crown double: the outer with the ligules united at base; inner with the appendages united upwards into a beak, downwards expanded into a wing. (TRUE STAPELIA.)
 3269 Branches quadrangular clavate: angles with remote incurved teeth, Seg. of cor. lanc. acute fringed at edge
 3270 Segments of cor. fringed with white covered at base with very close long red hairs black at end, beyond mid. striped with pale
 3271 Branches erect 4-ang. clav. Angles toothed rem. incurv. Cor. large flat with lanc. hisp. seg. fring. at edge
 3272 Branches spreading 4-ang. Angles toothed, Teeth remote acute incurved, Cor. whole color. vil. in middle
 3273 Cor. flat cil. rugose above in mid. hairy otherwise smooth, Beak sub. ac. Wings obl. obt. 1-tooth. inside
 3274 Stam. deltoid with inner process recurved unguiculate, Top of style impressed with the mark of a cross
 3275 Branches sq. erect velvety, Teeth erect, Disc. of fls. shining hairy with ovate-acum. revolute ciliated seg.
 3276 Fls. flat smooth rugose crosswise, Beaks subul. gibb. Ligules lanc. acum. Bran. fl.-bearing about the mid.
 3277 Branches four together large equal sided with flat pubescent angles
 3278 Branches several erect square toothed, Teeth short erect, Fl. large, Segm. lanc. ciliated revolute at edge
 3279 An obscure species said to be cultivated in the gardens, but of which nothing is known
 3280 Flowers flat ciliated hairy all over the disk, Beaks subulate acute with a broad acute wing at the back
 3281 Fls. flat cil. rugose above hairy in centre, One or more of teeth hooked, Wings parallel with erect beaks
 3282 Fl. cil. Disk flat shaggy in mid. Segm. at first deflexed afterwards spreading, Wings obl. trunc. crenulate
 § 2 Differs chiefly in the dark color of the flowers which are clustered and not solitary
 3283 Segm. of fl. lanc. acum. Ligules linear lanc. wavy, Branches erect square with erect teeth
 3284 Branches reclinate, Segm. of fl. rounded rugose acuminate ciliated: the bottom elevated closely hairy



and Miscellaneous Particulars.

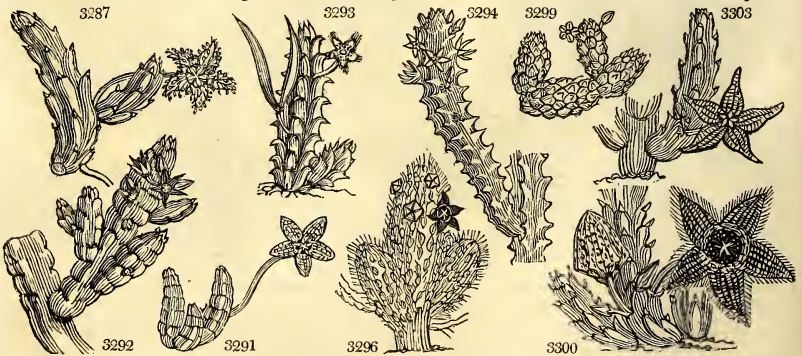
History of Sumatra, in which one species, used as Indigo in the island is figured. Little neat shrubs, with axillary bunches of small white sweet-scented flowers.

592. *Hoya*. Named after Mr. Thomas Hoy, for many years gardener to the Duke of Northumberland. He died about 1821. *H. carnosa* is of easy culture, flowers freely, and is propagated by cuttings in a moist heat. Its flowers are very mellifluous, and it has been said that one or two plants, placed when in flower in a viney of ripe grapes, will entice the wasps from eating the fruit.

593. *Ceropegia*. From *κερος*, wax, and *πηγη*, a fountain; literally, a fountain of wax, poetically, a candelabre; on account of the umbels of bright yellow flowers. Curious naked plants with tumid fleshy stems. Same culture as *Hoya*.

594. *Stapelia*. So named by Linnaeus, in memory of Bodæus à Stapel, a physician of Amsterdam, com-

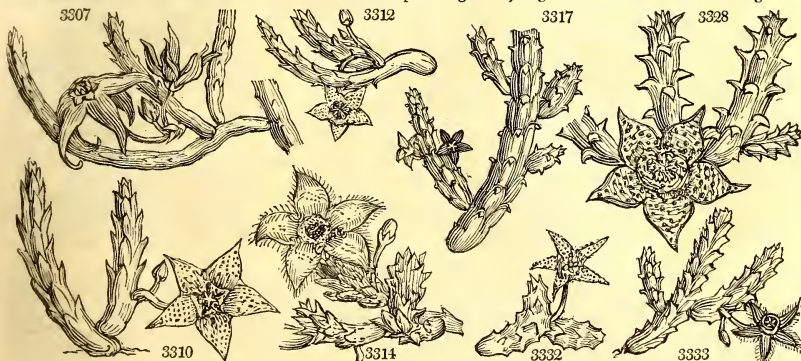
3285	<i>fissiróstris Jacq.</i>	split-beaked	■	cu	2½	...	Y.G	C. G. H.	1823.	C	s.1	Jac. stap. c. ic.
3286	<i>conchina W.</i>	spruce	■	cu	½	jn.au	Gr	C. G. H.	1795.	C	s.1	Mass. stap. t. 18
3287	<i>glandulifóra W.</i>	gland-flowered	■	cu	½	au.n	Br	C. G. H.	1795.	C	s.1	Mass. stap. t. 19
3288	<i>glandulifóra Haw.</i>	hairy-glanded	■	cu	½	au.n	Br	C. G. H.	1795.	C	s.1	Mass. st. 15. t. 17
3289	<i>acumináta W.</i>	acuminated	■	cu	½	jl.s	P.St	C. G. H.	1824.	C	s.1	...
3290	<i>hispidula W.</i>	hispid	■	cu	2	jl.au	Gr	C. G. H.	1795.	C	s.1	Mass. stap. t. 37
3291	<i>apérta W.</i>	open-flowered	■	cu	2	jl.au	Y.P	C. G. H.	1795.	C	s.1	Mass. stap. t. 32
3292	<i>raména W.</i>	branched	■	cu	1½	jn.jl	D.P	C. G. H.	1795.	C	s.1	Mass. stap. t. 31
3293	<i>árida W.</i>	dry	■	cu	1	au	Y	C. G. H.	1795.	C	s.1	Mass. stap. t. 33
3294	<i>incarnáta W.</i>	flesh-colored	■	cu	1	ap.au	F	C. G. H.	1793.	C	s.1	Mass. stap. t. 34
3295	<i>parviflóra W.</i>	small-flowered	■	cu	1	jn.au	Y.Gr	C. G. H.	1795.	C	s.1	Mass. stap. t. 35
3296	<i>pilifera W.</i>	hairy-tuberled	■	cu	1	jn.au	D.P	C. G. H.	1790.	C	s.1	Mass. stap. t. 23
3297	<i>Gordonii Mass.</i>	Gordon's	■	cu	1	jn.jl	Y.Br	C. G. H.	1796.	C	s.1	Mass. stap. t. 40
3298	<i>mamillaris W.</i>	prickly	■	cu	1	jn.jl	Br	C. G. H.	1774.	C	s.1	Bur. afr. 27. t. 11
3299	<i>articuláta W.</i>	jointed	■	cu	½	jl.n	D.P	C. G. H.	1774.	C	s.1	Mass. stap. t. 30
3300	<i>gemmiflóra Mass.</i>	gem-flowered	■	cu	½	on	D.P	C. G. H.	1795.	C	s.1	Mass. stap. t. 15
3301	<i>stýgia Haw.</i>	Stygian	■	cu	½	jl.s	D.P	C. G. H.	1810.	C	s.1	...
	<i>β moscháta Haw.</i>	mishty	■	cu	½	...	C	G. H.	...	C	s.1	...
3302	<i>hircósa W. en.</i>	stinking	■	cu	½	jn.au	Br.Pu	C. G. H.	...	C	s.1	Jac. stap. c. ic.
3303	<i>vetula W.</i>	pur. smooth.-fl.	■	cu	½	my.n	D.Pu	C. G. H.	1793.	C	s.1	Mass. stap. t. 16
3304	<i>Simsii Haw.</i>	Sims's	■	cu	½	my.n	D.Pu	C. G. H.	1800.	C	s.1	Bot. mag. 1234
3305	<i>rugósa W. en.</i>	wrinkled	■	cu	½	my.au	P.St	C. G. H.	1805.	C	s.1	Jac. stap. c. ic.
3306	<i>paniculáta W. en.</i>	panicked	■	cu	½	jn.s	V	C. G. H.	1805.	C	s.1	...
3307	<i>divaricáta W.</i>	straddling	■	cu	½	jn.n	D.F	C. G. H.	1793.	C	s.1	Bot. mag. 1007
3308	<i>púlchra Haw.</i>	beautiful Sulph.	■	cu	½	au.s	Y.St	C. G. H.	1800.	C	s.1	Bot. mag. 786
3309	<i>irroráta W.</i>	dewy	■	cu	½	jl.s	Y.St	C. G. H.	1795.	C	s.1	Bot. cab. 127
3310	<i>verrucósa W.</i>	dart-flowered	■	cu	½	au.o	Y.St	C. G. H.	1795.	C	s.1	Mass. stap. t. 8
3311	<i>roriflua W. en.</i>	went-bearing	■	cu	½	jl.s	Y.St	C. G. H.	1802.	C	s.1	Jac. stap. c. ic.
3312	<i>pulchélla W.</i>	beautiful	■	cu	½	my.n	Y.St	C. G. H.	1795.	C	s.1	Mass. stap. t. 36
3313	<i>lépida W. en.</i>	pretty	■	cu	½	jl.au	G.St	C. G. H.	...	C	s.1	Jac. stap. c. ic.
3314	<i>ciliáta W.</i>	ciliated	■	cu	½	o.d	G.St	C. G. H.	1795.	C	s.1	Mass. stap. t. 1
3315	<i>revolúta W.</i>	revolute-flower.	■	cu	1	jn.s	Pu	C. G. H.	1790.	C	s.1	Bot. mag. 724
3316	<i>glauca W. en.</i>	glaucous	■	cu	2	jn.n	R.Pu	C. G. H.	1799.	C	s.1	Jac. stap. c. ic.
3317	<i>pruinósa W.</i>	frosted	■	cu	1½	jn.jl	D.Br	C. G. H.	1795.	C	s.1	Mass. stap. t. 41
3318	<i>obliqua W. en.</i>	oblique-flower.	■	cu	1	jn.s	Pa.V	C. G. H.	1805.	C	s.1	...
3319	<i>maculósa Jacq.</i>	spotted	■	cu	1	jn.s	Br.v	C. G. H.	1804.	C	s.1	Bot. mag. 1833
3320	<i>bisulca Donn.</i>	two-furrowed	■	cu	1	jn.s	Y.St	C. G. H.	1805.	C	s.1	...
3321	<i>variegáta Haw.</i>	variegated	■	cu	1	jn.s	Y.St	C. G. H.	1727.	C	s.1	Jac. stap. t. 3
3322	<i>Curtisii Haw.</i>	Curtis's	■	cu	1	jn.s	Y.St	C. G. H.	1690.	C	s.1	Bot. mag. 26
	<i>variegáta B. M.</i>		■	cu	½	jl.n	P.y	C. G. H.	1805.	C	s.1	Bot. cab. 191
3323	<i>planiflóra W. en.</i>	plain-flowered	■	cu	½	jn.s	Y.St	C. G. H.	1805.	C	s.1	...
3324	<i>margináta W. en.</i>	red-edged	■	cu	½	jn.o	Y.St	C. G. H.	1795.	C	s.1	Jac. stap. c. ic.
3325	<i>conspurcáta W. en.</i>	white-edged	■	cu	½	jl.au	Y.St	C. G. H.	1821.	C	s.1	Bot. reg. 755
3326	<i>normalis Jacq.</i>	regular-spotted	■	cu	½	jl.n	Y.St	C. G. H.	1799.	C	s.1	Bot. rep. 448
3327	<i>orbiculáris B. Rep.</i>	orbicular	■	cu	1	jn.s	Y.St	C. G. H.	1806.	C	s.1	Bot. mag. 1676
3328	<i>bufónia W. en.</i>	toad	■	cu	½	jn.jl	Y.St	C. G. H.	1812.	C	s.1	Bot. cab. 828
3329	<i>anguina Haw.</i>	snake-speckled	■	cu	½	jn.s	Y.St	C. G. H.	1799.	C	s.1	Bot. mag. 1169
3330	<i>picta H. K.</i>	painted	■	cu	½	jn.s	Y.St	C. G. H.	1799.	C	s.1	...
3331	<i>gemináta W.</i>	twin-flowered	■	cu	½	my.n	P.St	C. G. H.	1795.	C	s.1	Bot. mag. 1326
3332	<i>decóra W.</i>	neat	■	cu	½	my.n	Y.St	C. G. H.	1795.	C	s.1	Mass. stap. t. 26
3333	<i>reclináta W</i>	reclining	■	cu	½	jl.s	Pu	C. G. H.	1795.	C	s.1	Mass. stap. t. 28



History, Use, Propagation, Culture,

mentator on Theophrastus, 1644. This is a genus of singular plants, without leaves, diminutive, very succulent, and some of them with flowers large in proportion to the plant, curious, and often smelling very disagreeably. They are mostly natives of the deserts of Africa, and have been chiefly discovered by Masson,

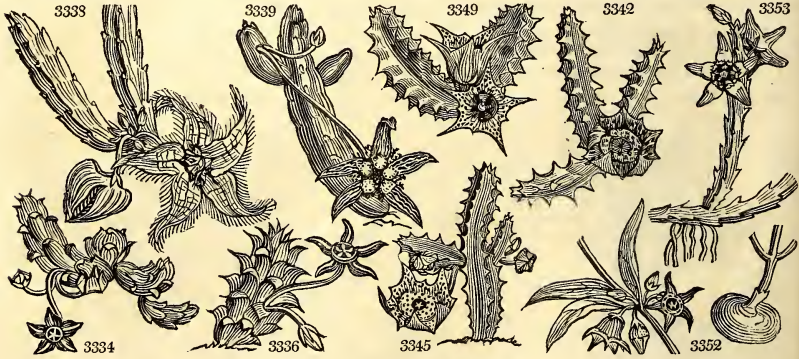
- 3285 Flowers cuspidate rugose scabrous ciliated, Beaks half split
 3286 Branches and branchlets upright square quite smooth, Angles toothed, Teeth erect, Flower flat hispid
 3287 Branches many erect square, Angles toothed, Teeth erect acute, Cor. covered with clavate glands
 3288 Cor. very villous with white spatulate hairs, Ligules minute rhomboid-oblong entire
 3289 Branches several suberect 4-cornered toothed, Flower flat smooth rugose, Segments caudate
 3290 Pedunc. aggreg. rad. much longer than cor. Segm. acum. hispid with clavate hairs, Beaks subul. conniving
 3291 Branches many divaricating square toothed, Flower flat with ovate obtuse rugose segments
 3292 Branches many erect square toothed, Flowers clustered sessile, Segm. lanc. acute folded back
 3293 Branches many erect square with spreading acute teeth, Flowers solitary stalked, Segm. setaceous
 3294 Branches erect square toothed, Teeth spreading acute, Flowers sessile, Segm. lanc. flat
 3295 Branches several square toothed recurved, Flower small, Segm. narrow flat spreading fringed at edge
 3296 Branches several rounded furrowed tubercled hairy, Flower solitary sessile
 3297 Branches and branchlets rounded tubercled spiny, Flowers solitary large 10-cleft
 3298 Cor. smooth, Seg. lanc. Fl. stalks shorter than cor. Branches flowering in mid. 6-sid. with prickly tuber.
 3299 Joints of branches obl. round. nett. obscurely warted, Spines sin. Cor. wart. above with triangular segm.
 3300 Branches several erect sq. with nearly upright acute teeth, Fl. flat rough 5-cleft with ov. lanc. ciliate seg.
 3301 Cor. rugose dark with pink hairs, Branches thick short yellowish green
- 3302 Cor. ciliated rough above dotted beneath, Ligules erect 3-parted: middle lanceol. longer than sides
 3303 Branches many erect square smooth, Cor. flat smooth with lanceolate obtuse segments
 3304 Teeth of branches rounded, Fls. closed ventricose with 5-nerved ov. acum. seg. Beaks split open
- 3305 Ball spurious depressed 5 crenate in the circumference, Beaks and wings rounded obtuse, Tube of cor. O.
 3306 Cor. 5-parted flat hairy warted across, Appendages obtuse obscurely toothed, Beaks subulate conniving
- § 2. *Cor. 5-cleft with no ball. Ligules not connate at base spreading. Appendages lengthened into incurved beaks, gibbous, but not winged at back. (GONOSTEMON. Haw.)*
- 3307 Branches several sq. divaricat. smooth tooth. narr. by deg. Cor. very smooth 5-cleft, Seg. lanc. spreading
- § 3. *Cor. 5-cleft with a ball. Ligules connate spreading. Appendages lengthened into incurved beaks, not winged. (PODANTHES. Haw.)*
- 3308 Much branched weak, Flowers in pairs wrinkled minutely hairy at bottom
 3309 Branches many suberect toothed, Teeth spreading acute crossing, Cor. flat rugose, Segm. lanc. acute
 3310 Branches many erect with acute crossing teeth, Cor. flat wart. elevated in the middle into a rough table
 3311 Cor. 5-cleft camp. smooth dotted even at bottom, Segm. of outer crown ob. emarg. Inner hooked 2-lobed
 3312 Branches several reclinate with acute teeth, Fl. clustered, Segm. triangular acute with a round centre
 3313 Rim obsolete, Beaks rounded obtuse, Wings conical subulate acute spreading, Ligules retuse
 3314 Stem square with spreading teeth, Flower stalked, Segm. ovate scaly ciliated
- § 4. *Cor. 5-cleft reflexed with no ball. Ligules connate at base. Appendages lengthened into long beaks with short wings. (TROMOTRICHE. Haw.)*
- 3315 Branches square erect with spreading teeth, Cor. smooth, Segments ciliated acute revolute
 3316 Segm. of cor. ovate acute fringed revolute, Beaks clavate, Branches square with rounded angles
 3317 Branches square toothed, Teeth recurved, Segm. of cor. flat ovate hairy
- § 5. *Cor. 5-cleft, with a large ball in the middle. Ligules connate at base. Appendages produced into long beaks, and subulate or filiform wings. (ORBEA. Haw.)*
- 3318 Cor. 5-cleft rugose smooth, Segm. ovate-acumin. bent obliquely, Marginal fringe clavate white and violet
 3319 Ball solid, Beaks and wings rounded obtuse, Ligules trifid, Cor. flat beneath fringed at mouth
 3320 Cor. 5-cleft, Ligules oblong emarginate, Sepals broad ovate acuminate, Branches thick green not spotted
 3321 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid acute
 3322 Cor. sulphur colored with entire ligules
- 3323 Ball spurious, Beaks rounded obtuse, Wings subulate obtuse spreading, Ligules bifid, Cor. flat beneath
 3324 Ball 5 angular, Ligules 2-toothed obt. Appendages diverging the inner clavate the outer subulate obtuse
 3325 Cor. fringed at edge with clavate hairs, Ball tumid, Appendages bifid diverging
 3326 Cor. rugose across flat dotted in a regular manner, Inner horns hooked obtuse, Ball round tumid
 3327 Branches several erect spreading 4-cornered toothed, Ball closely dotted, Segm. rugose cordate striated
 3328 Ball spurious, Beaks round. obt. Wings filiform obt. spreading, Ligules bifid obt. Cor. flat with no tube
 3329 Ball large, Ligules half divided, Speckles of flower wavy tortuous
 3330 Branches simple 4-furrowed torulose, Seg. ov. acum. rugose, Ball elevated rugose depressed in middle
- § 6. *Cor. 5-cleft flat with no ball. Ligules none. Appendages produced into a short beak and a longer incumbent wing. (OBESIA. Haw.)*
- 3331 Cor. 5-cleft strigose, Seg. revolute at edge, Wings hooked incumbent on their beak, Shield 5-lobed fleshy
 3332 Joints of stem obl. rounded, Fls. in pairs, Seg. of cor. lanceolate acuminate rough above revolute at edge
- § 7. *Cor 5-cleft, with the segments folded back. Ligules none. Appendages or beaks simple, with no wings. (DUVALIA. Haw.)*
- 3333 Branches several 4-cornered reclinate with acute spreading teeth, Segm. of flower folded back fringed



and Miscellaneous Particulars.

a collector for Kew gardens about the end of the last century, and who published a monograph of the genus. They have been divided into several genera by Haworth, who has not been followed by other writers. Some of the species, as *S. pilifera* and *articulata*, are eaten by the Hottentots and by the Dutch settled at the Cape

3334 <i>élegans W.</i>	elegant	□	□	cu	½	jl.s	Pu	C. G. H.	1795.	C. s.l	Bot. mag. 1184
3335 <i>caespitosa W.</i>	tufted	□	□	cu	½	my.au	Pu	C. G. H.	1790.	C. s.l	Mass. stap. t. 29
β <i>hirtella W. en.</i>	small hairy	□	□	cu	½	jl.s	Pu	C. G. H.	1795.	C. s.l	Jac. stap. c. ic.
3336 <i>radiata H. K.</i>	starry	□	□	cu	½	jl.s	Pu	C. G. H.	1795.	C. s.l	Bot. mag. 619
3337 <i>Jacquinii</i>	Jacquin's	□	□	cu	½	jl.s	Pu	C. G. H.	1802.	C. s.l	Jac. stap. c. ic.
β <i>radiata J. S.</i>											
3338 <i>deflexa J. S.</i>	deflexed	□	□	cu	1	jn.au	Y	C. G. H.	1806.	C. s.l	Bot. mag. 1890
3339 <i>pedunculata W.</i>	long-peduncled	□	□	cu	½	jn.n	Br.P	C. G. H.	1790.	C. s.l	Bot. mag. 793
3340 <i>serullata W. en.</i>	sawed	□	□	cu	½	jn.au	P	C. G. H.	1805.	C. s.l	Jac. stap. c. ic.
595. <i>PIARANTHUS. R. Br. PIARANTHUS.</i>											
3341 <i>póllus R. Br.</i>	many-flowered	□	□	cu	½	aus.	D.Pu	C. G. H.	1774.	C. s.l	Bot. mag. 1648
3342 <i>punctátus R. Br.</i>	dotted	□	□	cu	½	jl.n	D.Pu	C. G. H.	1795.	C. s.l	Mass. stap. t. 24
596. <i>HUER'NIA. R. Br. HUERNIA.</i>											
3343 <i>reticulata Haw.</i>	netted	□	□	cu	½	jl.au	Pu.St	C. G. H.	1793.	C. s.l	Bot. mag. 1662
3344 <i>campanulata Haw.</i>	bell-shaped	□	□	cu	½	jl.o	Y.St	C. G. H.	1795.	C. s.l	Bot. mag. 1227
3345 <i>venusta Haw.</i>	handsome	□	□	cu	½	jn.jl	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 3
3346 <i>lentiginosa Haw.</i>	freckled	□	□	cu	½	jn.jl	Y.St	C. G. H.	1795.	C. s.l	Bot. mag. 506
3347 <i>guttata Haw.</i>	red-spotted	□	□	cu	½	au.n	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 4
3348 <i>humilis Haw.</i>	humble	□	□	cu	½	au.n	Y.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 5
3349 <i>tubata W. en.</i>	tube-flowered	□	□	cu	½	au.n	Y.St	C. G. H.	1805.	C. s.l	Bot. cab. 225
3350 <i>barbata Haw.</i>	bearded	□	□	cu	½	au.n	W.St	C. G. H.	1795.	C. s.l	Mass. stap. t. 7
β <i>crispa Haw.</i>	monstrous	□	□	cu	½	...	...	C. G. H.	...	C. s.l	...
3351 <i>clavigera Haw.</i>	clubbed	□	□	cu	½	jl.n	Y.St	C. G. H.	1795.	C. s.l	Jac. stap. c. ic.
597. <i>BRACHYSTELMA. R. Br. BRACHYSTELMA.</i>											
3352 <i>tuberósum R. Br.</i>	tuberous	□	□	cu	1½	jn.jl	Pu	C. G. H.	1821.	C. s.l	Bot. reg. 722
598. <i>CARALLUMMA. R. Br. CARALLUMA.</i>											
3353 <i>ascéndens R. Br.</i>	ascending	□	□	cu	2	jl	Y	E. Indies	1804.	C. s.l	Roxb. cor.1. t.30
3354 <i>umbellata R. Br.</i>	umbelled	□	□	cu	...	...	...	E. Indies	1804.	C. s.l	...
599. <i>SWERT'IA. W. FELWORT.</i>											
3355 <i>perennis W.</i>	marsh	≡	△	or	1	jl.au	Pu	England	al.ma.	D. m.s	Eng. bot. 1441
600. <i>GENTIANA. W. GENTIAN.</i>											
3356 <i>lutea W.</i>	yellow	△	△	or	4	jn.jl	Y	Al. of Eur.	1596.	D. p.l	Mill. ic. t. 139
3357 <i>purpúrea W.</i>	purple	△	△	or	3	jn.jl	B	Al. of Eur.	1768.	D. p.l	Bot. rep. 117
3358 <i>pannónica W.</i>	round-petalled	△	△	or	1	jn.jl	Pu	Al. of Eur.	...	D. p.l	Jac. aus. 2. t. 136
3359 <i>punctáta W.</i>	spotted-flower'd	△	△	or	3	jn.jl	Y	Al. of Eur.	1775.	D. p.l	J. aus. 5. t. app. 28
3360 <i>septémháda Pall.</i>	crested	△	△	or	½	jn.jl	L.B	Persia	1804.	D. p.l	Bot. mag. 1551
3361 <i>asclepiadáa W.</i>	Swallow-wort.l.	△	△	or	1	jl.au	B	Austria	1629.	D. p.l	Bot. mag. 1078
3362 <i>macrophýlla W.</i>	long-leaved	△	△	or	1	jl.au	D.B	Siberia	1796.	D. p.l	Pall. ross. 2. t. 96
3363 <i>cruciáta W.</i>	Cross-wort	△	△	or	1	jn.jl	D.B	Austria	1596.	D. p.l	Jac. aus. 4. t. 372
3364 <i>ochroleúta Fról.</i>	pale-flowered	△	△	or	2	aus.	P.Y	N. Amer.	1803.	D. p.l	Bot. mag. 1551
3365 <i>incarnáta B. M.</i>	flesh-colored	△	△	or	2	o	Pk	N. Amer.	1812.	D. p.l	Bot. mag. 1836
3366 <i>Saponária W.</i>	barrel-flowered	△	△	or	2	aus.	B	N. Amer.	1776.	D. p.l	Bot. mag. 1039
3367 <i>Catesbæi H. K.</i>	Catesby's	△	△	or	1½	jn.jl	B	N. Amer.	1803.	D. p.l	Bot. rep. 418
3368 <i>Pneumonanthe W.</i>	Calathian Violet	△	△	or	½	aus.	Y	England	mo. h.	D. p.l	Eng. bot. 20
3369 <i>caucásea H. K.</i>	Caucasian	△	△	or	½	jl	Y	Caucasus	1804.	D. p.l	Bot. mag. 1038
3370 <i>ascéndens W.</i>	porcelain-flow.	△	△	or	½	jn.jl	B	Siberia	1799.	D. p.l	B. mag. 705. & 723
3371 <i>triflóra Pall.</i>	three-flowered	△	△	or	½	jn.jl	B	Siberia	1807.	D. p.l	Pall. ross. t. 93. f. 1
3372 <i>álgida W.</i>	narrow-leaved	△	△	or	½	jn.jl	W	Siberia	1808.	D. p.l	Pall. ross. 2. t. 95
3373 <i>acaútilis W.</i>	dwarf	△	△	or	½	mr.my	B	Wales	walls.	D. p.l	Eng. bot. 1594
3374 <i>vérna W.</i>	spring	△	△	or	½	ap.my	B	England	moun.	D. p.l	Eng. bot. 493
3375 <i>bavárica W.</i>	Bavarian	△	△	or	½	jl	B	Scotland	1775.	D. p.l	Will. delph. 2. t. 10
3376 <i>nivális W.</i>	small Alpine	△	△	or	½	au	B	Germany	s. alp.	D. s.l	Eng. bot. 896
3377 <i>viscósá H. K.</i>	clammy	△	△	or	½	jn.au	Y	Canary isl.	...	S. s.l	Bot. mag. 2135



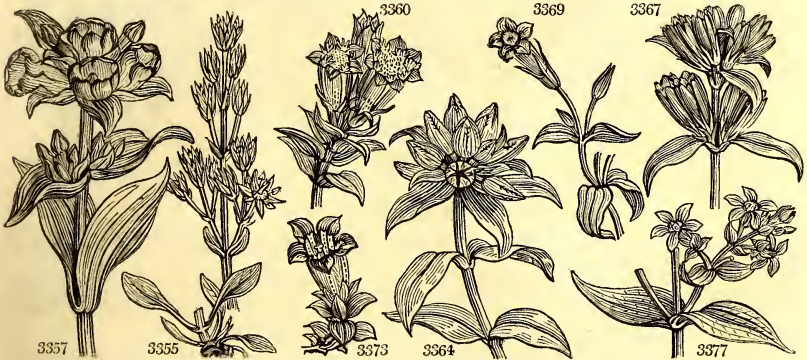
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pickled in vinegar; but in general they are without use. According to Sweet, "the best soil for them is a sandy loam, mixed with old lime or brick rubbish; if planted in a richer soil, they will thrive better for a time, and produce larger flowers; but then they are very apt to rot off, particularly if they chance to get a little too much water: a very little water serves them, except when in flower, when it may be given more freely. They are readily increased by cuttings, which should be laid to dry in the stove, till they begin to shrivel; then planted in pots they will root immediately. If planted as soon as taken off, when full of juice, they are likely to rot. (Bot. Cult. 109.)

595. *Piaranthus.* From *πιαρος*, fat, and *ανθος*, a flower, on account of the fleshy nature of the corolla. The species are only artificially distinguished from *Stapelia*.

596. *Huernia.* Named after Justus Huernius, an obscure botanist. The species have the same appearance

- 3334 Branches several clustered oblong toothed, Segm. of cor. 3-angular hispid fringed at edge
 3335 Branches clustered procumbent 4-cornered with spreading acute teeth, Seg. of cor. folded back fringed
- 3336 Branches clustered short with conical acute teeth, Segm. of cor. distant folded back naked
 3337 Cor. with seg. refl. at edge and fringed with simple hairs, Bottom rounded elevated, Lig. falcate hooked
 3338 Cor. rugose ciliat. pubes. in midd. Seg. revolute at edge all bent down, Beaks subul. Wings scarcely any
- § 8. *Cor. 5-cleft with no ball. Ligules not connate at base, spreading. Appendages elongated into a bifid rostrum, with globose fungous tips. (CARUNCULARIA. Haw.)*
- 3339 Branches several divar. 4-corn. toothed, Ped. very long, Seg. of cor. lanc. rev. at edge with fringed angles
 3340 Branches oblong jointed, Peduncles twin, Cor. revolute at edge with wings and lobes serrated at end
- 3341 Six-cornered erect with spreading prickles, Flower sessile clustered, Segm. of cor. lanceolate silky above
 3342 Joints 4-cornered toothed, Flowers fascicled, Segm. of cor. lanceolate papillose
- 3343 Branches 5-cornered toothletted, Cor. with 10 angles, Tube bearded inside and elevated into a ball
 3344 Cor. campanulate closed at bottom by clavate horizontal hairs, Ligules spreading truncate dark
 3345 Branches 4 and 5-cornered, Young branches very much spreading, Cor. 10-cleft, Tube smooth
 3346 Cor. 10-toothed, Alternate segments obsolete, Branches 5-cornered spreading with hooked tubercles
 3347 Cor. concave at bottom, Stems simple above glaucous, The teeth of the branches horizontal
 3348 Branches several 4-5 angular spreading, Cor. rounded 10-cleft, Segm. alternately longer, Flowers solitary
 3349 Branches simple very thick 4-5-cornered with very large teeth
 3350 Branches several 4-5-corn. clust. nearly erect, Teeth of branches acute spreading, Cor. campanul. 10-cleft
- 3351 Cor. campanulate dotted inside; not dotted outside, Beaks gibbous, Shield low with 5 emarginate lobes
- 3352 The only species
- 3353 Branches distant 4-cornered long slender ascending, Flowers with segments tipped with purple
 3354 Branches clustered 4-cornered short thick erect, Flowers in close terminal heads
- 3355 Cor. 5-cleft, Peduncle 4-cornered, Stem undivided, Radical leaves oval
- 3356 Cor. 5-cleft rotate whorled, Whorls cymose, Calyxes spathaceous, Leaves broad ovate
 3357 Cor. 5-cleft campanulate dotted in streaks whorled, Cal. membranous spathaceous
 3358 Cor. 6-cleft campanulate much dotted whorled, Cal. coriaceous truncate
 3359 Cor. 6-cleft campanul. much dotted whorled, Cal. membr. truncated, Lobes shorter than tube of cal. uneq.
 3360 Cor. hypocrateriform 5-7-cleft, Intermediate segments torn, Leaves cruciate 3-nerved
 3361 Cor. 5-cleft campanulate opp. axillary subsessile, Leaves stem-clasping ovate-lanceolate
 3362 Cor. 4-5-cleft sessile whorled, Radical leaves as long as stem which is naked beneath
 3363 Cor. 4-cleft naked hypocrateriform whorled subsessile, Stem two edge narrowed at base
 3364 Flowers terminal sessile, Cor. 10-cleft ventricose acute, Alt. segm. shorter entire, Leaves lanceolate
 3365 Flowers clustered terminal tub-shaped with an unequal lacerated mouth, Leaves oval
 3366 Flowers in whorled heads sessile, Cor. 10-cleft ventric. closed, Alt. segm. fringed smaller, Lvs. ovate lanc.
 3367 Flowers whorled ventricose 10-cleft, Segm. altern. unequally bifid and torn, Lvs. remote oppos. and ternate
 3368 Cor. 5-cleft campanulate acuminate terminal and axillary stalked, Leaves linear obtuse
 3369 Cor. 5-cleft hypocrat. beard. Seg. ovate, Cal. trunc. with eq. subul. teeth, Lvs. ov. lanc. as long as branches
 3370 Cor. campanulate 5-cleft toothed between the segments, Cal. 3-toothed opening on one side, Lvs. lanceolate
 3371 Cor. campanulate 5-cleft clustered sessile, Leaves linear: floral alternate lengthened
 3372 Cor. campanulate 5-cleft terminal stalked 3 together, Segm. acute, Leaves lanceolate 3-nerved
 3373 Cor. 5-cleft campanulate as long as the square stalk
 3374 Cor. 5-cleft funnel-shaped, Leaves ovate acute: radical spreading larger than the cauline
 3375 Cor. 5-cleft funnel-shaped, Leaves ovate obtuse: radical clustered imbricated less than the cauline
 3376 Cor. 5-cleft funnel-shaped, Branches alternate 1-flowered, Cauline leaves lanceolate
 3377 Cor. 5-cleft monogynous, Panic. trichotomous, Bractes perfoliate, Leaves oblong 3-nerved



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as *Stapelia*, require the same culture, and are natives of the barren blowing sands of the Cape of Good Hope.

597. *Brachystelma*. From *βραχυς*, short, and *στελιμα*, a crown, in allusion to the shortness of the coronal processes in the flower of this plant.

598. *Caralluma*. The Indian name of this plant, which exactly resembles *Stapelia* in appearance.

599. *Swertia*. So named by Linnæus, in honor of Eman. Sweet, a cultivator of bulbs and flowers in Holland, and author of *Florilegium*, 1612. Pretty herbaceous plants, with blue flowers.

600. *Gentiana*. From *Gentius*, King of Illyria, who, according to Pliny, first discovered the tonic virtues of plants of this genus. "This is a very handsome genus of herbaceous plants: most of the species succeed well in a light rich soil, but a few require peat, and some must be grown in pots to be protected by frames in winter.

3378 <i>intermedia B. M.</i>	clavate	Δ	Δ	or	2	o	Pu	N. Amer.	1820.	D	p.l	Bot. mag. 2303
3379 <i>gélida Bieb.</i>	pale-flowered	Δ	Δ	or	1	jn.jl	P.Y	Siberia	1807.	D	p.l	
3380 <i>Amarélla W.</i>	autumnal	Δ	Δ	or	1	au	P.B	Britain	ch. pa.	S	co	Eng. bot. 236
3381 <i>campéstris W.</i>	field	○	○	or	1	au	Pu	Britain	gra. pa.	S	co	Eng. bot. 237
3382 <i>ciliáta W.</i>	fringed	Δ	Δ	or	1	au.s	L.B	Germany	1759.	D	p.l	Bot. mag. 639
3383 <i>crinita Ph.</i>	jagged	Δ	○	or	1	jn.jl	L.B	N. Amer.	1804.	S	p.l	Bot. mag. 2031
601. <i>HYDROLEA. W.</i>	<i>HYDROLEA.</i>							<i>Convolvulacæ.</i>	<i>Sp. 1—6.</i>			
3384 <i>spinósa W.</i>	thorny	≡	|	or	1	jn.jl	P.B	S. Amer.	1791.	C	l.p	Bot. reg. 566
602. <i>FALKIA. L.</i>	<i>FALKIA.</i>							<i>Convolvulacæ.</i>	<i>Sp. 1.</i>			
3385 <i>répens W.</i>	creeping	≡	Δ	or	1	my.au	Pk	C. G. H.	1774.	C	p.l	Bot. rep. 257
603. <i>DICHON'DRA. W.</i>	<i>DICHON'DRA.</i>							<i>Convolvulacæ.</i>	<i>Sp. 2—5.</i>			
3386 <i>répens R. Br.</i>	creeping	≡	Δ	cu	1½	jn.au	W	N. S. W.	1803.	C	s.p	Smith. ined. 1.t.8
3387 <i>sericea W.</i>	silky	≡	Δ	cu	1½	jn.au	W	Jamaica	1793.	C	s.p	
604. <i>VELEZIA. W.</i>	<i>VELEZIA.</i>							<i>Caryophyllæ.</i>	<i>Sp. 1.</i>			
3388 <i>rigida W.</i>	rigid	○	cu		1	jl	W.P	Spain	1683.	S	co	Barr. rar. t. 1018
605. <i>BUMAL'DA. Th.</i>	<i>BUMALDA.</i>							<i>Sp. 1.</i>				
3389 <i>trifólia Th.</i>	three-leaved	≡	|	cu	2	jn.s	...	Japan	1812.	S	co	
606. <i>HEUCHE'RA. W.</i>	<i>HEUCHERA.</i>							<i>Savifragæ.</i>	<i>Sp. 4—6.</i>			
3390 <i>americana W.</i>	viscid	Δ	Δ	or	1	my.jl	Pu	N. Amer.	1656.	D	s.l	Pk. alm. t. 58. f.3
3391 <i>pubéscens Ph.</i>	pubescent	Δ	Δ	or	1	my.jl	Pk.v	N. Amer.	1812.	D	l.p	
3392 <i>villósa Ph.</i>	villous	Δ	Δ	or	1	my.jl	Pk	N. Amer.	1812.	D	l.p	
3393 <i>caulescens Ph.</i>	caulescent	Δ	Δ	or	1	my.jl	W	N. Amer.	1812.	D	l.p	
607. <i>CUSSO'NIA. L.</i>	<i>CUSSONIA.</i>							<i>Araliacæ.</i>	<i>Sp. 2.</i>			
3394 <i>thyrsiflóra L.</i>	thyrsé-flower.	≡	|	or	6	...	Gr	C. G. H.	1795.	C	l.p	Thun. ups. 3.t.12
3395 <i>spicáta L.</i>	spike-flowered	≡	|	or	6	...	Gr	C. G. H.	1789.	C	s.l	Thun. ups. 3.t.13
608. <i>ANA'BASIS. W.</i>	<i>ANABASIS.</i>							<i>Chenopodæ.</i>	<i>Sp. 1—9.</i>			
3396 <i>tamariscifólia W.</i>	Tamarisk-leav.	≡	|	w	2	jn.jl	G	Spain	1752.	C	l.p	Cav. ic. 3. t. 283
609. <i>SALSO'LA. W.</i>	<i>SALTWORT.</i>							<i>Chenopodæ.</i>	<i>Sp. 8—50.</i>			
3397 <i>Káli W.</i>	prickly	○	ec		1	jl.au	F	Britain	sea sh.	S	s.l	Eng. bot. 634
3398 <i>rosácea W.</i>	rose-colored	○	cu		1	jl.au	Pk	Asia	1759.	S	s.l	Schk. ban. 1. t. 57
3399 <i>Séda W.</i>	long fleshy-ldv.	○	ec		3	jl.au	W	S. Europe	1683.	S	s.l	Jac. vind. 1. t. 68
3400 <i>satíva W.</i>	cultivated	Δ	ec		1	jl.au	Pk	Spain	1783.	D	s.l	Cav. ic. 3. t. 291
3401 <i>hirsúta W.</i>	hairy	○	cu		1	jl.au	Gr	Denmark	1791.	D	s.l	Fl. dan. 187
3402 <i>laniflóra W.</i>	woolly	○	cu		2	jn.au	Y	Siberia	1797.	D	s.l	Pa.it. 2.p. 736.t. P.
3403 <i>vermiculáta W.</i>	small-leaved	○	w		1½	jl.au	Gr	Siberia	1759.	S	s.l	Cav. ic. 3. t. 287
3404 <i>muricáta W.</i>	Egyptian	○	w		1	jl.au	Gr	Egypt	1773.	S	s.l	All. taur. 3.t. 4.f.2
610. <i>KO'CHIA. Roth.</i>	<i>KOCHIA.</i>							<i>Chenopodæ.</i>	<i>Sp. 9—11.</i>			
3405 <i>hyssópifólia R.</i>	Hyssop-leaved	○	w		1½	jn.au	G	Siberia	1801.	S	co	P.it. 1.p. 491. t. H.
3406 <i>dentáta Ph.</i>	tooth-leaved	○	w		2	jn.au	G	N. Amer.	1803.	S	co	Wi. ho. ber. 1. t. 28
3407 <i>trigyna Lmk.</i>	slender-leaved	○	w		3	jl.au	G	Spain	1804.	S	s.l	Cav. ic. 3. t. 289



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Some of them may be increased by dividing at the root, but most of them seed freely; the seeds should be sown as soon as ripe, they will then quickly vegetate, but if left till spring before they are sown, they will not come up till the second year. (*Bot. Cult.* 371.)

G. lutea has a thick root of a yellowish brown color, and very bitter taste. In Switzerland and Germany it occupies extensive tracts of ground untouched by any cattle. It was formerly used as hops in brewing, and is at present the principal European bitter used in medicine. The root of *G. purpurea* is as thick as a man's arm and two feet long; it is extremely bitter, and used as a substitute for *G. lutea*.

G. acualis and *verna* are two beautiful edging plants, and answer well in pots.

601. *Hydrolea.* From *hydro*, water, and *leua*, oil. It is a water plant, and its leaves are viscous, as if they were smeared with old oil. A very pretty plant with bright blue flowers.

602. *Falkia.* Named after John Falk, a Swede, born in 1725, died in 1774. He was professor of botany in the apothecaries' garden at St. Petersburg, and followed Pallas during a part of his journey in Siberia. Upon his return he committed suicide; perhaps the only instance upon record of suicide among naturalists.

603. *Dichondra.* From *dis*, double, and *chondros*, grain; on account of the double nature of the capsule. Little inconspicuous trailing plants, seldom seen or desired in collections.

604. *Velezia.* So named by Linnæus, in memory of Christoval Velezius, examiner, first physician, and demonstrator of botany in the college of apothecaries at Madrid. A small weed, native of the south of France, resembling a dried up *Gentiana*.

605. *Bumalda.* Named after Ovide Montálban, better known under the name of Jean Antoine de Bumalda, born at Bologna, published in 1657 a *Bibliotheca Botanica*, and in 1668 a *Dendrologia*.

606. *Heuchera.* In memory of Jean Henry de Heucher, archiater, and professor of medicine at Witteberg,

- 3378 Leaves obovate oblong 3-nerved, Flowers terminal clustered, Cor. ventricose not opening
 3379 Cor. campanulate 5-cleft terminal and axillary clustered, Intermed. segm. torn, Leaves lanc. 3-nerved
 3380 Cor. 5-cleft hypocroteriform bearded, Segm. lanc. acute, Leaves lanc. Branches shorter than joints
 3381 Cor. 4-cleft hypocroteriform obtuse, Orifice bearded, Two outer sepals very large
 3382 Cor. 4-cleft, Segm. serrated finely cut in the middle, Leaves lanceolate and linear, Stem flexuose angular
 3383 Cor. 4-cleft, Segm. finely cut, Leaves lanceolate acute, Stem erect rounded

3384 Leaves lanceolate, Flowers terminal corymbose, Capsules a little hairy

3385 A creeping plant with cordate obtuse stalked leaves

3386 Pubescent, Leaves reniform retuse and emarginate

3387 Leaves reniform emarginate pubescent beneath

3388 The only species

3389 A slender branched purple shrub

3390 Viscid, Scape and leaves roughish, Leaves rounded lobed toothed, Pet. lanc. Stam. much exerted

3391 Powdery, Scape and lvs. below smooth, Lvs. acutely lobed toothed, Pet. spatulate, Stam. scarcely exerted

3392 Very villous, Leaves acutely lobed, Pet. shorter than calyx, Stamens exerted

3393 Shrubby at base, Lvs. smooth above acutely lobed toothed, Cal. short villous, Pet. linear, Stam. exerted

3394 Leaves digitate, Leaflets sessile wedge-shaped truncate 3-toothed, Flowers racemose

3395 Leaves digitate, Leaflets 7-3-parted wedge-shaped acuminate serrated at end, Flowers spiked

3396 Leaves subulate, Pericarps not juicy

3397 Spreading hairy, Leaves subulate mucronate, Calyxes solitary, Appendages opened out colored

3398 Leaves subulate mucronate, Calyxes opened out

3399 Smooth, Branches ascending, Lvs. half round acute, Cal. in fruit keeled across the middle membranous

3400 Herbaceous, Leaves rounded smooth, Flowers clustered

3401 Erect spreading hairy, Leaves oblong half round obtuse, Flowers twin axillary

3402 Leaves rounded pubescent, Flowers axillary, Anthers colored

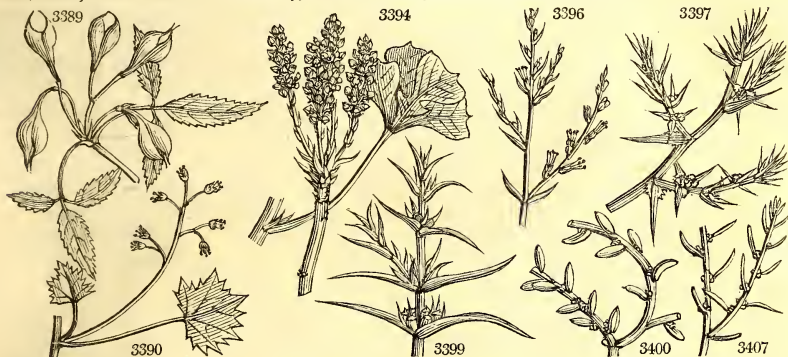
3403 Pubescent, Branches paniced, Leaves filiform with an axillary tuft, Floral very short, Cal. solitary

3404 Tomentose, Cal. with 5 angles and 5 awns, Leaves lanceolate flat

3405 Pubescent, Leaves linear flat, Cal. clustered woolly with a hooked dorsal spine

3406 Leaves broad lanceolate toothed, Cal. surrounded by a toothed crown, Seed round emarginate on one side

3407 Erect, Leaves filiform obtuse fleshy, Flowers axillary sessile 3 together, Style trifid



and Miscellaneous Particulars.

author of Hortus Wittebergensis, 1711-13. Very neat North American plants, requiring the culture of alpine plants.

607. *Cussonia*. In memory of Cusson, a celebrated botanist, who after laboring to complete the order of umbellate plants, had all his labor annihilated by his wife, who in his absence used the paper upon which his plants had been glued for household purposes. It is a genus of easy culture, and readily increased by cuttings planted in sand and placed under a hand-glass.

608. *Anabasis*. One of the names given by the Greeks to the *Equisetum*. A small plant, quite similar to some species of *Chenopodium*.

609. *Salsola*. From *salsus*, salt. From these plants, which are chiefly maritime, is obtained the kelp of our shores. This is a genus of plants producing the alkaline salts called barilla, soda, potash, and kelp. Most of them are herbaceous and annual, but some have shrubby stems.

S. kali, (*Qaly* or *âlqaly*, Arabic. *Bochart*), is found on the sandy shores of most parts of the world, and is very generally burned for soda for the glass manufacture.

S. soda is cultivated in Languedoc and also in Spain for making barilla; but is reckoned inferior to *S. sativa*, which grows on the Spanish shores of the Mediterranean, and affords all the best soda consumed in Europe. It is called by us Spanish or Alicant soda. In September, the crop is cut and laid in small heaps to dry. These heaps are then collected and burned, forty or fifty of them in a hole, in the ground.

Soda is in common use in the manufacture of glass and soap; with sulphuric acid, it forms Glauber's salts; with marine acid, common salt; with the salt of Homberg, borax; and with cream of tartar, Rochelle salt.

610. *Kochia*. A genus divided from *Salsola* by Roth, and named by him after his friend Koch, a German botanist.

3408 prostrata Schrad.	trailing	♂	l	w	2	jn.au	G	S. Europe	1780.	C	s.l	Jac. aust. 3. t. 294
3409 arenaria Roth.	sand	♀	o	w	1	my.jn	W.G	Hungary	1822.	S	s.l	
3410 sedifolia Schr.	stoncrop	♀	o	cu	2	jn	G	Crimea	1821.	S	s.l	Pall. ill. t. 35
3411 eriophora Schr.	woolly	♂	l	w	1	jn.jl	G	Spain	1823.	S	s.l	Schr. rad. hal. t. 3
3412 sericea Schr.	silky	♀	l	cu	3	al	G	C. G. H.	1824.	C	s.l	Schr. rad. hal. t. 2
3413 scoparia Schr.	summer Cypress	♂	l	or	3	jn.s	G	Greece	1629.	S	co	Schr. hal. t. 1. f. 1
611. CHENOPODIUM.	W. Goose-foot.							Chenopodeæ.	Sp. 34—72.			
3414 Bonus-Henricus W.	Engl. Mercury	♀	Δ	cu	1	my.au	G	Britain	rub.	D	co	Eng. bot. 1033
3415 urbicum W.	upright	♀	o	w	1	au	G	Britain	dungh.	S	co	Eng. bot. 717
3416 Atriplicis W.	purple	♀	o	w	3	aus	S	China	1780.	S	co	Eng. bot. 1919
3417 rubrum W.	red	♀	o	w	2	aus	R	Britain	dungh.	S	co	Eng. bot. 1721
3418 guineense W.	Guinea	♀	o	w	2	aus	G	Guinea	1790.	S	co	Jac. ic. rar. 2. t. 345
3419 murale W.	nettle-leaved	♀	o	w	1	1/2 aus	G	Britain	rub.	S	co	Eng. bot. 1722
3420 Quinoa W.	green Quinoa	♀	o	cul	3	jl	G	Peru	1822.	S	co	
	red Quinoa	♀	o	cul	3	jl	G	Peru	1822.	S	co	Feuill. per. t. 10
3421 rhombifolium W.en.	angular-leaved	♀	o	w	1	1/2 jls	G	N. Amer.	1807.	S	co	
3422 serotinum L.	late	♀	o	w	2	jls	G	Spain	1821.	S	co	
3423 ficifolium H.K.	Fig-leaved	♀	o	w	2	aus	G	England	dungh.	S	co	Eng. bot. 1724
3424 album W.	white	♀	o	w	1	1/2 jls	G	Britain	rub.	S	co	Eng. bot. 1723
3425 hybridum W.	Maple-leaved	♀	o	w	1	1/2 aus	G	Britain	rub.	S	co	Eng. bot. 1919
3426 Botrys W.	cut-leaved	♀	o	fr	1	jn.s	G	S. Europe	1548.	S	co	Fl. grac. t. 263
3427 botryoides Sm.	many-clustered	♀	o	w	1	jn.au	R	Britain	sea sh.	S	co	Eng. bot. 2247
3428 fetidum Schr.	fetid	♀	o	w	4	jn.au	G	.....	1823.	S	co	
3429 multifidum W.	Buenos Ayres	♀	Δ	w	2	jn.o	G	Buenos A.	1732.	D	co	Dill. elt. t. 66. f. 77
3430 ambrosioides W.	Mexican	♀	o	fr	1	1/2 jn.o	G	Mexico	1640.	S	co	Moris. s. 5. t. 35. f. 8
	β suffruticosum											
3431 anthelmin'ticum W.	American	♂	l	w	3	jl.au	G	America	1732.	C	co	Dill. elt. t. 66. f. 76
3432 graveolens W.	strong-smelling	♀	o	w	4	jl.au	G	Mexico	1823.	S	co	
3433 glaucum W.	Oak-leaved	♀	o	w	1	1/2 jl.au	G	England	rub.	S	co	Eng. bot. 1454
3434 crassifolium H.Par.	thick-leaved	♀	o	w	2	jl	G	.....	1809.	S	co	
3435 6lidum Sm.	stinking	♀	o	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1034
3436 polyspermum W.	Allseed	♀	o	w	1	jl.au	G	Britain	rub.	S	co	Eng. bot. 1480
3437 caudatum W.	oval-leaved	♀	o	w	2	jl.au	G	Guinea	1806.	S	co	Jac. ic. 2. t. 344
3438 laterale W.	oblong-leaved	♀	o	w	1	au.s	G	.....	1781.	S	co	
3439 lanceolatum W.en.	spear-leaved	♀	o	w	2	jl	G	Pensylva.	1809.	S	co	
3440 aristatum W.	bearded	♀	o	w	1	jn.s	G	Virginia	1771.	S	co	Gm. sib. 3. t. 15. f. 1
3441 sepium Mayer.	hedge	♀	o	w	2	jn.jl	G	Moravia	1823.	S	co	
3442 acutifolium E. B.	acute-leaved	♀	o	w	1	jl.au	G	Britain	unc.gr.	S	co	Eng. bot. 1481
3443 maritimum W.	Sea Blite	♀	o	w	3	au	G	Britain	sal.m.	S	co	Eng. bot. 633
3444 fruticosum W. en.	shrubby	♂	ec	ec	2	aus	G	England	sea sh.	C	co	Eng. bot. 685
	Salsola fruticosa E. B.											
3445 altissimum W. en.	grass-leaved	♀	o	w	6	jl.au	G	Italy	1775.	S	co	Schr. halop. 1. f. 3
3446 salinum R. Br.	Saltwort	♀	o	w	1	aus	G	Astracan	1782.	S	co	Jac. vind. 3. t. 83
3447 setigerum D. C.	bristly	♀	o	w	2	jn.jl	G	S. Europe	1822.	S	co	
612. BETA. W.	BEET.							Chenopodeæ.	Sp. 5—7.			
3448 vulgaris W.	common	♀	o	cul	4	au	G	S. Europe	1548.	S	r.m	Schk. han. 1. t. 56
3449 patula W.	spreading	♀	o	w	1	au	G	Madeira	1778.	C	r.m	
3450 cicla W.	white	♀	o	cul	6	au	G	Portugal	1570.	S	r.m	
3451 trigyna H. K.	Hungarian	♀	o	w	3	jl.au	G	Hungary	1796.	S	r.m	P. rar. hun. 1. t. 35
3452 maritima W.	sea	♀	o	cul	1	au	G	Britain	sea co.	S	s.l	Eng. bot. 285
613. BO'SEA. W.	GOLDEN ROD.							Chenopodeæ.	Sp. 1—2.			
3453 Yervamora W.	tree	♂	l	or	6	...	Ru	Canaries	1728.	C	pl	Wal. hor. 24. t. 10



History, Use, Propagation, Culture,

611. *Chenopodium*. From *χην*, a goose, and *πους*, foot; many species having large angular leaves extremely similar to the webbed feet of a water-fowl. This is a genus of succulent herbs, with their leaves for the most part covered with powdery granules; the whole plant of no beauty, but generally edible as a pot-herb.

C. Bonus Henricus is cultivated in some gardens as a perennial spinage, it being hardy and of early growth. The leaves are sometimes applied to wounds, and for cleansing old ulcers.

C. album is the most common of the species, and used to be boiled and eaten as greens; but C. maritimum is preferred to all the species for this purpose. The foreign species are of the easiest culture, and increased either by seeds or cuttings.

C. maritimum, where it abounds, is burned with Salsola kali and other marine plants, to produce soda. 612. *Beta*. From *bett*, red, in Celtic. B. vulgaris, *Betterave*, or beet-radish, Fr.; *Rothé Rübe*, Ger.; and *Barba Brettola*, Ital., is a well known culinary root, used in salads either raw or boiled; forming a beautiful varnish; very much used as a pickle; preserved as a confiture; made a substitute for coffee; and yielding a

- 3408 Hoary, Leaves linear flat, Calyxes about 3 downy with opened obovate appendages
 3409 Leaves linear somewhat fleshy pubescent, Flowers axillary about 3 together, Cal. with blunt appendages
 3410 Herbaceous very hairy, Leaves linear fleshy, Dorsal spine of cal. straight
 3411 All woolly, Leaves linear fleshy spreading, Cal. in fruit stellate with 5 prickles hooked at end
 3412 Branches diffuse, Leaves lanceolate silky, Calyxes not prickly
 3413 Pubescent, Leaves linear lanceolate ciliated, Cal. in pairs, Appendages very short acute

§ 1. *Leaves flat angular.*

- 3414 Leaves triangular acute repand toothed, Spikes compound clustered leafless axillary and terminal
 3415 Leaves triangular toothed, Racemes clustered very upright close to the stem very long and leafless
 3416 Leaves rhomboid-ovate and lanceolate: the lower sinuate toothed, Pan. axillary branched, Stem erect
 3417 Leaves cordate triangular rather obtuse toothed, Racemes erect compound leafy shorter than the stem
 3418 Leaves ovate unequally toothed acute, Racemes branched naked and simple stem erect
 3419 Lvs. ov. uneq. tooth. acute shining, Race. corym. naked shorter than the leaf, Stem branched spreading
 3420 Lvs. triangular ovate obsolete toothed the younger powdery, Racemes clustered shorter than leafstalk
 3421 Leaves triangular acute repand toothed, Racemes axillary erect nearly leafless, Bractes minute inflexed
 3422 Leaves deltoid sinuate toothed rugose smooth uniform, Racemes terminal
 3423 Leaves hastate sinuate eroded entire behind, Upper oblong entire, Seeds dotted
 3424 Leaves rhomboid ovate eroded entire behind, Upper oblong entire, Seeds smooth
 3425 Leaves ovate-acuminate subordinate angular toothed, Racemes paniced naked terminal and axillary
 3426 Leaves oblong sinuated, Racemes naked multifid, Upper bractes entire lanceolate
 3427 Leaves ovate acute entire, Stem erect, Racemes cymose elongated nearly leafless
 3428 Leaves oblong sinuated, Racemes naked many-cleft, Upper bractes 3-lobed at end
 3429 Lvs. pinnatifid, Segm. linear the lower toothed, Clusters of flowers axillary sessile
 3430 Leaves lanceolate remotely toothed, Racemes leafy simple

- 3431 Leaves ovate lanceolate sparingly toothed, Spikes simple slender long leafless, Flowers trigynous
 3432 Leaves oblong sinuate-toothed wedge-shaped at base, Clusters of flowers axillary
 3433 Leaves oblong repand glaucous beneath, Spikes clustered simple naked axillary and terminal
 3434 Leaves thick rhomboid-angular somewhat sinuated entire behind, Racemes erect compound leafy

§ 2. *Leaves flat entire.*

- 3435 Leaves rhomb-ovate, Flowers clustered axillary
 3436 Leaves ovate, Stem decumbent, Cymes dichotomous leafless axillary
 3437 Leaves ovate obtuse entire, Panicle terminal naked elongated, Stem simple erect
 3438 Cauline leaves lanceolate obtuse, Branch-leaves oblong, Peduncles lateral solitary 1-flowered
 3439 Leaves ovate lanceolate acute entire, Racemes axillary compound naked, Stem divaricating
 3440 Leaves lanceolate fleshy entire, Corymbs dichotomous aristate axillary
 3441 Leaves ovate sinuate, Racemes leafy simple
 3442 Leaves wavy half-round, Flowers axillary sessile

§ 3. *Leaves rounded.*

- 3443 Stems diffuse, Leaves oblong $\frac{1}{2}$ rounded, Flowers axillary clustered
 3444 Erect shrubby, Leaves semicylindrical obtuse blunt
 3445 Quite smooth, Branches paniced erect, Leaves filiform acutish, Flowers in threes stalked
 3446 Herbaceous nearly erect, Leaves linear fleshy unarmed, Cal. succulent transparent
 3447 Leaves rounded thick smooth terminated by a straight long bristle

- 3448 Flowers clustered, Lower leaves ovate, Root fleshy
 3449 Flowers clustered, All the leaves linear-lanceolate, Branches divaricating
 3450 Leaves with very thick ribs, Flowers three together, Root scarcely any
 3451 Racemes erect paniced leafless, Flowers trigynous twin and solitary, Lvs. cordate acute unequal at base
 3452 Flowers in pairs, Stem diffuse, The branches much interwoven, Root scarcely any

- 3453 Leaves alternate stalked ovate acute with the veins and nerves purple



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sugar equal to that of the cane. There are several varieties; those most esteemed for salads are the small red and Castelnau, and for extracting sugar, the green-topped. The seed is sown in March or April, on deep well comminuted soil. When the plants show two or three proper leaves they are thinned out, so that each plant may occupy or be allowed a square foot of surface. By September or October the roots are fit for use, and may either be taken up as wanted, or taken up and buried in sand in the root-cellar.

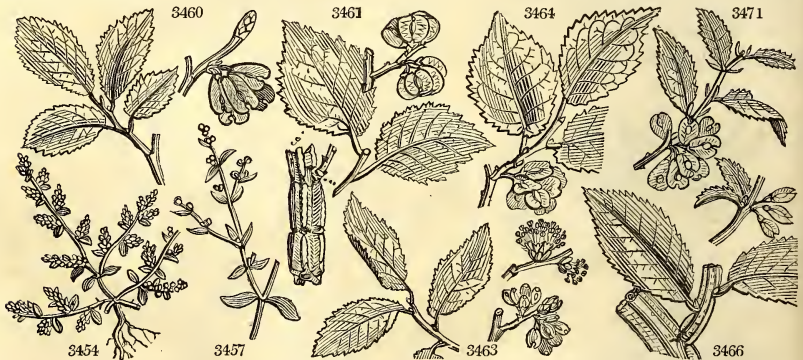
B. Cicla, (Cicla is said by De Théis, to be a corruption of *sicula*, under which name it is spoken of by Catullus.) *Ette*, or *Poirée à cardes*, Fr.; *Mangold Kraut*, Ger.; and *Biettole*, Ital., is employed in horticulture as a spinage plant, and for being used as chard or asparagus; and in foreign agriculture for the production of sugar.

It is much grown in the south of Germany and Switzerland, where the lamina of the leaves is used as spinage or put in soups, and the midrib is boiled and eaten with melted butter or gravy as chard. The culture is the same as for the red beet; but, as the leaves are larger, the space allowed each plant is proportionally increased.

B. maritima is or may be used as a spinage plant or as greens.

613. *Bosea*. Ernest Gottlieb Bose, a German, published at Leipzig, in 1775, a work upon the secretions of

614. HERNIARIA. W.	RUPTURE-WORT.	<i>Amaranthaceæ. Sp. 6—11.</i>										
3454 glabra W.	smooth	∇	△	w	½	jl	G	England	sa. gr.	S	co	Eng. bot. 206
3455 hirsuta W.	hairy	∇	△	w	½	jl.au	G	England	sa. gr.	S	co	Eng. bot. 1379
3456 fruticosa L.	shrubby	∇	∇	w	½	my.au	G	Spain	1814.	C	1 p	Lab. ic. 85
3457 polygonoïdes Cav.	Knot-grass	∇	∇	w	½	my.au	G	S. Europe	1752.	C	1 p	Cav. ic. 2. t. 131
3458 incana Bieb.	hoary	∇	△	w	½	jl.au	G	S. Europe	1822.	C	1 p	Pl. alm. t. 53. f.3
3459 alpina Vill.	alpine	∇	△	w	½	my.au	G	S. Europe	1822.	C	1 p	
615. ULMUS. L.	ELM-TREE.	<i>Ulmaceæ. Sp. 13.</i>										
3460 campestris L.	comm. English	∇	∇	tm	80	ap.my	Br	Britain	hed.	L	co	Eng. bot. 1886
3461 suberosa Mönch	cork-barked	∇	∇	tm	40	ap.my	Br	Britain	hed.	L	co	Eng. bot. 2161
3462 fruticosa W.	shrubby	∇	∇	or	8	ap.my	Br	Europe	...	G	co	Eng. bot. 2248
3463 glabra E. B.	smooth	∇	∇	tm	60	ap.my	Br	Britain	hed.	L	co	Eng. bot. 1887
3464 montana E. B.	Wych	∇	∇	tm	40	ap.my	Br	Britain	hed.	S	co	Eng. bot. 1887
3465 americana Ph.	white Amer.	∇	∇	tm	40	ap.my	Br	N. Amer.	1752.	G	co	
3466 alata Mich.	winged	∇	∇	tm	30	ap.my	Br	N. Amer.	1820.	G	co	Mich. arb. 3. t. 5
3467 alba Kit.	white Hungar.	∇	∇	tm	30	ap.my	Br	Hungary	1824.	G	co	
3468 humilis Amm.	low	∇	∇	or	6	ap.my	Br	Siberia	...	G	co	
3469 crispa W.	-curled	∇	∇	or	20	ap.my	Br	N. Amer.	...	G	co	
3470 falva Ph.	slippery	∇	∇	tm	60	ap.my	Br	N. Amer.	...	G	co	Mich. arb. 3. t. 6
3471 pumila Pall.	dwarf	∇	∇	or	2	ap.ny	Br	Siberia	1771.	L	p.1	Pall. ross. 1. t. 43
3472 chinensis P. S.	China	∇	∇	or	3	...	...	China	...	C	1 p	
616. PLANERA. Mich.	PLANERA.	<i>Ulmaceæ. Sp. 2.</i>										
3473 Richardi Mich.	Hornbeam-lvd.	∇	∇	or	12	ap.my	Br	N. Amer.	1760.	G	co	Pall. ross. 2. t. 10
3474 parvifolia W.	small-leaved	∇	∇	or	12	my	Br	.....	1822.	G	co	Jacq. schû. t. 262
	<i>U. parvifolia</i> Jacq.											
617. PHYLLIS. W.	BASTARD HARE'S EAR.	<i>Rubiaceæ. Sp. 1.</i>										
3475 Nóbla W.	Canary	∇	∇	cu	3	jn.jl	G	Canaries	1699.	C	r.m	D. el. t.299. f.386
618. CORIANDRUM. W.	CORIANDER.	<i>Umbelliferae. Sp. 2—3.</i>										
3476 sativum W.	common	○	clt	2	jn	W	W	England	fields.	S	co	Eng. bot. 67
3477 testiculatum W.	twin-fruited	○	w	2	jn.jl	W	W	S. Europe	1640.	S	co	Pl. al. t. 169. f. 2
619. SCANDIX. P. S.	SCANDIX.	<i>Umbelliferae. Sp. 3—10.</i>										
3478 pecten W.	Venus's Comb	○	w	½	jn.jl	W	W	Britain	co. fi.	S	co	Eng. bot. 1397
3479 australis W.	radiated	○	w	1	my.jn	W	W	S. Europe	1713.	S	co	Col. eph. 1. t. 90
3480 pinnatifida Vent.	cut-leaved	○	w	1½	my.jn	W	W	Persia	1805.	S	co	Vent. cels. 14
620. ANTHRISCUS. P. S.	ROUGH CHERVIL.	<i>Umbelliferae. Sp. 2—9.</i>										
3481 vulgaris P. S.	common	○	w	1	my.jn	W	W	Britain	he. ba. S	co	co	Eng. bot. 818
3482 nodosa P. S.	Knotted	∇	△	w	1	my.jn	W	Sicily	1656.	D	co	Jac. vind. 3. t. 25
621. CHEROPHYLLUM. P. S.	CHERVIL.	<i>Umbelliferae. Sp. 11—8.</i>										
3483 sylvestre W.	smooth	∇	△	w	3	my.jn	W	Britain	hed. D	co	co	Eng. bot. 752
3484 sativum P. S.	garden	∇	△	cul	1½	my.jn	W	England	he. ba. D	co	co	Eng. bot. 1268
	<i>Sc. cerefolium</i> W.											
3485 procumbens Ph.	procumbent	∇	○	w	1	jn.jl	W	Virginia	1699.	D	co	M. s. 9. t.11. f.ult.



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plants. Another Bose (Caspar) was a professor of botany at Leipsig, where he published, in 1728, a dissertation upon the motions of plants. Ripened cuttings root freely in sand under a hand-glass, without heat.

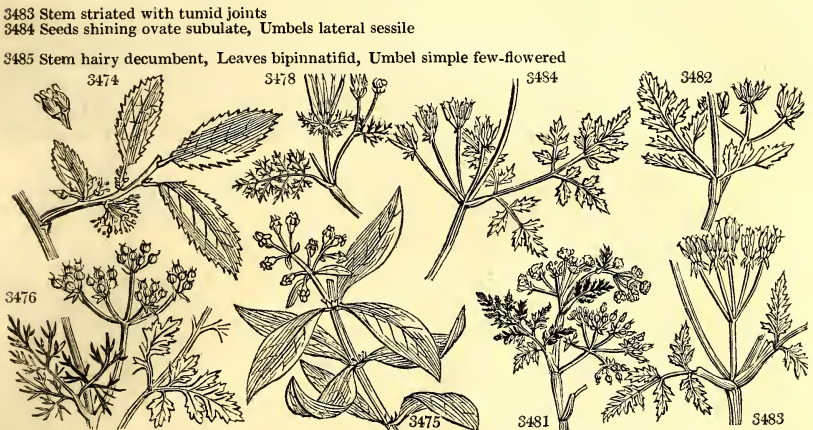
614. *Herniaria*. From *hernia*, a rupture, for which disorder it was formerly imagined to be a cure, but has long since been rejected even by the herbalists. *H. fruticosa* is well adapted for growing in pots or for rock-work, and is readily increased by seeds or cuttings; cuttings of the greenhouse species root freely under a hand-glass.

615. *Ulmus*. From *Elm*, its name in Anglo-Saxon, Teutonic, Gothic, and nearly all the dialects of Celtic. This is a genus of hardy trees, most of them valued for their timber. The species, like those of the genus *Salix*, are so nearly related as to be often confounded. Linnæus considered all the European elms as forming only one species. The *U. campestris* and *glabra* are those most generally cultivated in Europe. *U. campestris* grows also in Palestine, and Dr. Walker conjectures that it was originally brought from that country by the Crusaders. It is a tall elegant tree, but produces much less valuable timber than the *U. glabra*. *U. suberosa*, often called the Dutch elm, is frequently grafted on the *U. glabra*, as is also the *U. campestris* in the Scotch nurseries.

616. *Planera*. In honor of John James Planer, a German botanist, who published in 1788 an *Index Plantarum Agri Erfordensis*, in one volume 8vo. A genus closely related to *Ulmus*, from which it is perhaps scarcely distinct.

617. *Phyllis*. From *φυλλον*, a leaf: the plant is remarkable for the beauty of its leaves. *Phyllis*, who was

- 3454 Smooth, Clusters many-flowered
 3455 Hairy, Clusters few-flowered
 3456 Leaves obovate acute hairy, Flowers clustered 4-cleft hispid, Stem shrubby
 3457 Smooth, Stem erect dichotomous, Leaves ovate cuspidate, Flowers terminal and axillary
 3458 Half shrubby, Leaves ovate oblong hoary, Calyxes hairy
 3459 Clusters few-flowered hairy, Root thick woody
- 3460 Leaves doubly serrate unequal at base, Flowers subsessile clustered 5-andr. Fruit smooth
 3461 Lvs. doubly serr. nearly equal at base, Fl. subsessile clustered 4-andr. Fruit smooth, Bark corky winged
 3462 The branches only corky not the stem, Stature little more than that of a man, otherwise like the last
 3463 Leaves doubly serrated smooth unequal at base, Flowers nearly sessile 5-cleft, Fruit obovate naked
 3464 Leaves doubly serrated unequal at base, Flowers 6-8-andr. stalked, Fruit fringed at edge [fat edge
 3465 Lvs. nearly doubly serr. uneq. at base, Axil. of veins ben. unit. by a membr. Fls. 5-8-andr. stalked, Fruit vil.
 3466 Br. with cork. wing here and there on each side, Lvs. obl. ov. by deg. ac. nrly eq. at base, Fr. hairy closely frin.
 3467 Leaves doubly serrated unequal at base acuminate pubescent beneath
 3468 Leaves equally serrated equal at base
 3469 Leaves irregularly doubly serrated equal at base with a long point rough above beneath soft downy
 3470 Lvs. doubly ser. uneq. at base, Axil. of veins bearded beneath, Fl. clust. 5-andr. Fruit pubes. not fringed
- 3471 Decumbent, Branches smooth, Leaves very small equal at base
 3472 Leaves small coriaceous shining shortly serrated ovate oblique at base
- 3473 Leaves subsessile oblong-cordate subcrenately coarsely toothed emarginate at base, Caps. short
 3474 Leaves lanc. equally serrate equal at base shining, Flowers stalked tetrandrous, Fruit smooth
- 3475 The only species. Leaves lanceolate entire opp. 4 inches long, Corymbs axillary
- 3476 Fruit globose
 3477 Fruit twin
- 3478 Seeds with a very long beak, Leaflets many-cut
 3479 Seeds subulate hispid, Flowers radiant, Cauline leaves smooth
 3480 Stem scabrous, Leaves decomposed smooth, Umbels fasciated with a single leaf
- 3481 Seeds ovate hispid, Cor. of one shape, Stem smooth
 3482 Seeds cylindrical hispid, Stem hispid, Joints tumid



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turned to a bare tree by the gods for having hung herself for love of the absent Demophoon, became a tree covered with verdure upon receiving in that form the embraces of her lover returned.

618. *Coriandrum*. From *κορις*, a bug, in allusion to the smell of the leaves of the plant. *C. sativum* has been long cultivated, chiefly in Essex, and is considered as naturalized. The leaves are strongly scented; the seeds, which are slightly aromatic, are used to cover the taste of senna, and in spices as currie powder, and seasoning for black puddings: also, covered with sugar, as a sweetmeat; formerly they were steeped in wine or vinegar, and then dried, to render them milder.

619. *Scandix*. A name given by the Greeks to a plant used as an eatable, which appears to be that now called *Scandix pecten*. It is derived from *σχις*, to prick, on account of the sharp points of the seeds.

620. *Anthriscus*. The name of a plant resembling *Scandix*, described by Pliny. *A. vulgaris* bears a near resemblance to the common chervil (*Charophyllum sativum*), and being gathered as such, and put into soups, by the Dutch soldiers who were in England in 1745, some of them were poisoned by it.

621. *Charophyllum*. An ancient Greek name of the Chervil, derived from *χαρειν*, to rejoice, and *φυλλον*, leaf, that is to say a plant whose leaves have an agreeable smell. *C. sylvestre* has poisonous roots; though the leaves are occasionally used as a pot-herb, and are much liked by cows. The stems and leaves dye a beautiful green, and the umbels a yellow: the plant in a wild state is found only on fertile soils.

C. sativum is cultivated in gardens for the leaves, which are used in soups and salads. To have a successful supply, sow in February and August in shallow drills from six to nine inches apart.

3486 bulbosum <i>W.</i>	bulbous-rooted	♂	○	w	1½	jn.jl	W	Europe	1726.	D	co	Jac. aust. 1. t. 63																																																																																																																																																																																																															
3487 temulum <i>W.</i>	rough	♂	○	w	3	jl.au	W	Britain	hed.	D	co	Eng. bot. 1521																																																																																																																																																																																																															
3488 hirsutum <i>W.</i>	hairy-leaved	♂	△	w	1½	jn.jl	W	Switzerl.	1759.	D	co	Jac. au. 2. t. 148																																																																																																																																																																																																															
3489 aromaticum <i>W.</i>	aromatic	♂	△	or	3	jn.au	W	Germany	1726.	D	co	Jac. au. 2. t. 150																																																																																																																																																																																																															
3490 canadense <i>Ph.</i>	three-leaved	♂	△	w	1½	jl.au	W	N. Amer.	1699.	D	co	Mor. h. s. 9. t. 11																																																																																																																																																																																																															
<i>Sison canadense W.</i>																																																																																																																																																																																																																											
3491 Claytōni <i>Ph.</i>	sweet-rooted	♂	△	cu	2	jl.au	W	N. Amer.	1806.	D	co	Spr. umb. t. 3. f. 6																																																																																																																																																																																																															
3492 coloratum <i>W.</i>	yellow	♂	△	cu	1	jl.au	Y	Ilyria	1806.	D	co	Mor. s. 9. t. 10. f. 6																																																																																																																																																																																																															
3493 aureum <i>W.</i>	golden	♂	△	cu	1	jl.au	Pk	Scotland	b. off. D.	co		Eng. bot. 2103																																																																																																																																																																																																															
622. ERYNGIUM. <i>W.</i>	ERYNGO.	<table border="0"> <tr> <td>3494 foetidum <i>W.</i></td> <td>stinking</td> <td>♀</td> <td>△</td> <td>or</td> <td>1</td> <td>av.o</td> <td>W</td> <td>W. Indies</td> <td>1714.</td> <td>D</td> <td>s.1</td> <td>Her. lugd. t. 237</td> </tr> <tr> <td>3495 aquaticum <i>W.</i></td> <td>marsh</td> <td>♂</td> <td>△</td> <td>or</td> <td>4</td> <td>jl.s</td> <td>W</td> <td>N. Amer.</td> <td>1699.</td> <td>D</td> <td>s.1</td> <td>Bot. reg. 372</td> </tr> <tr> <td>3496 virginianum <i>Ph.</i></td> <td>Virginian</td> <td>♀</td> <td>△</td> <td>or</td> <td>2</td> <td>jl.s</td> <td>G</td> <td>N. Amer.</td> <td>...</td> <td>D</td> <td>s.1</td> <td>Del. eryng. t. 19</td> </tr> <tr> <td>3497 virgatum <i>Ph.</i></td> <td>oval-leaved</td> <td>♂</td> <td>△</td> <td>or</td> <td>1</td> <td>jn.jl</td> <td>L.B</td> <td>N. Amer.</td> <td>1810.</td> <td>D</td> <td>s.1</td> <td>Del. eryng. t. 90</td> </tr> <tr> <td>3498 planum <i>W.</i></td> <td>flat-leaved</td> <td>♀</td> <td>△</td> <td>or</td> <td>3</td> <td>jl.s</td> <td>L.B</td> <td>Europe</td> <td>1596.</td> <td>D</td> <td>s.1</td> <td>Jac. aus. 4. t. 391</td> </tr> <tr> <td>3499 pusillum <i>W.</i></td> <td>dwarf</td> <td>♀</td> <td>△</td> <td>or</td> <td>3</td> <td>jn.au</td> <td>G</td> <td>Spain</td> <td>1640.</td> <td>D</td> <td>s.1</td> <td>Del. eryng. t. 16</td> </tr> <tr> <td>3500 tricuspdatum <i>W.</i></td> <td>trifid</td> <td>♀</td> <td>△</td> <td>or</td> <td>2</td> <td>s</td> <td>G</td> <td>Spain</td> <td>1699.</td> <td>D</td> <td>s.1</td> <td>Del. eryng. t. 9</td> </tr> <tr> <td>3501 corniculatum <i>B. M.</i></td> <td>horned</td> <td>♀</td> <td>△</td> <td>or</td> <td>1</td> <td>jn.au</td> <td>G</td> <td>Portugal</td> <td>1803.</td> <td>D</td> <td>s.1</td> <td>Bot. mag. 1427</td> </tr> <tr> <td>3502 maritimum <i>W.</i></td> <td>sea-holly</td> <td>♂</td> <td>△</td> <td>ec</td> <td>1½</td> <td>jl.o</td> <td>B</td> <td>Britain</td> <td>sea sh.</td> <td>D</td> <td>s.1</td> <td>Eng. bot. 718</td> </tr> <tr> <td>3503 campêtre <i>W.</i></td> <td>field</td> <td>♀</td> <td>△</td> <td>ec</td> <td>2</td> <td>jl.au</td> <td>B</td> <td>Britain</td> <td>pas. D.</td> <td>s.1</td> <td>eng. bot. 57</td> </tr> <tr> <td>3504 galioides <i>P. S.</i></td> <td>Galium-leaved</td> <td>♀</td> <td>△</td> <td>or</td> <td>3</td> <td>jl.au</td> <td>G</td> <td>Portugal</td> <td>1810.</td> <td>D</td> <td>s.1</td> <td></td> </tr> <tr> <td>3505 amethystinum <i>W.</i></td> <td>amethystine</td> <td>♂</td> <td>△</td> <td>or</td> <td>3</td> <td>jl.au</td> <td>L.B</td> <td>Styria</td> <td>1648.</td> <td>D</td> <td>s.1</td> <td>Mo. s. 7. t. 35. f. 2</td> </tr> <tr> <td>3506 criduleum <i>P. S.</i></td> <td>blue-flowered</td> <td>♀</td> <td>△</td> <td>or</td> <td>2</td> <td>jl.au</td> <td>B</td> <td>Caspian</td> <td>1816.</td> <td>D</td> <td>s.1</td> <td>M. s. 7. t. 37. f. 13</td> </tr> <tr> <td>3507 rigidum <i>P. S.</i></td> <td>stiff</td> <td>♀</td> <td>△</td> <td>or</td> <td>3</td> <td>jl.au</td> <td>B</td> <td>France</td> <td>1816.</td> <td>D</td> <td>s.1</td> <td>Vill. delph. t. 17</td> </tr> <tr> <td>3508 alpinum <i>W.</i></td> <td>Alpine</td> <td>♀</td> <td>△</td> <td>or</td> <td>2</td> <td>jl.au</td> <td>B</td> <td>Switzerl.</td> <td>1597.</td> <td>D</td> <td>s.1</td> <td>Bot. mag. 922</td> </tr> <tr> <td>3509 Bourgati <i>W.</i></td> <td>cut-leaved</td> <td>♀</td> <td>△</td> <td>or</td> <td>2</td> <td>jn.au</td> <td>Pa.B</td> <td>S. France</td> <td>1731.</td> <td>D</td> <td>s.1</td> <td>Gouan. ill. 7. t. 3</td> </tr> </table>											3494 foetidum <i>W.</i>	stinking	♀	△	or	1	av.o	W	W. Indies	1714.	D	s.1	Her. lugd. t. 237	3495 aquaticum <i>W.</i>	marsh	♂	△	or	4	jl.s	W	N. Amer.	1699.	D	s.1	Bot. reg. 372	3496 virginianum <i>Ph.</i>	Virginian	♀	△	or	2	jl.s	G	N. Amer.	...	D	s.1	Del. eryng. t. 19	3497 virgatum <i>Ph.</i>	oval-leaved	♂	△	or	1	jn.jl	L.B	N. Amer.	1810.	D	s.1	Del. eryng. t. 90	3498 planum <i>W.</i>	flat-leaved	♀	△	or	3	jl.s	L.B	Europe	1596.	D	s.1	Jac. aus. 4. t. 391	3499 pusillum <i>W.</i>	dwarf	♀	△	or	3	jn.au	G	Spain	1640.	D	s.1	Del. eryng. t. 16	3500 tricuspdatum <i>W.</i>	trifid	♀	△	or	2	s	G	Spain	1699.	D	s.1	Del. eryng. t. 9	3501 corniculatum <i>B. M.</i>	horned	♀	△	or	1	jn.au	G	Portugal	1803.	D	s.1	Bot. mag. 1427	3502 maritimum <i>W.</i>	sea-holly	♂	△	ec	1½	jl.o	B	Britain	sea sh.	D	s.1	Eng. bot. 718	3503 campêtre <i>W.</i>	field	♀	△	ec	2	jl.au	B	Britain	pas. D.	s.1	eng. bot. 57	3504 galioides <i>P. S.</i>	Galium-leaved	♀	△	or	3	jl.au	G	Portugal	1810.	D	s.1		3505 amethystinum <i>W.</i>	amethystine	♂	△	or	3	jl.au	L.B	Styria	1648.	D	s.1	Mo. s. 7. t. 35. f. 2	3506 criduleum <i>P. S.</i>	blue-flowered	♀	△	or	2	jl.au	B	Caspian	1816.	D	s.1	M. s. 7. t. 37. f. 13	3507 rigidum <i>P. S.</i>	stiff	♀	△	or	3	jl.au	B	France	1816.	D	s.1	Vill. delph. t. 17	3508 alpinum <i>W.</i>	Alpine	♀	△	or	2	jl.au	B	Switzerl.	1597.	D	s.1	Bot. mag. 922	3509 Bourgati <i>W.</i>	cut-leaved	♀	△	or	2	jn.au	Pa.B	S. France	1731.	D	s.1	Gouan. ill. 7. t. 3
3494 foetidum <i>W.</i>	stinking	♀	△	or	1	av.o	W	W. Indies	1714.	D	s.1	Her. lugd. t. 237																																																																																																																																																																																																															
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623. SANICULA. <i>W.</i>	SANICLE.	<table border="0"> <tr> <td>3510 europæa <i>W.</i></td> <td>wood</td> <td>♂</td> <td>△</td> <td>w</td> <td>1</td> <td>jn.jl</td> <td>W</td> <td>Britain</td> <td>woods.</td> <td>D</td> <td>s.1</td> <td>Eng. bot. 98</td> </tr> <tr> <td>3511 canadensis <i>W.</i></td> <td>Canadian</td> <td>♂</td> <td>△</td> <td>w</td> <td>2</td> <td>jn.jl</td> <td>W</td> <td>Canada</td> <td>1800.</td> <td>D</td> <td>s.1</td> <td></td> </tr> <tr> <td>3512 marilandica <i>W.</i></td> <td>Maryland</td> <td>♂</td> <td>△</td> <td>w</td> <td>1½</td> <td>jn.jl</td> <td>W.G</td> <td>N. Amer.</td> <td>1765.</td> <td>D</td> <td>s.1</td> <td>Jac. ic. 2. t. 348</td> </tr> </table>											3510 europæa <i>W.</i>	wood	♂	△	w	1	jn.jl	W	Britain	woods.	D	s.1	Eng. bot. 98	3511 canadensis <i>W.</i>	Canadian	♂	△	w	2	jn.jl	W	Canada	1800.	D	s.1		3512 marilandica <i>W.</i>	Maryland	♂	△	w	1½	jn.jl	W.G	N. Amer.	1765.	D	s.1	Jac. ic. 2. t. 348																																																																																																																																																																								
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624. ECHINOPHORA. <i>W.</i>	SEA-PARSNEP.	<table border="0"> <tr> <td>3513 spinosa <i>W.</i></td> <td>prickly</td> <td>♂</td> <td>△</td> <td>w</td> <td>3</td> <td>jl</td> <td>W</td> <td>England</td> <td>sea co.</td> <td>D</td> <td>s</td> <td>Eng. bot. 2413</td> </tr> <tr> <td>3514 tenuifolia <i>W.</i></td> <td>fine-leaved</td> <td>♀</td> <td>△</td> <td>w</td> <td>1</td> <td>jl.au</td> <td>W</td> <td>Apulia</td> <td>1731.</td> <td>D</td> <td>s.1</td> <td>Mor. s. 9. t. 1. f. 2</td> </tr> </table>											3513 spinosa <i>W.</i>	prickly	♂	△	w	3	jl	W	England	sea co.	D	s	Eng. bot. 2413	3514 tenuifolia <i>W.</i>	fine-leaved	♀	△	w	1	jl.au	W	Apulia	1731.	D	s.1	Mor. s. 9. t. 1. f. 2																																																																																																																																																																																					
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625. DAUCUS. <i>W.</i>	CARROT.	<table border="0"> <tr> <td>3515 Carota <i>W.</i></td> <td>wild</td> <td>♂</td> <td>○</td> <td>m</td> <td>3</td> <td>jn.jl</td> <td>W</td> <td>Britain</td> <td>b. off. S.</td> <td>s.1</td> <td></td> <td>Eng. bot. 1174</td> </tr> <tr> <td>β hortensis</td> <td>Garden</td> <td>♂</td> <td>○</td> <td>cul</td> <td>3</td> <td>jn.jl</td> <td>W</td> <td>Britain</td> <td>...</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3516 maritimum <i>P. S.</i></td> <td>sea-side</td> <td>♂</td> <td>○</td> <td>w</td> <td>1½</td> <td>jn.jl</td> <td>W</td> <td>Britain</td> <td>Cornw.</td> <td>S</td> <td>s.1</td> <td>Eng. bot. 2560</td> </tr> <tr> <td>3517 mauritanicum <i>W.</i></td> <td>fine-leaved</td> <td>♂</td> <td>○</td> <td>w</td> <td>3</td> <td>jn.jl</td> <td>W</td> <td>Spain</td> <td>1768.</td> <td>S</td> <td>s.1</td> <td>Al. pe. 2. t. 61. f. 1</td> </tr> <tr> <td>3518 lonicum <i>W.</i></td> <td>shining</td> <td>♂</td> <td>○</td> <td>w</td> <td>2</td> <td>jl.au</td> <td>W</td> <td>S. Europe</td> <td>1807.</td> <td>S</td> <td>s.1</td> <td>Mo. s. 9. t. 13. f. 4</td> </tr> <tr> <td>3519 crinitus <i>Desf.</i></td> <td>whorl-leaved</td> <td>♂</td> <td>○</td> <td>w</td> <td>2</td> <td>jn.jl</td> <td>W</td> <td>Barbary</td> <td>1804.</td> <td>S</td> <td>s.1</td> <td>Desf. atl. t. 62</td> </tr> <tr> <td>3520 Gingidium <i>W.</i></td> <td>shining-leaved</td> <td>♂</td> <td>○</td> <td>w</td> <td>2</td> <td>jn.jl</td> <td>W</td> <td>France</td> <td>1722.</td> <td>S</td> <td>s.1</td> <td>Mo. s. 9. t. 9. f. 10</td> </tr> <tr> <td>3521 muricatum <i>W.</i></td> <td>prickly-seeded</td> <td>♂</td> <td>○</td> <td>w</td> <td>2</td> <td>jn.jl</td> <td>Pk</td> <td>Barbary</td> <td>1688.</td> <td>S</td> <td>s.1</td> <td>Mo. s. 9. t. 14. f. 4</td> </tr> <tr> <td>3522 hispidus <i>P. S.</i></td> <td>hispid</td> <td>♂</td> <td>○</td> <td>w</td> <td>1½</td> <td>jn.jl</td> <td>Pk</td> <td>Barbary</td> <td>1804.</td> <td>S</td> <td>s.1</td> <td>Desf. atl. t. 63</td> </tr> </table>											3515 Carota <i>W.</i>	wild	♂	○	m	3	jn.jl	W	Britain	b. off. S.	s.1		Eng. bot. 1174	β hortensis	Garden	♂	○	cul	3	jn.jl	W	Britain	...				3516 maritimum <i>P. S.</i>	sea-side	♂	○	w	1½	jn.jl	W	Britain	Cornw.	S	s.1	Eng. bot. 2560	3517 mauritanicum <i>W.</i>	fine-leaved	♂	○	w	3	jn.jl	W	Spain	1768.	S	s.1	Al. pe. 2. t. 61. f. 1	3518 lonicum <i>W.</i>	shining	♂	○	w	2	jl.au	W	S. Europe	1807.	S	s.1	Mo. s. 9. t. 13. f. 4	3519 crinitus <i>Desf.</i>	whorl-leaved	♂	○	w	2	jn.jl	W	Barbary	1804.	S	s.1	Desf. atl. t. 62	3520 Gingidium <i>W.</i>	shining-leaved	♂	○	w	2	jn.jl	W	France	1722.	S	s.1	Mo. s. 9. t. 9. f. 10	3521 muricatum <i>W.</i>	prickly-seeded	♂	○	w	2	jn.jl	Pk	Barbary	1688.	S	s.1	Mo. s. 9. t. 14. f. 4	3522 hispidus <i>P. S.</i>	hispid	♂	○	w	1½	jn.jl	Pk	Barbary	1804.	S	s.1	Desf. atl. t. 63																																																																																										
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3520 Gingidium <i>W.</i>	shining-leaved	♂	○	w	2	jn.jl	W	France	1722.	S	s.1	Mo. s. 9. t. 9. f. 10																																																																																																																																																																																																															
3521 muricatum <i>W.</i>	prickly-seeded	♂	○	w	2	jn.jl	Pk	Barbary	1688.	S	s.1	Mo. s. 9. t. 14. f. 4																																																																																																																																																																																																															
3522 hispidus <i>P. S.</i>	hispid	♂	○	w	1½	jn.jl	Pk	Barbary	1804.	S	s.1	Desf. atl. t. 63																																																																																																																																																																																																															
626. CAUCALIS. <i>W.</i>	BUR-PARSLEY.	<table border="0"> <tr> <td>3523 grandiflora <i>W.</i></td> <td>great-flowered</td> <td>○</td> <td>○</td> <td>w</td> <td>1½</td> <td>jl.au</td> <td>W</td> <td>S. Europe</td> <td>1648.</td> <td>S</td> <td>co</td> <td>Jac. aus. 1. t. 54</td> </tr> <tr> <td>3524 daucoides <i>W.</i></td> <td>small</td> <td>○</td> <td>○</td> <td>w</td> <td>1½</td> <td>jn</td> <td>R</td> <td>England</td> <td>ch. fi.</td> <td>S</td> <td>co</td> <td>Eng. bot. 197</td> </tr> <tr> <td>3525 latifolia <i>W.</i></td> <td>broad-leaved</td> <td>○</td> <td>○</td> <td>w</td> <td>3</td> <td>jl.au</td> <td>R</td> <td>England</td> <td>ch. fi.</td> <td>S</td> <td>co</td> <td>Eng. bot. 198</td> </tr> <tr> <td>3526 pámila <i>W.</i></td> <td>dwarf</td> <td>○</td> <td>○</td> <td>w</td> <td>1½</td> <td>jl.au</td> <td>Pk</td> <td>S. Europe</td> <td>1640.</td> <td>S</td> <td>co</td> <td>Cav. ic. 2. t. 101</td> </tr> <tr> <td>3527 orientalis <i>W.</i></td> <td>oriental</td> <td>♂</td> <td>○</td> <td>w</td> <td>4</td> <td>jn.jl</td> <td>W</td> <td>Levant</td> <td>1699.</td> <td>S</td> <td>co</td> <td>Mo. s. 9. t. 14. f. 5</td> </tr> <tr> <td>β pulcherrima <i>W. en. beautiful</i></td> <td></td> <td>○</td> <td>○</td> <td>w</td> <td>2</td> <td>jn.jl</td> <td>W</td> <td>Caucasus</td> <td>1816.</td> <td>S</td> <td>co</td> <td>Bux. cen. 3. t. 33</td> </tr> <tr> <td>3528 platycarpus <i>Spr.</i></td> <td>broad-seeded</td> <td>○</td> <td>○</td> <td>w</td> <td>1½</td> <td>jl.au</td> <td>W</td> <td>S. Europe</td> <td>1800.</td> <td>S</td> <td>co</td> <td>Mo. s. 9. t. 14. f. 2</td> </tr> <tr> <td>3529 leptophylla <i>W.</i></td> <td>fine-leaved</td> <td>○</td> <td>○</td> <td>w</td> <td>1</td> <td>jl.au</td> <td>Pk</td> <td>Europe</td> <td>1739.</td> <td>S</td> <td>co</td> <td>Sch. han. 1. t. 61</td> </tr> </table>											3523 grandiflora <i>W.</i>	great-flowered	○	○	w	1½	jl.au	W	S. Europe	1648.	S	co	Jac. aus. 1. t. 54	3524 daucoides <i>W.</i>	small	○	○	w	1½	jn	R	England	ch. fi.	S	co	Eng. bot. 197	3525 latifolia <i>W.</i>	broad-leaved	○	○	w	3	jl.au	R	England	ch. fi.	S	co	Eng. bot. 198	3526 pámila <i>W.</i>	dwarf	○	○	w	1½	jl.au	Pk	S. Europe	1640.	S	co	Cav. ic. 2. t. 101	3527 orientalis <i>W.</i>	oriental	♂	○	w	4	jn.jl	W	Levant	1699.	S	co	Mo. s. 9. t. 14. f. 5	β pulcherrima <i>W. en. beautiful</i>		○	○	w	2	jn.jl	W	Caucasus	1816.	S	co	Bux. cen. 3. t. 33	3528 platycarpus <i>Spr.</i>	broad-seeded	○	○	w	1½	jl.au	W	S. Europe	1800.	S	co	Mo. s. 9. t. 14. f. 2	3529 leptophylla <i>W.</i>	fine-leaved	○	○	w	1	jl.au	Pk	Europe	1739.	S	co	Sch. han. 1. t. 61																																																																																																							
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History, Use, Propagation, Culture,

622. *Eryngium*. From the Greek verb *εργυριω*, to belch. Dioscorides positively declares that the plant is a specific for all complaints arising from flatulence. These are singular plants, somewhat like thistles in general appearance: they are generally of a bluish hue, prickly, and with large involucre, and dry coriaceous leaves. *E. maritimum* has long been in esteem as an aphrodisiac; the roots were formerly and are now, in some cases, kept in the shops candied, and formed in Shakspeare's time the kissing comfits of Falstaff. The Arabs regard the plant as an excellent restorative, and English grooms often mix the dried plant with the corn they give to stallions in the covering season. The virtue is said to reside chiefly in the roots: the tops, Linnaeus says, are eaten like asparagus in Sweden.

623. *Sanicula*. From *sanare*, to cure. This a vulnerary, to which marvellous virtues were formerly ascribed. *S. europæa* used to be considered a powerful vulnerary, but is now wholly rejected in medicine. Sir J. Smith says it partakes of that visose acrimony which is found in most umbelliferous plants growing in a moist fat soil.

624. *Echinophora*. From *εχινος*, a hedgehog, and *φειω*, to bear. In allusion to the strong rigid spines of the

- 3486 Stem smooth with tumid joints, hairy at base
 3487 Stem scabrous, joints tumid
 3488 Stem equal, Leaflets cut acute, Fruit with two awns
 3489 Stem equal, Leaflets cordate serrate entire, Fruit with two awns
 3490 Leaves ternate smooth, Radical leaflets about 3-lobed, Cauline rhomb. ovate cut finely serrate
- 3491 Stem above smooth, Joints tumid, Leaves biternate pubescent, Styles persistent
 3492 Stem equal, Leaves supra-decompound, Involucres colored
 3493 Stem equal, Leaflets cut, Seeds furrowed colored awless
- 3494 Radical leaves lanceolate serrate, floral many cut, Stem dichotomous
 3495 Leaves gladiate serrate spiny, Flowers undivided, Stem simple
 3496 Leaves linear-lanceolate ensiform very long, Leaflets reflexed and palea trifold, Heads panicled
 3497 Leaves all ovate cordate on very short stalks toothed, Stem virgate colored upwards
 3498 Radical leaves oval flat crenate, Heads stalked
 3499 Radical leaves oblong cut, Stem dichotomous, Heads sessile
 3500 Radical leaves cordate : cauline palmate with the auricles reflexed, Palea tricuspidate
 3501 Rad. lvs. obl. lanc. toothed spiny, Stem trichotomous, Lvs. of involucre entire larger than the heads spiny
 3502 Radical leaves roundish plaited spiny, Heads stalked, Palea 3-toothed
 3503 Radical leaves stem-clasping pinnate lanceolate
 3504 Leaves sessile digitate spiny very small, Stem slender and weak dichotomous, Heads sessile
 3505 Radical leaves trifid at the base somewhat pinnate
 3506 Rad. lvs. cordate obl. obt. cren. lobed, Branches col. Lvs. of the involucre very long stiff pungent entire
 3507 Leaves palmate cut, Bractes stiff pinnatifid pungent, Stem thick
 3508 Radical leaves cordate : cauline ternate cut, Involucres spiny pinnated ciliated
 3509 Radical and cauline leaves alternate 3-parted twice trifid, Involucres subulate many-leaved spiny
- 3510 Lower leaves palmate, Lobes trifid cut-serrate, Florets all sessile
 3511 Leaves all compound subternate, Leaflets ovate attenuate at base mucronate serrate, Florets all sessile
 3512 Leaves all digitate, Leaflets oblong cut-serrate, Male flowers numerous stalked
- 3513 Leaflets subulate prickly entire
 3514 Leaflets cut unarmed
- 3515 Seeds hispid, Stalks nerved beneath
- 3516 Fruit hispid with compressed bristles, Leaflets dilated rounded fleshy hairy, Umbels in fruit convex
 3517 Seeds hispid, Central floret sterile fleshy, Common receptacle hemispherical
 3518 Leaves shining, Stem hairy, Leafstalks smooth, No sterile central floret
 3519 Stem rough simple, Lvs. bipinn. Leaflets rather whorled many-cleft rigid, Bristles of fruit hairy purple
 3520 Rays of the involucre flat, Segments recurved
 3521 Fruit large very prickly
 3522 Stem and lvs. bipin. vil. Leaf. ovate lobed toothed, Involucres very broad, Prickles of fruit dilated at base
- 3523 Involucres each 5-leaved, One leaflet twice as large as the others
 3524 Umbels trifid leafless, Umbellules 3-leaved 3-seeded
 3525 Universal umbel trifid, partial 5-seeded, Leaves pinnated serrated
 3526 Universal umbel about 5-cleft, partial 3-seeded, Leaves supra-decompound, and decumbent stem villous
 3527 Umbels spreading, Partial leaflets supra-decompound cut with linear segments, Fruit woolly
- β Fruit bristly
 3528 Universal involucre about 3-leaved, Umbel trifid, Involucres 3-leaved
 3529 Common involucre scarcely any, Umbel bifid, Involucres 5-leaved



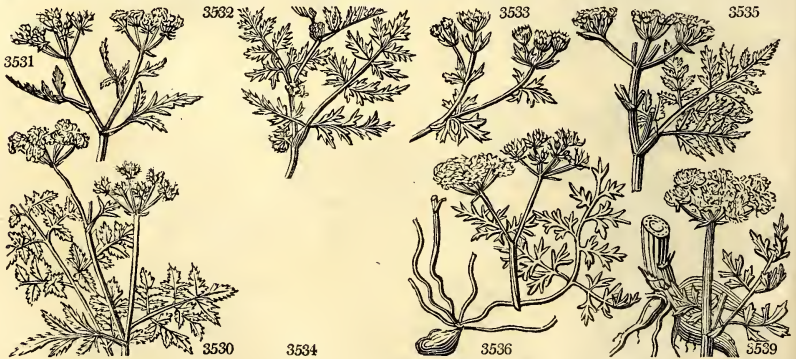
and Miscellaneous Particulars.

involucre, and indeed of the whole plant. Very much like an *Eryngium*, once said to have been found in England.

625. *Daucus*. From *δαιω*, to make hot; on account of its effects in medicine. *D. Carota* (from *Kar*, red, in Celtic), is well known for its esculent root. There are several varieties: the largest, and that best adapted for field culture, is called the Altringham, from a village of that name in Cheshire. The early horn and orange are the best garden sorts. The seeds do not retain their vegetative powers more than a year, for which reason the cautious cultivator ought to prove them before sowing. The last week of March and first of April is the best season for sowing for a main crop. On farms where a deep sandy loam occurs, few crops of the root kind afford a more valuable return. In Norfolk and Suffolk they are a good deal in use as a field crop, and especially near Lowestoft in the latter county.

626. *Caucalis*. According to Linnæus, derived from *καω*, to trail along; on account of the low habit of the plants. It is supposed that Pliny's *Caucalis* was the same as the *Caucalis grandiflora* of the present day.

627. TORILIS. <i>Gært.</i>	*TORILIS.			<i>Umbelliferæ.</i>	Sp. 9—9.						
3530 <i>Anthriscus W.</i>	upright	○ w	2½	jl.au	R	Britain	hed. S	co	Eng. bot.	987	
3531 <i>infesta H.K.</i>	spreading	○ w	1	jl.au	Y	Britain	co. fi. S	co	Eng. bot.	1314	
	<i>arvensis W.</i>										
3532 <i>nodosa W.</i>	knotted	○ w	1½	my.jl	W	Britain	co. fi. S	co	Eng. bot.	199	
628. OLIVE'RIA. <i>Vent.</i>	OLIVERIA.			<i>Umbelliferæ.</i>	Sp. 1.						
3533 <i>decumbens Vent.</i>	Thyme-scented	○ cu	1	my.jl	Pu	Bagdad	1816.	S	co	Vent. cels.	21
629. LEDEBU'RIA. <i>Lk.</i>	LEDEBURIA.			<i>Umbelliferæ.</i>	Sp. 1.						
3534 <i>pimpinelloides Lk.</i>	bristly	∞ Δ w	2	jn.jl	W	.....	1823.	S	co		
630. MYR'RHIS. <i>P. S.</i>	MYRRH.			<i>Umbelliferæ.</i>	Sp. 1—20.						
3535 <i>odorata P. S.</i>	sweet-scented	∞ Δ ec	1½	my.jn	W	Britain	m.pas. D	co	Eng. bot.	697	
631. BU'NIUM. <i>W.</i>	EARTH-NUT.			<i>Umbelliferæ.</i>	Sp. 2—						
3536 <i>Bulbocastanum W.</i>	great	∞ Δ w	2	my.jn	W	Britain	past. D	co	Eng. bot.	988	
	<i>B. Fleuosum Sm.</i>										
3537 <i>rigens Spr.</i>	fine-leaved	∞ □ w	1	jn.jl	W	C. G. H.	1787.	C	co		
	<i>Conium rigens W.</i>										
632. CENAN'THE. <i>W.</i>	WATER-DROPWORT.			<i>Umbelliferæ.</i>	Sp. 8—20.						
3538 <i>fistulosa W.</i>	common	∞ Δ p	2	jn.au	F	Britain	dit. D	m.s	Eng. bot.	363	
3539 <i>crocata W.</i>	Hemlock	∞ Δ p	2	jn.au	W	Britain	dit. D	m.s	Eng. bot.	2313	
3540 <i>prolifera W.</i>	proliferous	∞ Δ w	1½	jn.au	W	Italy	1739.	S	co	Jac. vind. 3.	t. 62
3541 <i>globulosa W.</i>	globe-headed	∞ Δ w	1½	jn.au	W	Portugal	1710.	D	co	Gouan. ill. 18.	t. 9
3542 <i>apiifolia Brot.</i>	Parsley-leaved	∞ Δ w	2	jn.au	W	Portugal	1806.	D	co	Sabb. rom. t.	84
3543 <i>peucedanifolia W.</i>	Parshurwort	∞ Δ w	1½	jn.au	Pk	England	dit. D	aq	Eng. bot.	348	
3544 <i>pimpinelloides W.</i>	Burnet-Saxifr.	∞ Δ w	1	jn.au	W	England	sal.m. D	m.s	Eng. bot.	347	
3545 <i>inebrians W.</i>	various-leaved	∞ Δ p	1	aus	W	C. G. H.	1816.	D	co		
633. CRITH'MUM. <i>W.</i>	SAMPHIRE.			<i>Umbelliferæ.</i>	Sp. 2—4.						
3546 <i>maritimum W.</i>	sea	∞ Δ cul	1	jl.s	W	Britain	s.cliffs. D	r.m	Eng. bot.	819	
3547 <i>latifolium W.</i>	wedge-leaved	∞ □ cu	1½	jl	Y	Canaries	1780.	D	r.m		
634. ATHAMANTA. <i>W.</i>	SPIGNELL.			<i>Umbelliferæ.</i>	Sp. 9—14.						
3548 <i>Libanotis W.</i>	mountain	∞ Δ w	2	jn.jl	W	England	ch.pa. D	co	Eng. bot.	138	
3549 <i>Cervaria W.</i>	broad-leaved	∞ Δ w	4	jl.au	P.Pu	Europe	1597.	D	co	Jac. aust. 1.	t. 69
3550 <i>sibirica W.</i>	Siberian	∞ Δ w	2	jl.au	W	Siberia	1771.	D	co	G. sib. 1. t. 40. f. 1, 2	
3551 <i>condensata W.</i>	close-headed	∞ Δ w	1	jl.s	W	Siberia	1773.	D	co	Gouan. ill. 83. t. 26	
3552 <i>incana W.</i>	hoary	∞ Δ w	2	jl.au	W	Siberia	1802.	D	co		
3553 <i>Oroselinum W.</i>	divaricated	∞ Δ w	2	jl.au	W	Germany	1768.	D	co	Jac. aust. 1.	t. 68
3554 <i>scicula W.</i>	Flixweed-leaf.	∞ Δ w	3	jn.jl	W	Sicily	1686.	D	co	Zano. his. 70. t. 48	
3555 <i>Matthioli W.</i>	fine-leaved	∞ Δ w	2	jn.jl	W	Carniola	1802.	D	co	Jac. ic. rar. 1. t. 57	
3556 <i>cretensis W.</i>	Candy-carrot	∞ Δ w	1	jn.jl	W	Austria	1596.	D	co	Jac. aust. 1. t. 62	
	<i>β annua W.</i>	∞ Δ w	1	jn.jl	W	Candia	1731.	D	co		
635. PIMPINEL/LA. <i>W.</i>	BURNET-SAXIFRAGE.			<i>Umbelliferæ.</i>	Sp. 7—9.						
3557 <i>Saxifraga W.</i>	common	∞ Δ cu	1	jn.au	W	Britain	drypa. D	co	Eng. bot.	407	
3558 <i>nigra W.</i>	black-rooted	∞ Δ w	1	jn.au	W	Germany	1683.	D	co		
3559 <i>magna W.</i>	great	∞ Δ w	2	jn.au	W	England	woods. D	co	Eng. bot.	408	
3560 <i>dissecta W.</i>	cut-leaved	∞ Δ w	1½	jn.au	W	France	...	D	co	Retz. obs. 3. t. 2	
3561 <i>peregrina W.</i>	nodding	∞ Δ w	2	jn.au	W	Italy	1640.	D	co	Jac. vind. 2. t. 131	
3562 <i>Anisum W.</i>	Anise	∞ Δ ec	1	jn.au	W	Egypt	1551.	D	co		
3563 <i>dichotoma W.</i>	dichotomous	∞ Δ w	½	jn.au	W	Spain	1798.	D	co		



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627. *Torilis*. A name contrived by Adanson and adopted by Gærtner, and other botanists. It probably, like many of Adanson's words, has no meaning.

628. *Olive'ria*. Named in honor of G. A. Olivier, a French botanist, who travelled in the East. He published a splendid work on insects, by which he is better known than by his botanical merits.

629. *Ledeburia*. So named by Professor Link, after M. Ledebure, the author of a Catalogus Horti Dorpatensis, published in 1819; in which work this plant stands as *Tragium tauricum*.

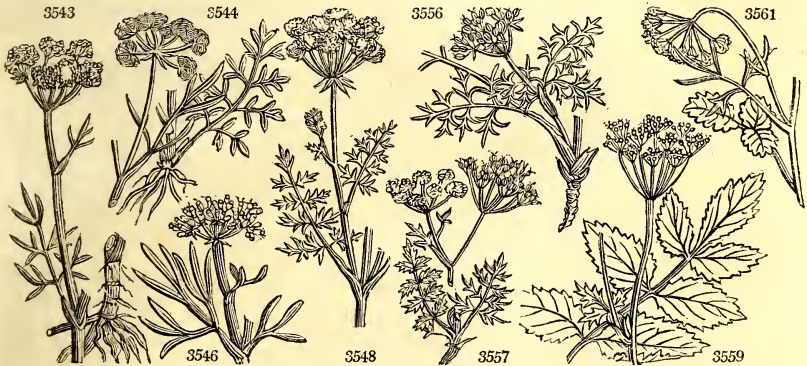
630. *Myr'rhis*. This plant has been long in cultivation. Formerly the young leaves were put into salads; and the roots were boiled and eaten cold, or in tarts, and in a variety of sauces, or candied. The seeds are put into soups in Germany, and in the north of England employed in polishing and perfuming oak floors and furniture.

631. *Bunium*. From *Bunies*, a hill, because the plant grows in dry and elevated situations. *Terre Noir*, Fr., *Erdnuss*, Ger., *Castagno di terra*, Ital. The roots of *B. Bulbocastanum* are or used to be dug up and eaten raw by the poorer classes. They are farinaceous, sweet, and supposed to be very nourishing. Swine are very fond of them, and will soon become fat by feeding on them.

632. *Cenanthé*. From *avn*, a vine, and *anthos*, a flower. The *Cenanthé*, says Pliny, smells like the vine in flower, and it is from that that it takes its name. This genus, like most of the aquatic umbelliferæ, is chiefly poisonous. *C. crocata* is considered eminently so. The juice of the root or an infusion of the leaves is very efficacious in cutaneous diseases: in large doses it produces a fatal tetanus. The herb is applied in poultices to those ulcers that form in the cleft of the hoof of kine.

- 3530 Involucres many-leaved, Seeds ovate, Styles reflexed, Leaves decomposed, Outer leaflet lin. lanceolate
 3531 Universal involucre scarcely any, Seeds ov. Styles reflexed, Leaves decomposed, Stem much branched
 3532 Umbels simple sessile, Leaves supra-decomposed
 3533 Leaves pinnate, Leaflets sessile 3-5-cleft, Segm. 3-fid ciliated, Flowers fascicled villous
 3534 Radical leaves pinnate, Pinnæ ovate serrated cut, The upper 3-pinnatifid with linear 3-forked segments
 3535 Villous, Leaves ternate decomposed, Leaves ovate lanceolate pinnatifid, Central fl. male
 3536 Leaves uniform, Involucre many-leaved
 3537 Seeds somewhat muricated, Peduncles furrowed, Leaflets channelled obtuse
 3538 Stoloniferous, Cauline leaves with filiform fistulous pinnæ
 3539 All the leaves many cut obtuse nearly equal
 3540 Outside stalks of the umbels longest branched male
 3541 Leaves bipinnate, Fruit globose
 3542 Leaves bi-tripinnate; the upper pinnate, Leaflets wedge-shaped cut serrate striated
 3543 Cauline leaves pinnate; radical bipinnate, Leaflets linear
 3544 Radical leaves caudate split: cauline entire very long simple
 3545 Lower pinnæ of the leaves ovate; upper linear, Stalks angular
 3546 Leaflets lanceolate fleshy
 3547 Leaflets wedge-shaped split (*Tenoria*, Spr.)
 3548 Leaves bipinnate flat, Umbel hemispherical, Seeds hairy
 3549 Leaves pinnate decussate cut angular, Seeds naked
 3550 Leaves pinnate cut angular
 3551 Leaves subpinnate, Leaflets imbricated downwards, Umbel lens-shaped
 3552 Pubes. hoary, Lvs. supra-decomposed, Leaflets wedge-shaped 4-toothed, Umbel with many rays globose
 3553 Leaflets divaricating, Leaves thrice pinnate
 3554 Lower leaves shining, First umbels subsessile, Seeds hairy
 3555 Leaves capillary, Styles persistent erect, Seeds oblong hairy
 3556 Leaflets linear flat hairy, Petals divided, Seeds oblong hairy
 β Leaves many-parted, Segm. linear rounded acuminate

- 3557 Stem furrowed smooth, Leaves pinnated smooth: radical roundish finely toothed; cauline linear
 3558 Stem furrowed pubescent, Leaves pinnate pubescent: radical cordate cut obtuse toothed; cauline linear
 3559 Leaves all alike pinnate, Leaflets lobed, the odd one 3-lobed
 3560 Leaves pinnate, Pinnæ many-parted, Segments falcate acute
 3561 Radical leaves pinnate crenate; upper wedge-shaped cut, Umbels nodding
 3562 Radical leaves trifid cut
 3563 Peduncles opp. the leaves, Flower leaves bifid or trifid, Leaf-stalks winged membranous



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633. *Crithmum*. From *zeiðn*, barley. Its seed is very similar to a grain of barley. *Saint Pierre*, Fr., *Meerfenchel*, Ger., and *Finocchio marino*, Ital. The *C. maritimum* is found on stone walls, as well as by the sea shore. The inhabitants, where it abounds, not only use it as a pickle, but as an ingredient in salads, and as a pot-herb. In the garden it may be grown on beds of sand and rubbish, or in pots. Braddick, an ingenious horticulturist, cultivated it at Thames Ditton, in a sheltered dry situation screened from the morning sun: he protected it by litter during winter, and in spring sprinkled the soil with a little powdered barilla. "This I do," says he, "to furnish the plant with a supply of soda, since in its native place of growth it possesses the power of decomposing sea water, from which it takes the fossil alkali, and rejects the muriatic acid." With this treatment it flourished abundantly, producing an ample supply of leaves and shoots, which were cut twice in the season. (*Hort. Trans.* ii. 232.)

634. *Achamanta*. A plant found upon Mount Athamas in Thessaly, as some say; others, however, believe it to have been named after King Athamas, a king of Thebes, who first brought it into use.

635. *Pimpinella*. According to Linnaeus, this name has been altered from *bipennula*, twice pinnate, in allusion to the leaves. *P. saxifraga* differs surprisingly in size and foliage in different situations, inasmuch that some make several species, as *P. minor*, major, and dissecta. The root is acrid, and used as a masticatory in tooth-ache, also externally to take away freckles, and in gargles to dissolve viscid mucus.

P. anisum (*anyssin*, Arabic; *Golius*.) is cultivated in Malta and Spain, whence the seeds are annually imported into England for their use in medicine. They are aromatic and carminative, and yield an oil both by distillation and expression, which is much used in flatulencies, as are the seeds in substance. The oil is also

636. PHELLAN'DRIUM. <i>W.</i>	WATER-HEMLOCK.	Δ \odot p	3	jn.jl	W	Britain	rivul.	C	aq	Eng. bot. 634
3564 aquaticum <i>W.</i>	common									
637. DON'DIA. <i>Spreng.</i>	DONDIA.	Δ Δ pr	$\frac{1}{2}$	mr.ap	Y	Alps	1823.	D	p.l	Jacq. aust.5. t. 11
3565 Epipactis <i>Spr.</i>	yellow									
638. TRACHYSPERMUM. <i>Lk.</i>	TRACHYSPERMUM.	Δ Δ w	2	jn.jl	W	Egypt	1773.	D	co	Jac. vind.2. t. 196
3566 cop'ticum <i>Spr.</i>	Egyptian									
639. AMMI. <i>W.</i>	AMMI.	\odot w	2	jn.au	W	S. Europe	1596.	S	co	Gæ. de.fr. 1. t.107
3567 Visnaga <i>W.</i>	Carrot-like									
3568 majus <i>W.</i>	great	Δ Δ w	2	jn.jl	W	S. Europe	1551.	D	co	Blackw. t. 447
3569 glaucifolium <i>W.</i>	glaucous-leaf'd	Δ Δ w	1 $\frac{1}{2}$	jn.jl	W	France	1816.	D	co	
3570 daucifolium <i>W.</i>	Carrot-leaved	Δ Δ w	2	jl.au	P.Y	Pyrenæes	1734.	D	co	Scop. carn. t. 10
640. BU'NON. <i>W.</i>	BUBON.	Δ Δ cu	2	jn.au	P.Y	Greece	1596.	S	co	Blackw. t. 382
3571 macedonicum <i>W.</i>	Macedonian									
3572 rigidum <i>W.</i>	stiff-leaved	Δ Δ cu	3	jn.au	Pk	Sicily	1710.	S	co	Bocc. mus.2. t.76
β gummiferum <i>Sm.</i>	gummy	Δ Δ cu	3	jl.s	Pk	Crimea	1804.	S	co	Ex. bot. 120
3573 Gal'banum <i>W.</i>	Lovage-leaved	Δ Δ m	6	jl.au	Y.G	C. G. H.	1596.	S	s.l	Bot. mag. 2439
3574 laevigatum <i>W.</i>	smooth	Δ Δ ec	4	mr.d	Y	C. G. H.	1774.	S	s.l	
3575 gummiferum <i>W.</i>	gum-bearing	Δ Δ ec	7	jl	P.Y	C. G. H.	1731.	S	s.l	Com. hort.2. t.58
641. CU'MINUM. <i>W.</i>	CUMIN.	\odot clt	$\frac{1}{2}$	jn.jl	W	Egypt	1594.	S	co	Cav. ic. 4. t. 360
3576 Cýminum <i>W.</i>	common									
642. SE'SELL. <i>W.</i>	MEADOW SAXIFRAGE.	Δ Δ w	1	jl	W	S. Europe	1796.	D	co	
3577 pimpinelloides <i>W.</i>	nodding-flow.									
3578 leucospermum <i>W. et K.</i>	woolly-headed	Δ Δ w	1 $\frac{1}{2}$	jl.au	W	Hungary	1805.	D	co	Pl. rar. hung. 80
3579 montanum <i>W.</i>	mountain	Δ Δ w	1	jn.jl	W	Italy	1658.	D	co	Jac. vind. 2. t. 129
3580 glaucum <i>W.</i>	glaucous	Δ Δ w	2	jl.au	W	France	1759.	D	co	Jac. aust. 1. t. 144
3581 ammoides <i>W.</i>	Milfoil-leaved	Δ Δ w	1	o	W	S. Europe	1759.	S	co	Jac. vind. 1. t. 52
3582 tortuosum <i>W.</i>	crooked	Δ Δ w	1	o	W	S. Europe	1597.	D	co	
3583 divaricatum <i>Ph.</i>	shining-leaved	Δ Δ or	1	jn.jl	Y	N. Amer.	1812.	D	co	Bot. mag. 1742
3584 Hippomárrathrum <i>W.</i>	various-leaved	Δ Δ w	2	jl	Pu	Austria	1656.	D	co	Jac. aust.2. t.143
3585 gracile <i>W. en.</i>	slender	Δ Δ w	1 $\frac{1}{2}$	jn.jl	Y	Hungary	1805.	D	co	P.ra.hun.2. t.117
3586 elatum <i>W.</i>	tall	Δ Δ w	1 $\frac{1}{2}$	jl.au	W	Austria	1710.	D	co	Gouan. ill. 16. t. 18
643. THAP'SIA. <i>W.</i>	DEADLY CARROT.	Δ Δ p	2	jn.jl	Y	S. Europe	170.	D	s.l	Moris.s.9 t. 18.f.3
3587 villosa <i>W.</i>	villous									
3588 foetida <i>W.</i>	stinking	Δ Δ p	2	jl.au	Y	Spain	1596.	D	s.l	Moris.s.9 t. 18.f.7
3589 Asclepium <i>W.</i>	oriental	Δ Δ cu	2	jl.au	Y	Levant	...	D	s.l	Moris.s.9 t. 18.f.9
3590 garganica <i>W.</i>	Garganian									
644. ACTINOTUS. <i>Lab.</i>	ACTINOTUS.	Δ Δ cu	2	jn	W	N. Holl.	1821.	D	s.l	Bot. reg. 654
3591 Helian'thi <i>Lab.</i>	Sun-flower									
645. TRY'NIA. <i>Haffn.</i>	TRINIA.	Δ Δ w		my.jn	W	England	rocks.	D	co	Eng. bot. 1209
3592 Hoffm'an'ni <i>Bieb.</i>	Hoffmann's									
<i>Pimpinella dioica</i>	E. Bot.									
3593 Hennin'gii <i>Bieb.</i>	Henning's	Δ Δ w		jn.au	W	Hungary	1803.			Pl. rar. hung. t.27
646. SI'UM. <i>W.</i>	WATER-PARSNIP.	Δ Δ p	3	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 204
3594 latifolium <i>W.</i>	broad-leaved									
3595 angustifolium <i>W.</i>	narrow-leaved	Δ Δ w	1	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 139
3596 nodiflorum <i>W.</i>	procumbent	Δ Δ w	$\frac{1}{2}$	jl.au	W	Britain	rivul.	D	aq	Eng. bot. 639
3597 repens <i>W.</i>	creeping	Δ Δ w	$\frac{1}{2}$	jn	W	Britain	moi.gr.	D	m.s	Eng. bot. 1431
3598 Sisarum <i>W.</i>	Skirret	Δ Δ cul	1	jl.au	W	China	1548.	D	r m	Schk. han.1. t.69



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used by vermin-killers to scent poisonous baits, or to neutralize or obliterate other smells. Anise is sometimes sown in gardens for the leaves, to be used as a garnish, or for seasoning, like fennel.

636. *Phellandrium*. A name under which Pliny describes an umbelliferous plant, of similar nature to the one now so called. In running streams the leaves of this plant become divided, like those of *Ranunculus aquatilis* in the same situation. When the plant grows in an angle, out of the rapid course of the stream, it produces its flowers; but it flowers best on the muddy banks of ditches and ponds. According to Linnæus it renders horses paralytic, the disease being brought on by a Coleopterous insect, the *Curculio paraplacticus*, which breeds in the stalks, and is cured by pigs' dung. The seeds arc sometimes used in agues.

637. *Dondia*. A curious little plant resembling *Astrantia*. The meaning of its name is unexplained.

638. *Trachyspermum*. From *τραχύς*, rough, and *σπέρμα*, seed; on account of the roughness of the seeds. Nearly related to *Ammi*, with which it agrees in habit.

639. *Ammi*. From *αμμος*, sand; because it grows in sandy places. Plants with a delicate habit, very finely cut leaves, and white flowers.

640. *Bubon*. *Bubonion* is a name of Pliny's, now applied to this plant; as Pliny's was used in medicine, so is this, and there the resemblance ceases. *B. macedonicum* is put among clothes to scent them in some parts of the East. From *B. Galbanum* (derivation obscure) the drug of that name is obtained, though it is not clear that it may not also be got from other species. It is collected from the spontaneous exudation of the

- 3564 Ramifications of leaves divaricating
- 3565 Leaves stalked digitate 3-lobed, Scape angular with only one umbel
- 3566 Leaves supra-decompound, Leaflets filiform, Umbels opp. the leaves, Leaves of involucre unequal
- 3567 Universal umbel united at base
- 3568 Lower leaves pinnate lanceolate serrate; upper multifid linear
- 3569 Segments of all the leaves lanceolate
- 3570 Leaves supra-decompound, Leaflets 3-parted pinnatifid
- 3571 Leaves rhomb-ovate cut-toothed, Teeth acuminate, Umbels numerous, Seeds hairy
- 3572 Leaflets linear
- 3573 Leaflets ovate wedge-shaped acute finely serrate, Umbels few, Seeds smooth, Stem glaucous
- 3574 Leaflets lanceolate very obtusely and obscurely crenate, Seeds smooth
- 3575 Leaflets cut acuminate: lower broadest, Seeds smooth
- 3576 The only species. Lower leaves broad, Upper capillary
- 3577 Stem declinate, Umbels nodding
- 3578 Stem erect flexuose, Leaves decompound very fine, Umbels dense very downy
- 3579 Leaf-stalks branch-bearing membranous oblong entire, Cauline leaves very narrow
- 3580 Leaf-stalks branch-bearing membranous obl. entire, Leaflets single and two together channelled smooth
- 3581 Radical leaves with imbricated leaflets
- 3582 Stem tall rigid, Leaflets linear fascicled
- 3583 Stem procumbent branched, Leaves bipinnatifid shining, Involucels halved
- 3584 Involucels connate one-leaved
- 3585 Stem ascending, Leaves triternate very fine, Umbel nodding with long rays
- 3586 Stem elongated with callous points, Leaves bipinnate, Pinnæ linear distant
- 3587 Leaflets toothed villous united at base
- 3588 Leaflets many-cut narrowed at base
- 3589 Leaves digitate, Leaflets bipinnate finely many-cut
- 3590 Leaves bipinnate, Leaflets pinnatifid, Segm. lanceolate
- 3591 Downy, Leaves decursively pinnated, Invol. soft long with 10-18 rays
- 3592 Seeds rough with sharp ribs
- 3593 Seeds smooth with blunt ribs
- 3594 Leaves pinnate, Umbel terminal
- 3595 Leaves pinnate, Umbels axillary stalked, Common invol. pinnatifid
- 3596 Leaves pinnate, Umbels axillary sessile
- 3597 Stem creeping, Leaflets roundish toothed angular
- 3598 Leaves pinnate: floral ternate



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stem, or by an incision in the stalk a little above the root, from which it immediately flows, and soon becomes sufficiently concretioned for gathering. Medicinally considered, this gum-resin is said to hold a middle place between Asafoetida and Ammoniacum; but it is far less fetid than the former.

641. *Cuminum*. From the Arabic name of the plant *gamoûn*. (*Golius*.) This is a dwarf fennel-looking plant, cultivated in the south of Europe and lesser Asia for its seeds, which are hot and aromatic, and used like those of Anise, Caraway, &c.

642. *Sæcli*. *Golius* (p. 167.) says, a plant related to this is called *Scycélyous* in Arabic. There is also a Greek *στύλι*.

643. *Thapsia*. The *Thapsia*, says Dioscorides, derives its name from the isle Thapsus, where it was first discovered. Plants resembling Smyrniotum in habit.

644. *Actinotus*. From *ακτιν*, a ray, in allusion to the ray-like appearance of the involucre. Curious New Holland plants with the habit of *Astrantia*.

645. *Trinia*. Named by Hoffmann after Dr. Trinius, a celebrated Russian botanist, who has published some works upon grasses. Plants resembling *Pimpinella* in appearance.

646. *Sium*. *Siu* signifies water in Celtic. This is a genus of aquatic plants. *S. nodiflorum* bears a good deal of resemblance to the water-cress (*Nasturtium officinale*), and, unless when in flower, is not very easily distinguished from it by the inexperienced. It is commonly considered poisonous, though, according to Dr.

3599 rigidum W.	Virginian	♂ Δ w	2	jl.au	W	Virginia	1774.	D s.p	Moris.s.9. t.7. f.1
3600 Falcária W.	decurrent	♂ Δ p	2	jl.au	W	Europe	1726.	D s.p	Jac. aust. 3. t.257
3601 scitulum W.	Sicilian	♂ Δ w	1	jl.au	Y	Sicily	1686.	D s.p	Jac. vind.2. t.133
647. SISON. W.	HONEWORT.					<i>Umbelliferae.</i>	Sp. 5-16.		
3602 Amómum W.	hedge	○ w	3	jl.au	W	Britain	hed.	S m.s	Eng. bot. 954
3603 ségetum W.	corn	○ w	2	jl.au	W	England	ch.fi.	S m.s	Eng. bot. 228
3604 inundátum W.	water	○ w	1	my.jn	W	Britain	dit.	S aq	Eng. bot. 227
3605 verticillátum W.	whorl-leaved	♂ Δ w	1	jl.au	W	Britain	m. me.	D m.s	Eng. bot. 395
3606 sículum W.	fine-leaved	♂ Δ w	1	jl.au	P.y	Siberia	1804.	D co	P.a.p.1779&8.f.1.3
648. CICUTA. W.	COWBANE.					<i>Umbelliferae.</i>	Sp. 2-5.		
3607 vírosa W.	long-leaved	♂ Δ m	3	jl	W	Britain	dit.	D co	Eng. bot. 479
3608 maculáta W.	spotted	♂ Δ p	1½	jl.au	W	N. Amer.	1759.	D m.s	Pl. alm. t. 76. f. 1
649. CO'NIUM. W.	HEMLOCK.					<i>Umbelliferae.</i>	Sp. 2-3.		
3609 maculátum W.	common	♂ ○ m	5	jn.jl	W	Britain	hed.	S co	Eng. bot. 1191
3610 africánum W.	Rue-leaved	♂ ○ m	3	jn.s	W	C. G. H.	1759.	c s.1	Eng. vin. 2. t. 194
650. SMYR'NIUM. W.	ALEXANDERS.					<i>Umbelliferae.</i>	Sp. 6-7.		
3611 perfoliátum W.	perfoliate	♂ Δ cul	3	ny	Y	Italy	1596.	D s.1	Pl. rar. h. 1. t. 23
3612 Olusátrum W.	common	♂ Δ cul	4	my.jn	G	Britain	sea.co	S s.1	Lu g. bot. 230
3613 apiifolium W.	Smallage-ld.	♂ Δ cul	1	my.jl	P.y	Candia	1731.	D s.1	
3614 cordátum Ph.	heart-leaved	♂ Δ or	1½	jn.jl	D.Pu	N. Amer.	1597.	D s.1	
<i>Thápsia trifoliata</i> W.									
3615 adréum W.	golden	♂ Δ cu	1	my.jn	Y	N. Amer.	1699.	D r.m	
3616 integerrimum W.	entire-leaved	♂ Δ w	1½	jn	Y	N. Amer.	1759.	D r.m	
651. A'PIUM. W.	PARSLEY.					<i>Umbelliferae.</i>	Sp. 2-5.		
3617 Petroselinum W.	garden	♂ ○ cul	3	jn.jl	I.Y	Sardinia	1548.	S r.m	
3618 gravolens W.	Celery	♂ ○ cul	4	jn.au	W	Britain	ditch.	S m.s	Eng. bot. 1210
652. ÆGOPO'DIUM. W.	GOUT-WEED.					<i>Umbelliferae.</i>	Sp. 1.		
3619 Podagrária W.	common	♂ Δ w	2	my.jl	W	Britain	sh.pl.	D m.s	Eng. bot. 940
653. ME'UM. Jacq.	BAWD-MONEY.					<i>Umbelliferae.</i>	Sp. 3-7.		
3620 Bónius Jacq.	Coriander-ld.	♂ ○ w	1	jl	W	Pyrenees	1778.	S co	Jac. vin. 2. t. 198
3621 Mutellina F. S.	alpine	♂ Δ or	1	jl.au	Fu	Austria	1774.	D co	All. pe. t. 60. f. 1
3622 athamánticum Jac.	common	♂ Δ w	1½	ap.jn	P.y	Britain	me.pa.	D m.s	Jac. aust. 4. t. 303



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Withering, the juice, in doses of from two to four ounces, either alone or with milk, every morning, is an excellent alterative in cutaneous diseases.

S. sisarum (from *Dgizer*, its Arabic name, in which language it signifies *carrot*), *Chervis*, Fr., *Zuckerwürtz*, Ger., and *Sisaro*, Ital., is cultivated for its roots or tubers, which, boiled and eaten with butter, are sweet and agreeable. A crop may either be raised from seed or offsets; if from the former, sow in March or the beginning of April, and when the plants come up, whether in rows or broadcast, thin them, so as nine or ten square inches may be allowed to each plant. With the usual summer culture the roots will have attained their full size in September, and may be taken up as wanted for use. In growing from offsets, allow about the same distance planting about the end of April, and giving the usual culture afterwards.

647. *Sison*. From the Celtic *sizun*, which signifies a running stream. Many of the plants grow in such situations. This genus is called *Honewort*, from its being used formerly to cure a swelling in the cheek called the Hone.

648. *Cicuta*. A word used by Virgil (*Ecl.* 2 and 5.), but of unknown meaning. *C. vírosa* is poisonous to mankind and kine, but not to horses, sheep, or goats; the smell being weak in the spring, cows are apt to be killed by it, but afterwards the odour enables them to avoid it. *C. maculata* is used in medicine like *Conium maculatum*.

649. *Conium*. Said by Linnaeus to be derived from *zovis*, powder, dust; but the application of the term is not evident. *C. maculatum* is a well known poisonous plant, lately admitted into the *Materia Medica*. According to Linnaeus, sheep eat the leaves, but horses, cows, and goats refuse them. Ray informs us, that the thrush will feed upon the seeds, even when corn is to be had. Curtis says hemlock is eaten by few or no insects. The dried fistulous stalks of this and several other umbelliferous plants are called by the country people *kecksies*. As a medicine, hemlock seems to act on the constitution in a great measure like opium.

650. *Smyrniacum*. *Σμύρινα*, is a synonym of *myrra*, myrrh. Its juice smells like myrrh, saith Pliny. *Maceron*, Fr., *Smyrnerkraut*, Ger., and *Macerone*, Ital. *S. perfoliatum* and *olusatrum* are or may be cultivated as Asparagus and salad plants, though they are now almost entirely supplanted by the celery, which they somewhat resemble in flavour. The seeds are sown in March in rows two feet apart, and afterwards thinned out to six inches. As the plants advance, they are earthed up like celery, and, like it, are ready for use during autumn and winter. *Olusatrum* is from *olus*, pot-herb, and *atrum*, black, from the dark colour of its foliage. Our English name, *Alexanders*, is certainly a mere corruption of *Olusatrum*.

651. *Apium*. From *apon*, water, in Celtic; from the place where the plant grows. *A. Petroselinum*, (*πτερόσπλον*, stone, and *selinum* — Stone Selinum) *Persil*, Fr., *Petersilie*, Ger., and *Petroselina*, Ital., is a well known seasoning herb, and it is also sown among pasture grasses as likely to counteract the liver rot in sheep. There is a variety called the *Hamburgh* or large rooted parsley, which is cultivated for its roots, which, as well as the

3599 Leaves pinnate, Leaflets lanceolate nearly entire

3600 Leaves linear decurrent connate

3601 Radical leaves ternate; cauline bipinnate

3602 Leaves pinnate, Umbels erect

3603 Leaves pinnate, Umbels cernuous

3604 Creeping, Umbels bifid

3605 Leaflets whorled capillary

3606 Rad. lvs. compound, Leaflets whorled fascicled lanc. Stem leafless, Umbellif. branches dichotomous

3607 Umbels opp. to the leaves, Leaf-stalks edged obtuse

3608 Serratures of leaves mucronate, Leaf-stalks membranous two-lobed at end

3609 Seeds unarmed, Stem branched shining spotted

3610 Seeds muricated, Petioles and peduncles smooth

3611 Cauline leaves simple stem-clasping

3612 Cauline leaves ternate stalked serrate

3613 Cauline leaves wedge-shaped obtuse trifid toothed

3614 Radical leaves simple cordate crenate; cauline ternate serrate, Umbels terminal

3615 Leaves pinnate serrate, All the florets fertile

3616 Cauline leaves doubly ternate entire

3617 Cauline leaves linear with minute involucre

3618 Cauline leaves wedge-shaped

3619 Upper leaves ternate, Lower biternate sessile

3620 Stem diffuse branching, Radical leaves broad; cauline very narrow

3621 Stem simple, Sheaths of leafstalks dilated membranous, Leaflets multifid pinnatifid

3622 All the leaves very finely cut



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roots of the other varieties, communicate an agreeable flavor to soups and stews. The curled thick-leaved variety is that most esteemed for soups and as a garnish: it is sown in drills, and should be thinned out when it is so far advanced as to shew the finer curls of the leaves. It is too commonly left to grow as it came up which makes it but a very inferior article for garnishes. The Hamburg sort should be thinned so as each plant may occupy ten or twelve square inches of surface.

A. graveolens is one of our most valuable salad plants, and is a remarkable instance of the effect of cultivation, being in its wild state, rank, coarse, and unfit to eat; and blanched in the garden, sweet, crisp, juicy, and of a most agreeable flavor. The green leaves are used in soups, and in Italy and the Levant, where the plant is grown, but not blanched, this is its principal application. Here both the leaves and seeds are used in soups and stews, and the blanched stalks in that way and also as a salad, either alone or in composition. One variety, the *Celeriac*, is grown entirely for the root or base of the leaves, which assumes a bulbous form, is solid and white, and used either in soups or as a salad.

In order to produce excellent celery, a deep rich light soil is required, and especially a soil on a dry bottom. The seed in the main crop is commonly sown in the beginning of April on a bed for transplantation; the plants so raised are commonly pricked out into other beds, and placed four or six inches asunder. At eight or twelve inches height the plants so brought forward are transplanted into trenches for blanching. These trenches are small open ditches of from six inches to a foot deep, and they are dug from two and a half to three feet apart from each other, in order to admit of earthing up the plants to the height of two feet or more above the natural surface. The excavated earth is laid in the intervals, and some dung is dug into the bottom of the trenches. Along these the plants are inserted at four or five inches apart, and as they grow, the earth from the sides of the trenches and from the wide intervals between them is applied to the plants in small layers at a time, till at the end of the autumn the ditches have become banks two or three feet high. The celery is now fit to use, and by earlier and later crops this salad is had in perfection from August or September till May following. Celery is grown to great perfection in Lancashire, where blanched stalks have been dug up four feet six inches long, and weighing nine or more pounds, of the best quality. A variety of modes of cultivating the celery are brought together in the *Encyclopædia of Gardening*, which well deserve the perusal of those who aim at growing this root in the best manner.

652. *Ægopodium*. From *αιξ αιγος*, a goat, and *πους*, a foot. Each of the parts of the leaf is split so as to resemble the cloven foot of a goat. The leaves of *E. Podagraria* smell like those of *Angelica*, and may be eaten in spring salads.

653. *Neum*. From *νεον*, very small, in allusion to the extreme delicacy of the leaves, which are as fine as hairs.

654. ANETHUM. W.	DILL.			<i>Umbelliferae.</i>	Sp. 4-5.			
3623 graveolens W.	common	☉	cul	3	in.jl	Y	Spain	1570. S r.m
3624 segetum W.	Portugal	☉	w	3	in.jl	Y	Portugal	1796. S co
3625 Sowa Roeb.	Indian	☉	m	...	in.jl	...	E. Indies	1810. S co
3626 Foeniculum W.	Fennel	☉	Δ	cul	6	jl.au	Y	England ch. pl.
β dulce	Finochio	☉	Δ	cul	4	jl.au	Y	Italy ... S s.l
655. CARUM. W.	CARAWAY.			<i>Umbelliferae.</i>	Sp. 2.			
3627 Carui W.	common	☉	clt	2	my.jn	W	Britain me. pa.	S s.l Eng. bot. 1503
3628 simplex W.	simple-stalked	☉	w	1	my.jn	W	Siberia	1816. S s.l
656. CNIDIUM. Cuss.	CNIDIUM.			<i>Umbelliferae.</i>	Sp. 5-6.			
3629 Monniéri W.	annual	☉	w	1½	jl.au	W	S. Europe	1771. S co Jac. vind. 1. t. 62
3630 Silaus W.	meadow	☉	Δ	w	2	in.au	Y	England mea. D co Eng. bot. 2142
3631 alsaticum W.	small-headed	☉	Δ	w	6	in.au	L.Y	Austria 1774. D co Jac. aust. 1. t. 70
3632 aristatum W.	bearded	☉	Δ	w	1½	in.jl	W	Pyrenees 1739. D co
3633 pyrenæum W.	Pyrenean	☉	Δ	w	1	in.jl	W	Pyrenees 1731. D co Gou. ill. 11. t. 5
657. BUPLEURUM. W.	HARE'S-EAR.			<i>Umbelliferae.</i>	Sp. 22-34.			
3634 rotundifolium W.	Thorough-wax	☉	pr	2	in.jl	Y	England co. fi.	S co Eng. bot. 99
3635 stellatum W.	starry	☉	pr	1	my.jl	G	Switzerl.	1775. D co Ha. h. n. 771. t. 18
3636 petræum W.	rock	☉	pr	1½	my.jl	G	Switzerl.	1768. D co Plu. ph. t. 50. f. 5
3637 graminifolium W.	Grass-leaved	☉	pr	1	my.jl	G	Switzerl.	1768. D co Jac. ic. 1. t. 56
3638 angulosum W.	angular-leaved	☉	pr	1	my.jl	G	Switzerl.	1759. D co
3639 pyrenæum W.	Pyrenean	☉	pr	1	my.jl	G	Pyrenees	1814. D co Go. ill. t. 4. f. 1. 2
3640 longifolium W.	long-leaved	☉	pr	3	my.jl	G	Switzerl.	1713. D co Cam. hort. t. 38
3641 falcatum W.	twisted-stalked	☉	pr	½	my.s	G	Germany	1739. D s.l Jac. aus. 2. t. 158
3642 exaltatum Bieb.	tall	☉	pr	2	jl	G	Tauria	1807. D s.l
3643 odontites W.	narrow-leaved	☉	pr	3	in.au	G	Italy	1749. S co Jac. vind. 3. t. 91
3644 semicompositum W.	dwarf	☉	pr	3	in.au	G	Spain	1779. S co Gou. ill. t. 7. f. 1
3645 ranunculoides W.	Crowfoot-like	☉	pr	1	jl.au	G	Pyrenees	1790. D l.p Park. theat. f. 7
3646 tenuissimum W.	slender	☉	pr	½	jl.au	G	England sea sh.	S co Eng. bot. 478
3647 Gerardi W.	branching	☉	pr	1	jl.au	G	S. Europe	1804. S s.l Jac. aus. 3. t. 256
3648 junceum W.	linear-leaved	☉	pr	1	jl.au	G	S. Europe	1722. S co
3649 nodum W.	naked-stalked	☉	pr	1	o	G	C. G. H.	1778. C l.p
3650 fruticosum W.	shrubby	☉	pr	3	jl.au	G	S. Europe	1596. C co Dend. brit. 14
3651 coriaceum W.	thick-leaved	☉	pr	...	...	G	Gibraltar	1784. C l.s Jac. ic. 2. t. 351
3652 frutescens W.	Grass-ld.-shr.	☉	pr	1	au.s	G	Spain	1752. C l.s Cav. ic. 2. t. 106
3653 canescens P. S.	hoary	☉	pr	5	au.s	G	Barbary	1809. C l.s Desf. atl. 1. t. 57
3654 spinosum W.	thorny	☉	pr	1	au.s	G	Spain	1752. C l.s Gou. ill. 8. t. 2. f. 3
3655 difforme W.	various-leaved	☉	pr	1	au.s	G	C. G. H.	1752. C l.s
658. HYDROCOTYLE. W.	PENNYWORT.			<i>Umbelliferae.</i>	Sp. 8-54.			
3656 vulgaris W.	marsh	☉	w	½	my.jn	R	Britain wa. pl.	D c.p Eng. bot. 751
3657 nitidula Rich.	shining	☉	w	1	my	G	Java	1820. D co Hook. ex. fl. 29
3658 nepalensis Hook.	Nepal	☉	w	1	jl	G	Nepal	1820. D co Hook. ex. fl. 30
3659 americana Ph.	tuberous	☉	w	½	my.au	R	N. Amer.	1790. D p Spr. um. t. 2. f. 3
3660 umbellata Ph.	umbelled	☉	w	1	jl.au	G	N. Amer.	1795. D p Spreng. um. t. 1
3661 asiatica Ph.	thick-leaved	☉	w	1	jl.au	G	C. G. H.	1690. D p Rh. mal. 10. t. 36
3662 repanda Ph.	Pilewort-leaved	☉	w	1	jn.jl	G	N. Amer.	1806. D p Spr. um. t. 2. f. 4
3663 villosa W.	hairy-wort	☉	w	1	au	G	C. G. H.	1795. D p
659. SPANANTHE. Jac.	SPANANTHE.			<i>Umbelliferae.</i>	Sp. 1.			
3664 paniculata Jacq.	panicled	☉	w	2	jl.au	W	Caracas	1795. D s.l Jac. ic. 2. t. 350
660. ULOSPERMUM. Lk.	BROAD-SEED.			<i>Umbelliferae.</i>	Sp. 1.			
3665 dichotomum Lk.	dichotomous	☉	cu	1½	jn.jl	W	Barbary	1800. S co Desf. atl. 1. t. 66
661. ÆTHUSA. W.	FOOL'S-PARSLEY.			<i>Umbelliferae.</i>	Sp. 2-3.			
3666 Cynapium W.	common	☉	p	2	jl.s	W	Britain co. fi.	S co Eng. bot. 1192
3667 fatua W.	fine-leaved	☉	p	2	jl.s	W	.....	1781. D co



History, Use, Propagation, Culture.

654. *Anethum*. From *αἰθος*, to burn, the plant being very heating. Large quantities of the seeds are yearly imported into this country from the south of France. They are used in medicine as carminatives, and, as it is said, in the manufacture of the British gin. No one has succeeded in growing the plant for a crop in this country.

655. *Carum*. A native of Caria, according to Pliny, b. xix. c. 8. *Carvi*, Fr., *Kümmel*, Ger., and *Carvi*, Ital. C. Carvi is cultivated both in agriculture and horticulture; in the former for its seeds, which are used to flavor cakes, to form sugar plums, to flavor spirits, and form a carminative distilled water. In the culinary art the leaves are sometimes used as an ingredient in salads, or as a pot herb, like parsley; and the roots are said to be superior in flavor to those of the parsnip.

656. *Cnidium*. The ancient name of an herb, supposed to have been an Orach, and certainly having no affinity to the plants now called Cnidium.

657. *Bupleurum*. From *βυς*, an ox, and *πλευρον*, a rib. How applied is not apparent. These are plants remarkable among the Umbelliferous tribes for having simple leaves.

3623 Fruit compressed

3624 Cauline leaves three, Fruit oval

3625 Leaves supra-decompound, Umbel with 5-15 rays, Fruit obl. flat with three ribs at base

3626 Fruit ovate

3627 Stem branched, Sheaths of leaves ventricose, Common involucre O.

3628 Stem quite simple, Sheaths of leaves appressed, Common invol. many-leaved

3629 Umbels close, Comm. invol. reflexed, Seeds with 5 membranous ribs

3630 Leaves thrice pinnated, Pinnules distinct with a nerve lanceolate 3-lobed with an odd one

3631 Leaflets pinnatifid, Segm. trifid bluntish

3632 Leafstalks of the branches somewhat membranous loose entire, Lvs. supra-decom. Leaflets lanc. awned

3633 Leaves doubly pinnate Leaflets cut acute, Involucels bristly longer than the umbel

3634 Common involucre none, Leaves perfoliate

3635 Involucels joined together: the universal three-leaved

3636 Involucels about 5-leaved joined together, universal 5-leaved, Caul. leaves cord. lanc. stem-clasping

3637 Involucels 7-leaved; universal about 3-leaved, Radical leaves linear, Scape one-leaved

3638 Involucels 5-leaved orbicular; universal 3-leaved ovate, Leaves cord. lanc. stem-clasping

3639 Invol. 5-leaved roundish emarginate con.; universal 3-leaved cut at base, Lvs. lanc. cordate stem-clasping

3640 Involucels 5-leaved ovate; universal about 5-leaved, Leaves stem-clasping

3641 Involucels 5-leaved acute; universal about 5-leaved, Leaves lanceolate, Stem flexuose

3642 Stem branched leafy, Lvs. lin.-lanc. chan. nerved, Invol. 4-leaved uneq. very narrow shorter than umbel

3643 Involucels 5-leaved acute, universal 3-leaved, Central florets tallest, Branches divaricating

3644 Leaves lanceolate, Umbels terminal and axillary, Seeds rough

3645 Involucels 5-leaved lanceolate longer; universal 3-leaved, Leaves cauline lanceolate

3646 Umbels simple alternate 5-leaved about 3-flowered

3647 Stem erect branching, Lvs. lin. acum. Invol. 5-leaved, Involucels 5-leaved lin. subul. longer than umbel

3648 Stem erect paniced, Leaves linear, Involucr. 3-leaved as long as umbel, Involucels 5-leaved

3649 Stem branched leafless, Radical leaves decompound flat cut, Involucels and involucels lanceolate-oblong

3650 Leaves lanceolate obovate entire sessile

3651 Leaves lanceolate narrowed each way entire sessile

3652 Leaves linear, Involucre common and partial

3653 Lvs. peren. lanc. mucronate nerved, Flowering branches branched striated, Involucr. subulate appressed

3654 Branches of panicle sessile naked spiny, Leaves linear

3655 Vernal leaves decompound flat cut, Summer leaves filiform angular trifid

3656 Leaves peltate, Umbels 5-flowered

3657 Leaves orbicular reniform 5-7-lobed, Flowers capitate sessile, Peduncle shorter than petiole

3658 Leaves orbicular reniform 7-lobed crenated, Flowers in numerous heads on short stalks

3659 Root tuberous, Leaves peltate roundish lobed unequally crenate, Clusters subsessile few-flowered

3660 Leaves crenate peltate emarginate at base, Umbels many-flowered and flowers stalked

3661 Leaves cordate reniform equal toothed crenate smooth, Umbels axillary sessile many-flowered

3662 Lvs. rounded cordate repand toothed beneath and stalks hairy, Umbels capitate about 3-fl. Fruit netted

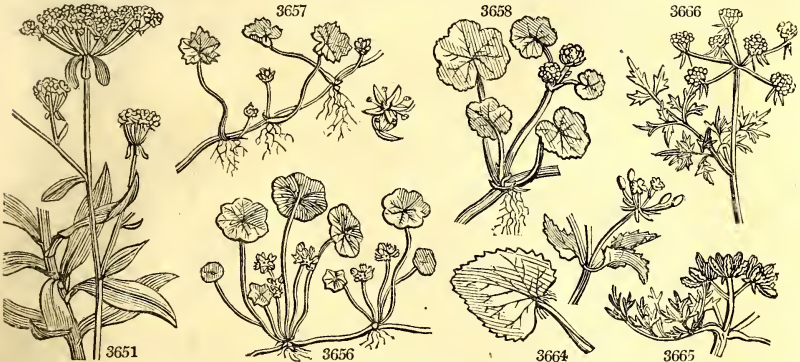
3663 Stem decumbent and erect branches villous, Lvs. ov. cordate cuspidate 3-nerved, Umbels axillary sessile

3664 Stem erect smooth, Leaves triangular acuminate crenate bearded at base, Umbels axillary spreading

3665 The only species

3666 Leaves all of one shape

3667 Leaflets very fine whorled, Stem very leafy, Comm. invol. many-leaved



and Miscellaneous Particulars.

658. *Hydrocotyle*. From $\psi\delta\omega\varsigma$, water, and $\kappa\omicron\upsilon\lambda\eta$, vessel; its leaf is round and a little depressed in the centre, so as to hold a drop of water. This is a genus of aquatics and marsh plants of no great beauty, their flowers being obscure and of dull colors. H. vulgaris, the *Wassernabel* of the Germans, has been supposed to communicate the liver rot to sheep. This is a vulgar error, arising from the circumstance of the fluke or flounder insect (*Fasciola hepatica*) being found in marshes where this plant, and also the *Drosera* and *Pinguicula*, abound, as well as in sheep's livers. It is a known fact, however, that sheep never feed on any of these plants.

659. *Spananthe*. From $\sigma\pi\alpha\nu\omicron\varsigma$, rare, and $\alpha\nu\delta\omicron\varsigma$, a flower, in allusion to the small number of flowers in the umbel.

660. *Ulosperrum*. From $\epsilon\upsilon\lambda\omicron\varsigma$, curled, and $\sigma\pi\epsilon\iota\mu\alpha$, seed, on account of the membranous curled ribs of the seed. A plant referred to Conium by Desfontaines, and to *Cachrys* by Sprengel, but very distinct from both.

661. *Aethusa*. From $\alpha\iota\delta\omega$, to burn, on account of its dangerous acidity. *Æ. Cynapium* ($\kappa\upsilon\nu\omicron\varsigma$ $\alpha\iota\pi\iota\omicron\nu$, dog-parsley) is a common weed in gardens, and sometimes mistaken for parsley; from which, however, it is easily

662. IMPERATORIA. <i>W. MASTERWORT.</i>	common	Δ	cu	2	my.jl	Pk	Scotland	m.al.p.	D	co	Eng. bot. 1380
3668 Ostróthium <i>W.</i>	common	Δ	cu	2	my.jl	Pk	Scotland	m.al.p.	D	co	Eng. bot. 1380
663. SELI'NUM. <i>W.</i>	MILK-PARSLEY	Δ	w	4	jl.au	W	Britain	mar.	D	c.l	Eng. bot. 229
3669 palústre <i>W.</i>	marsh	Δ	w	4	jl.au	W	Switzerl.	1816.	D	co	Eng. bot. 229
3670 montánu <i>W. en.</i>	mountain	Δ	w	2	jl.au	W	Austria	1804.	D	co	Jac. aus. 1. t. 71
3671 austríacum <i>W.</i>	Austrian	Δ	w	2	jl.au	W	Austria	1774.	D	co	Jac. aust. 1. t. 72
3672 Carvifólia <i>W.</i>	Caraway-leaved	Δ	w	2	jl.au	W	Austria	1774.	D	co	Jac. aust. 1. t. 71
3673 Chabræ'1 <i>W.</i>	fine-leaved	Δ	w	1	jl.au	W	Austria	1791.	D	co	Jac. aust. 1. t. 72
3674 Seguíeri <i>W.</i>	Fennel-leaved	Δ	w	4	jl.au	W	Italy	1774.	D	s.l	Jac. vind. 1. t. 61
3675 latifólium <i>Bieb.</i>	broad-leaved	Δ	w	2	jl.au	W	Caucasus	1816.	D	s.l	Jac. vind. 1. t. 61
3676 decip.ens <i>W.</i>	shrubby	Δ	w	2	jn.jl	W	Madeira	1785.	C	s.l	Sch. se.h.3.t.13
664. ANGE'LICA. <i>W.</i>	ANGELICA.	○	cul	4	jn.au	G	England	wa.pl.	δ	m.s	Flor. dan. t. 906
3677 Archangélica <i>W.</i>	garden	○	cul	4	jn.au	G	England	wa.pl.	δ	m.s	Flor. dan. t. 906
3678 sylvéstris <i>W.</i>	wild	○	w	6	jn.au	F	Britain	m. wo.	D	m.s	Eng. bot. 1128
3679 Razóúli <i>W.</i>	decurrent-ldv.	○	w	2	jn.au	P.Pu	Pyrenees	1816.	D	co	Gou. ill. 13. t. 6
3680 verticilláris <i>W.</i>	w horled-flower.	○	w	6	jl	G	Italy	1683.	D	co	Jac. vin. 2. t. 130
3681 atropurpárea <i>W.</i>	dark-purple	○	w	6	jl.au	Pu	Canada	1759.	D	co	Cor. can. t. 199
3682 lácida <i>W.</i>	shining	○	w	2	jl.au	P.y	Canada	1640.	S	co	Jac. vind. 3. t. 24
665. LIGUSTICUM. <i>W.</i>	LOVAGE.	Δ	cul	6	jn.jl	P.y	Italy	1596.	D	co	Blackw. t. 275
3684 Levisticum <i>W.</i>	common	Δ	cul	6	jn.jl	P.y	Italy	1596.	D	co	Blackw. t. 275
3684 scóticum <i>W.</i>	Scotch	Δ	w	2	jn.jl	W	Britain	sc. sh.	S	co	Eng. bot. 1207
3685 peloponéuse <i>W.</i>	Hemlock-ldv.	Δ	w	4	my.jl	P.y	Switzerl.	1596.	D	co	J. au. 5. t. ap. 13
3686 austríacum <i>W.</i>	Austrian	Δ	w	2	jn.au	W	Austria	1596.	S	co	Jac. aus. 2. t. 151
3687 cornubié'ne <i>W.</i>	Cornish	Δ	w	1½	jl.au	W	England	bu. fi.	S	co	Eng. bot. 683
3688 pyrenáicum <i>W.</i>	Pyrenean	Δ	w	3	jl.au	W	Pyrenees	1804.	S	co	Go. il. p. 14. t. 10
3689 cándicans <i>W.</i>	pale	Δ	w	2	jl.au	P.y	.....	1780.	S	co	Go. il. p. 14. t. 10
3690 perigrínium <i>W.</i>	Parsley-leaved	○	w	2	jn.jl	L.Y	Portugal	1633.	S	co	Jac. vin. 3. t. 18
3691 baléaricum <i>W.</i>	Minorca	○	cu	1	jn.jl	Y	Minorca	1804.	D	co	Jac. vind. 2. t. 193
3692 longifólium <i>W.</i>	long-leaved	Δ	w	3	jn.jl	P.Pu	Siberia	1804.	D	co	M. s. 9. t. 15. f. 1
666. HASSELQUISTIA. <i>W.</i>	HASSELQUISTIA.	○	w	1½	jl	W	Egypt	.....	S	co	Jac. vind. 2. t. 193
3693 aegyptiaca <i>W.</i>	Egyptian	○	w	1½	jl	W	Egypt	.....	S	co	Jac. vind. 2. t. 193
3694 cordáta <i>W.</i>	heart-leaved	○	w	1½	jl	W	.....	1787.	S	co	Jac. vind. 2. t. 193
667. ARTE'DIA. <i>W.</i>	ARTEDIA.	○	w	1½	jl	W	Levant	.....	S	co	Lam. ill. t. 193
3695 squamáta <i>W.</i>	Fennel-leaved	○	w	1½	jl	W	Levant	.....	S	co	Lam. ill. t. 193
668. FE'RULA. <i>W.</i>	GIANT-FENNEL.	Δ	or	10	jn.jl	Y	S. Europe	1597.	D	s.l	Moris.s.9.t.15.f.3
3696 commúnis <i>W.</i>	common	Δ	or	10	jn.jl	Y	S. Europe	1597.	D	s.l	Moris.s.9.t.15.f.3
3697 sibirica <i>W.</i>	Siberian	Δ	w	4	jn.jl	Y	Siberia	1816.	D	s.l	Pall.it.2.app.t.N
3698 gláucia <i>W.</i>	glaucous	Δ	w	8	jn.jl	P.Y	Italy	1596.	D	s.l	Journ.it.3.t.239
3699 tingitána <i>W.</i>	Tangier	○	w	3	jn.jl	Y	Barbary	1680.	S	s.l	Herm. par. t.165
3700 orientális <i>W.</i>	eastern	Δ	w	3	jl.au	Y	Levant	1759.	D	s.p	Tourn.it.3.t.239
3701 nodiflóra <i>W.</i>	knotted	Δ	w	3	jn.jl	Y	S. Europe	1596.	D	s.l	Jac.aust.5.t.ap.5
3702 pérsica <i>W.</i>	Assa-fetida	Δ	m	2	jl.au	Y	Persia	1782.	D	s.l	Bot. mag. 2096
669. LASERPITIUM. <i>W.</i>	LASERWORT.	Δ	w	3	jn.jl	W	Europe	1640.	D	co	Jac. aust. 2. t. 146
3703 latifólium <i>W.</i>	broad-leaved	Δ	w	3	jn.jl	W	Europe	1640.	D	co	Jac. aust. 2. t. 146
3704 trilobum <i>W.</i>	three-lobed	Δ	w	3	my.jl	W	Levant	1640.	D	co	Jac. aust. 2. t. 147
3705 aquilegífolium <i>W.</i>	Columbine-ldv.	Δ	w	5	my.jl	W	Austria	1796.	D	co	Jac. aust. 2. t. 147
3706 gallicum <i>W.</i>	French	Δ	w	3	jn.jl	Y	S. Europe	1683.	D	co	Plu.phyt.1.198.f.6
3707 triquetrum <i>P. S.</i>	winged	Δ	w	3	jn.jl	P.Y	Constant.	1816.	D	co	Vent. cels. t. 97
3708 angustifólium <i>W.</i>	narrow-leaved	Δ	w	2	jn.jl	Pk	S. Europe	1738.	D	co	Moris.s.9.t.19.f.9
3709 prússicum <i>W.</i>	Prussian	Δ	w	3	jl.au	W	Germany	1759.	D	co	Jac. aust. 2. t. 153



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distinguished by being of a darker green, a different shape, flat, and not curled, and of a disagreeable smell. When eaten in mistake for parsley it occasions vomiting, which may be stopped by a very large dose of brandy. It is deleterious to geese.

662. *Imperatoria*. A metaphorical name given to this plant to express its many virtues. For the same reason the English call it Masterwort. The root, which is very acrid, is sometimes used in toothache, and an infusion of it in wine instead of bark in quartan agues.

663. *Selinum*. From *σελίνον*, a name of the moon, in allusion to the crescent-like form of the seeds when cut across. The Greeks seem to have used the word *selinum*, with reference to the same plants as we call umbelliferous.

664. *Angelica*. So called, in allusion to its agreeable smell and medicinal qualities. A. archangelica (from *αρχη*, superior, an augmentative prefix), is sometimes cultivated in gardens for its leaf-stalks, to be blanched and eaten as celery, or candied with sugar. It is considered stimulant and anti-pestilential.

665. *Ligusticum*. This plant, says Dioscorides, grows in great abundance in Liguria, near Mount Appennine, from which circumstance it derives its name. L. levisticum and scoticum are sometimes used as pot-herbs or ingredients in salads, and are accounted emmenagogue. The root is carminative; and an infusion of the leaves is used as a purgative to calves in the Isle of Sky.

666. *Hasselquistia*. So named by Linnæus, in memory of his pupil, Frederick Hasselquist, M. D., who

3668 The only species

- 3669 Stem striated, Root fusiform divided, Rays of umbel hispid
 3670 Leaves 3-parted thrice sinuated. A doubtful species, scarcely distinct from the next
 3671 Stem furrowed, Common involucre many-leaved, Leaflets wedge-shaped cut
 3672 Stem furrowed with acute angles, Comm. invol. O, Leaflets lanceolate cut at the end with a callous point
 3673 Stem rounded striated, Comm. invol. O, Sheaths of leaves loose, Leaflets filiform linear
 3674 Stem rounded striated, Comm. invol. O, Leaflets trifid linear mucronate
 3675 Stem striated, Lvs. pinnat. subcor. Leaflets ov.-obl. at base cartil. serrate, Upper sheaths enlarged leafless
 3676 Stem woody naked beneath, Lower leaves bipinnate, Pinnæ lanceolate entire and cut serrate

- 3677 Leaves doubly pinnate ovate lanc. serrated with the odd leaflet lobed
 3678 Leaflets equal ovate lanceolate serrated
 3679 Leaflets lanceolate serrated decurrent
 3680 Leaves very much divaricating, Leaflets ovate serrate, Stem with the peduncles whorled
 3681 Outer pair of leaflets united together; terminal leaflet stalked
 3682 Leaflets equal ovate cut serrate

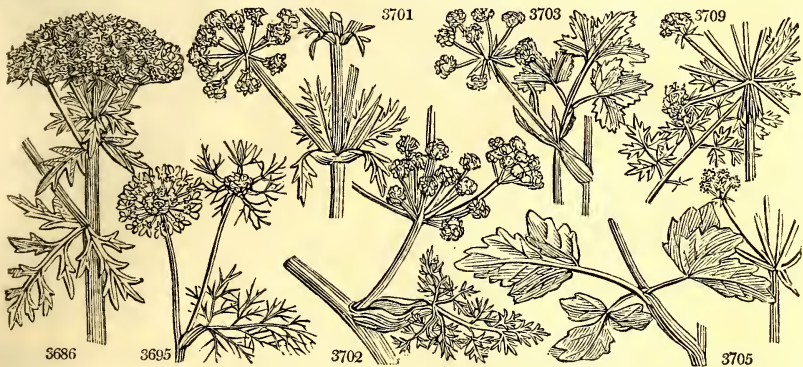
- 3683 Leaves multiple, Leaflets cut upwards
 3684 Leaves biternate
 3685 Leaves many times pinnate, Leaflets pinnately cut
 3686 Leaves bipinnate, Leaflets confluent cut entire
 3687 Leaves decomposed cut: cauline ternate lanceolate entire, Furrows of seed obsolete
 3688 Lvs. supra-decompound, Leaflets pinnatifid, Seg. linear mucronate, Comm. invol. scarcely any deciduous
 3689 Lvs. supra-decom. Leaflets wedge-shaped cut smooth, Comm. invol. 2-leav. leafy, Ribs of seed mem. smooth
 3690 Invol. of the 1st umbel scarcely any: of the lateral umbels membranous at base, Rays branched
 3691 Leaves pinnate, Lower leaflets acute with a smaller one
 3692 Leaves biternate; radical decomposed, Leaflets lin. lanc. entire

- 3693 Leaves pinnate, Leaflets pinnatifid
 3694 Leaves cordate

3695 Seeds scaly

- 3696 Leaflets linear very long simple
 3697 Leaflets linear subulate rounded, Comm. invol. O
 3698 Leaves supra-decompound, Leaflets lanc. linear flat
 3699 Leaves cut, Segm. 3-toothed unequal sinning
 3700 Pinnæ of leaves naked at base, Leaflets setaceous
 3701 Leaflets with appendages, Umbels nearly sessile
 3702 Leaves supra-decompound many cut acute decurrent, First umbel sessile

- 3703 Leaves obliquely cordate toothed, Teeth mucronate, Wings of seeds crisp
 3704 Leaflets 3-lobed cut
 3705 Leaves obtuse ovate at base lobed
 3706 Leaflets wedge-shaped trifid, Segm. oblong bluntish with a callous point at end
 3707 Stem naked 3-cornered, Branches angular, Leaflets obl. toothed crenate, Involucres many-leaved short
 3708 Leaves lanceolate obtuse mucronate entire sessile
 3709 Leaves lanceolate entire: the outer joined together



and Miscellaneous Particulars.

travelled into the Holy Land, &c. and died at Smyrna in 1752. Author of Travels in Palestine. A remarkable genus, supposed with some reason to be a monstrous alteration of a species of *Tordylium*.

667. *Artemisia*. So named by Linnaeus, in honor of Peter Artdi, a Swedish naturalist, one of the first who attempted to divide umbelliferous plants into genera. His method was followed by Linnaeus, and was, perhaps, not more defective than many of those which have been proposed in modern days. He died in 1735.

668. *Ferula*. From *ferire*, to strike. The stalks were used as a rod for children, because they made more noise than harm. *F. communis* is one of the tallest of herbaceous plants. The flower-stalk soon becomes dry after the seeds ripen, and then the Sicilians take out the pith and use it for tinder. It is very abundant in Apulia, where it is eaten by buffaloes. Gerarde says, it grew to the height of fifteen feet in his garden in Holborn. The drug *asafetida* is obtained from one or more species of this genus natives of Persia; and one species, the *F. asafetida*, though introduced to our gardens in 1782, is now lost. The drug is the inspissated juice of the root, which being bared of earth and cut across at the top, it oozes out, and when dry, is scraped off as opium is from the capsule of the poppy. The plant grows three feet high, with yellow flowers and hemlock-like leaves and habit.

669. *Laserpitium*. The Latin name of the Silphion of the Greeks. D'Herbelot says, that the natives of Africa called the plant *silphi* or *serpi*, whence the Latins formed *lac serpitium* and *Laserpitium*. (*Bibl. Or.* p. 493.)

3710 silaifóllum <i>W.</i>	Sulphur-w.	Δ	w	2	jn.jl	P.Y	Italy	1791.	D	co	Jac.aus.app. t.44
3711 peucedanoïdes <i>W.</i>	fine-leaved	Δ	w	2	jn.jl	Pk	Italy	...	D	co	Jac. ic. 2. t. 350
3712 Siler <i>W.</i>	mountain	Δ	w	3	my.jl	W	Austria	1640.	D	co	Jac. aust. 2. t. 145
3713 lucídium <i>W.</i>	shining	Δ	cu	1	jl	P.Pu	Switzerl.	1775.	S	co	
3714 feruláceum <i>W.</i>	Fennel-leaved	Δ	w	1½	jn	W	Levant	1752.	D	co	Tourn.it. 2. t. 121
3715 pilósum <i>W.en.</i>	sulphur-colored	Δ	w	1	jn.jl	P.Y	.....	1759.	S	co	
3716 hirsútum <i>W.</i>	hairy	Δ	w	1	jn.jl	P.Y	Alps	1759.	D	co	
670. PEUCE'DANUM. <i>W.</i>	SULPHURWORT.						<i>Umbelliferae.</i>	Sp. 6—21.			
3717 officinále <i>W.</i>	official	Δ	m	6	my.jl	Y	England	salt m.	D	c.1	Eng. bot. 1767
3718 arenárium <i>P. S.</i>	sand	Δ	w	5	jn.jl	Y	Hungary	1816.	D	c.1	P.rar.hun.1. t. 20
3719 itálicum <i>P. S.</i>	Italian	Δ	w	8	my.jl	Y	Italy	...	D	c.1	Lob. ic. 781
3720 alpéstre <i>W.</i>	Alpine	Δ	w	1½	jn.jl	P.Y	France	1739.	D	c.1	
3721 sibíricum <i>W.</i>	Siberian	Δ	w	3	jn.jl	Y	Siberia	1804.	D	c.1	P.rar.hun.1. t. 60
3722 aúreum <i>W.</i>	golden	Δ	cu	3	jn	Y	Canaries	1779.	D	co	
671. PASTINA'CA. <i>W.</i>	PARSNEP.						<i>Umbelliferae.</i>	Sp. 4—6.			
3723 lácida <i>W.</i>	shining-leaved	Δ	w	1½	jn.jl	Y	S. Europe	1771.	S	s.1	Jac. vind. 2. t. 199
3724 satíva <i>W.</i>	garden	Δ	cul	4	jl	Y	England	ch.pl.	S	s.1	Eng. bot. 556
3725 Opópanax <i>W.</i>	rough	Δ	cu	6	jn.jl	Y	S. Europe	1640.	D	co	Gou.ll.19. t. 13, 14
3726 dísecta <i>Vent.</i>	cut-leaved	Δ	w	1½	jn.jl	W	Levant	1816.	S	co	Vent. cels. t. 78
672. HERA'CLEUM. <i>W.</i>	COW-PARSNEP.						<i>Umbelliferae.</i>	Sp. 10—19.			
3727 Sphondýlium <i>W.</i>	common	Δ	ec	4	my.jn	W	Britain	hed.	D	co	Eng. bot. 939
3728 flavéscens <i>W.</i>	yellowish	Δ	w	4	jn.jl	W	Austria	1789.	D	co	Jac. aust. 2. t. 173
3729 angustifóllum <i>W.</i>	narrow-leaved	Δ	w	4	my.jn	W	Britain		D	co	Jac. aust. 2. t. 174
3730 élegans <i>W.</i>	rough-leaved	Δ	w	3	my.jn	W	Austria	1800.	D	co	
3731 sibíricum <i>W.</i>	Siberian	Δ	w	2	my.jn	G	Siberia	1768.	D	co	Gmel. sib.1. t. 50
3732 Panáces <i>W.</i>	Fig-leaved	Δ	w	3	jlau	W	Siberia	1596.	D	co	Lobel. ic. 701
3733 austríacum <i>W.</i>	Austrian	Δ	w	2	jn.jl	W	Austria	1732.	D	co	Jac. aust. 1. t. 61
3734 alpínum <i>W.</i>	Alpine	Δ	w	1½	jn.jl	W	Switzerl.	1739.	D	co	Barr. ic. 55
3735 pyrenáicum <i>Cusson.</i>	Pyrenean	Δ	w	3	jn.jl	W	Pyrenees	1798.	D	co	Hort. ber. t. 53
3736 púmílium <i>W.</i>	dwarf	Δ	w	½	my.jl	W	Dauphiny	1800.	D	co	Vill.delph. 2. t. 14
673. TORDY'LIUM. <i>W.</i>	HARTWORT.						<i>Umbelliferae.</i>	Sp. 6—8.			
3737 syriacum <i>W.</i>	Syrian	○	w	2½	jl	W	Syria	1597.	S	co	Jac. vind. 1. t. 54
3738 officinále <i>W.</i>	official	○	w	2	jl	F	England	corn fl.	S	co	Eng. bot. 2440
3739 peregrínium <i>W.</i>	oriental	○	w	2	jl	W	Levant	1596.	S	co	Cam.hor. 37. t. 11
3740 ápulum <i>W.</i>	small	○	w	1½	jl	W	Italy	1739.	S	co	Jac. vind. 1. t. 53
3741 máximum <i>W.</i>	great	○	w	2	jn.jl	W	England	corn fl.	S	co	Eng. bot. 1173
3742 sístifórum <i>W.</i>	red-flowered	○	w	1½	jn.jl	R	Carniola	1816.	S	co	Scop. car. 194. t. 8
674. ASTRAN'TIA. <i>W.</i>	MASTERWORT.						<i>Umbelliferae.</i>	Sp. 4.			
3743 máxima <i>B. M.</i>	Hellebore-lvd.	Δ	pr	2	jn.jl	Pk	Caucasus	1804.	D	s.p	Bot. mag. 1553
3744 májor <i>W.</i>	great-black	Δ	pr	2	my.s	Str	Al. of Eur.	1596.	D	p.1	Ex. bot. 2. t. 76
3745 mínor <i>W.</i>	small	Δ	pr	½	my.jn	Pk	Switzerl.	1686.	D	p.1	Bot. cab. 93
3746 carníolica <i>W.</i>	Carniolian	Δ	pr	1	my.jn	Str	Carniola	1812.	D	p.1	Jac.aus.app. t. 10
675. ZOSI'MIA. <i>Hoffm.</i>	ZOSIMIA.						<i>Umbelliferae.</i>	Sp. 1.			
3747 absinthifólium <i>P. S.</i>	Wormwood-lvd.	○	w	2	jlau	W	Persia	1816.	S	co	Vent. choix. t. 22
676. RU'MIA. <i>Hoffm.</i>	RUMIA.						<i>Umbelliferae.</i>	Sp. 2.			
3748 taúrica <i>Hoffm.</i>	Taurian	Δ	cu	1	jl	W	Crimea	1819.	D	co	
3749 capénsis <i>Lk.</i>	Cape	○	cu	1	s	W	C. G. H.	1822.	S	co	



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670. *Peucedanum*. From *πυυζα*, a pine-tree, and *δαυος*, dwarf; a diminutive fr. The plant was so called on account of its strong smell, which resembles resin.

671. *Pastinaca*. One of the names given by the Latins to the *Daucus* of the Greeks. It is derived from *pastus*, nourishment. *P. sativa* is a well known culinary root, and grown also in agriculture for feeding cattle. It was much in use during Catholic times to eat with salted fish. In the north of Ireland a sort of beer is brewed from the roots mixed with hops; a very good wine is also made from them; and by distillation they yield an ardent spirit, similar to that afforded by the potatoe. The parsnep is much cultivated in Jersey and Guernsey, chiefly for feeding milch cows. The variety preferred is called the Coquaine, the roots of which, Dr. Macculloch informs us (*Caled. Hort. Mem.* i. 408.), sometimes run four feet deep, and are rarely so small in circumference as six inches. The time of sowing is February and March, in drills to admit of stirring the soil between the rows. They should be thinned so as that each plant may have a surface of twelve or fourteen square inches, and, with the usual routine culture, the crop will be mature in October. They may be taken up and housed like the carrot, or as wanted for use: as they are not easily injured by frost, the latter mode is the best, where they are grown only for the table.

P. opopanax (*oros*, juice, *πρω*, all, and *ανος*, cure: a cure for all complaints) produces from its stem, when it is cut, a gum resin which is a famous cure in the East for all sorts of maladies.

672. *Heraacleum*. Named after the hero Hercules, who, according to a modern French author, was not only a warrior but a great doctor and botanist. *H. Sphondylium* (from *σφονδύλιος*, a vertebra, in allusion to the jointed stem), the *Heilkrout* of the Germans, is common in most parts of Europe. The seeds smell somewhat

- 3710 Leaves pinnatifid, Segm. lanceolate, Common involucre scarcely any, Stem smooth
 3711 Leaflets linear-lanceolate veiny striated distinct
 3712 Leaflets oval-lanceolate entire stalked
 3713 Leaves supra-decompound linear-subulate smooth, Comm. invol. pinnate
 3714 Leaflets linear
 3715 Hairy, Stem rounded simple, Lvs. tern. bipinnate, Leaflets alternate ovate pinnatifid cut wedge-shaped
 3716 Leaves supra-decompound hairy, Leaflets many cut, Leaves of many-leaved invol. membranous at edge

- 3717 Leaves 5 times 3-parted filiform linear
 3718 Leaves ternate decompound, Leaflets linear obtuse stiffish, Comm. invol. scarcely any
 3719 Leaves 3-parted filiform longer, Umbels deformed
 3720 Leaflets linear branched
 3721 Leaflets linear acute, First umbels sessile
 3722 Leaves thrice pinnate, Cauline leaflets linear lanceolate : radical oblong many-cut

- 3723 Leaves simple cordate lobed shining acutely crenate
 3724 Leaves simply pinnate
 3725 Leaves pinnate, Leaflets with their front base cut out
 3726 Stem rounded rough branched, Leaves bipinnatifid, Peduncles rigid villous

- 3727 Leaves pinnate, Leaflets 5 oblong pinnatifid acute toothed, Cor. of one shape
 3728 Leaves pinnate, Leaflets 5 oblong pinnatifid acuminate toothed rough at edge, Flowers radiant
 3729 Leaves cruciate pinnate, Leaflets linear, Corollas fuscous
 3730 Leaflets pinnatifid crosswise toothed
 3731 Leaves pinnate, Leaflets 5 : the intermediate sessile, Cor. of one form
 3732 Leaves pinnate, Leaflets 5 : the intermediate sessile, Flowers radiant
 3733 Leaves pinnate rugose on each side scabrous, Flowers somewhat radiant
 3734 Leaves simple cordate obsolete lobed serrated
 3735 Leaves simple 3-leaved cordate toothed beneath pubescent
 3736 Leaves simple and ternate many cut torn, Segments linear

- 3737 Involucres longer than the umbels
 3738 Partial involucre the length of flowers, Leaflets ovate lacinate
 3739 Seeds furrowed wrinkled plaited, Universal involucre 1-leaved trifold
 3740 Umbellules remote, Leaves pinnate with roundish cut pinnæ
 3741 Umbels clustered radiant, Leaflets lanceolate cut serrated
 3742 Umbels clustered radiant, Leaflets angular toothed pubescent

- 3743 Radical lvs. palmate 3-lobed unequally twice serrated ; cauline sessile lobed, Involucre longer than umbel
 3744 Radical leaves 5-lobed, Lobes trifid acute toothed, Involucres lin. lanceolate entire
 3745 Radical leaves digitate, Leaflets about 7 lanceolate acute deeply toothed
 3746 Radical leaves 5-lobed, Lobes oblong acutish trifid mucronate-toothed, Involucres entire

- 3747 Hoary, Leaves decompound, Leaflets wedge-shaped trifid, Flowers angular, Fruit villous

- 3748 Stem dichotomous knotty, Leaves decompound, Involucre short, Female flowers with a long ray
 3749 Stems decumbent, Sheaths loose, Seeds smooth



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like a bug. Gmelin informs us, that the inhabitants of Kamtchatka, about the beginning of July, collect the footstalks of the radical leaves, and after peeling off the rind, which is very acrid, dry them separately in the sun, and then tying them in bundles, lay them up carefully in the shade in bags ; in this state they are covered with a yellow saccharine efflorescence, tasting like liquorice ; this being shaken off, is eaten as a great delicacy. From the stalks thus prepared and fermented with bilberries the Russians distil an ardent spirit, which, Gmelin says, is more agreeable to the taste than spirits made from corn. A kind of ale is brewed from the leaves and seeds in Poland and Lithuania, and attempts have been made to extract sugar from this plant, but forty pounds of the dried stalks only yielded a quarter of a pound of powdery sugar. The young shoots may be eaten as asparagus. Rabbits and swine are fond of the leaves, but not horses. *H. sibiricum* is used in the same manner in the north of Siberia and Kamtchatka.

673. *Tordylium*. Bodæus à Stapel thinks that the derivation of the name is to be found in *τοργος*, a lathe, and *ἄλλω*, to turn, because the seeds seem as if turned in a lathe. But this seems to be a commentator's guess only.

674. *Astrantia*. From *αστρον*, a star, and *αντι*, similar ; so called with reference to the beautiful starlike disposition of the involucre of all the species, and of *A. minor* in particular.

675. *Zosima*. Named by Hoffmann, in honor of the three famous brothers Zosimades, the celebrated patrons of so many fine editions of the Greek classics. A remarkable plant, formerly referred to *Heracleum*, native of most of the eastern parts of the world.

676. *Rumia*. Named by Hoffman after Rumia or Rumina, the goddess who presided over suckling, on

677. CA'CHRYS. W.	CACHRYS.	<i>Umbelliferae.</i>	Sp. 3—10.				
3750 Libanótis W.	smooth-seeded	3	jl.au	Y	Sicily	1570.	D co Schk. han. l. t. 65
3751 Morisóni W.	Morison's	3	jl.au	Y	S. Europe	1710.	D co Mor. umb. t. 3. f. 1
3752 panacifólia W.	Parsnep-leaved	3	jl.au	Y	Sicily	1752.	D co Boc. sic. i. t. 1
678. HIPPOMA'RATHRUM. Lk.	HIPPOMARATHRUM.	<i>Umbelliferae.</i>	Sp. 1.				
3753 sciculum Lk.	hairy	3	jl.au	Y	Sicily	1640.	D co Bocc. sic. t. 18

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679. VIBUR'NUM. W.	VIBURNUM.	<i>Caprifoliaceae.</i>	So. 23—36.				
3754 Tinus P. S.	co. Laurestine	or 4	mr.d	W	S. Europe	1596.	L co Bot. mag. 38
<i>α hirtum</i>	hairy	or 4	mr.d	W	S. Europe	...	L co
<i>β virgátum</i>	slender	or 4	mr.d	W	S. Europe	...	L co
<i>γ strictum</i>	upright	or 4	mr.d	W	S. Europe	...	L co
3755 lúcidum P. S.	sh.-lvd.-Laures.	or 6	mr.d	W	Spain	1596.	L co Clus. hist. 49
3756 rugósum P. S.	large-lvd.-Laur.	or 4	...	W	Canaries	1796.	L p.l Bot. mag. 2082
3757 prunifólium W.	Plum-leaved	or 8	my.jl	W	N. Amer.	1731.	L p.l Dend. brit. 23
3758 odoratissimum Ker.	sweet-scented	or 4	...	W	China	1818.	L Bot. reg. 456
3759 squamátum Muhl.	scaly	or 6	jl	W	N. Amer.	1822.	L p.l Dend. brit. 24
3760 pyrífólium Ph.	Pear-leaved	or 6	my.ju	W	N. Amer.	1822.	L p.l Dend. brit. 22
3761 Lentágo W.	tree	or 8	jl	W	N. Amer.	1761.	L p.l Dend. brit. 21
3762 nódum W.	oval-leaved	or 8	my.jn	Pa.Y	N. Amer.	1752.	L p.l Bot. mag. 2281
3763 da'ricum Pall.	Siberian	or 2	jn.jl	W	Dahuria	1785.	L p.l Pall. ross. i. t. 38
3764 obovátum Walt.	obovate-leaved	or 2	my.jn	W	N. Amer.	1812.	L p.l
<i>β punicefólium</i>	narrow-leaved	or 2	my.jn	W	N. Amer.	1812.	L p.l
3765 cassinóides W.	thick-leaved	or 3	jn.jl	W	N. Amer.	1761.	L p.l
3766 lævigátum W.	Cassiober.-bush	or 10	jl.au	Pa.B	N. Amer.	1724.	L p.l Mil. ic. i. t. 83. f. 1
3767 nitidum W.	shining-l. aved	or 2	my.ju	W	N. Amer.	1758.	L p.l
3768 dentátum Ph.	tooth-leaved	or 5	jn.jl	W	N. Amer.	1736.	L p.l Dend. brit. 25
3769 pubescens Ph.	downy tooth-lv.	or 3	jn.jl	W	N. Amer.	1736.	L p.l
3770 lantanóides Mich.	Lantana-like	or 5	my.jn	W	N. Amer.	...	L p.l
3771 Lantána W.	Wayfaring-tree	or 10	my.jn	W	Britain	hed.	L p.l Eng. bot. 331
3772 mólle Mich.	soft	or 6	jn.jl	W	N. Amer.	1812.	L p.l
3773 acerifólium W.	Maple-leaved	or 4	jn.jl	W	N. Amer.	1736.	L co Dend. brit. 118
3774 O'pulus W.	Guelder Rose	or 10	my.jn	W	Britain	moi.w.	L p.l Eng. bot. 332
<i>β róseum</i>	Snowball-tree	or 14	my.jn	W	.....	...	L p.l
3775 Oxycóccos Ph.	Cranberry-like	or 12	jl	W	N. Amer.	...	L p.l
3776 édule Ph.	eatable-fruited	or 12	jl	W	N. Amer.	1812.	L p.l
680. SAMBU'CUS. W.	ELDER.	<i>Caprifoliaceae.</i>	Sp. 7—9.				
3777 E'bulus W.	dwarf	cu 3	jn.jl	P.Pk	Britain	wa.g.r.	D co Eng. bot. 475
3778 chinénsis Lindl.	Chinese	cu 4	s.o	W	China	1823.	D co
3779 nigra W.	common	ec 15	my.jl	W	Britain	hed.	C co Eng. bot. 476
<i>β viridís</i>	green-fruited	or 8	my.jl	W	.....	...	C co
3780 laciniáta Lk.	Parsley-leaved	or 8	my.jl	W	.....	...	C co Schim. arb. t. 144
3781 canadénsis W.	Canadian	or 6	jn.au	W	N. Amer.	1761.	C s.l Schmid. arb. 142
3782 píbens Mich.	pubescent	or 6	...	W	N. Amer.	1812.	C s. 1
3783 racemósa W.	red-berried	or 12	my.jn	Gr.Y	S. Europe	1596.	C co Jac. ic. i. t. 59
681. RHUS. W.	SUMACH.	<i>Terebinthaceae.</i>	Sp. 33—75.				
3784 Coriária W.	Elm-leaved	ec 10	jl	G	S. Europe	1596.	L co Dend. brit. 136
3785 typhina W.	Virginian	ec 20	jl.au	G	N. Amer.	1629.	S co Dend. brit. 17, 18
<i>β frutescens</i>	dwarf	cu 6	jl	G	S co



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which account all vascular substances, with firm outside but very cellular structure inside, were said to be Ruminosa. The seeds of this genus are of that nature. There was also a Dr. Romy, professor of agriculture in some Polish university.

677. *Cachrys*. One of the names given by the Romans to the Rosemary. According to Morison, the name was derived from *καωω*, to grow hot, on account of the carminative qualities of the plant. The Cossacks of the Ják chew the seeds of *C. odontalgica* for pain in the teeth, and obtain relief by the copious salivation which follows their use. This genus is well known by its corky large smooth seeds.

678. *Hippomarathrum*. From *ἵππος* *μαραθρον*, horse-fennel, on account of its size compared with that of common fennel.

679. *Viburnum*. This name is derived, according to the account of Sebastian Vaillant, from the Latin word *viere*, to tie, on account of the pliability of the branches of some species. *V. tinus* (*τινος*, small, dwarf, tiny) is one of the most ornamental of evergreen shrubs, with shining leaves and shewy white flowers, which appear during the winter months. *V. lucidum* and *strictum* are taller and more tender than the common species, of which they are by many considered as only varieties.

V. lantana (from *lento*, to tie) grows chiefly on calcareous soils: it has pliant mealy twigs, and the bark affords a bird lime.

V. opulus, (alteration of *populus*) var *roseum*, is a most ornamental shrub, producing large white bunches of

- 3750 Leaves bipinnate, Pinnæ opposite linear rather pungent, Seeds furrowed smooth
 3751 Leaves supra-decompound setaceous many-cut, Seeds even smooth
 3752 Leaves pinnate and ternate, Leaflets oblong crenate

3753 Leaves bipinnate, Leaflets linear, Stem furrowed

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- 3754 Leaves ovate oblong entire, Divisions of the veins and the young branches glandular hairy
 α Leaves oval oblong beneath and at edge hairy
 β Leaves lanceolate oblong at the edge and veins beneath hairy
 γ Leaves ovate hairy on both sides stiff
 3755 Leaves coriaceous ovate lanceolate shining entire
 3756 Leaves broad ovate rugose hairy beneath, Common involucre 7-leaved
 3757 Leaves obovate roundish and oval smooth finely serrated with edged stalks
 3758 Evergreen smooth, Leaves coriaceous elliptical oblong distantly toothed
 3759 Leaves oblong obtusely serrated, Stalks and peduncles with scaly pubescence
 3760 Smooth, Leaves ovate nearly acute subserrate, Leaf-stalks smooth, Fruit ovate oblong, Cymes stalked
 3761 Leaves broad ovate acuminate finely serrated, Stalks edged crisp
 3762 Leaves obl. narr. at base rather blunt entire revolute at edge smooth above shining with netted veins
 3763 Leaves ovate serrate dotted with hairs, Cymes dichotomous few-flowered
 3764 Smooth, Leaves obovate crenate toothed or entire obtuse, Umbels sessile, Fruit roundish ovate
 3765 Smooth, Leaves ovate lanceolate acute at each end crenate revolute at edge, Stalks keeled glandular
 3766 Leaves obl. lanc. unequally and finely serrated at base wedge-shaped and entire, Branches compr. square
 3767 Leaves linear lanceolate shining above obsolete serrated or entire, Branches square
 3768 Leaves ovate tooth-serrated plaited
 3769 Leaves oval acuminate tooth-serrated plaited pubescent
 3770 Somewhat decumbent, Lvs. rounded cord. abruptly acumin. toothed with the stalks and nerves powdery
 3771 Leaves ovate oblong cordate serrate beneath rugose with veins downy
 3772 Leaves roundish cord. furrowed with plaited beneath downy with a very soft pubescence, Cymes radiant
 3773 Leaves cord. ovate generally 3-lobed loosely serrat. stalks without glands at base with stipules and downy
 3774 Leaves 3-lobed acute behind 3-nerved divaricating rarely toothed, Stalks glandular, Cymes radiant
 3775 Leaves 3-lobed acute behind 3-nerved, Lobes very short tooth-serrated, Serrat. acumin. Cymes radiant
 3776 Leaves 3-lobed behind obtuse 3-nerved, Lobes very short tooth-serrated, Serrat. acumin. Cymes radiant
 3777 Cymes 3-parted, Stipules leafy, Stem herbaceous, Leaves pubescent beneath
 3778 Cymes with many abortive fleshy flowers, Stem herbaceous warted, Leaves quite smooth
 3779 Cymes 5-parted, Stem arborescent
 3780 Flowers umbelled, Leaves pinnatifid, Stem shrubby
 3781 Cymes 5-parted, Leaves about twice pinnated, Stem shrubby
 3782 Panicle ovate, Leaflets lanceolate acuminate unequal at base, Leaf-stalk hairy, Stem shrubby
 3783 Panicle ovate, Leaflets oblong acuminate nearly equal at base, Stalks smooth, Stem arborescent

- 3784 Leaflets ovate oblong obtuse mucronate scabr. above villous beneath, The last joints of stalk membranous
 3785 Leaflets lanceolate acuminate finely serrated hairy beneath



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white flowers, resembling those of Hydrangea, and like them abortive. With lilac, laburnum, and scarlet thorn it forms an elegant group.

680. *Sambucus*. A musical instrument called by the Latins *sambuca*, is supposed to have been made of the wood of this tree, on account of its hardness. The tree was always famous for this quality; so that Pliny says it consists of nothing but skin and bones. (*b. xvi. c. 39.*) *S. ebulus* is supposed to prevent diseases in swine if used as litter: the root is violently cathartic, the leaves drive away mice, and the berries dye blue.

S. nigra with its varieties, and *S. racemosa*, are very shewy trees in shrubberies when in flower and fruit. *S. nigra* is narcotic, purgative, and acrid; the flowers in decoction are diaphoretic and expectorant; used to flavor vinegar, and deleterious to turkeys. The French put layers of them in heaps or casks of apples, to which they communicate a most agreeable odor. The berries are poisonous to poultry; but make a powerful wine much in esteem among country people. As the common elder will grow either exposed to the sea breeze or on high mountains, it is recommended as a nurse-plant in forming plantations. To thrive and be productive as a fruit tree however, it requires a deep, rather moist, and rich soil.

681. *Rhus*. Derived from the same root as *Rosa*, *rhudd*, in Celtic, signifying red, on account of the color of the fruit. *Pas*, in Greek. Sumach, its English name, is an alteration of *simāq*, its name in Arabic. (*Forsk.*) In some of the species of this genus the flowers are hermaphrodite; in others, as *R. elegans*, *pentaphyllum*, and *Toxicodendron*, the male and female are on separate plants. In *R. toxicodendron*, they

3786	<i>Javánica W.</i>	Java	cu	10	jl.s	W	Java	1799.	S	pl	Dend. brit. 15	
3787	<i>glabra W.</i>	smooth	or	8	jl.s	G	N. Amer.	1726.	L	pl	Di. el. t.243.f.314	
3788	<i>elegans W.</i>	scarlet	or	10	jl	G	N. Amer.	1726.	S	pl	Dend. brit. 16	
3789	<i>viridiflora Ph.</i>	green-flowered	or	15	jl	G	N. Amer.	...	S	pl		
3790	<i>púmila Ph.</i>	dwarf poisonous	p	1	jl	N	N. Amer.	1806.	S	pl		
3791	<i>Vérnix W.</i>	Varnish	or	15	jl	G	N. Amer.	1713.	L	co	Dend. brit. 19	
3792	<i>succedanea W.</i>	red Lac	ec	10	jn	G	China	1768.	L	pl	Kæm. am. t. 795	
3793	<i>Bucku-Amélia Wall.</i>	long-leaved	or	10	...	G	Nepal	1823.	S	co		
3794	<i>juglandifolia Wall.</i>	Walnut-leaved	or	10	...	G	Nepal	1823.	S	co		
3795	<i>glauca Desf.</i>	glaucous	or	2	jl	G	C. G. H.	1821.	C	pl		
3796	<i>oxycantha Schousb.</i>	hawthorn	or	6	...	G	Barbary	1823.	C	pl		
3797	<i>oxyacanthoides Dum.</i>	prickly	or	6	...	G	Barbary	1824.	C	pl		
3798	<i>Zizyphina Ten.</i>	Parsley-leaved	cu	3	...	G	Sicily	1824.	C	pl		
3799	<i>semialata W.</i>	Service-leaved	cu	6	...	G	Macao	1780.	L	pl	Mur. co. g. 6. t.3	
3800	<i>copallina W.</i>	Lentiscus-leav.	ec	6	aus	G	N. Amer.	1688.	S	co	Jac. sch. 3. t. 341	
3801	<i>Toxicodendron Ph.</i>	Poison-Oak	p	3	jn.jl	G	N. Amer.	1640.	S	co		
	<i>α radicans L.</i>	common	or	3	jn.jl	G	N. Amer.	...	S	co	Bot. mag. 1806	
	<i>β véra</i>	true	p	2	jn.jl	G	N. Amer.	...	S	co	Duh. nov. n. t.48	
	<i>γ microcarpa</i>	small-fruited	p	2	jn.jl	G	N. Amer.	...	S	co	Dill. elth. f. t.3	
3802	<i>aromatica Ph.</i>	female sweet	or	8	my	G	N. Amer.	1759.	L	pl	T. in an.m.5.t.30	
	<i>β suaveolens W.</i>	male sweet	or	6	my	G	N. Amer.	...	L	pl		
3803	<i>pendulina Jacq.</i>	pendulous	cu	3	...	G	C. G. H.	...	L	pl		
3804	<i>dentata W.</i>	rough-stalked	cu	2	...	G	C. G. H.	1798.	C	pl		
3805	<i>cuneifolia W.</i>	wedge-leaved	cu	2	...	G	C. G. H.	1816.	C	pl		
3806	<i>incisa W.</i>	cut-leaved	cu	2	...	G	C. G. H.	1789	C	pl		
3807	<i>tomentosa W.</i>	woolly-leaved	cu	10	...	G	C. G. H.	1691.	C	pl	Com. ho. 1. t.92	
3808	<i>villosa W.</i>	hairy	cu	6	jl	G	C. G. H.	1714.	C	pl	Pl. al. t. 219. f. 8	
3809	<i>pubescens W.</i>	pubescent	cu	10	...	G	C. G. H.	1800.	C	pl		
3810	<i>viminális W.</i>	Willow-leaved	cu	2	...	G	C. G. H.	1774.	C	pl	Jac. sch. 3. t. 344	
3811	<i>angustifolia W.</i>	narrow-leaved	cu	6	...	W	C. G. H.	1714.	C	pl	Pl. al. t. 219. f. 6	
3812	<i>rosmarinifolia W.</i>	Rosemary-leav.	cu	4	...	G	C. G. H.	1800.	C	pl	Bur. afr. t.91. f.2	
3813	<i>pentaphylla Desf.</i>	various-leaved	cu	4	...	G	Barbary	1816.	C	pl	Desf. atl. 1. t. 77	
3814	<i>lævigata W.</i>	polished-leaved	cu	6	...	G	C. G. H.	1758.	C	pl		
3815	<i>lúcida W.</i>	shining-leaved	cu	6	jl.au	G	C. G. H.	1697.	C	pl	Bur. afr. t. 91. f.1	
	<i>β minor</i>	small-shin.-lvd.	cu	6	jl.au	G	C. G. H.	1697.	C	pl	Com. ho. 1. t. 93	
3816	<i>Cóstinus W.</i>	Venetian	or	6	jn.jl	G	S. Europe	1656.	L	co	Jac. au. 3. t. 210	
682	<i>CASSI'NE W.</i>	CASSINE.					<i>Rhamni. Sp. 4-8.</i>					
3817	<i>capensis W.</i>	Cape Phillyrea	or	1	jl.au	W	C. G. H.	1629.	C	s.l.p	Bur. afr. t. 85	
3818	<i>Colpoon W.</i>	Colpoon-tree	or	6	...	W	C. G. H.	1791.	C	s.l.p	Bur. afr. t. 86	
3819	<i>Maucocénia W.</i>	Hottentot Cher.	or	5	...	W	C. G. H.	1690.	C	s.l.p	Di. el. t.121.f.147	
3820	<i>xylocarpa Vent.</i>	bony-seeded	or	3	...	W	Pa. Y	Antilles	1816.	C	s.l.p	Vent. Ch. t. 23
683	<i>SPATHE'LIA W.</i>	SPATHELIA.					<i>Terebintaceæ. Sp. 1.</i>					
3821	<i>simplex W.</i>	Sumach-leaved	or	40	tm	R	Jamaica	1778.	S	s.p	Bot. reg. 670	
684	<i>STAPHYLE'A W.</i>	BLADDER-NUT.					<i>Rhamni. Sp. 2-4.</i>					
3822	<i>pinnata W.</i>	five-leaved	or	6	ap.jn	W	England	hed.	L	co	Eng. bot. 1560	
3823	<i>trifolia W.</i>	three-leaved	or	6	my.jn	W	N. Amer.	1640.	S	co	Schm. arb. t. 81	



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are polygamous males, being mixed with the hermaphrodites. The species from the Cape of Good Hope rarely flower in this country, and are chiefly cultivated for the sake of their foliage, which is neat and not susceptible of injury from bad management.

R. Coriaria is used instead of oak bark for tanning leather, and it is said that that of Turkey is chiefly tanned with this plant. The seeds are in common use at Aleppo at meals to provoke an appetite. Both leaves and seeds are used in medicine as astringent and styptic.

R. javanica in China affords an oil by bruising the berries and boiling them in water: they use it as a varnish, but it does not keep its polish so well as the oil of *R. vernix*.

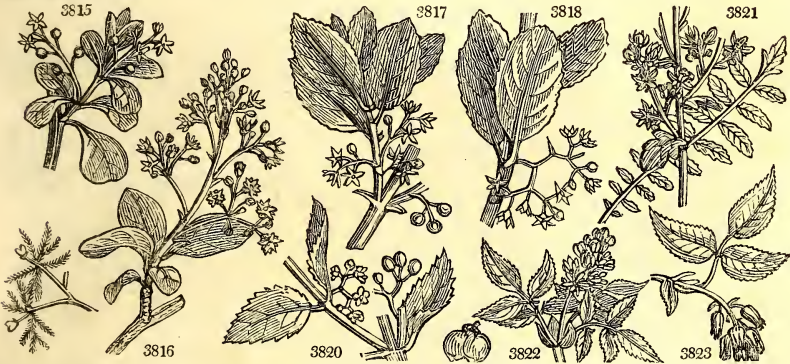
R. glabra has berries which dye red, and the branches boiled with the berries afford a black ink-like tincture. This plant is like a weed in some parts of North America, where it overruns land left for a few years in pasture.

R. vernix affords the true Japan varnish, which oozes out of the tree on its being wounded, and grows thick and black when exposed to the air. It is so transparent, that when laid pure and unmix'd upon boxes or furniture, every vein of the wood may be clearly seen. With it the Japanese varnish over the posts of their doors and windows, their drawers, chests, boxes, scymitars, fans, tea-cups, soup-dishes, and most articles of household furniture made of wood. The milky juice of the plant stains linen a dark brown. The whole shrub is in a high degree poisonous; and the poison is communicated by touching or smelling any part of it. In forty-eight hours inflammation appears on the skin, in large blotches, principally on the extremities, and on the glandular parts of the body: soon after small pustules rise in the inflamed parts, and fill with watery matter, attended with burning and itching. In two or three days the eruptions suppurate; after which the inflammation subsides, and the ulcers heal in a short time. It operates, however, somewhat differently upon

- 3786 Leaflets ovate acuminate serrate beneath downy
 3787 Leaflets lanceolate acuminate with close serratures smooth on both sides whitish beneath,
 3788 Leaflets lanceolate acuminate in the middle distantly serrated smooth on both sides, Flowers dioecious
 3789 Smoothish, Leaflets lanceolate oblong serrated downy beneath, Racemes erect green
 3790 Dwarf, Branches and leaf-stalks pubescent, Leaflets oval, Fruit very downy
 3791 Leaflets entire annual opaque, Leaf-stalk entire equal
 3792 Leaflets entire perennial shining, Leaf-stalk entire equal
 3793 Leaves very large coarse rugose and downy
 3794 Leaves pinnated in 9 pair rugose smooth above
 3795 Leaflets obovate, some of them very glaucous
 3796 Stem shrubby unarmed, Leaves ternate hoary cuneate ovate, the middle one longest
 3797 Prickly, Leaves ternate smooth, Leaflets narrow wedge-shaped at the end 3-lobed and entire
 3798 Spiny, Leaflets wedge-shaped toothed beyond the middle, above shining with prominent nerves
 3799 Leaflets unequally serrated, Outer petioles with membranous joints
 3800 Leaflets entire, Leaf-stalk membranous jointed
 3801 Stem rooting
 α Leaves large entire or rarely toothed, Creeping
 β Dwarf, Leaves variously sinuated downy about flowering time, Erect
 γ Leaflets oblong oval with a long point, Fruit very small
 3802 Leaflets sessile ovate rhomb-shaped cut serrate hairy
- 3803 Leaflets lanceolate entire sessile smooth on each side ciliated, Common stalk pubescent, Branches pend.
 3804 Leaflets obovate mucronate toothed smooth, Stem scabrous
 3805 Leaflets sessile wedge-shaped very smooth 7-toothed, Teeth mucronate
 3806 Leaflets sessile wedge-shaped cut pinnatifid beneath downy and veiny
 3807 Leaflets stalked rhomb-shaped angular downy beneath
 3808 Leaflets obovate entire sessile hairy on both sides
 3809 Leaflets obovate mucronate smooth, Branches villous
 3810 Leaflets linear lanceolate entire smooth narrowed at base: the intermediate one stalked
 3811 Leaflets stalked linear lanceolate entire downy beneath
 3812 Leaflets sessile linear revolute rusty beneath
 3813 Prickly, Leaves fingered, Leaflets linear lanceolate at the end toothed or entire
 3814 Leaflets oblong entire sessile acute on each side smooth, Panicle terminal long
 3815 Leaflets obovate sessile very narrow at the base smooth on both sides, Corymbs axillary
- 3816 Leaves obovate
- 3817 Leaves stalked ovate retuse crenated, Panicle twice as short as leaf
 3818 Leaves stalked ovate subserrate entire at base
 3819 Leaves sessile entire obovate coriaceous
 3820 Leaves stalked ovate subserrate, Peduncles dichotomous shorter than the leaves, Fruit ovate
- 3821 Leaves like the mountain ash, Flowers in long erect panicles from among the leaves

3822 Leaves pinnate

3823 Leaves ternate



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different constitutions; and some are incapable of being poisoned with it at all. Persons of irritable habits are most liable to receive it.

Rhus aromatic and suaveolens, the male and female of one species, have been made into a distinct genus called *Schmaltzia*, by Desvaux and Turpinia, and afterwards *Lobadium*, by the ingenious M. Rafinesque Schmalz. The expressed oil of the seed of this species, and also of *R. succedanea*, acquires the consistence of suet and serves for making candles.

R. Toxicodendron is poisonous to some persons, like *R. vernix*, but in a less degree. Kalm relates, that of two sisters, one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it, or even, when she stood to windward of it, at a greater distance; that it had not the least effect upon him, though he had made many experiments upon himself, and once the juice squirted into his eye; but that on another person's hand, which he had covered very thick with it, the skin, a few hours after, became as a piece of tanned leather, and peeled off afterwards in scales.

R. pumila is another dangerous species. Lyons, the collector, suffered severely for several weeks, after only collecting the seeds.

R. cotinus is cultivated for tanning leather near Valcimara in the Apennines, where it is called Scotino.

682. *Cassine*. An American name. These are shrubs with handsome foliage, but generally inconspicuous white or green flowers. *C. Maurocenia* has its specific name in honor of the Venetian senator F. Mauroceni, who had a fine garden at Padua.

683. *Spathelia*. The upright habit and want of branches make this tree resemble a palm-tree, anciently called *Σπαθη*. A very handsome stove shrub, rarely flowering.

684. *Staphylea*. From *σταφυλή*, a bunch, in which form its fructification is disposed. Handsome hardy

685. TA'MARIX. W.	TAMARISK.				<i>Portulacææ.</i>	<i>Sp. 3—18.</i>						
3824 gallica W.	French	☉	or	12	my.o	F	England	so. co.	C	s.l	Eng. bot.	1318
3825 articulata W.	Indian	☉	□	or	30	...	Pk	E. Indies	...	C	lp	Vah. sym. 2. t. 32
3826 germanica W.	German	☉	□	or	8	jn.s	Pk	Germany	1582.	C	ms.	Mil. ic. t. 262. f. 2
686. TURNE'RA. W.	TURNERA.						<i>Portulacææ.</i>	<i>Sp. 6—23.</i>				
3827 ulmifolia W.	Elm-leaved	☉	□	or	8	jn.s	Y	Jamaica	1733.	C	pl	Hort. cliff. t. 10
β angustifolia B. M.	narrow-leaved	☉	□	or	8	ap.s	Pa.Y	Jamaica	1733.	C	sp	Bot. mag. 293
3828 elegans Otto.	elegant	☉	□	or	3	...	Pa.Y	Brazil	1821.	C	sp	
3829 trioniflora Sims.	Ketmia	☉	△	or	2	ja.d	Pa.Y	Brazil	1812.	C	sp	Bot. mag. 2105
3830 Pumilæa W.	Nettle-leaved	☉	□	or	2	jl	Y	Jamaica	1796.	S	s.l	Sl. ja. 1. t. 127. f. 6
3831 cistoides W.	Betony-leaved	☉	□	or	2	jn.o	Y	America	1774.	S	s.l	Pl. ic. t. 150. f. 1
3832 racemosa W.	clustered	☉	□	or	2	jl.au	Y	Siberia	1789.	S	s.l	Jac. vind. 3. t. 94
687. DRY'PIS. W.	DRYPIS.						<i>Caryophyllææ.</i>	<i>Sp. 1.</i>				
3833 spinosa W.	prickly	☉	cu		3	jn.jl	P.Pu	Italy	1775.	S	s.l	Bot. mag. 2216
688. AL'SINE. W.	CHICKWEED.						<i>Caryophyllææ.</i>	<i>Sp. 3—6.</i>				
3834 média W.	common	☉	w		1	ils	W	Britain	fields.	S	co	Eng. bot. 537
3835 segetalis L.	corn	☉	w		1	ils	W	France	1805.	S	co	
3836 mucronata L.	bristly	☉	w		1	jn.jl	W	S. Europe	1777.	S	co	Fl. græc. 293
689. TELE'PHIUM. W.	ORPINE.						<i>Portulacææ.</i>	<i>Sp. 1—2.</i>				
3837 Imperati W.	true	☉	△	w	1	jn.au	W	S. Europe	1658.	D	s.l	Lam. ill. t. 213
690. CORRIG'OLA. W.	STRAPWORT.						<i>Portulacææ.</i>	<i>Sp. 2—3.</i>				
3838 littoralis W.	sand	☉	cu		1	jl.au	W	England	so. co.	S	s	Eng. bot. 668
3839 telephifolia Pourr.	Orpine-leaved	☉	△	cu	1	jl.au	W	Spain	1822.	S	s	
691. PHARNA'CEUM. W.	PHARNACEUM.						<i>Caryophyllææ.</i>	<i>Sp. 5—22.</i>				
3840 Cerviána W.	umbelled	☉	cu		1	jn	W	Russia	1771.	S	co	Gm. si. 3. t. 20. f. 2
3841 lineare W.	linear-leaved	☉	cu		1	my.jn	W	C. G. H.	1795.	C	s.l	Bot. rep. 326
3842 Mollógo W.	Ladies' Bedstr.	☉	cu		1	jl.au	W	E. Indies	1752.	C	s.l	Bur. ind. t. 5. f. 4
3843 incanum W.	hoary	☉	cu		1	my.o	W	C. G. H.	1782.	C	s.l	Bot. mag. 1883
3844 dichotomum W.	forked	☉	cu		1	jl	W	C. G. H.	1783.	C	s.l	
692. PORTULACA'RIA. W.	PURSLANE-TREE.						<i>Portulacææ.</i>	<i>Sp. 1.</i>				
3845 áfra W.	African	☉	cu		3	...	Pu	Africa	1732.	C	rm	Jac. col. 1. t. 22
693. BASE'LLA. W.	MALABAR-NIGHTSHADR.						<i>Chenopodææ.</i>	<i>Sp. 5.</i>				
3846 rubra W.	red	☉	cu		8	ils	Pk	E. Indies	1731.	S	rm	
3847 nigra Lour.	black	☉	cu		3	ils	W	China	1822.	S	rm	
3848 álba W.	whitc	☉	cu		8	iln	W	E. Indies	1688.	S	rm	Plu. al. t. 63. f. 1
3849 lícida W.	shining	☉	cu		6	iln	W	E. Indies	1802.	S	rm	
3850 cordifolia P. S.	heart-leaved	☉	cu		6	iln	P.Pu	E. Indies	1802.	S	rm	

TETRAGYNIA.

694. PARNAS'SIA. W.	GRASS OF PARNASSUS.						<i>Hypericinææ.</i>	<i>Sp. 3—5.</i>				
3851 palustris W.	marsh	☉	△	pr	1	jl.au	W	Britain	bogs.	D	ms	Eng. bot. 82
3852 caroliniana Ph.	Carolina	☉	△	pr	1	my.jn	W	N. Amer.	1802.	D	ms	Bot. mag. 1459
3853 asarifolia Ph.	Asarum-leaved	☉	△	pr	1	jl.au	W	N. Amer.	1812.	D	ms	Vent. mal. t. 39

PENTAGYNIA.

695. EVOL'VULUS. L.	EVOLVULUS.						<i>Convulvacææ.</i>	<i>Sp. 5—21.</i>				
3854 linifolius L.	flax-leaved	☉	pr		2	aus	B	Jamaica	1732.	S	co	Br. jam. t. 10. f. 2
3855 emarginatus L.	emarginate	☉	pr		1	s	B	E. Indies	1816.	S	co	Bur. ind. t. 30. f. 1
3856 nummularius L.	Money-wort	☉	pr		1	s	B	Jamaica	1816.	S	co	



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shrubs. *S. pinnata* has hard smooth nuts, which are strung for beads by the Catholics in some countries, while in others the kernels, though bitter, are eaten by the inhabitants.

685. *Tamarix*. Tamarisci were people who inhabited the Spanish side of the Pyrenees, where one species grows abundantly on the banks of the Tanaris, now called the Tambrá, as it stands the sea breeze, is sometimes used as a hedge plant in such situations.

686. *Turnera*. So named by Plumier, in memory of William Turner, M. D. Prebendary of York, &c. author of "A new Herbal," London, 1551: died in 1568. All the species are of the easiest culture, but few of them of any beauty. They are chiefly weeds with yellow *Cistus*-like flowers.

687. *Drypis*. From *δρυπτα*, to tear. Its leaves are armed with stiff spines.

688. *Alsine*. From *αλσος*, shady place, where alsine loves to grow. Little weeds of no beauty. *Morge-lina*, Fr.

689. *Telephium*. Pliny says, Telephus was a king of Mysia, and had his wounds cured by Achilles with this plant. A little inconspicuous weed, with the appearance of a minute *Euphorbia*.

690. *Corrigiola*. A diminutive of *corrigia*, a thong; and applied to the plant we call *Polygonum aviculare*,

3824 Bractes shorter than flower-stalks, Spikes lateral paniced, Leaves lanceolate subulate stem-clasping
 3825 Flowers sessile, Spikes lateral, Leaves very short sheathing, Branches with turbinate mucronate joints
 3826 Spikes terminal solitary, Bractes longer than flower-stalks, Leaves linear lanceolate sessile

3827 Flowers sessile, Leaves oblong acute serrate pubescent with two glands at base

3828 Flowers sessile, Leaves ellipt. cuneate obtusely serrated scabrous with two glands at base

3829 Bractes subulate, Leaves ovate acute at each end with two glands at the base

3830 Flowers sessile, Leaves without glands

3831 Peduncles axillary leafless, Leaves serrated at end

3832 Raceme terminal long, Leaves ovate unequally obtusely serrated

3833 A small glaucous plant with rigid prickly leaves

3834 Petals bipartite, Leaves ovate cordate

3835 Petals entire, Leaves subulate

3836 Petals entire short, Leaves bristly, Calyxes awned

3837 Leaves alternate

3838 Flowers stalked, Calyxes membranous at edge

3839 Stem diffuse procumbent, Leaves oblong ovate, Branches leafless

3840 Peduncles umbelled lateral as long as linear leaves

3841 Umbels unequal, Leaves linear distant

3842 Peduncles 1-flowered lateral, Flowers as long as leaves, Stem depressed

3843 Common peduncles very long, Leaves linear, Stipules hairy

3844 Peduncles axillary elongate dichotomous, Leaves whorled linear

3845 A fleshy shrub with many small opposite fleshy roundish leaves

3846 Leaves flat, Peduncles simple

3847 Leaves round ovate, Spikes lateral

3848 Leaves ovate wavy, Peduncles simple longer than the leaf

3849 Leaves cordate, Peduncles clustered branched

3850 Leaves cordate roundish, Peduncles simple shorter than the leaf

TETRAGYNIA.

3851 Radical leaves cordate acuminate, Nectaries many-parted

3852 Radical leaves nearly orbicular, Nectaries with 3 bristles

3853 Radical leaves reniform, Petals unguiculated, Nectaries 3-parted

PENTAGYNIA.

3854 Leaves linear lanceolate sessile, Peduncles 1-3-fl. a little longer than the leaves

3855 Leaves reniform repand

3856 Leaves roundish, Stem creeping, Flowers nearly sessile



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in allusion to the long and slender shoots of that plant. The *Corrigiola* of modern times is related to the *Polygonum*.

691. *Pharnaceum*. Named after Pharnaces, king of Pontus, who is said by Pliny to have been the first to use the plant. Pretty little herbaceous plants, with fine leaves, and elegant umbels of usually white flowers.

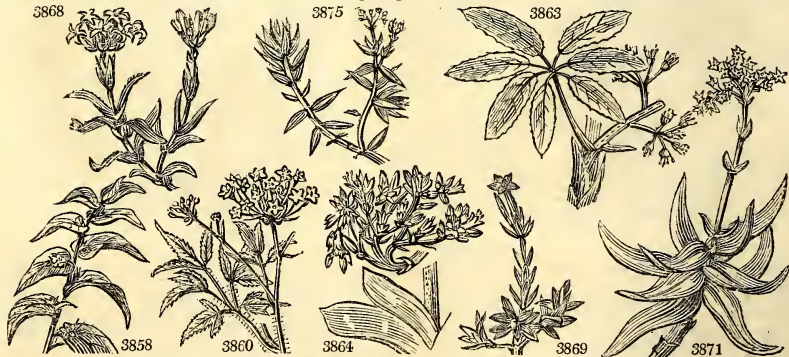
692. *Fortulacaria*; that is to say, a *Portulaca*-like plant. The leaves of this plant resemble purslane, whence also the English name, as well as the Latin name.

693. *Basella*. A Malabar name. The species of this genus are used in China as spinage plants: they are also raised on a hotbed at Paris in spring, and transplanted into a warm border for the same purpose, and are said to furnish a summer spinage equal to that of the orache.

694. *Parnassia*. From Mount Parnassus, the abode of grace and beauty, where, on account of the elegance of its form, this plant is feigned to have first sprang up. *P. palustris* is one of the most elegant of marsh plants, well deserving a place in aquatic collections.

695. *Evolvulus*. Derived from *evolvere*, to turn; in the same sense as *Convolvulus*, which this genus entirely resembles in habit.

3857 alsinoides <i>L.</i>	Chickweed	☐	pr	$\frac{2}{2}$	jn.jl	B	E. Indies	1733.	S	co	Bur. zeyl. t. 6.f.1	
3858 latifolius <i>Key.</i>	broad-leaved	☒	pr	2	jn.jl	W	Brazil	1819.	D	co	Bot. reg. 401	
696. ARA'LIA. <i>W.</i>	ARALIA.						<i>Araliaceae.</i>	<i>Sp. 4—32.</i>				
3859 spinosa <i>W.</i>	Angelica-tree	☒	or	8	W	W	Virginia	1688.	R	p.1	Dend. brit. 46	
3860 hispida <i>Ph.</i>	hispid	☒	or	2	jn.jl	W	N. Amer.	1799.	R	p.1	Bot. mag. 1085	
3861 falcata <i>Ph.</i>	berry-bearing	☒	Δ	or	4	jn.s	W	N. Amer.	1658.	D	s.p	Mor. s. i. t. 2. f.9
3862 nudicaulis <i>Ph.</i>	naked-stalked	☒	Δ	or	4	jn.jl	W	N. Amer.	1731.	D	s.p	Pl. al. t. 238. f. 5
697. ACTINOPHYLLUM. <i>R. & P.</i>	ACTINOPHYLLUM.						<i>Araliaceae.</i>	<i>Sp. 1—6.</i>				
3863 digitatum <i>Wall.</i>	finger-leaved	☒	or	10	...	G	E. Indies	1820.	C	s.1		
698. RO'CHEA. <i>Dec.</i>	ROCHEA.						<i>Crassulaceae.</i>	<i>Sp. 7.</i>				
3864 falcata <i>P. S.</i>	sickle-leaved	☒	or	2	jn.s	R	C. G. H.	1785.	C	s.1	Bot. mag. 2035	
3865 coccinea <i>P. S.</i>	scarlet	☒	or	1	jn.au	S	C. G. H.	1710.	C	s.1	Bot. mag. 495	
3866 cymosa <i>Haw.</i>	cymose	☒	or	1	au	R	C. G. H.	1800.	C	s.1		
3867 hava <i>Haw.</i>	yellow	☒	or	1	aus	Y	C. G. H.	1802.	C	s.1	Pl. al. t. 314. f. 2	
3868 odoratissima <i>Haw.</i>	sweet-scented	☒	or	1	jn.jl	Pk	C. G. H.	1793.	C	s.1	Bot. rep. 26	
3869 jasminea <i>Sims.</i>	jasmine-like	☒	or	2	ap.my	W	C. G. H.	1815.	C	s.1	Bot. mag. 2178	
3870 versicolor <i>Burch.</i>	changeable	☒	or	2	mr.s	R	C. G. H.	1817.	C	s.1	Bot. reg. 320	
699. CRAS'SULA. <i>W.</i>	CRASSULA.						<i>Sempervivae.</i>	<i>Sp. 41—83.</i>				
3871 perfoliata <i>L.</i>	perfoliate	☒	or	3	jl.au	W	C. G. H.	1725.	C	s.1	Plant. grass. 13	
3872 ramosa <i>W.</i>	branching	☒	or	2	jl.au	Pk	C. G. H.	1774.	C	s.1		
3873 tetragona <i>W.</i>	square-leaved	☒	or	2	au	W	C. G. H.	1711.	C	s.1	Plant. grass. 19	
3874 mollis <i>W.</i>	soft	☒	or	1	au	W	C. G. H.	1774.	C	s.1		
3875 acutifolia <i>P. S.</i>	acute-leaved	☒	or	1	s.n	W	Greece?	1795.	C	s.1	Plant. grass. t. 2	
3876 nudicaulis <i>W.</i>	naked-stemmed	☒	or	1	my.s	G	C. G. H.	1732.	C	s.1	Plant. grass. 133	
3877 arborescens <i>W.</i>	tree	☒	or	3	my.jn	Pk	C. G. H.	1739.	C	s.1	Bot. mag. 384	
3878 obliqua <i>W.</i>	oblique-leaved	☒	or	4	ap.my	R	C. G. H.	1759.	C	s.1	Plant. grass. 79	
3879 lactea <i>W.</i>	white	☒	or	3	s.o	W	C. G. H.	1774.	C	s.1	Bot. mag. 1771	
3880 cultrata <i>W.</i>	sharp-leaved	☒	or	1	jl.au	W	C. G. H.	1732.	C	s.1	Bot. mag. 1940	
3881 ciliata <i>W.</i>	ciliated	☒	or	1	jl.au	Y	C. G. H.	1732.	C	s.1	Plant. grass. 7	
3882 undulata <i>Haw.</i>	wave-leaved	☒	or	1	au n	W	C. G. H.	1797.	C	s.1	Bot. cab. 584	
3883 scabra <i>W.</i>	rough-leaved	☒	or	1	jn.jl	P.y	C. G. H.	1730.	C	s.1	Di. el. t. 99. f.117	
3884 biconvexa <i>Haw.</i>	double-convex	☒	or	1	au	W	C. G. H.	1800.	C	s.1		
3885 obvallata <i>W.</i>	Houseleek-ldv.	☒	or	1	jl.au	W	C. G. H.	1795.	C	s.1	Plant. grass. 61	
3886 ramuliflora <i>Lk.</i>	branch-flower.	☒	or	1	jn.jl	W	C. G. H.	1822.	C	s.1		
3887 corymbulosa <i>Lk.</i>	corymbulose	☒	or	1	jl au	W	C. G. H.	1822.	C	s.1		
3888 columnaris <i>W.</i>	columnar	☒	or	1	...	W	C. G. H.	1789.	C	s.1	Burm. afr. t. 9	
3889 imbricata <i>W.</i>	imbricated	☒	or	1	jn.jl	W	C. G. H.	1760.	C	s.1		
3890 canescens	grey	☒	Δ	or	1	jl.au	W	C. G. H.	1800.	C	s.1	
	<i>Globulea canescens</i> <i>Haw.</i>											
3891 perfilata <i>P. S.</i>	threaded	☒	or	1	s	Pk	C. G. H.	1785.	C	s.1	Sc. del. ins. 3. t.6	
3892 punctata <i>W.</i>	dotted	☒	or	1	ap.au	W	C. G. H.	1759.	C	s.1		
3893 marginalis <i>W.</i>	marginied	☒	or	2	jl.au	P.y	C. G. H.	1774.	C	s.1		
3894 pellucida <i>W.</i>	pellucid	☒	or	1	jn.s	Pk	C. G. H.	1732.	C	s.1	Di. el. t.100.f.119	
3895 spathulata <i>W.</i>	notched-leaved	☒	or	1	jl.s	W	C. G. H.	1774.	C	s.1	Plant. grass. 49	
3896 cordata <i>W.</i>	heart-leaved	☒	or	1	my.au	Pk	C. G. H.	1774.	C	s.1	Bot. cab. 359	
3897 tomentosa <i>W.</i>	downy	☒	Δ	or	1	ap.my	W	C. G. H.	1790.	C	s.1	
3898 linguæfolia <i>Haw.</i>	tongue-leaved	☒	Δ	or	1	au	W	C. G. H.	1803.	C	s.1	
3899 Cotyledonis <i>W.</i>	Cotyledon-leav.	☒	or	1	...	W	C. G. H.	1800.	C	s.1		
3900 orbicularis <i>W.</i>	starry	☒	Δ	or	1	jl.s	Pk	C. G. H.	1731.	C	s.1	
3901 retroflexa <i>W.</i>	Orange-flower.	☐	pr	$\frac{1}{2}$	jn	Y	C. G. H.	1788.	C	s.1		
3902 lineolata <i>W.</i>	channelled	☒	pr	$\frac{1}{2}$	jn.au	Y	C. G. H.	1774.	C	s.1	Bot. mag. 1765	
3903 centauroides <i>W.</i>	Centaury-flow.	☒	pr	$\frac{1}{2}$	my.jn	Pk	C. G. H.	1774.	S	s.1	Hern. lug. t.553	
3904 dichotoma <i>W.</i>	forked	☐	pr	$\frac{1}{2}$	jn.jl	Y	C. G. H.	1774.	S	s.1	Plant. grass. 67	
3905 glomerata <i>W.</i>	rough-clustered	☐	pr	$\frac{1}{2}$	au.o	W	C. G. H.	1774.	S	s.1		



History, Use, Propagation, Culture.

696. *Aralia*. A name of unknown meaning, under which one species was sent to Fagon from Quebec, in 1764, by one Sarrazin, a French physician. *A. spinosa* is an ornamental low tree for lawns, on account of its Angelica-like leaves.

697. *Actinophyllum*. From *ακτιν*, a ray, and *φυλλον*, a leaf; because the leaflets are disposed as it were in rays round a centre. Fine *Aralia*-like plants, with beautiful foliage, but not with any attraction in the appearance of the flowers.

- 3857 Procumbent villous, Leaves oval subsessile, Capsules deflexed
 3858 Very hairy, Leaves subsessile oblong cordate acuminate, Flowers sessile 3 together
 3859 Arborescent, Stem and leaves prickly
 3860 Stem suffruticose and leaf-stalks hispid, Leaves decompound
 3861 Stem herbaceous smooth, Leaves decompound, Peduncles axillary branched umbelled
 3862 Stemless, Leaves decompound, Scapes leafless

3863 Leaflets 5 very smooth shining elliptical entire

- 3864 Leaves opposite nearly connate oblong with an auricle on one side, falcate
 3865 Leaves ovate oblong flat, edge with a cartilagin. fringe, at the base, connate sheathing, Flowers term. sessile
 3866 Leaves linear with a cartilaginous fringed edge, Stem shrubby, Cyme terminal
 3867 Leaves flat connate perfoliate smooth, Flowers in corymbose panicles
 3868 Leaves linear flat fringed with cartilage connate sheathing at base, Flowers terminal sessile
 3869 Stem decumbent, Leaves ovate cruciate, Head 2-flowered, Petals connate
 3870 Erect, Leaves oblong lanceolate with cartilaginous teeth at base sheathing, Umbels double many-flow.

§ 1. *Shrubby, Leaves subulate.*

- 3871 Leaves lanceolate subulate sessile connate channelled convex beneath
 3872 Leaves subulate above flat connate perfoliate smooth much spreading, Pedunc. long, Flowers cymose
 3873 Leaves subulate incurved obscurely 4-cornered spreading, Stem erect shrubby rooting
 3874 Leaves $\frac{1}{2}$ cylindrical acute gibbous beneath smooth nearly erect, Cymes terminal compound
 3875 Leaves connate rounded subulate spreading, Cymes few-flowered on long stalks, Stem shrubby decumbent
 3876 Leaves subulate radical, Stem naked

§ 2. *Shrubby, Leaves broad, smooth.*

- 3877 Leaves roundish acute glaucous fleshy dotted, Cyme trichotomous
 3878 Leaves opposite ovate oblique entire acute distinct somewhat cartilaginous at edge
 3879 Leaves ovate attenuate at base connate entire dotted inside the edge, Cymes panicle-shaped
 3880 Leaves opposite obovate cultrate oblique connate entire

§ 3. *Shrubby, Leaves broad, distant, ciliated.*

- 3881 Leaves opposite oval flattish distinct fringed, Corymbs terminal
 3882 Leaves connate ovate expanded cartilaginous crenated; upper ovate elliptical wavy, Stem dichotomous
 3883 Leaves opposite spreading connate rough fringed, Stem rough backwards
 3884 Leaves linear obtuse sheathing convex on both sides, Flowers cymose, Stem decumbent
 3885 Leaves obl. con obtuse falcate with a cartilaginous fringed edge, Pan. long, Pedunc. opposite clustered
 3886 Leaves obovate subconnate, Branches axillary few-flowered, Petals lanceolate reflexed
 3887 Leaves lanceolate convex beneath, Corymbs small axillary, Petals lanceolate

§ 4. *Shrubby, Leaves broad, very closely imbricated.*

- 3888 Leaves round imbricated, Fascicle round terminal
 3889 Leaves ovate acute smooth imbricated in rows, Flowers axillary sessile
 3890 Leaves radical decussately imbricated fringed lanceolate cultrate hoary

§ 5. *Shrubby, Leaves broad, very much perfoliate.*

- 3891 Leaves connate perfoliate cordate dotted
 3892 Leaves opposite ovate dotted fringed, Lower oblong
 3893 Leaves cordate perfoliate acuminate flat spreading dotted within the edge
 3894 Stem flaccid creeping, Leaves opposite

§ 6. *Shrubby, Leaves stalked.*

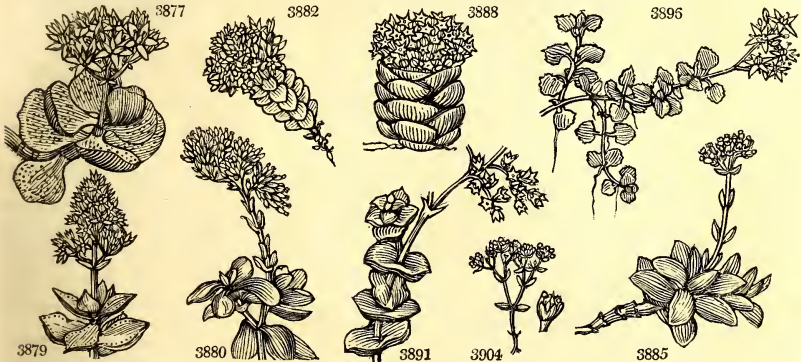
- 3895 Leaves stalked cordate roundish acute crenate, Corymbs panicle-shaped
 3896 Leaves stalked cordate obtuse entire, Cymes panicle-shaped

§ 7. *Herbaceous.*

- 3897 Villous, Leaves connate lanceolate fringed, Stem nearly naked terminal, Spike whorled
 3898 Lower leaves distinct opposite tongue-shaped ciliated pubescent, Flowers whorled sessile close, Stem leafy
 3899 Leaves connate oblong downy fringed, Stem rather naked, Flowers corymbose close
 3900 Leaves oblong obtuse cartilaginous-fringed tufted, Scape paniced, Branches opposite cymose

§ 8. *Annual or biennial.*

- 3901 Leaves connate oblong remote flat, Stem simple, Cyme compound, Flower stalks bent backwards
 3902 Leaves cordate sessile, Peduncles terminal axillary approximate umbellate
 3903 Stem dichotomous, Leaves sessile oblong ovate cordate flat, Peduncles axillary 1-flowered
 3904 Stem dichotomous, Leaves sessile ovate oblong channelled recurved, Peduncles axillary 1-flowered
 3905 Stem dichotomous rough, Leaves lanceolate, End flowers in bundles



and Miscellaneous Particulars.

698. *Rochea*. Named after M. de la Roche, author of "Historia Eryngiorum," a work of reputation. This succulent genus thrives well in sandy loam, and requires but little water. "Young cuttings taken off and laid to dry a few days, and then potted, or stuck in the tan, will root directly." (*Sweet*.)

699. *Crassula*. From *crassula*, thick, in allusion to the fleshy nature of the leaves and stems of all the species. These plants grow best in sandy loam and brick rubbish, with the pots well drained. "Cuttings root

3906 glábra <i>Waw.</i>	smooth-cluster.	□	pr	½	jn.o	W	C. G. H.	1774.	S	s.1	
3907 Aloídes <i>W.</i>	Aloe-like	□	pr	½	jn.au	W	C. G. H.	1774.	S	s.1	
3908 capitélla <i>W.</i>	square-spiked	✓	pr	½	jl.au	W	C. G. H.	1774.	S	s.1	Plant. grass. 55
3909 rúbens <i>W.</i>	annual red	□	pr	½	my.jn	Pk	Italy	1759.	S	s.1	
3910 verticilláris <i>W.</i>	whorl-flowered	□	pr	½	jl	Pk	S. Europe	1788.	S	s.1	
3911 expánsa <i>W.</i>	awl-leaved	□	pr	½	jn.jl	W	C. G. H.	1774.	S	s.1	
3912 spársa <i>W.</i>	alternate-lyd.	✓	pr	½	jn.jl	W	C. G. H.	1774.	S	s.1	
3913 diffúsa <i>W.</i>	diffuse	□	pr	½	jn.jl	Pk	C. G. H.	1774.	S	s.1	
3914 moscháta <i>W.</i>	musky	□	pr	½	my.n	W	N. S. W.	1794.	S	s.1	
700. GISEKIA. <i>W.</i>	G/SEKIA.	□	cu	1	ju	P.Gr	E. Indies	1783.			Rox. cor. 2, t.183
391 pharnaceoides <i>W.</i>	trailing	□	cu	1	ju	P.Gr	E. Indies	1783.			
701. L'NUM. <i>W.</i>	FLAX.										
3916 usitatissimum <i>W.</i>	common	○	ag	1½	jn.jl	B	Britain	co. fi.	S	co	Eng. bot. 1357
3917 nervósum <i>W. & K.</i>	nerved	△	or	1½	jn.jl	B	Hungary	1822.	D	co	Wal. & kit. t.105
3918 perénne <i>W.</i>	perennial	△	or	3	jn.au	B	England	ch. so.	D	co	Eng. bot. 40
3919 trigrýnum <i>Sm.</i>	three-styled	△	or	2	ja.o	Y	E. Indies	1799.	C	p.1	Bot. mag. 1100
3920 hirsútum <i>W.</i>	hairy	△	or	1½	jl.au	B	Austria	1759.	D	co	Jac. aust. 1, t. 31
8 <i>hypéicifólium</i> Sims.	<i>Mulow-flower.</i>	△	or	1½	jn.jl	Pu	Caucasus	1807.	D	co	Bot. mag. 1048
3921 áscyrifólium <i>H. K.</i>	blue and white	△	or	1	jl.au	W	Portugal	1800.	D	co	Bot. mag. 1087
3922 narbonéuse <i>W.</i>	Narbonne	△	or	2	my.jl	B	S. France	1759.	D	co	
3923 reféxum <i>W.</i>	reflex-leaved	△	or	1	jl	Bk	S. Europe	1777.	D	co	
3924 tenuifólium <i>W.</i>	slender-leaved	△	or	1½	jn.jl	Pk	Europe	1759.	D	co	Jac. aus. 3. t. 215
3925 angustifólium <i>H. K.</i>	narrow-leaved	△	or	1	jl	Pu	England	sa. pa.	D	co	Eng. bot. 381
3926 gallicum <i>W.</i>	annual-yellow	△	or	1	jl.au	Y	France	1777.	S	co	Ger. pr. t. 15. f.1
3927 maritimum <i>W.</i>	sea	△	or	2	jl.au	Y	S. Europe	1596.	D	co	Jac. vin. 2. f. 154
3928 alpinum <i>W.</i>	Alpine	△	or	1	jl.au	B	Austria	1739.	D	co	Sweet fl. g. 17
3929 austriacum <i>W.</i>	Austrian	△	or	1	jn.jl	B	Austria	1775.	D	co	Bot. mag. 1086
3930 virginianum <i>W.</i>	Virginian	△	or	1	jl	Y	N. Amer.	1807.	D	co	
3931 rigidum <i>Ph.</i>	stiff-leaved	△	or	1	jl	P.Y	Missouri	1807.	S	co	
3932 fláum <i>W.</i>	yellow	△	or	½	jn.au	Y	Austria	1793.	C	p.1	Bot. mag. 312
3933 campanulátum <i>W.</i>	glaucous-leaved	△	or	½	jn.au	Y	Europe	1795.	C	p.1	
3 <i>tauricum</i> W. en.	<i>Taurian</i>	△	or	½	jn.au	Y	Tauria	1795.	C	p.1	
3934 strictum <i>W.</i>	upright	△	or	1	my.jl	Y	S. Europe	1759.	C	p.1	
3935 sufruticósum <i>W.</i>	Spanish	△	or	1	au	Pk	Spain	1759.	C	p.1	Cav. ic. 2. t. 108
3936 arbóreum <i>W.</i>	tree	△	or	2	my.au	Y	Candia	1788.	C	p.1	Bot. mag. 234
3937 africánum <i>W.</i>	African	△	or	1	jn.jl	Y	C. G. H.	1771.	S	p.1	Bot. mag. 403
3938 nodiflórum <i>W.</i>	knotted	△	w	½	jl.au	W	Italy	1759.	D	s.1	Moris. s.5. t.6. f.11
3939 cathárticum <i>W.</i>	purging	△	w	½	jn.au	W	Britain	dr. pa.	S	p.1	Eng. bot. 382
3940 quadrifólium <i>W.</i>	four-leaved	△	or	½	my.jn	Y	C. G. H.	1787.	S	p.1	Bot. mag. 451
702. DRO'SERA. <i>W.</i>	SUN-DEW.										
3941 rotundifólia <i>W.</i>	round-leaved	△	pr	½	jl.au	W	Britain	tur.bo.	S	p	Eng. bot. 867
3942 longifólia <i>W.</i>	long-leaved	△	pr	½	jl.au	W	Britain	tur.bo.	S	p	Eng. bot. 868
3443 ánglica <i>H. K.</i>	great	△	pr	½	jl.au	W	England	tur.bo.	S	p	Eng. bot. 869
3944 filifórmis <i>Ph.</i>	thready-leaved	△	pr	½	my.jn	Pu	N. Jersey	1811.	S	p	
703. COMMERSO'NIA. <i>W.</i>	COMMERSONIA.										
3945 platyphýlla <i>B. M.</i>	broad-leaved	□	or	3	jn.jl	W	Moluccas	1806.	C	l.p	Bot. mag. 1813
3946 dasyphýlla <i>B. Rep.</i>	hairy-leaved	□	or	4	ap.my	W	N. Holl.	1808.	C	l.p	Bot. rep. 603



History, Use, Propagation, Culture,

easily if laid to dry a few days after cutting off, before they are planted, to dry up the wound, that they may not rot. They require no covering, but may be placed in any convenient situation." (*Sweet.*)

700. *Gisekia*. In honor of P. D. Giseke, a Danish botanist, who lived about the end of the last century. A small weed-like plant, with the habit of *Chenopodium*.

701. *Linum*. *Lin*, in Celtic, signifies thread, whence *linon*, in Greek, and *linum*, and its derivations, in Latin. *L. usitatissimum*, is a well known thread or clothing plant, which has been cultivated from the remotest antiquity for its cortical fibres, or boon, which, when separated from the woody matter or harl, as it is technically called by the growers, forms the lint and tow which is spun into yarn, and wove into linen cloth. The seeds are sown on well comminuted loamy soil, which is in good heart, in April, broadcast: during summer weeds are carefully removed; and when the plant is in full flower, or (if seed is desired) when the seed capsules are ripe, it is pulled up by the roots, the capsules torn off by a comb, and the stalks tied in bundles and carried to a pond or pool of stagnated water. Into this water the bundles are thrown, and kept under the surface by being loaded with planks, stones, &c. for ten days or a fortnight, till an appearance of decay or softness is indicated by the bark; they are then taken out and spread on the grass, or on the gravelly banks of a river for a fortnight, where the alternate dews and heats accelerate the progress of decay. It is next taken up, and when quite dry tied into bundles and stacked till wanted by the flax-cleaner. Some cultivators do not steep the flax in water, but only spread it on the surface of grass ground, which is called dew-retting, and has nearly the same effect as the other; but the more recent practice, not yet however very general, is neither to steep or dew-ret, but to dry, bind, and stack as in saving a crop of corn, and afterwards to separate the capsules and the fibre by machinery. By this process the fibre is obtained of much greater

- 3906 Stem dichotomous pubescent, Leaves linear-lanceolate, End flowers in bundles
 3907 Leaves ovate acute distinct ciliated, Stem simple downy, Raceme compound, Branches paniced
 3908 Leaves oblong lanceolate acute connate ciliated, Stem smooth, Raceme elongated, Fl. in bundles sessile
 3909 Leaves fusiform depressed, Cyme 4-fid leafy, Flowers sessile, Stamens reflexed
 3910 Leaves spreading, Flowers whorled awned
 3911 Leaves half cylindrical subulate channelled above spreading, Peduncles axillary solitary 1-flowered
 3912 Leaves alternate somewhat spatulate acute entire, Raceme compound
 3913 Leaves oblong narrowed at base remotely crenate, Peduncles opposite the leaves and axillary solitary
 3914 Stem procumbent, Leaves connate oblong acute, Peduncles axillary 1-flowered, Flowers tetrandrous

3915 Leaves elliptical lanceolate

- 3916 Sepals ovate acute 3-nerved, Petals crenate, Leaves lanceolate, Stem nearly solitary
 3917 Sepals and leaves lanceolate subulate 3-5 nerved smooth, Stems branched at end
 3918 Sepals obovate obtuse about 5-nerved smooth, Stems numerous ascending
 3919 Leaves elliptical acute nearly entire, Styles 3, Cap-ules 6-celled
 3920 Sepals hairy acuminate sessile alternate, Leaves alternate; of the branches opposite

- 3921 Sepals hairy acuminate, Flowers spiked, Spikes revolute, Leaves cordate-ovate pubescent
 3922 Sepals acuminate, Leaves lanceolate scattered upright rough acuminate, Stem rounded branched at base
 3923 Sepals acuminate, Leaves ovate lanceolate acuminate reflexed smooth, Filaments connate
 3924 Sepals acuminate, Leaves scattered setaceous rough backwards
 3925 Sepals elliptical 3-nerved and capsules acuminate, Leaves linear lanceolate 3-nerved, Stems numerous
 3926 Sepals subulate acute, Leaves linear lanceolate, Peduncles of panicle about 2-flowered, Flowers sessile
 3927 Sepals ovate acute blunt, Leaves lanceolate lower opposite
 3928 Sepals rounded obtuse, Leaves linear acutish, Stems declinate
 3929 Sepals rounded obtuse, Leaves linear straight acute
 3930 Sepals acute alternate, Capsules pointless, Stem paniced, Leaves lanceolate: radical ovate
 3931 Sepals ovate acuminate 3-nerved fringed, Leaves very stiff short, Petals oblong very narrow
 3932 Sepals acuminate scabrous, Leaves with two glands at base, smooth at edge, Cor. monopetalous
 3933 Base of the leaves dotted with glands on both sides

- 3934 Sepals subulate, Leaves lanceolate upright mucronate rough at edge
 3935 Leaves linear acute rough, Stems half shrubby
 3936 Leaves wedge-shaped, Stems arborescent
 3937 Leaves linear lanceolate, Flowers terminal stalked
 3938 Flower leaves lanceolate, Flowers alternate sessile, Cal. as long as leaves
 3939 Leaves obovate lanceolate entire, Stem dichotomous upwards, Petals acute
 3940 Leaves 4-together

- 3941 Leaves orbicular radical, Scape racemose erect
 3942 Scapes radical ascending, Leaves oval, Stigmas emarginate
 3943 Scapes radical erect, Leaves oblong lanceolate, Stigmas clavate
 3944 Scapes radical branched, Leaves filiform very long

- 3945 Leaves cordate ovate acuminate unequally tooth-serrated, rough above downy beneath
 3946 Leaves long cordate unequally serrate hairy on both sides



and Miscellaneous Particulars.

strength; there is less loss of seed, less demand for labor at a busy season, and the refuse of the operation forms an excellent food for horses or cattle. The machines for breaking and cleaning flax are worked by hand, and the best at present is considered that of Bundy. The process of steeping and spreading flax has the further effect on the fibre of bleaching it: when the machine is used, the bleaching progress is effected by steeping in soft soap. Flax seed yields by expression a valuable oil; in powder it is much used in poultices; and the refuse, after pressing for oil, forms a cake fit to feed broken-winded horses, to fatten cattle, and for manure.

L. perenne may be used for the same purpose as the other: both species have been proposed by some gardeners to be adopted as border-flowers.

702. *Drosera*. From *δewos*, dew, on account of the pellucid dew-like glands on the surface of the leaves, whence also our English name *sun-dew*. The famous Italian liqueur is called *Rosoli*, on account of the usage of this plant in its composition. *D. rotundifolia* is an acrid caustic plant, by some supposed to occasion the rot in sheep: it curdles milk, removes warts and corns, and takes away freckles and sunburn: distilled with wine it produces a very stimulating spirit, and it was formerly much used as a tincture spiced and sweetened. The leaf hairs support globules of clear liquor even in the hottest weather, are very irritable, and close upon small insects that touch them, after which the leaf itself bends and holds the dead insect imprisoned.

703. *Commersonia*. Named by Forster in memory of M. Commerson, the French traveller and botanist, who accompanied Bougainville in his voyage round the world. He stopped at the Isle of France, where he died in 1774, after having discovered an immense quantity of new plants. *C. dasyphylla* is a pretty flowering shrub: both species grow freely from cuttings in sand under a hand-glass.

3947 The only species

- 3948 Scape rounded smooth, Outer leaves of involucre acute, Leaves linear flat obtuse
 3949 Scape rounded pubescent, Leaves of involucre obtuse, Leaves linear flat obtuse ciliated at base
 3950 Scape compressed smooth, Leaves of involucre ellipt. rounded, Leaves lin. flat acute membr. at edge
 3951 Scape long, Bractes 2 or 3 longer than head, Leaves linear stiff smooth
 3952 Scape rounded smooth, Outer leaves of involucre lanceol. acute as long as head, Leaves lin. flat fringed
 3953 Scape rushy, Leaves linear lanceolate acute flat narrowed downwards
 3954 Quite smooth, Scape simple, Leaves linear flat, the first toothletted, Leaves of involucre ovate lanc. acum.
 3955 Scape rounded roughish, Outer leaves of invol. obl. ov. acute : inner obl. obtuse, Leaves lanc. flat 3-nerved
 3956 Scape rounded smooth, Outer leaves of involucre elliptical mucronate, Leaves lanc. flat acute 3-nerved
 3957 Leaves long lanceolate entire smooth 3-nerved acute soft, Leaves of involucre acute edged
 3958 Scape rounded smooth, Leaves of involucre elliptical obtuse, Leaves linear acute channelled

- 3959 Branches 3-cornered, Leaves linear channelled
 3960 Scape panicled rounded, Leaves wavy at edge oblong smooth obtuse mucronate beneath
 3961 Scape panicled pubescent, Leaves elliptical mucronate beneath and nearly smooth
 3962 Scape panicled much branched and lvs. ovate oblong obtuse somewhat wavy, beneath mucronate smooth
 3963 Scape panicled much branched rough, Leaves pubescent, Hairs in starry bundles
 3964 Scape panicled rounded, Lower branches sterile, Leaves oblong spatulate obtuse smooth nearly blunt
 3965 Scape simple rounded, Spikes lateral and terminal 1-sided, Leaves spatulate acute
 3966 Leaves spatulate emarginate, Scape erect panicled, Upper branches simple, Lower bifid, Flow. 1-sided
 3967 Scape panicled, Leaves spatulate retuse
 3968 Leaves somewhat radical obovate-oblong obtuse, Branches rough
 3969 Lvs. lanc. wedge-shaped acute, Scape erect roughish branched panicled, Fl. 1-sided, Cal. at edge membr.
 3970 Lvs. lanc. cuneate obtuse, Scape decumbent branched panicled, Fl. branches long, Bractes mem. at edge
 3971 Lvs. spatul. ret. Scape erect branched rough, Sterile branches pectinate, Fl. very close, Brac. transparent
 3972 Rough with hoary dots, Scape panicled rounded jointed much branched divaricating, Leaves spatulate
 3973 Radical leaves spatulate obtuse glaucous entire on long stalks, Scape rounded, Flowers racemose 1-sided
 3974 Scape branched nearly round, Branches 2-edged winged, Fl. imbricated, Lvs. obov. cuspidate mucronate
 3975 Scape leafy, Branches 3-cor. winged, Fl. aggregate in interrupted spikes, Bractes acum. longer than cal.
 3976 Scape dichotomous, Leaves lanceolate mucronate, Flowers alternate distant
 3977 Scape dichotomous corymbose, Spike-headed, Fl. imbricated, Lvs. lanc. wedge-shaped mucronate 3-nerved
 3978 Stem leafy, Leaves obovate wedge-shaped 3-nerved mucronate
 3979 Stem shrubby leafy, Leaves clustered wedge-shaped smooth pointless, Scape few-flowered
 3980 Stem and branches panicled 3-cornered, Leaves obovate stalked, Spikes 1-sided
 3981 Stem shrubby naked above and branched, Heads sessile, Leaves lanceolate sheathing
 3982 Stem shrubby leafy, Flowers solitary, Leaves lanceolate sheathing
 3983 Stem shrubby branched, Branches imbricated, Paleæ with a bristle at end
 3984 Stem herbaceous two-edged, Radical leaves lyrate; cauline linear
 3985 Stem winged, Radical leaves sinuate; cauline lanceolate, Peduncles cuneate 3-winged
 3986 Stem crisp, Leaves elliptical entire, Spikes 1-sided
 3987 Scape panicled rounded, Branches clustered, Leaves obovate spatulate mucronate smooth, Cal. acute
 3988 Scape panicled, Leaves lanceolate 3-nerved wavy mucronate at end, Branches of panicle 3-cornered
 3989 Leaves broad lanceolate glaucous mucronate, Scape winged, Flowers close corymbose
 3990 Radical leaves alternately pinnatifid sinuated, Intermediate segments of cor. linear

POLYGYNIA.

3991 Leaves quite entire

3992 Horns of the pericarp falcate ascending



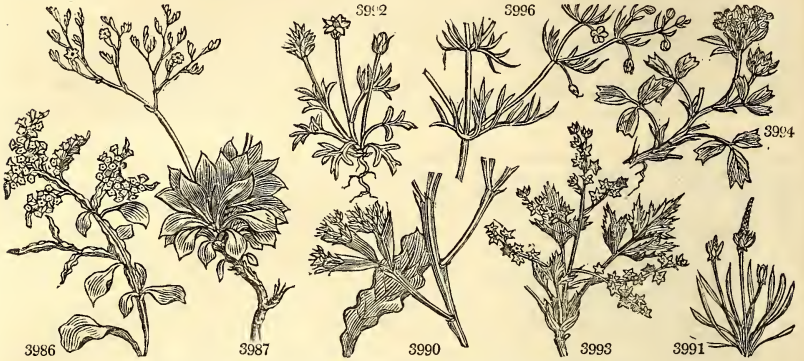
and Miscellaneous Particulars.

genus; the species are not common, and require a little care in cultivation. *Statice speciosa* and *tatarica*, are among the prettiest of hardy border flowers. *S. limonium* is an inhabitant of salt marshes in many parts of England, whence its name, from *λειμων*, a marsh.

707. *Myosurus*. From *μυς* *μυος*, a mouse, and *ουρα*, a tail. Its seeds are situated upon a very long slender receptacle, which looks exactly like the tail of a mouse.

708. *Ceratocephalus*. From *κερας*, a horn, and *κεφαλη*, a head, on account of the horn-like ends of the seeds in the heads of the capsules.

709. XANTHORHIZA. W. YELLOW-ROOT. *Ranunculaceæ. Sp. 1.*
 3993 apiifolia W. Parsley-leaved or 3 f.ap Pu.Gr N. Amer. 1766. Sk s.p Bot. mag. 1736
710. SIBBALDIA. W. SIBBALDIA. *Rosaceæ. Sp. 3—*
 3994 procumbens P. S. procurrent $\frac{2}{3}$ Δ cu $\frac{1}{2}$ jn.au Y Britain sc. al. D s.l Eng. bot. 897
 3995 parviflora P. S. small-flowered $\frac{3}{4}$ Δ cu $\frac{1}{2}$ jn.au Y Cappadocia ... D s.l
 3996 erecta W. upright $\frac{3}{4}$ Δ cu $\frac{1}{2}$ jn.au Pk Siberia 1806. D s.l Am.rut.112. t.15



History, Use, Propagation, Culture, and Miscellaneous Particulars.

709. *Xanthorhiza*. From *ξανθορριζα*, yellow, and *ρίζα*, a root, on account of the deep yellow color of the roots. A small shrub, with much cut leaves, and branches of dull purplish brown small flowers.
710. *Sibbaldia*. So named by Linnæus, in memory of Sir Robert Sibbald, professor of physic at Edinburgh; author of *Scotia Illustrata*, &c. 1684. Small alpine plants, with the aspect of *Alchemilla*.




CLASS VI. — HEXANDRIA. 6 STAMENS.

THIS class contains the most beautiful of the herbaceous plants of our gardens. With a few exceptions, it is to a considerable degree a natural assemblage, comprehending a large proportion of those favorites of gardeners, the orders *Amaryllideæ*, *Asphodeleæ*, *Bromeliaceæ*, *Liliaceæ*, and *Melanthaceæ*. The class also includes a few grasses and palms, some genera of *Berberideæ*, all *Hypoxideæ*, and many *Junceæ*.

The *Amaryllideæ*, or lilies of the hot-houses, consist of a number of beautiful species, the generic distribution of which is uncertain, and difficult to determine. Much attention has been paid to the subject by Messrs. Ker, Herbert, and others; by the former, perhaps, with the most success; a great deal still remains to be done. The limits of the genera are very obscure, and their extreme characters similar. Among the *Bromeliaceæ* are found the delicious pine-apple, and the curious *Tillandsias*, some of which are called air-plants. The asparagus and the officinal squill are included in *Asphodeleæ*. To the same class are related the lily of the valley, the Solomon's seal, and many other curious little plants. The *Phormium tenax*, which produces the strong flax of New Zealand; the aloes, curious for their fantastic foliage; the fragrant tuberose; the plantains, so valuable as an important article of food in all the tropics, are all contained in this class. Hither also, are referred the valuable rice, the curious bamboo, and the rush, some of the species of which are well known for their use in economical purposes, others as the most worthless weeds of our heaths.

Hexandria Trigynia is chiefly made up of the natural order *Melanthaceæ*, among which the *Colchicum* and *Trillium* are found.

Order 1. MONOGYNIA.  6 Stamens. 1 Style.

1. *Monocotyledons. Perianth superior, colored.*

A. *Perianth with the orifice surmounted by a corona or nectary.*

711. *Narcissus*. Sepals 6, equal. Cup funnel-shaped, of a single leaf. Stamens inserted within the cup.
712. *Pancreatium*. Flower funnel-shaped, with a long tube. Sepals 6. Cup 12-cleft, membranous. Stamens inserted on the edge of the cup.
713. *Eucrosia*. Flower ringent nodding. Crown formed by the dilated bases of the stamens. Stamens declinate, united into a tube, which is split on its upper side.
714. *Eurycles*. Flower funnel-shaped, regular. Crown fleshy, short. Stamens inserted into the edge of the cup.
715. *Chlidanthus*. Flower funnel-shaped, irregular. Stamens erect, included, united by their dilated bases; the short filaments 2-toothed. Anthers innate. Ovary 3-celled, many-seeded. Style filiform. Stigma 3-lobed. Capsule cartilaginous, 3-valved. Seeds membranous.
716. *Calostemma*. Flower funnel-shaped, with a 6-parted limb. Crown tubular, with a 12-toothed mouth, the alternate teeth anther-bearing. Ovary 1-celled, 2-3-seeded. Style filiform. Stigma obtuse. Berry 1-2-seeded.
717. *Chrysiophiala*. Flower funnel-shaped, with a tube narrowed downwards thickened at the base, with a dilated 6-cleft limb. Crown 6-cleft. Stamens erect, upright. Stigma thickened, obsolete trifid.

3993 Roots very yellow, Leaves compound

3994 Leaves ternate, Leaflets smooth above hairy beneath, Flowers corymbose, Petals as long as calyx

3995 Procumbent, Leaves ternate, Leaflets 3-toothed on each side rough with hairs, Flowers clustered

3996 Leaflets linear multifid, Plant erect

B. Perianth with the orifice naked.

** Stigma undivided.*

718. *Lophiola*. Flower woolly, 6-parted, bearded inside. Anthers erect. Filaments naked. Ovary nearly superior.

719. *Argolasia*. Flower woolly, longer than the filaments: limb 6-parted, spreading. Pericarp 3-celled.

720. *Anigozanthus*. Flower tubular, incurved: with a 6-parted irregular limb. Stamens inserted into the mouth, ascending.

** Stigma 3-lobed.* Guzmannia has Perianth inferior.

721. *Musa*. Spathe superior. Cor. of 2 petals: one of which is erect and 5-toothed; the other concave and honey-bearing. Berry oblong, 3-cornered, many-seeded.

722. *Urania*. Cal. O. Cor. 3 petals. Nect. 2-leaved: one of the leaves bifid. Caps. 3-celled, many-seeded. Seeds in two rows with an arillus.

723. *Bonapartea*. Calyx 2-leaved. Petals 3 convolute. Stamens inserted in the receptacle. Anthers exerted. Style 3-cornered. Caps. 3-celled, 3-valved. Seeds numerous, terminated by a bristle.

724. *Agave*. Flower erect, tubular, or funnel-shaped. Filaments longer than flower, erect. Capsule triangular, many-seeded.

725. *Furcraea*. Flower campanulate, 6-parted. Stamens inserted in a gland, thickened downwards, compressed, subulate at end. Capsule 3-valved, 3-celled, many-seeded.

726. *Bromelia*. Cal. 3-fid. Petals 3. A honey-bearing scale at base of petal. Berry 3-celled.

727. *Guzmania*. Cal. 3-parted, not superior, with convolute segments. Petals 3, rolled together into a tube. Anthers united in a cylinder. Caps. 3-celled, 3-valved. Seeds numerous, oblong, naked.

728. *Pitcairnia*. Cal. 3-leaved, half inferior. Petals 3. Stigmas 3, twisted together. Caps. 3, opening inwards. Seeds winged or terminated at each end in a long bristle.

729. *Tilandsia*. Cal. 3-fid, persistent, convolute. Cor. 3-fid, campanulate. Caps. 1-3-celled. Seeds comose.

730. *Pontederia*. Flower monosepalous, 6-cleft, 2-lipped. Stamens inserted into the tube of flower at the top. Caps. 3-celled.

731. *Hæmanthus*. Involucre many-leaved, many-flowered. Flower 6-parted. Berry 3-celled.

732. *Galanthus*. Sepals 3, concave. Cup formed of 3 small emarginate sepals. Stigma simple.

733. *Leucoium*. Flower campanulate, 5-parted, with the ends of the sepals thickened. Stigma simple.

734. *Strumaria*. Sepals 6, spreading. Style thickened below the middle, and cohering occasionally with the filaments. Stigma trifid. Capsule inferior, roundish, 3-celled.

735. *Crinum*. Flower funnel-form, half six-cleft, with a filiform tube, and a spreading recurved limb. Sepals subulate, channelled. Seeds fleshy.

736. *Cyrtanthus*. Flower incurved, tubular, clavate, 6-cleft: segments ovate, oblong. Filaments inserted into the tube, conniving at end.

737. *Brunsvigia*. Flower 6-parted. Capsule turbinate, 3-winged, nearly transparent, many-seeded.

738. *Nerine*. Sepals 6, spreading, wavy. Stamens declinate, unequal in direction or proportion. Capsule few-seeded. Seeds round like peas.

739. *Amaryllis*. Flower nodding, irregular, funnel-shaped, ringent. Filaments declinate, unequal in proportion or direction. Seeds flat, numerous.

740. *Vallota*. Flower vertical, regular. Stamens regularly spreading. Seeds numerous, flat.

741. *Griffinia*. Flower 6-parted, ringent. Stamens declinate, with the upper one erect, and away from the rest. Seeds few, round, fleshy.

742. *Sternbergia*. Flower vertical, regular, funnel-shaped, with an erect limb. Stamens slightly declinate. Anthers versatile. Seeds round like peas.

743. *Zephyranthes*. Flower vertical, nearly regular, funnel-shaped, with an erect limb. Stamens nearly regular. Anthers versatile. Seeds flat.

744. *Habranthus*. Flower campanulate, nodding. Stamens declinate, unequal, inserted into a fleshy rim of the base of the tube. Stigma 3-lobed.

745. *Doryanthes*. Flower 6-parted. Filaments shorter than flower. Anthers erect.

746. *Gethyllis*. Flower 6-parted, with a filiform very long tube. Spathe obliquely truncated. Berry clavate, radical, 1-celled.

747. *Polyanthes*. Flower funnel-shaped, incurved. Filaments inserted into the throat. Ovary at the bottom of tube.

748. *Alstremeria*. Sepals 6, campanulate or 2-lipped, the two lower half-tubular at the base. Stamens declinate or erect. Stigmas 3, linear. Caps. roundish-oval, 3-6-angular, 3-valved, or pulpy within, and not opening.

749. *Conanthera*. Sepals 6, reflexed. Anthers united in an acute cone. Caps. oblong, 3-celled, 3-valved. Seeds few, roundish.

750. *Hypoxis*. Spathe 2-valved. Flower 6-parted, superior. Caps. long, narrow at the base. Seeds roundish, naked.

751. *Curculigo*. Sepals 6, flat. Spathe of one valve. Style very short. Stigmas 3, diverging. Caps. 1-celled, 4-seeded, spongy, beaked.

2. *Monocotyledons. Perianth inferior.*

A. *Perianth glutumaceous, irregular.*

752. *Bambusa*. Scales 3, covering the 5-flowered spikelets. Glume 2-valved. Style bifid. Seed 1.

753. *Calamus*. Sepals 6. Berry dry, 1-seeded, imbricated backwards.

754. *Ehrharta*. Glume 2-valved, abbreviated, 1-flowered. Paleæ 4, in pairs, the outer compressed acinaciform, transversely wrinkled.

B. Perianth not coloured, regular. Stems herbaceous. Aroideæ and Juncæ.

755. *Acorus*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Caps. 3-celled.
 756. *Orontium*. Spadix cylindrical, covered with florets. Sepals 6, naked. Style O. Follicles 1-seeded.
 757. *Tupistra*. Cor. 1-petalous, 6-fid, nearly equal. Anthers sessile in middle of sepals. Style 3 cornered, thick. Stigma clypeate, 3-lobed.
 758. *Tacca*. Cal. 6-parted. Cor. 6-petalous, inserted into the calyx, bearing the anthers. Stigma stellate. Berry dry, hexangular, many-seeded.
 759. *Aspidistra*. Cor. 1-petalous, 6-fid, equal. Anthers at bottom of tube. Style stipitate. Stigma clypeate.
 760. *Juncus*. Sepals 6, persistent. Stigmas 3. Caps. 1-celled, 3-valved. Seeds very numerous.
 761. *Luzula*. Sepals 6. Stigmas 3. Caps. 1-celled, 3-valved, 3-seeded. Seeds fixed to a central receptacle.

C. Perianth not colored, regular. Fruit, a drupa. Stems arborescent. Palms.

762. *Corypha*. Cal. 3-leaved. Cor. of 3-petals. Berry 1-seeded. Seed large, round, bony.
 763. *Licuala*. Cal. 3-parted. Cor. 3-parted. Cup truncated, band-like. Drupe 1-seeded.
 764. *Thrinax*. Cal. 6-toothed. Cor. O. Stigma funnel-form, oblique. Berry 1-seeded.

D. Perianth partly or wholly colored, regular.

765. *Tradescantia*. Cal. 3-leaved. Petals 3. Filaments with jointed hairs. Caps. 3-celled.
 766. *Dichorizandra*. Cal. 3-leaved. Petals 3. Two of the stamens separate from the rest. Caps. 3-celled.
 767. *Agapanthus*. Flower funnel-shaped, regular, six-parted. Stamens declinate.
 768. *Blanfordia*. Flower tubular, withering, with a 6-lobed mouth. Stamens inserted on the tube. Anthers fixed to a base like an extinguisher. Ovary stalked. Stigma simple. Capsule 3-partible. Seeds in two rows, with a loose downy skin.
 769. *Hemerocallis*. Flower campanulate, with a cylindrical tube. Stamens declinate. Stigma small, simple, villous.
 770. *Aloe*. Flower tubular, with a 6-cleft spreading mouth, and honey at the bottom of the tube. Filaments inserted into the receptacle. Caps. 3-celled, 3-valved, many-seeded. Seeds in two rows, with a membranous edge.
 771. *Lilium*. Sepals 6, campanulate, with a longitudinal honey-line, and generally reflexed. Valves of the capsule connected by a mesh of hairs.
 772. *Tulipa*. Sepals 6, campanulate. Style O.
 773. *Fritillaria*. Sepals 6, campanulate, with a honey-pore above the claws.
 774. *Dracæna*. Flower 6-parted, erect. Filaments thickest in the middle, or simple. Berry 3-celled, 1-seeded.
 775. *Phylloma*. Flower 6-parted, tubular. Sepals imbricated. Stamens hypogynous, included. Style setaceous. Stigma simple. Berry coriaceous, many-seeded.
 776. *Aletus*. Flower funnel-shaped, wrinkled. Stamens inserted into base of segments. Capsule 3-celled, with many seeds.
 777. *Tritoma*. Flower 6-toothed. Stamens inserted into the receptacle, exerted, alternately longer. Capsule 3-celled, many-seeded.
 778. *Veltheimia*. Flower tubular, 6-toothed. Stamens inserted in the tube. Caps. membranous, 3-winged, with 1-seeded cells.
 779. *Sansevieria*. Cor. monosepalous, with a filiform tube, and a 6-parted revolute limb. Stamens inserted into the limb. Berry 1-seeded.
 780. *Tubaghia*. Flower funnel-shaped, with a 6-cleft limb. Crown of the throat 3-leaved; the leaves bifid as large as the segments.
 781. *Yucca*. Flower campanulate, spreading. Style O. Caps. 3-6-celled, with a hole at the end.
 782. *Erythronium*. Sepals 6, campanulate. Two little tubercles attached to the base of every other sepal.
 783. *Gloriosa*. Sepals 6, wavy, reflexed. Style oblique, trifid at end.
 784. *Bulbocodium*. Sepals 6, funnel-shaped, with narrow claws bearing the stamens.
 785. *Uvularia*. Sepals 6, erect. A hollow at the base of the sepals. Filaments very short. Flowers solitary, axillary. Capsule compressed, 3-cornered. Seeds with an arillus.
 786. *Streptopus*. Sepals 6, campanulate. Stigmas very short. Berry globose, polished, papery. Seeds naked.
 787. *Convallaria*. Flower 6-cleft, campanulate. Berry spotted, 3-celled.
 788. *Smitacina*. Flower 6-parted, spreading. Filaments diverging, fixed to the base of the segments. Berry globose, 3-celled. Flowers terminal, paniced, or umbelled.
 789. *Polygonatum*. Flower 6-cleft, cylindrical. Filaments inserted into top of tube. Berry globose, 3-celled, with 2-seeded cells. Flowers axillary.
 790. *Ophiopogon*. Flower half superior, persistent. Anthers sessile. Stigma simple. Berry 1-seeded.
 791. *Eucomis*. Flower 6-parted, persistent, spreading. Filaments united at base into a circle. Capsule 3-celled. Seeds ovate. Scape with a leafy crown.
 792. *Brodiaea*. Flower campanulate, 6-parted. Filaments inserted into the throat. Ovary stalked. Capsule 3-celled, with many-seeded cells.
 793. *Peltosanthus*. Flower rotate, 6-parted; sepals vaulted at base. Ovary 3-celled, with 2-seeded cells.
 794. *Aphyllanthes*. Spathe glumaceous, imbricated. Flower 6-parted, with a spreading limb. Capsule 3-celled, 3-valved, many-seeded.
 795. *Sowerbeæa*. Sepals 6. Filaments 3, each bearing two anthers, with three sterile filaments between them.
 796. *Allium*. Flower 6-parted, spreading. Spathe many-flowered. Umbel clustered.
 797. *Albuca*. Sepals 6: the inner conniving; the outer spreading, generally with a green stripe at their back. Style 3-cornered. Seeds flat.
 798. *Xanthorrhæa*. Sepals 6, persistent. Filaments flat, naked. Caps. 3-cornered. Seeds two, compressed, edged.
 799. *Thysanotus*. Flower 6-parted, spreading, persistent; with the inner segments fringed. Stamens 6-declinate. Filaments smooth. Ovary with two seeded cells. Seeds 2, one erect, one pendulous.
 800. *Eriospermum*. Sepals 6, campanulate, persistent. Filaments dilated at base. Caps. 3-celled. Seeds enveloped in wool.
 801. *Gagea*. Stamens adhering to base of sepals. Style clavate. Caps. 3-celled, 3-valved, covered by the remains of flower. Seeds small, numerous, round.
 802. *Ornithogalum*. Sepals 6, erect, persistent, spreading above the middle. Filaments dilated at base, or subulate. Caps. roundish, angular, 3-celled. Seeds roundish, naked. Flowers white or green.
 803. *Scilla*. Sepals 6, spreading, deciduous. Filaments filiform, attached to base of sepals. Flowers blue or pink.
 804. *Puschkinia*. Flower 6-parted. Cup very short, 6-toothed, covering the throat. Stamens within the cup.
 805. *Massonia*. Limb of flower 6-parted. Filaments attached to the neck of the tube. Capsule 3-celled, 3-winged, many-seeded.

806. *Eremurus*. Sepals 6, after flowering, rolled together. Stamens naked, rolled together inside the flower, barren, much exerted. Style after fecundation reflexed.
807. *Bulbine*. Sepals 6, spreading. Filaments smooth. Caps. ovate. Seeds angular. Leaves flat. Flowers generally white or purple.
808. *Asphodelus*. Flower 6-parted, spreading. Six valves covering the ovary.
809. *Anthericum*. Sepals 6, spreading. Filaments bearded. Caps. ovate. Seeds angular. Leaves succulent, fistular. Flowers yellow.
810. *Arthropodium*. Sepals 6, spreading: the three inner wavy at the edge or fringed. Filaments bearded. Capsule nearly round.
811. *Chlorophytum*. Flower 6-parted, spreading, equal, persistent. Stamens 6. Filaments filiform, smooth. Ovary with many-seeded cells. Style filiform. Stigma 1. Capsule deeply 3-lobed, with compressed veiny lobes; 3-celled, 3-valved. Seeds few, compressed.
812. *Cæsia*. Flower 6-parted, spreading, equal, deciduous. Stamens 6. Filaments beardless, narrower at each end. Anthers inserted by an emarginate base. Ovary 3-celled, with 2-seeded cells. Style filiform. Capsule lobed, or clavate at end. Seeds ventricose.
813. *Narthecium*. Sepals 6, spreading, persistent. Filaments filiform, hairy. Caps. prismatical. Seeds with an appendage at each end.
814. *Dianella*. Sepals 6, spreading. Filaments thickened at end. Berry 3-celled, many-seeded.
815. *Eustrephus*. Flower 6-parted, the 3 inner sepals fringed. Capsule berried, 3-celled, 3-valved, many-seeded.
816. *Asparagus*. Flower 6-parted erect; the 3 lower sepals reflexed at end. Berry 3-celled, many-seeded.
817. *Drimis*. Flower campanulate, 6-cleft, with revolute segments. Stamens inserted into the sepals. Stigma capitate.
818. *Uropetalon*. Flower six-cleft, with the alternate segments shortest. Capsule membranous. Seeds black, shining.
819. *Hyacinthus*. Flower erect, 6-cleft, with equal segments. Stamens inserted in the middle of the flower. Cells of capsule 2-seeded.
820. *Zuccagnia*. Sepals cylindrical: the 3 outer longest, lanceolate, setaceous, reflexed. The other characters of *Hyacinthus*.
821. *Muscari*. Flowers ovate or cylindrical, very shortly divided. The other characters of *Hyacinthus*.
822. *Lachenalia*. Sepals 6, obtuse, the 3 inner the longest. Stamens erect. Capsule 3-winged. Seeds globose.
823. *Phormium*. Sepals 6, the 3 inner the longest. Stamens ascending, exerted. Capsule oblong, 3-cornered. Seeds compressed.
824. *Cyanella*. Sepals 6: the 3 lower hanging down. Style and lowest stamen declinate. Capsule roundish, 3-celled.

3. *Dicotyledons*.

825. *Leontice*. Cal. 6-leaved, deciduous. Petals 6. Six leaves inserted upon the claws of the corolla, spreading at end.
826. *Caulophyllum*. Cal. 6-leaved. Petals 6, opposite the calyx. Cells of anther opening at edge.
827. *Diphyletia*. Cal. 3-leaved, deciduous. Petals 6, opposite the calyx. Anthers opening with a membrane dividing from the base to the tip. Berry 1-celled. Seeds 2-3, roundish.
828. *Prinos*. Cal. 6-cleft. Cor. monopetalous, rotate. Berry 6-seeded.
829. *Berberis*. Cal. 5-leaved. Petals 6, with glands upon their claws. Style O. Stigma umbilicate. Berry 1-celled, 2-4-seeded.
830. *Nandina*. Cal. many-leaved, imbricated. Petals 6. Berry juiceless, 2-seeded.
831. *Cossignia*. Cal. 5-parted. Petals 4 or 5. Capsule 3-celled, opening at end with about 3-seeded cells. Flowers in paniced racemes.
832. *Hillia*. Cal. double, the lower 6-leaved, the upper superior, 2 or 4-leaved. Cor. 6-cleft, with a very long cylindrical tube. Anthers sessile, in the throat of the corolla. Seeds comose.
833. *Richardia*. Cal. 6-parted, persistent, superior. Cor. funnel-form, 6-cleft. Stigmas 3, capitate. Fruit 3-partible. Seeds 5, truncate.
834. *Canarina*. Cal. 6-leaved. Cor. 6-c left, campanulate. Stigmas 6. Capsule inferior, 6-celled, many-seeded.
835. *Frankenia*. Cal. 5-cleft, funnel-shaped. Petals 5. Stigma 2-3-parted. Caps. 1-celled, 3-valved.
836. *Peplis*. Cal. campanulate, with a 12-cleft mouth. Petals 6 or O, inserted in the calyx. Caps. 2-celled, many-seeded.

Order 2. DIGYNIA.



6 Stamens. 2 Styles.

837. *Oryza*. Glumes 2, 1-flowered. Paleæ 2, nearly equal, adhering to the seed.
838. *Atraphaxis*. Cal. 2-leaved. Petals 2, sinuated. Stigmas capitate. Seed 1.

Order 3. TRIGYNIA.



6 Stamens. 3 Styles.

1. *Monocotyledons*.

839. *Flagellaria*. Sepals 5. Berry 3-1-seeded.
840. *Scheuchzeria*. Sepals 6. Anthers linear. Stigmas sessile, lateral. Capsules inflated, distinct, 2-seeded.
841. *Triglochin*. Sepals 6, the 3 outer in a different row from the inner. Style O. Capsule opening by the base.
842. *Lichtensteinia*. Sepals 6, withering, persistent, wavy, spreading. Stamens hypogynous, shorter than the sepals. Capsule many-seeded, half 3-valved.
843. *Myrsiphyllum*. Flower 6-parted, revolute. Styles 3, contiguous, straight. Ovary stalked. Berry 3-celled, with 2-seeded cells.
844. *Tofteldia*. Bractæe 3. Sepals 6. Capsules 3, superior, united at the base, many-seeded.
845. *Melanthium*. Polygamous. Flower rotate, 6-parted, with 2 glands at the base of each segment. Filaments from the elongated claws of flower. Capsule 3-fid, 3-celled. Seeds membranous.
846. *Medeola*. Flower 6-parted, revolute. Berry 3-seeded.
847. *Xerophyllum*. Flower 6-parted. Stigmas 3, oblong, sessile. Caps. 3-celled, with 2-seeded cells.
848. *Wurmbea*. Flower 6-parted, with an hexangular tube. Filaments inserted in the throat. Styles conniving. Caps. oblong, 3-cornered. Seeds round.
849. *Androcymbium*. Sepals 6, unguiculate, cucullate. Stamens inserted in the middle of sepals. Ovaries 3. Styles filiform.
850. *Trillium*. Cal. spreading, 3-leaved. Petals 3. Berry 3-celled.
851. *Colchicum*. A spatha. Flower 6-parted, with a tube proceeding directly from the root. Anthers incumbent. Caps. 3, connected, inflated.
852. *Helonias*. Sepals 6. Styles 3, distinct. Capsule 3-celled, 3-horned, few-seeded.
853. *Notinea*. Flower 6-parted, spreading. Style very short. Capsule 3-cornered, membranous, 3-celled, opening by bipartite dissepiments. Seeds solitary, convex on one side.
854. *Aponogeton*. An amentum composed of scales. Neither calyx nor corolla. Capsules 4, 3-seeded. Stamens varying from 6 to 7 and 12.

855. *Sabal*. Spathes partial. Filaments free, thickened at base. Berry 1-3-seeded. Seed bony. Embryo lateral. A palm.

2. *Dicotyledons.*

856. *Rumex*. Calyx 3-leaved. Petals 3, conniving. Seed 1, 3-cornered.

857. *Oxyria*. Calyx 2-leaved. Petals 2. Styles 2.

Order 4. POLYGYNIA.  6 Stamens. Many Styles.

858. *Wendlandia*. Sepals 6. Petals 6, succulent. Style reclinate. Caps. 6, 1-celled, many-seeded.

859. *Damasonium*. Spathe 1-leaved, half-bifid, winged. Flowers superior, 6-parted, with the 3 inner segments petaloid. Stamens 6-12. Ovary with 6-8-parietal prominent placentas, Style short. Stigmas 6-12.

860. *Actinocarpus*. Flower 6-parted: the 3 outer sepals falling off late, the inner petaloid. Stamens 6. Ovaries 6-8, connate at base, 2-seeded. Capsules connate at base, stellate above.

861. *Alisma*. Flower 6-parted: the 3 outer sepals falling off late, like a calyx; the 3 inner petaloid. Stamens 6. Ovaries indefinite in number, 1-seeded. Capsules distinct, not opening.

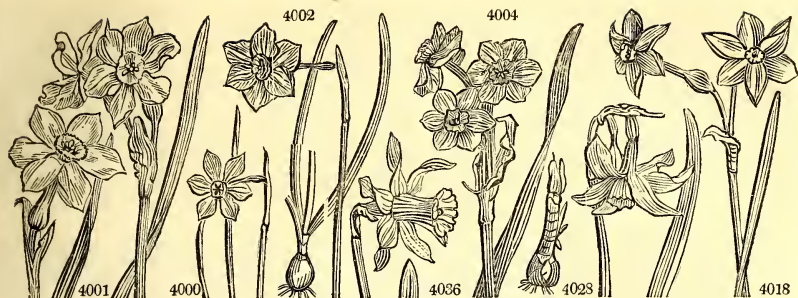
MONOGYNIA.

711. NARCISSUS. <i>W.</i>	NARCISSUS.	<i>Amaryllidæe.</i>	<i>Sp. 55-59.</i>		
3997 <i>poëticus Sal.</i>	Poet's	Δ or	1 my W	S. Europe	... O co Park. par. 76
3998 <i>recurvus Haw.</i>	drooping-leaf'd	Δ or	1 my W	S. Europe	... O co
3999 <i>patellaris Sal.</i>	spreading-flow.	Δ or	1 my W	England	... O co Eng. bot. 275
4000 <i>angustifolius H. K.</i>	narrow-leaved	Δ or	1 ap.my W	S. Europe	1570. O co Bot. mag. 193
4001 <i>biflorus W.</i>	two-flowered	Δ or	1 ap.my W	Britain	mea. O co Eng. bot. 276
4002 <i>tenüior H. K.</i>	slender	Δ or	1 my L.Y	.....	1789. O co Bot. mag. 379
4003 <i>crenulatus Haw.</i>	Bazelman-min.	Δ or	1 mr.ap W	Spain	... O co
4004 <i>Trewianus B. M.</i>	Bazelman-maj.	Δ or	1 1/2 mr.ap W.Y	Spain	... O r.m Bot. mag. 940
4005 <i>floribundus Sal.</i>	Grand-Monarg.	Δ or	1 1/2 mr.ap W.Y	Spain	... O r.m
4006 <i>fistulosus Haw.</i>	hollow-stalked	Δ or	2 ap W.Y	.....	... O r.m
4007 <i>cerinus Haw.</i>	waxen-cupped	Δ or	1 ap W	.....	... O r.m
4008 <i>Tazetta W.</i>	Polyanthus	Δ or	1 mr.ap W	Spain	1759. O s.l Bot. mag. 925
4009 <i>Macleaii Lindl.</i>	Mac Leay's	Δ or	1 1/2 ap.my W	Mediterr.	1815. O s.l
4010 <i>orientalis L.</i>	oriental	Δ or	1 mr.ap W	Levant	... O co Bot. mag. 948
4011 <i>papyraceus B. M.</i>	paper	Δ or	1 mr.ap W	.....	... O co Bot. mag. 947
4012 <i>italicus B. M.</i>	Italian	Δ or	1 mr.ap P.Y	S. Europe	... O co Bot. mag. 1188
4013 <i>tereticaulis L. T.</i>	round-stalked	Δ or	1 1/2 mr.ap P.Y	Spain	... O co
4014 <i>compressus L. T.</i>	flat-stalked	Δ or	1 mr.ap L.Y	Spain	... O co
4015 <i>biflorus B. M.</i>	Jonquill-scent.	Δ or	1 mr.ap Y	S. Europe	... O co Bot. mag. 1186
4016 <i>primulinus Haw.</i>	Cowslip-cupped	Δ or	1 mr.ap Y	.....	... O co Bot. mag. 1299
4017 <i>Jonquilla W.</i>	Jonquill	Δ or	1 ap.my Y	Spain	1596. O r.m Bot. mag. 15
	<i>β flore-pléno</i>	Δ or	1 ap.my Y	Spain	1596. O r.m
4018 <i>gracilis Lindl.</i>	slender	Δ or	1 1/2 ap.my Y	.....	... O co Bot. reg. 816
4019 <i>viridiflorus B. M.</i>	green-flowered	Δ or	1 au.o G	Barbary	1629. O r.m Bot. mag. 1687
4020 <i>serotinus W.</i>	late-flowered	Δ or	1 au.o P.Y	Barbary	1629. O r.m Clu. hist. t. 252
4021 <i>calathinus L.</i>	great Jonquill	Δ or	1 ap.my Y	S. Europe	1629. O r.m Bot. mag. 78
4022 <i>odorus L.</i>	sweet-scented	Δ or	1 ap.my Y	S. Europe	1629. O s.l Bot. mag. 934
4023 <i>nütans H. K.</i>	nodding	Δ or	1 mr.my Y	S. Europe	1789. O s.l Bot. mag. 945
4024 <i>infundibularis Sal.</i>	funnel-flowered	Δ or	1 mr.my Y	.....	... O s.l Park. par. 92
4025 <i>pulchellus B. M.</i>	neat	Δ or	1 mr.my Y	Spain	... O s.l Bot. mag. 1262
4026 <i>triandrus B. M.</i>	Rush-leaved	Δ or	1 ap.my W	Portugal	1629. O s.l Bot. mag. 48
4027 <i>capax Sal.</i>	capacious	Δ or	1 ap.my P.Y	.....	... O s.l Red. lit. 177?
4028 <i>montanus B. Reg.</i>	mountain	Δ or	1 ap.my W	Portugal	... O s.l Bot. reg. 123
4029 <i>galanthifolius Haw.</i>	Snowdrop-leaf.	Δ or	1 my W	.....	... O s.l Park. par. 73
4030 <i>albicans Haw.</i>	whitish	Δ or	1 1/2 mr.ap P.Y	.....	1789. O s.l Park. par. 103
4031 <i>Bulbocodium W.</i>	Hoop-petticoat	Δ or	1 1/2 mr.ap Y	Portugal	1629. O s.l Bot. mag. 83
4032 <i>inflatus Haw.</i>	inflated	Δ or	1 1/2 mr.ap Y	.....	... O s.l
4033 <i>lobulatus Haw.</i>	lobed	Δ or	1 1/2 ap.my Y	.....	... O s.l
4034 <i>tenuifolius L. T.</i>	slender-leaved	Δ or	1 ap.my Y	.....	... O s.l
4035 <i>incomparabilis W.</i>	Butter & Eggs	Δ or	1 ap.my Y	Portugal	1629. O co Bot. mag. 121
4036 <i>tortuosus Haw.</i>	twisted-petaled	Δ or	1 1/2 ap W	Spain	1629. O co Bot. mag. 924
4037 <i>moschatus L.</i>	musk	Δ or	1 mr.ap W	Spain	1759. O co Bot. mag. 1300



History, Use, Propagation, Culture,

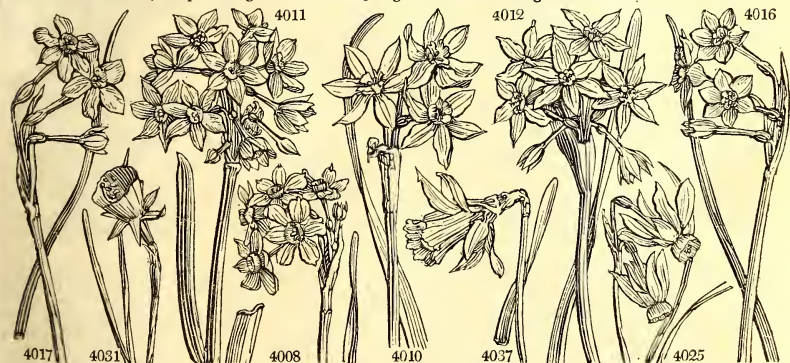
711. *Narcissus*. From *ναρξεν, stupor*, on account of the dangerous effects produced by the smell, even of the least perfumed kinds, upon the nerves. For this reason *Narcissus* was consecrated to the Furies, who by means of it were accustomed to stupify those whom they wished to punish. *Jonquilla*, a name applied to one



MONOGYNIA.

- 3997 Segm. refl. imbr. at base, Cup expanded flat, Three anthers shorter than the tube, Leaves erect narrow
 3998 Lvs. $\frac{1}{2}$ an inch broad glauc. at end rec. Seg. imbr. Cup plait. with scarlet rim, Stig. as long as inner stamens
 3999 Lvs. erect glauc. Seg. imbric. with deflexed edges, Cup yel. minutely plaited, Stig. as long as inner stamens
 4000 Seg. horizontal obo. not imbric. Cup saucer-shaped with very red edge, Lower anth. half included in tube
 4001 Scape kneed before flowering usually 2-3-flowered, Cup all yellow
 4002 Very slender, Spathes 1-2-fl. Seg. white, Cup yellow cup-shaped 3 or 4 times as long as segm.
 4003 About 3-flowered, Seg. reflexed yellow, Cup spreading plaited crenulate yellow
 4004 Like N. Tazetta, differing in the 3-lobate cup, and in the edges of the upper leaves not being turned up
 4005 Flowers about 16, Seg. round-oval reflexed incurved white, Cup large straight yellow entire
 4006 Segm. white almost twice as long as the straight inflated nearly entire yellow cup
 4007 2-3-fl. Cup very large thick truncate entire waxen twice as short as white segm.
 4008 Spathes many-flowered, Cup camp. truncate shorter than petals, Leaves flat
 4009 Spathes 1-2-fl. Seg. compr. 2-edged, Sepals spread, imbricated a little longer than truncated entire cup
 4010 About 10-fl. Seg. white round ov. thrice as long as pale yel. spread. irreg. cut cup, Scape striat. rounded
 4011 Few-flowered, Seg. stellate as long as tube, Cup cupulate crenate, Style within the crown
 4012 Many-flowered, Cor. bent back, Segm. stellate, Cup spreading cupulate slightly trifid
 4013 About 6-fl. Seg. round-ovate imbr. white, Cup citron spreading entire or lobed, Scape rounded below
 4014 Many-fl. Pedunc. nearly erect, Seg. imbr. 3 times as long as the erect eroded cup, Lvs. remarkably broad
 4015 Scape obtusely compressed smooth, Segm. very yellow ovate imbr. 3-4-times as long as cup
 4016 Like the last, but the cup is more entire and the leaves broader
 4017 Spathes 1-3-flowered, Seg. reflexed spatulate, Cup much shorter than seg. saucer-shaped spreading crenate

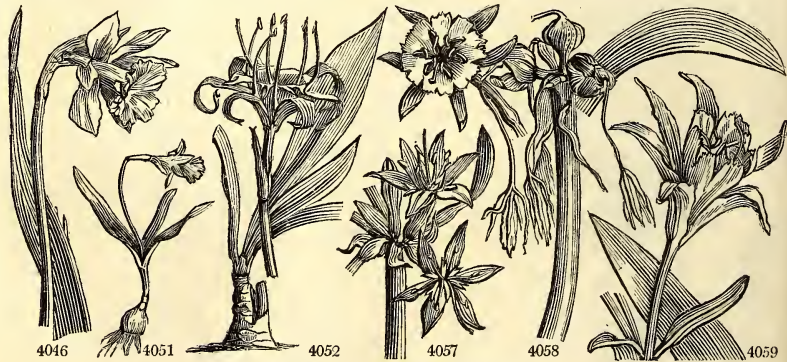
- 4018 12-18 inches high, Lvs. linear subulate chann. Scape rounded 1-2-fl. Ovary inflated, Fl. sulphur-colored
 4019 Leafless at flowering, Flowers green with acute segm.
 4020 Spathes 1-flowered, Cup 6-parted very short, Leaves subulate
 4021 About 3-flow. Cup obsoletely curled outside obtusely angular not twice as short as seg. Scape $1\frac{1}{2}$ ft. high
 4022 Segm. of starry cor. distinct at base, Cup even distinctly 6-lobed
 4023 About 2-fl. Seg. refl. pale yellow, twice as long as cup which is deeper col. trun. cylind. Style exserted
 4024 A slight variety of N. incomparabilis
 4025 1-7-fl. Leaves erect, Segm. reflexed lanceolate longer than cup which is cyathiform 6-fid repand
 4026 All white, Cup twice as short as segm. which are reflexed
 4027 A very obscure plant of which no description is anywhere given
 4028 Cor. pendulous white with straight half-expanded segm. Cup cyathiform with a crenulate mouth
 4029 Segm. twisted stellate, Cup cyathiform much plaited twice as short as segm.
 4030 Sulphur-colored or nearly white, Cup turgid entire as long as segm. Style protruded, Leaves obtuse
 4031 Flower yellow, Crown turgid truncate entire, Style included, Leaves erect before flowering
 4032 Fl. yel. Crown inflated at the end contracted entire, Style exserted, Lvs. always spreading on the ground
 4033 Crown undulate lobed at end, Style included
 4034 Crown deeply 6-lobed, Style very long, Leaves shining erect before flowering
 4035 Segm. sulphur, Crown campanulate yellow at the end spreading 6-lobed, Lobes imbricated
 4036 Leaves flat and scape striated, Segm. much twisted shorter than crown, Germ. 6-furrowed
 4037 Leaves twisted, Scapes and germens smooth, Segm. twisted the length of crown



and Miscellaneous Particulars.

of the species, is a diminution of *juncus*, a rush; as *Tazetta* is of *tazza*, the Italian name for a cup. This is a popular flower of great beauty, some species very fragrant, and all of them of the easiest culture. They also force well, either in pots of earth or on glasses of water. Their forcing may be greatly accelerated by retard-

4038 serrátus <i>Haw.</i>	serrated	♂	△	or	$\frac{2}{3}$ mr.ap	P.Y	S. Europe	...	O	co	
4039 spúrius <i>Haw.</i>	spurious	♂	△	or	1 ap	Y	England	...	O	co	
4040 Pseudo-Narcissus <i>L.</i>	Daifódi.	♂	△	or	1 mr.ap	P.Y	England	woods.	O	co	Eng. bot. 17
4041 tubiflorus <i>Sal.</i>	tube-flowered	♂	△	or	1 mr.ap	W.Y	...	...	O	co	
4042 bicolor <i>E. M.</i>	two-colored	♂	△	or	1 ap.my	W.Y	Spain	1629.	O	co	Bot. mag. 1187
4043 Sabini <i>Lindl.</i>	Sabine's	♂	△	or	1 ap.my	Y	...	...	O	co	Bot. reg. 762
4044 niveus <i>W. en.</i>	snowy	♂	△	or	1 my	Y	S. Europe	...	O	co	
4045 obvalláris <i>Sal.</i>	Sibthorp's	♂	△	or	1 mr.ap	Y	Spain	...	O	co	B. m. 1301. f. inf.
4046 májor <i>B. M.</i>	large	♂	△	or	1 mr.ap	Y	Spain	1629.	O	co	Bot. mag. 51
4047 propinquus <i>Sal.</i>	allied	♂	△	or	1 mr.ap	Y	Spain	1629.	O	co	B. m. 1301. f. su.
4048 nobilis <i>Haw.</i>	noble	♂	△	or	1 mr.ap	Y	...	...	O	co	
4049 Ajax <i>Sal.</i>	great	♂	△	or	1 mr.ap	Y	...	...	O	co	
4050 pámilus <i>Sal.</i>	low	♂	△	or	$\frac{1}{2}$ mr.ap	Y	Spain	...	O	co	Pass. hort. 9
4051 minor <i>W.</i>	small	♂	△	or	$\frac{1}{2}$ mr.ap	Y	Spain	1629.	O	s.l	Bot. mag. 6
712. PANCRATIUM <i>W.</i>	PANCRATIUM.						<i>Amaryllidææ.</i>	<i>Sp. 24.</i>			
4052 zeylánicum <i>W.</i>	one-flowered	♂	△	or	1 jn.jl	W	Ceylon	1752.	Sk	r.m	Bot. reg. 479
4053 verecúndum <i>K. R.</i>	Narcissus-leaf.	♂	△	or	1 $\frac{1}{2}$ jn.au	W	E. Indies	1776.	Sk	r.m	Bot. reg. 413
4054 maritimum <i>L.</i>	sea	♂	△	or	2 my.jl	W	S. Europe	1597.	Sk	s.p	Bot. reg. 161
4055 carolinianum <i>K. R.</i>	Carolina	♂	△	or	2 jn.jl	W	Carolina	1759.	Sk	r.m	Cat. car. 3, t. 5
4056 canariense <i>K. R.</i>	Canary	♂	△	or	1 $\frac{1}{2}$ jn.jl	W	Canaries	1815.	Sk	r.m	Bot. reg. 174
4057 illyricum <i>L.</i>	Illyrian	♂	△	or	1 $\frac{1}{2}$ my.jn	W	S. Europe	1615.	Sk	s.p	Bot. mag. 718
4058 Amáncea <i>K. R.</i>	Narcissus-flow.	♂	△	or	1 $\frac{1}{2}$ jn.jl	Y	Peru	1804.	Sk	r.m	Bot. reg. 600
4059 calathinum <i>K. R.</i>	cup-flowered	♂	△	or	2 jn.jl	W	Brazils	...	Sk	r.m	Bot. reg. 215
4060 nórans <i>K. R.</i>	nodding	♂	△	or	2 jn.jl	W	Brazils	...	Sk	r.m	Bot. mag. 1561
4061 undulátum <i>K. R.</i>	wave-leaved	♂	△	or	1 jn.jl	W	S. Amer.	...	Sk	r.m	
4062 littorále <i>L.</i>	fan-leaved	♂	△	or	2 my.au	W	S. Amer.	1758.	Sk	r.m	Bot. mag. 1879
4063 Dryándri <i>K. R.</i>	tall	♂	△	or	2 my.au	W	...	...	Sk	r.m	Bot. mag. 825
4064 angústum <i>K. R.</i>	narrow-leaved	♂	△	or	1 $\frac{1}{2}$ my.au	W	...	...	Sk	r.m	Bot. reg. 221
4065 rotátum <i>K. R.</i>	large-crowned	♂	△	or	1 jls	W	Carolina	1803.	Sk	r.m	Bot. mag. 1082
4066 mexicánum <i>K. R.</i>	Mexican	♂	△	or	1 au	W	Mexico	1732.	Sk	r.m	Di. el. t. 322. f. 289
4067 guianense <i>Ker.</i>	Guiana	♂	△	or	2 n	W	Guiana	1815.	Sk	r.m	Bot. reg. 268
4068 párens <i>Red.</i>	spreading	♂	△	or	2 jl.au	W	W. Indies	1822.	Sk	r.m	Bot. cab. 565
4069 pediále <i>Lodd.</i>	long-flowered	♂	△	or	3 au	W	Brazil	1820.	Sk	r.m	Bot. cab. 809
4070 frágrans <i>Red.</i>	fragrant	♂	△	or	1 my.au	W	W. Indies	1819.	Sk	r.m	Bot. cab. 834
4071 bisflorum <i>Roxb.</i>	two-flowered	♂	△	or	1 my.au	W	E. Indies	1820.	Sk	r.m	
4072 caribæum <i>L.</i>	Caribbean	♂	△	or	1 $\frac{1}{2}$ my.au	W	W. Indies	1730.	Sk	r.m	Bot. mag. 826
4073 amænum <i>W.</i>	handsome	♂	△	or	1 my.au	W	Guiana	1790.	Sk	r.m	Bot. mag. 1467
4074 ovátum <i>K. R.</i>	oval-leaved	♂	△	or	1 my.au	W	W. Indies	...	Sk	r.m	Bot. reg. 43
4075 speciósium <i>L.</i>	large	♂	△	or	1 $\frac{1}{2}$ my.au	W	W. Indies	1759.	Sk	r.m	Bot. mag. 1453
713. EUCRO'SIA. <i>B. Reg.</i>	EUCRO'SIA.						<i>Amaryllidææ.</i>	<i>Sp. 1.</i>			
4076 bicolor <i>B. Reg.</i>	two-colored	♂	△	or	1 ap.my	O	Cape Hor.	1816.	O	lt.l	Bot. reg. 207
714. EU'RYCLES. <i>Salisb.</i>	EU'RYCLES.						<i>Amaryllidææ.</i>	<i>Sp. 2-3.</i>			
4077 amboinénsis <i>Sal.</i>	heart-leaved	♂	△	or	2 my.jn	W	Ambowna	1759.	O	lt.l	Bot. mag. 1419
4078 australásica <i>Cunningham's</i>	Cunningham's	♂	△	or	1 my	W	N. Holl.	1821.	O	lt.l	Bot. reg. 715
	<i>Panocrátium australasicum</i> <i>Ker.</i>										
715. CALOSTEMMA. <i>R. Br.</i>	CALOSTEMMA.						<i>Amaryllidææ.</i>	<i>Sp. 2-3.</i>			
4079 líteum <i>Ker.</i>	yellow	♂	△	or	1 n	Y	N. Holl.	1819.	O	s.l	Bot. reg. 421
4080 purpúream <i>Ker.</i>	purple	♂	△	or	1 n	Y	N. Holl.	1819.	O	s.l	Bot. reg. 422
716. CHLIDANTHUS. <i>Herb.</i>	CHLIDANTHUS.						<i>Amaryllidææ.</i>	<i>Sp. 1.</i>			
4081 frágrans <i>Lindl.</i>	fragrant	♂	△	or	1 my.jn	Y	B. Ayres	1820.	O	lt.l	Lindl. coll. 34
717. CHRYSIPHIALA. <i>Ker.</i>	CHRYSIPHIALA.						<i>Amaryllidææ.</i>	<i>Sp. 2-5.</i>			
4082 háva <i>Ker.</i>	yellow	♂	△	or	1 my	O	Peru	1820.	O	lt.l	Bot. reg. 778
4083 pauciflóra <i>Lindl.</i>	few-flowered	♂	△	or	$\frac{1}{2}$ my	O	Peru	1822.	O	lt.l	Hook. ex. fl.



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ing the bulbs one season in an ice-house. Many fine bulbs of this genus, are annually imported from Holland, and some from Naples, especially the italicus, which grows wild round that city in great beauty. The genus has been injudiciously separated into several by Haworth, whom however no one has followed.

712. *Panocrátium.* A name given by the Greeks to a kind of Scilla. The word signifies all-force, from *παν* and *κρατος*, in allusion to its powerful effects in medicine. This is a free-flowering genus; several of the species are very handsome and fragrant, and are met with in most collections of stove plants. A mixture of light loam and rich vegetable mould suit them best, and care must be taken not to give them much water, when they are not in a growing state. They are to be increased by suckers, or from seeds, which often ripen freely. If any plant happen to lose its heart, if it be kept dry, it will throw out abundance of suckers, which is the readiest way of propagating it. (*Bot. Cult.* 89.) *P. maritimum*, *illyricum*, and *carolinianum*, are nardy; the other species are stove-plants. *P. amancea* has yellow flowers, and is not less beautiful than rare.

- 4038 Scape striated compressed, Segm. flat : the outer ovate acuminate not so long as the serrated crown
 4039 Scape smooth compressed, Crown very yellow deeply 6-cleft spreading, Segm. $\frac{1}{2}$ erect lanceolate
 4040 Scape two-edged straight striated, Segm. sulphur, Crown yellow with serrate crenate orifice
 4041 Segm. incurved horizontal a little twisted, Crown funnel-shaped ventricose at base very short
 4042 Like the last, but the crown is yellow, the segm. of flower yellowish
 4043 Spathe 1-fl. Scape 2-edged, Cup columnar plaited shorter than the sepals, Tube about as long as sepals
 4044 Scape 2-edge nearly trian. Spat. 1-2-fl. Seg. of cor. lanc. acute, Crown plaited crenate thrice as long as limb
 4045 Segm. half as long as tube ovate, Crown funnel-form 6-cleft plaited upwards
 4046 Leaves twisted very glaucous, Crown campanulate very large very open at orifice
 4047 Segm. $\frac{1}{2}$ erect twisted incurved spreading, Crown as long as segm. deeply and irregularly cut
 4048 Scape deeply striated, Seg. much spread, twisted ellipt. shorter than crown which has a very open orifice
 4049 Scape deeply striated, Mouth of crown 6-cleft expanded deeply and irregularly crenate
 4050 Pet. narrow obconcate not imbricating at base, Crown 6-cleft at mouth spreading minutely rugose
 4051 Spathe 1-flowered, Crown curled waved lobed, Scape 6 inches high

- 4052 One-flowered, Leaves lig. lanc. Segments of limb longer than tube, Stamens incurved conniving
 4053 Spathe 2-4-fl. Lvs. lin. acute, Limb of cor. shorter than tube, Altern. div. of crown deeper, Stam. incurved
 4054 Many-fl. Lvs. sheath. downw. very glauc. with an obt. point, Cr. much unit. to turb. limb, Anth. bent inw.
 4055 Many-flowered, Leaves neither glaucous? nor sheathing downwards, Anthers incumbent
 4056 Many-fl. Lvs. strap-shap. somew. glauc. obt. Tube twice as short as limb, Fil. not longer than teeth of cr.
 4057 Many-fl. Lvs. strap-shap. cces. Scape 2-edged, Pet. lanc. conv. longer than tube, Cr. short with very deep div.
 4058 Many-fl. Leaves bright-green, Tube as long as stellate nodding limb, Stamens short abruptly bent inwards
 4059 1 or many-fl. Spat. herb. Limb erect turb. a little shorter than blunt. 3-cor. tube, Cro. not much shorter than
 4060 Few-flowered, Leaves obt. Spathe dry, Cor. nodding, Anthers longer than filaments [limb
 4061 Lvs. stalked ellip. shortly pointed, Scape compressed, Petals linear wavy, Racemes of crown 1-toothed
 4062 Many-flowered, Leaves many lorate narrowed each way, Tube rounded twice as long as limb
 4063 Leaves lanc. lorate, Petals little shorter than tube, 5 times as long as crown
 4064 Many-fl. Lvs. lorate with long points shin. Petals spread. longer than tube 3 times as short as nar. crown
 4065 Two or many-flowered, Leaves linear-lorate obtuse many, Crown turbinate rotate longer than filaments
 4066 Two-flowered, Lvs. few linear-lanceolate with long points, Crown rotate turbinate longer than filaments
 4067 Many-flowered, Leaves oval-oblong stalked, Spathe 4-valved, Cup narrow 4 times as short as the limb
 4068 Lvs. broad-lin. Flowers many sessile with linear straightish segments longer than tube, Crown obconical
 4069 Leaves lanceolate dark-green, Flowers a foot long, Stamens short
 4070 A slight variety of *P. amaranth*, No. 4073
 4071 One or 3-fl. Leaves linear cuneate, Tube as long as lin. petals, Seg. of crown eroded, Fil. length of crown
 4072 Many-fl. Lvs. many lin. lanc. Tube twice as short as limb, Cr. twice as short as stam. with 1-tooth. recesses
 4073 Lvs. many oval-lanc. 3 or 4 times as broad as stalk, Umbel sessile spreading, Tube shorter than limb
 4074 Compactly many-fl. Lvs. oval stri. nar. each way, Tube round. nearly as long as limb, Teeth of crown entire
 4075 Lvs. many lanc. elliptical with a point three times as broad as their stalk, Tube twice as short as limb

4076 The only species

- 4077 Leaves stalked cordate rounded with concentric distant nerves
 4078 Like the last, but is smaller with a 6-parted crown

- 4079 Flowers yellow
 4080 Flowers purple

4081 A small plant with bright yellow flowers appearing before the leaves

- 4082 Leaves linear ligulate, Flowers 6-7-cylindrical, with oblong obtuse segments
 4083 Leaves oblong lanceolate stalked, Flowers 2 campanulate funnel-shaped



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713. *Eucrosia*. From *eu*, well, and *κροσος*, a fringe, in allusion, we presume, to the beautiful fringe to the flower, formed by the cup of united stamens. A pretty half-hardy bulbous plant, extremely rare.
 714. *Eurycles*. From *eu*, wide, and *κλασμα*, a portion of a thing, in allusion to the broad divisions of the crown. A genus formerly included in *Pancratium*, from which it is distinguished not only by its flowers, but by its broad leaves, which are like those of the *Hemerocallis*.
 715. *Calostemma*. From *καλος*, beautiful, and *στέμμα*, a crown, in allusion to the beauty of the colored corona of the flower. Very pretty New Holland bulbs, requiring the cultivation of other greenhouse bulbs.
 716. *Chlidanthus*. From *χλιδής*, delicate, and *ανθος*, a flower; on account of the delicate color and texture of the beautiful yellow flowers. The plant requires a stove, and produces the scape before the leaves.
 717. *Chrysiplata*. So named by Mr. Ker, in allusion to the golden cup-like flowers; *χρυσος*, gold, and *πέταλον*, a goblet. Bulbous plants from the same country and with the same habits as the last.

718. LOPHIOLA. <i>B. M.</i>	LOPHIOLA.	<i>Hæmodoraceæ.</i>	<i>Sp. 1.</i>						
4084 aúrea <i>B. M.</i>	golden-flower.	✓ △ or	1½	my.jl	Y	N. Amer.	1811.	D pl	Bot. mag. 1596
719. ARGOLASIA. <i>Juss.</i>	ARGOLASIA.	<i>Hæmodoraceæ.</i>	<i>Sp. 1.</i>						
4083 plumósa <i>W.</i>	woolly	✓ △| or	1½	...	W	C. G. H.	1787.	D s.l.p	
720. ANIGOZANTHOS. <i>R. Br.</i>	ANIGOZANTHOS.	<i>Hæmodoraceæ.</i>	<i>Sp. 1-2.</i>						
4086 flávida <i>R. Br.</i>	russet-green-fl.	✓ ▽		my.s		N. Holl.	1803.	R s.p	Bot. mag. 1151
721. MUSA. <i>W.</i>	PLANTAIN-TREE.								
4087 paradisiaca <i>W.</i>	common	♣ □ or	20	o.d	Pk	India	1690.	Sk s.p	Tr. eh. 3. t. 18, 20
4088 sapiéntum <i>W.</i>	Banana-tree	♣ □ or	20	mr.o	Pk	W. Indies	1729.	Sk s.p	Tr. eh. 4. t. 21, 23
4089 rosácea <i>W.</i>	rose-colored	♣ □ or	20	f.my	Pu	Mauritius	1805.	Sk s.p	Bot. reg. 706
4090 coccinea <i>W.</i>	scarlet-flowered	♣ □ or	20	mr.d	S	China	1792.	Sk s.p	Bot. mag. 1559
722. URA'NIA. <i>W.</i>	URANIA.								
4091 speciósa <i>W.</i>	Plantain-leaved	♣ □ or	20	...	R	Madagasc.	...	Sk pl	Jac. sch. 1. t. 93
723. BUONAPARTEA. <i>F. P.</i>	BUONAPARTEA.								
4092 júncea <i>Fl. p.</i>	Rush-leaved	✓ □ or	1½	...	B	Peru	1800.	C s.l	Fl. per. 3. t. 262
724. AGA'VE. <i>H. K.</i>	AGAVE.								
4093 yuccafólia <i>Haw.</i>	Yucca-leaved	♣ □ or	6	...	Y.w	India	.....	Sk r.m	
4094 americána <i>W.</i>	common Amer.	♣ □ or	20	au.o	Y	S. Amer.	1640.	Sk r.m	Bot. rep. 438
4095 Milléri <i>Haw.</i>	Miller's	♣ □ or	6	...	G	.....	1768.	Sk r.m	
4096 flácida <i>Haw.</i>	flaccid	♣ □ or	6	...	G	S. Amer.	1790.	Sk r.m	
4097 lórida <i>Jacq.</i>	Vera Cruz	♣ □ or	8	jn.jl	G	Vera Cruz	1731.	Sk s.p	Bot. mag. 1522
4098 angustifólia <i>Haw.</i>	narrow-leaved	♣ □ or	6	...	G	.....	1790.	Sk r.m	
4099 Karátto <i>Mill.</i>	Karatto	♣ □ ec	5	...	G	S. Amer.	1768.	Sk r.m	
4100 vivipara <i>W.</i>	viviparous	♣ □ or	15	au.o	G	S. Amer.	1731.	Sk s.p	Com. præl. t. 15
4101 virginica <i>W.</i>	Virginian	♣ △ or	3	s	P.G	N. Amer.	1765.	Sk r.m	Bot. mag. 1157
4102 geminifóra <i>Ker.</i>	pair-flowered	♣ △ or	10	...	B	America	1810.	Sk r.m	Jo. of sc. No. 3. t. 1



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718. *Lophiola*. From *λοφος*, a crest, on account of the little crest of the petals. It is a very rare North American plant, and thrives best in pots set in saucers of water.

719. *Argolasia*. From *αργος*, white, and *λασιος*, wool, on account of its calyx, which is white and velvety on the outside. It requires the same culture as the last.

720. *Anigozanthos*. Named by Labillardiere, from *ανιγω*, to raise up, and *ανθος*, a flower. Its flowers are raised upon very long conspicuous scapes. Curious New Holland plants, with yellow or green flowers.

721. *Musa*. So named by Plumier, in memory of Antonius Musa, the brother of Euphorbus, and the freedman of Augustus. Such is the sense in which Linnæus admits the word. But the Arabic name for the plant, *mauz*, is a much more likely derivation. This splendid genus consists of species which have perennial, roundish, solid, watery bulbs, with biennial, and sometimes longer enduring stems. The stems are straight, erect, varying from five to twenty-five feet in height, simple, thick, round, smooth, fungous, watery, and lamellated. The leaves are oblong, entire, from three to ten feet in length, and under two feet in width. The flowers are in large terminating racemes, without a calyx or perianthium, generally whitish: the fertile flowers occupying the lower, and the barren the upper, part of the raceme. The former are succeeded by oblong, angular, fleshy berries, sweet, eatable, and containing many black seeds. They are natives of the old world, and for the most part cultivated there: none appear to be natives of America.

M. paradisiaca rises with a soft herbaceous stalk fifteen or twenty feet high, with leaves often more than six feet long, and near two feet broad. When the plant is full grown, the spike of flowers appears from the centre of the leaves; it is near four feet in length, and nods on one side. The fruit which succeeds the fertile flowers on the lower part of the spike is eight or nine inches long, and above an inch in diameter, a little incurved, with three angles; at first green, but when ripe of a pale yellow color. The skin is tough, and within is a soft pulp of a luscious sweet flavor. The spikes of fruit are often, so large as to weigh upwards of forty pounds. Gerarde, and other old authors, name it Adam's apple, from a notion that it was the forbidden fruit of Eden; whilst others supposed it to be the grapes brought out of the promised land by the spies of Moses. It is certainly one of the most useful fruits in the world, and seems to have migrated with mankind into all the climates in which it may be cultivated. The fruit is so much esteemed by all Europeans who settle in America, that the first thing they do in establishing a plantation is to begin with a Plantain walk; enlarging it as their family increases. Some or other of the trees are bearing most part of the year; and their fruit is often the whole food on which a family subsists. When used instead of bread, it is roasted or boiled when just full grown: it is also eaten boiled with salt-meat or fish, and when ripe it is made into tarts, sliced and fried with butter, or dried and preserved as a sweetmeat. A fermented liquor is made from them, and in some places a cloth from the fibres of the trunk; the leaves make excellent mats, or serve for stuffing mattresses. Long (*Jam.* 788.) says, this fruit and the banana are among the greatest blessings bestowed by Providence upon the inhabitants of hot climates. Three dozen plantains are sufficient to serve one man for a week instead of bread, and will support him much better.

M. sapientum is by some considered a variety of the plantain, from which it differs in having its stalks marked with dark purple stripes and spots. The fruit is shorter and rounder, with a softer pulp, of a more luscious taste. An excellent marmalade, and a drink like the best Southnam cider, are made from it. There are many varieties both of the plantain and banana.

M. rosacea and *occinea*, are very ornamental plants, on account of the color of the flowers, but scarcely to be distinguished from *M. paradisiaca*. The culture of all the species is easy in lofty houses, with abundance

4084 The only species

4085 Leaves linear carinate smooth, Scape angular corymbose, Flowers woolly

4086 Stem and leaves smooth, Down of branches deciduous, Anthers with a reflexed end

4087 Spadix nodding, Male flowers persistent

4088 Stem spotted, Spadix nodding, Male flowers deciduous

4089 Spadix nodding or erect, Male flowers deciduous, Spathes elliptical obtuse, Fruit oblong

4090 Spadix erect, Flowers capitate, Spathes clustered scarlet very large yellow at end

4091 A plant like a Banana

4092 Leaves multifarious cæspitose recurved very narrow and rigid

4093 Lvs. lorate atten. erect recurved glaucous above chan. with marginal minute dense white serrulations

4094 Stemless, Lvs. toothed spiny, Scape branched, Tube of cor. contracted in middle, Stem longer than cor.

4095 Leaves toothed spiny, Scape quite simple

4096 Leaves narrow lanceolate flaccid recurved, Spines marginal minute

4097 A little stemmed, Leaves toothed spiny, Scape branched, Stam. longer than cylind. cor.

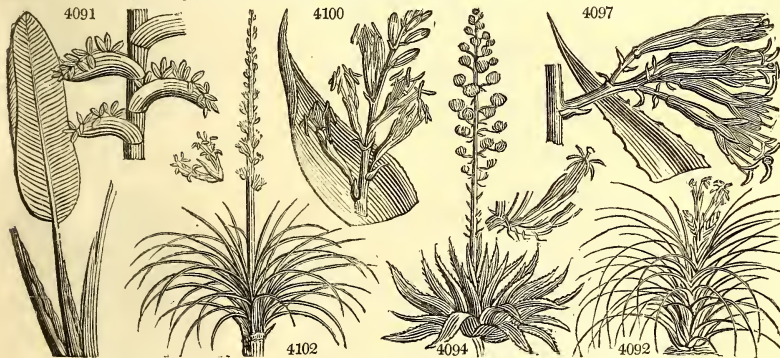
4098 With a stem, Leaves narrow lanceolate glaucous tooth-serrated

4099 Leaves erect bright green with an entire brown edge

4100 Stemless, Leaves toothed, Scape branched, Tube of cor. narrowed in middle, Stem as long as cor.

4101 Stemless, Leaves cartilaginous sawed, Scape simple

4102 Leaves thready at edge, Flowers of spike approximating by pairs



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of room for the roots, and a rich loamy soil kept rather moist. A plant of the banana was planted in the pit of a stove about 1811. "It was then about six feet high, with a single stem. In each succeeding year it has produced a bunch of fruit; and in 1819 two bunches, the first ripe in May, the other in August, having about four dozen of fruit on each bunch. The plant is now sixteen feet high, and measures three feet round at the bottom." (*Hort. Trans.* iv. 138.)

722. *Urania*. A name of one of the muses, unjustifiably applied to this genus by Schreber, in the room of that of *Ravenala*, which it bears in Madagascar. To grow this plant luxuriantly, a strong heat and a good supply of water are required. Fresh imported seeds will grow freely.

723. *Buonapartea*. So named by the authors of the *Flora Peruviana*, after Napoleon Bonaparte, emperor of the French. Fine plants like *Bromelia*, with long, narrow, recurved leaves, and spikes of simple blue flowers, which were never yet seen in this country.

724. *Agave*. Altered from *ayavos*, admirable, which this genus may well be said to be, considering its appearance, its size, and the beauty of its flowers. In mythology, *Agave* is the name of one of the Nereids. *A. americana* is a popular succulent throughout Europe. It grows wild or is acclimated in Sicily, the south of Spain, and Italy, and is much used in the latter country, planted in vases as an ornament to piers, parapets, and about houses. About Milan and other towns in Lombardy, where it will not endure the winter, they use imitations of copper so well formed and painted, as to be readily mistaken for the original. In France and Germany it is still very common; and in this country formerly used to be the regular companion of the orange, myrtle, and pomegranate, then our principal greenhouse plants. An idea used to prevail that the American *Aloe* only flowered once in a hundred years; but, independently of this unnatural application of time to the inflorescence, it has long been known to flower sooner or later, according to the culture bestowed on it. Many have flowered within these few years in this country; and if the plant had the same treatment as the pine-apple, it would probably flower nearly as often. There is a variety with striped foliage, and sometimes the stripes are of different shades of white, yellow, and red, as in the queen pine-apple. There are hedges of the plant in Spain, Portugal, Sicily, Calabria, and the West Indies. According to Long, (*Jamaica*, iii. 710.) the leaves are useful as a succedaneum for soap. For this purpose, after being cut, they are passed between the rollers of a mill with their point foremost; and the juice being conducted into wide shallow receivers, through a coarse cloth or strainer, it is exposed to a hot sun, until the aqueous part being exhaled, it is reduced to a thick consistence. It may then be made up into balls, with the help of ley ashes. It will lather with salt water as well as fresh. This soap may also be prepared by pounding the leaves in a wooden mortar, and then expressing the juice, which may be brought to a consistence by the sun or by boiling. One gallon of juice thus prepared, will yield about one pound of a soft extract. The juice, in both these ways, must be carefully strained; and the extract must never be combined with tallow or other unctuous materials. The leaves are also used for scouring pewter, and other kitchen utensils, and floors. The inward spongy substance of the decayed stalk is used for tinder. The fibres of the leaves, separated by bruising and steeping in water, and afterwards beating them, make a strong thread for common uses. All the species greatly resemble each other, and it is doubted, whether, in the works of several travellers, different species of *Agave*, *Aloe*, and even *Bromelia*, are not confounded in their descriptions of their uses. There is, for example, a variety of the *Agave americana*, called *Karatas* by Long, and there is a species of *Bromelia* of that designation; hedges of *Karatas* are frequently mentioned without noticing the generic name of the plant.

725. <i>FURCRÆA</i> V.	FURCRÆA.				<i>Bromeliaceæ.</i>	<i>Sp. 5—7.</i>			
4103 <i>gigantæa</i> Vent.	gigantic	✓	△	or	20	ja.s	Gr	S. Amer.	1690. Sk r.m Bot. mag. 2250
4104 <i>tuberôsa</i> H. K.	tuberous	✓	△	or	10	aus	Gr	S. Amer.	1739. Sk r.m
4105 <i>cubênsis</i> W.	Cuba	✓	△	or	6	...	Gr	S. Amer.	1739. Sk r.m J. an. t. 260.f. 25
4106 <i>rigida</i> Mill.	rigid	✓	△	or	6	...	...	S. Amer.	1768. Sk r.m
4107 <i>austrâlis</i> Haw.	entire-leaved	✓	△	or	...	...	...	N.Holl.	1811. Sk r.m
726. <i>BROMEÏIA</i> W.	PINE-APPLE.							<i>Bromeliaceæ</i>	<i>Sp. 16—29.</i>
4108 <i>Anânas</i> W.	common	✓	△	fr	4	ja.d	P	S. Amer.	1690. Sk r.m Bot. mag. 1554
4109 <i>semiserrâta</i> W. en.	half-sawed-lvd.	✓	△	or	3	jad	Gr	S. Amer.	...
4110 <i>lúcida</i> W. cn.	King-Pine	✓	△	fr	4	jad	Pk	S. Amer.	...
4111 <i>Pinguin</i> W.	broad-leaved	✓	△	ec	3	mr.ap	R	W. Indies	1690. Sk r.m Jac. am. pic. t. 91
4112 <i>sylvêstris</i> W.	wild	✓	△	or	3	jl	Cr	S. Amer.	1820. Sk r.m Bot. mag. 2392
4113 <i>fastuôsa</i> Lindl.	noble	✓	△	or	4	aus	Pu	S. Amer.	1815. Sk s.p Lindl. coll. 1.
4114 <i>Karâtas</i> W.	upright-leaved	✓	△	or	2	...	Pk	W. Indies	1739. Sk r.m Jac. v. 1. t. 31. 32
4115 <i>nudicaulis</i> W.	naked-stalked	✓	△	or	2	f.mr	Cr	R. Janiero	...
	<i>pyramidalis</i> B. M.								Sk r.m Bot. reg. 203
4116 <i>pállida</i> Ker.	pale	✓	△	or	1½	n	G.v	S. Amer.	1817. Sk s.p Bot. reg. 344
4117 <i>chrysántha</i> Jacq.	golden-flowered	✓	△	or	2	...	Y	Caracás	1819. Sk s.p Jacq. sch. 1. t. 55
4118 <i>linguláta</i> W.	tongue-leaved	✓	△	or	1½	my.jn	Y	S. Amer.	1759. Sk r.m Plum. ic. t. 64.f. 1
4119 <i>bractæata</i> W.	red-bracted	✓	△	or	2	s.o	Pk	Jamaica	1785. Sk r.m Par. lond. 40
4120 <i>Acánga</i> L.	recurved	✓	△	or	2	...	...	Brazil	1822. Sk s.p Pis. bras. t. 91
4121 <i>exsúdans</i> Lodd.	sweating	✓	△	or	2	s.o	Y	W. Ind.	1820. Sk r.m Bot. cab. 801
4122 <i>húmilis</i> W.	dwarf	✓	△	or	1	mr	Pk	.....	1789. Sk r.m Jac. ic. 1. t. 60
4123 <i>melanántha</i> Ker.	black-flowered	✓	△	or	1½	my	Bl	Trinidad	1824. Sk r.m Bot. reg. 766
727. <i>GUZMANÏIA</i> Fl. Per.	<i>GUZMANNIA.</i>							<i>Bromeliaceæ.</i>	<i>Sp. 1.</i>
4124 <i>serrâta</i> Fl. Per.	three-colored	✓	△	or	1	my	G.s	S. Amer.	1820. Sk r.m Lindl. coll. 8
728. <i>PITCAIRÏIA</i> W.	<i>PITCAIRNIA.</i>							<i>Bromeliaceæ.</i>	<i>Sp. 9—14.</i>
4125 <i>broméiæfólia</i> W.	scarlet	✓	△	or	2	jn	S	Jamaica	1781. Sk s.p Bot. mag. 824
4126 <i>angustifólia</i> W.	narrow-leaved	✓	△	or	2	jad	S	Sant. Cruz	1777. Sk s.p Bot. mag. 1547
4127 <i>integrifólia</i> B. M.	entire-leaved	✓	△	or	2	au	R	W. Indies	1800. Sk s.p Bot. mag. 1462
4128 <i>latifólia</i> W.	broad-leaved	✓	△	or	2	aus	S	W. Indies	1785. Sk s.p Bot. mag. 856
4129 <i>bractæata</i> H. K.	large bract., red	✓	△	or	2	ap.my	R	W. Indies	1799. Sk s.p Red. lil. 73, 74
4130 <i>sulphúrea</i> B. R.	yellow-flower'd	✓	△	or	2	jn.au	Y	W. Indies	1797. Sk s.p Bot. mag. 1416
4131 <i>furfurácea</i> W. cn.	drooping-leav'd	✓	△	or	2	jn.au	R	S. Amer.	1816. Sk r.m
4132 <i>coarctata</i> R. & P.	contracted	✓	△	or	2	my.jn	Y	Chile	1822. Sk r.m Feuille. chil. t. 39
4133 <i>staminea</i> B. M.	long-stamened	✓	△	or	2	ja	S	S. Amer.	1823. Sk r.m Bot. mag. 2411
729. <i>TILLAN'DSIA</i> W.	<i>TILLANDSIA.</i>							<i>Bromeliaceæ.</i>	<i>Sp. 11—27.</i>
4134 <i>utriculáta</i> W.	bladder	✓	△	or	2	...	P.Y	S. Amer.	1793. Sk s.p
4135 <i>serrâta</i> W.	saw-leaved	✓	△	or	2	jn	Y	Jamaica	1793. Sk s.p Pl. ic. 63. t. 75.f. 1



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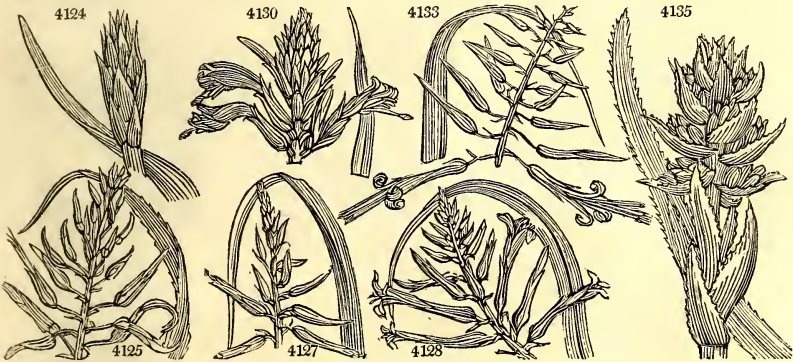
725. *Furcraea*. Named in honor of M. Fourcroy, the famous French chemist. A noble genus resembling the last.

726. *Bromelia*. So named by Linnæus, in memory of Olaus Bromel, a Swede, author of *Lupologia*, and other works, 1694, &c. *Ananas*, Fr., Ger., and Ital.; and *Nanas* among the Peruvians, where it was originally found by Europeans. This fruit may, without hesitation, be pronounced the first in the world, though it has not been known in Europe above two centuries, and has only been cultivated about a century as a fruit plant in Britain. It passed from Brazil to the West, and thence to the East Indies, where it has long been successfully cultivated. About the middle of the seventeenth century it was brought to Holland, by Mr. La Court, a merchant, and cultivated at Driehoek, his seat, near Leyden; and from thence it was imported into this country, and first fruited by Sir Matthew Decker, at Richmond, about 1715, or earlier. La Court began by growing his pines without bottom heat, as dry stove plants; but afterwards had recourse to low pits and tanner's bark. Plans of his pits, and an account of his mode of culture, are published in his work, entitled, *Aemmerkingen over Lusthoven, Plantagion, &c.* (See *Ency. of Gard.* p. 1129, Anno. 1737.) Sir M. Decker, Bradley informs us, adopted pits; and soon after pine stoves, or larger and more commodious pits, were, by the year 1730, in most of the first English gardens, and some also in Scotland, where the pine-apple was first fruited by Justice, at Crichton, near Edinburgh, in 1732. The pine is now cultivated very generally in Britain, in several places in Ireland, and at most of the capital cities on the continent. In one or two of the southern provinces of Spain, it is grown in sheltered situations in the open air.

There are many varieties of the pine in the West Indies, procured by raising from seed: in this country there are upwards of thirty sorts, but the queen, New Providence, and one or two others, are most esteemed. The plants are propagated by suckers, and by that singular production, proceeding from the summit of the fruit, called a crown: from large suckers fruit is sometimes obtained in eighteen months, but, in general, a period of two or three years is required, and for the New Providence sometimes longer. Loamy soil well enriched with rotten dung, and the pots sufficiently drained, with abundance of heat without sudden extremes, will ensure large and well flavored fruit. (See *The various Modes of cultivating the Pine-Apple from its first Introduction to the Improvements of Mr. Knight, &c.* 8vo. 1822.)

Some of the other species of true *Bromelia* have crowns, and the fruit of most of them is eatable, though small. B. *Pinguin* has the fruit separately in clusters, and not in a cone or pine, as in the *Ananas*. It is very common in Jamaica, in most of the Savannahs, and on the rocky hills. It is used there for fencing pas-

- 4103 Leaves entire, Scape branched
 4104 Root tuberous, Leaves very long spiny at edge
 4105 Cor. hexapetalous, Leaves ciliate spiny
 4106 Leaves linear lanceolate entire upwards, at the base serrate spiny
 4107 Only an obscure plant described by Haworth only and supposed to be *Doryanthes excelsa* !!
- 4108 Leaves fringed with spines mucronate, Spike comose
 4109 Leaves at the end toothed spiny, Spike comose
 4110 Leaves entire, Spike comose
 4111 Leaves ciliated spiny mucronate, Raceme terminal
 4112 Leaves ciliated spiny with a very long point, Raceme term. comp Flowers sessile shorter than bractea
 4113 Leaves ciliated spiny with a very long point, Raceme rigid compound, Flow. in numerous lateral spikes
 4114 Leaves erect, Flowers stemless sessile aggregate
 4115 Radical leaves toothed spiny : cauline entire
- 4116 Panicle lax few-fl. spreading, Peduncles 1-flowered, Upper spathes fertile as long as flower spreading
 4117 Leaves serrate spiny, Bractes lanceolate toothed, Raceme compound shorter than leaves
 4118 Leaves serrate spiny obtuse, Spikes alternate
 4119 Leaves serrate spiny, Bractes ovate lanceolate, Scape elongated, Raceme compound
 4120 Panicle diffuse, Leaves ciliate spiny mucronate recurved
 4121 Raceme compound, Flowers heaped shorter than the long red entire bractea, Calyx acute
 4122 Nearly stemless, Leaves aggregate sessile, Axillæ stoloniferous
 4123 Leaves ligulate oblong very blue, Spike oval woolly with small sessile flowers
- 4124 Scape upright, Spike imbricated, The lower bractea green ; the upper scarlet
- 4125 Leaves ciliate spiny, Peduncles and germens quite smooth
 4126 Leaves ciliate spiny, Peduncles and germens downy
 4127 Leaves narrow glaucous entire, Calyx villous
 4128 Leaves entire somewhat spiny at base
 4129 Leaves entire a little spiny at base, Bractes as long as peduncle and calyx
 4130 Leaves entire white beneath, Raceme imbricated dense
 4131 Leaves toothed spiny recurved, above shining smooth, beneath mealy
 4132 Spike compound contracted, Leaves ensiform aculeate, Cor. with a black spot at bottom
 4133 Leaves linear lanc. entire, Petals revolute, Stamens longer than cor.
- 4134 Culm paniced
 4135 Leaves upwards serrate spiny, Spike comose



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ture lands, on account of its prickly leaves. These, stripped of their pulp, soaked in water, and beaten with a wooden mallet, yield a strong thread which is twisted into ropes and whips, and manufactured by the Spaniards into a good cloth. The juice of the fruit in water makes a cooling draught in fevers; it is extremely diuretic, destroys worms, and makes a good vinegar.

B. Karatas, so called from its Brazilian name, *Karaguata-acanga*, generally grows at the root of some shady tree, in hilly and woody places in America and the Caribbee islands. It is an elegant plant, producing numerous radical leaves, which are of a subulate-linear shape, sharp pointed, and edged with spines. The flowers are scentless, seated in the bosom or middle part of the plant, rose colored, with the calyx and germ downy. The length of the leaves is six or seven feet. The fruits are oval, two or three hundred in number, and grow sessile in a heap or central group, surrounded by paleaceous expanded leaves or bractes; they contain a succulent whitish or yellowish flesh, under a coriaceous and yellowish bark. When ripe, they are far from unpleasant; but when unripe they set the teeth on edge, and excoriate the mouth. The economy of this plant in the preservation of its fruit to maturity is wonderful: being so protected by the spines of the surrounding leaves, as to be secure from all injuries.

B. humilis propagates itself by runners or shooting processes, which proceed from the axillæ of the lower leaves, and produce a young plant from their extremities.

Bromelia fastuosa is the most beautiful of the genus. It has never flowered more than once in this country, when the figure in Mr. Lindley's *Collectanea Botanica* was obtained. *Bromelia sylvestris* resembles this, but is less beautiful.

727. *Guzmania*. Named after Anastasio Guzman, an industrious apothecary, and zealous collector of objects of natural history in South America. A beautiful evergreen herbaceous plant, with the foliage of *Tillandsia*, and a spike of bractea, the uppermost of which are richly colored with rose.

728. *Pitcairnia*. So named by Mons. L'Heritier, in honor of William Pitcairn, M. D. an eminent physician of London, and a collector of foreign plants, particularly from the Alps. The species are remarkable for their long, narrow, green, prickly leaves, and for their uniform panicles of bright red. *Pitcairnia staminea* is very handsome. They require the same treatment as *Bromelia*.

729. *Tillandsia*. So named by Linnæus, in memory of Elias Tillandsius, professor of physic at Abo, author

4136 amœna Lodd.	charming	☿	☒	or	2	jn	V	W. Indies 1819.	Sk s.p	Bot. cab. 76	
4137 usneoides W.	pendulous	☿	☒	or	6	...	Pu	W. Indies 1823.	Sk p	Pl. alm. t. 26. 1.5	
4138 lingulata W.	tongue-leaved	☿	☒	or	2	jn.jl	Y	Jamaica 1776.	Sk s.p	Jac. amer. t. 62	
4139 flexuosa W.	flexuose	☿	☒	or	1	...	B	W. Indies 1790.	R s.p	Jac. amer. t. 63	
β pallida	pale	☿	☒	or	1	jn.jl	Y	W. Indies 1815.	R s.p	Bot. reg. 749	
4140 anceps Lodd.	two-edged	☿	☒	or	3	ap	B	W. Indies 1820.	R s.p	Bot. cab. 771	
4141 nutans W.	nodding	☿	☒	or	2	au	B	Jamaica 1793.	R s.p		
4142 stricta B. M.	stiff-leaved	☿	☒	or	1	n	B	Brazil 1810.	R s.p	Bot. mag. 1529	
4143 recurvata W.	recurve-leaved	☿	☒	or	1	jl	Pu	Jamaica 1793.	R s.p	Sl. ja. 1. t. 121. f.1	
4144 xiphoides B. Reg.	Air-plant	☿	☒	or	1	jl	W	Buen. Ay. ...	R s.p	Bot. reg. 105	
730. PONTEDE/RIA. W.	PONTEDERIA.							Commelineæ. Sp. 4—7.			
4145 cordata Ph.	heart-leaved	☿	Δ	or	2	jn.au	B	N. Amer. 1759.	D 1	Bot. mag. 1156	
4146 angustifolia Ph.	narrow-leaved	☿	Δ	or	2	jn.au	B	N. Amer. 1806.	D 1		
4147 dilatata H. K.	spreading	☿	Δ	or	2	my	B	E. Indies 1806.	D 1	Bot. rep. 490	
4148 lanceolata Lodd.	lanceolate	☿	Δ	or	2	au	B	N. Amer. 1815.	D 1	Bot. cab. 613	
731. HEMANTHUS. W.	BLOOD-FLOWER.							Amarylloideæ. Sp. 14—16.			
4149 coccineus W.	salmon-colored	☿	Δ	or	1	au.o	R	C. G. H. 1629.	O r.m	Bot. mag. 1075	
4150 coarctatus W.	compressed	☿	Δ	or	1	f.mr	Pk	C. G. H. 1795.	O r.m	Bot. reg. 181	
4151 rotundifolius B. M.	round-leaved	☿	Δ	or	1	jn.o	S	C. G. H. 1790.	O s.l.p	Bot. mag. 1618	
4152 pumiceus W.	wave-leaved	☿	Δ	or	1	my.s	S	C. G. H. 1722.	O r.m	Bot. mag. 1315	
4153 multiflorus W.	many-flowered	☿	Δ	or	1	my.s	D.R	S. Leone 1783.	O r.m	Bot. mag. 961	
4154 tigrinus W.	tiger-spotted	☿	Δ	or	1	f.d	F	C. G. H. 1790.	O r.m	Bot. mag. 1705	
4155 quadrivalvis W.	four-valved	☿	Δ	or	1	s.o	F	C. G. H. 1790.	O r.m	Bot. mag. 1523	
4156 pubescens W.	pubescent	☿	Δ	or	1	au	W	C. G. H. 1774.	O r.m	Bot. cab. 702	
β albiflorus W.	white-flowered	☿	Δ	or	1	ap.au	W	C. G. H. 1791.	O r.m	Bot. mag. 1239	
4157 maculatus Jacq.	spotted-leaved	☿	Δ	or	1	ap.au	...	C. G. H. 1790.	O s.l.p		
4158 lanceifolius W.	spear-leaved	☿	Δ	or	1	s.o	R	C. G. H. 1794.	O r.m	Jac. sch. 1. t. 60	
4159 carinatus W.	keel-leaved	☿	Δ	or	1	au.s	Pk	C. G. H. 1759.	O r.m		
4160 pumilio W.	dwarf	☿	Δ	or	1	au.s	Pk	C. G. H. 1789.	O s.l.p	Jac. sch. 1. t. 61	
4161 carneus Ker.	flesh-colored	☿	Δ	or	1	jn.jl	Pk	C. G. H. 1819.	O s.l.p	Bot. reg. 509	
4162 Hyalocarpus Jacq.	china-fruited	☿	Δ	or	1	jl	R	C. G. H. 1822.	O s.l.p	Jacq. sch. t. 409	
732. GALANTHUS. W.	SNOWDROP.							Amarylloideæ. Sp. 2.			
4163 nivialis W.	common	☿	Δ	or	1	ja.mr	W	Britain	mea.	O co	Eng. bot. 19
4164 plicatus Bieb.	plaited	☿	Δ	or	1	ja.ap	W	Crimea	1818.	O co	Bot. reg. 545
733. LEUCOJUM. W.	SNOW-FLAKE.							Amarylloideæ. Sp. 5.			
4165 vernum W.	spring	☿	Δ	or	1	ja.mr	W	Germany 1596.	O s.l	Bot. mag. 46	
4166 astivum W.	summer	☿	Δ	or	1	ap.my	W	England m.me	O s.l	Eng. bot. 621	
4167 pulchellum P. L.	neat	☿	Δ	or	1	ap.my	W	.....	O s.l	Par. lond.
4168 autumnale W.	autumnal	☿	Δ	or	1	s	Pk	Portugal 1629.	O s.l	Bot. mag. 960	
4169 trichophyllum P. S.	narrow-leaved	☿	Δ	or	1	ja.f	W	Barbary 1812.	O s.l	Bot. reg. 544	



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of Flora Aboensis, 1673. Several species of this genus are parasitical, and others require the same treatment as Pitcairnia or Bromelia.

T. utriculata is a valuable plant in the woods of the West Indies, as containing a supply of water in dry seasons. The seed being pappose, is carried about by the wind, and sticks readily on the bark of trees; there, especially on decaying ones, it sends out small brown fibres which take hold of the bark, and weave and mat themselves among one another: from this foundation rise several leaves on every side, like those of Aloes or Ananas; they are folded or inclosed one within another, each three feet and a half long, and three inches broad at the base, but ending in a point, having a very hollow or concave inward side, and a round or convex outward one, forming a bason or cistern, containing about a quart of water, which, in the rainy season falls upon the upper parts of the spreading leaves, and being conveyed down them by channels, lodges in the bottom as in a bottle; for the leaves, having swelled out at the base, bend inwards close to the stalk, thus hindering the evaporation of the water by the heat of the sun. From the midst of the leaves rises a round, smooth, straight, green stalk, three or four feet high, having many branches, and when wounded yielding a clear white mucilaginous gum. The flowers come out here and there on the branches. The corolla is of a yellowish-white or herbaceous color; and the calyx is made up of three green viscid leaves with purple edges. Men, birds, and insects supply themselves with water from this plant. Dampier says, he has many times, to his great relief, stuck his knife into the leaves just above the roots, and let out the water into his hat.

T. usneoides deserves, for its appearance and uses, to be shortly described. The stem is no bigger than a thread; the skin whitish, as if covered with hoar-frost, within tough and black like a horse hair. Many of these together stick on the branches of the ebony or other trees superficially by the middle, and send down on each side some of the same stems, very often a yard long, hanging on both sides, curled, or turning and winding one within another, and resembling an old man's beard, whence its common name in Jamaica. The stems are branched, and the branches, which are two or three inches long, are set with roundish, white, frosted leaves. The flowers come out at the end of the branches. This slender parasitical plant is found among the trees in many parts of Jamaica, but does not grow so commonly there, nor so luxuriantly, as it does in the more northern provinces of the main continent, where it is said to overrun whole forests. It is frequently imported from Jamaica to North America, for the use of the

- 4136 Leaves lanceolate channelled slightly prickly, outer acute inner retuse
 4137 Filiform branched twisted rough
 4138 Leaves lanceolate ligulate entire ventricose at base
 4139 Leaves linear subulate entire imbricate, Spike lax
- 4140 Leaves narrow channelled recurved, Spike imbricated simple oval two-edged
 4141 Spikes subdivided nodding, Flowers distinct ovate, Leaves ovate lanceolate membranous
 4142 Leaves radical stiff frosted, Flowers imbricated in an ovate spike of whitish bractes
 4143 Leaves subulate rough reclinate, Stems 1-flowered, Glumes 2-flowered
 4144 Flower tubular trifid, Segments of the tripetaloid limb reflexed twice as short as tube, Lvs. entire
- 4145 Leaves cordate, Flowers spiked
 4146 Leaves long-triangular narrowed by degrees, at the base truncate cordate, Petals lin. lanc.
 4147 Leaves sagittate obtuse, Flowers in crowded umbels
 4148 Leaves lanceolate elliptical cordate, Spike oblong
- 4149 Leaves linguiform flat smooth pressed on the ground 2-ranked, Umbel shorter than the spathe
 4150 Leaves linguiform oblong flat smooth callous at end, Umbel contracted shorter than spathe, Limb erect
 4151 Leaves rounded fringed with pink hairs, Umbel few-flowered, Leaves of spathe cordate blunt
 4152 Leaves oblong elliptical acute retuse wavy, Umbel contracted, Limb and stamens erect
 4153 Leaves ellipt. lanceol. acute concave erect, Umbel longer than spathe, Limb spreading, Stam. ascending
 4154 Leaves linguiform flat smooth fringed at edge depressed, Umbel contracted, Limb and stamens erect
 4155 Leaves lanceolate ciliated villous above smooth beneath, Spathe campanulate 4-valved
 4156 Leaves oblong lanceolate hairy all over, Umbel fastigate rounded, Limb and stamens erect
- 4157 Leaves broad much spotted with brown
 4158 Lvs. ellipt. atten. at base depressed flat smooth ciliated at edge, Pedunc. longer than spathe and flower
 4159 Leaves linear carinated
 4160 Leaves linear lanceolate erect smooth, Peduncles length of spathe and flowers, Limb spreading
 4161 Leaves 2 round ovate acuminate and scape hairy backwards, Spathe reflexed withered, Stam. included
 4162 Leaves oblong obtuse smooth erect not spotted, Umbel rounded, Limb erect
- 4163 Leaves smooth
 4164 Leaves plaited

- 4165 Spathe 1-flowered, Style clavate
 4166 Spathe many-flowered, Style clavate
 4167 A slight variety of the last
 4168 Spathe many-flowered, Style filiform
 4169 Vernal, Sepals entire, Style filiform with a blunt stigma



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sadlers and coachmakers, who commonly stuff their pannels, cushions, &c. with it. In Louisiana and the neighbouring settlements, this plant being very carefully gathered and stripped of the bark, is made into mattresses, cushions, pannels, &c. It is manufactured by tying the stalks in bunches, and sinking them in water, or burying them under ground in a moist place, until the bark rots: they are then taken up, boiled in water, and washed, until the fibres are quite cleared of the pulp. These are not only used instead of horse-hair, but are so very like it, that a man cannot distinguish them, without a strict examination, and that even with a glass, unless he observes the branchings of it.

The Bonana bird's nest is always made of the fibres of this plant, and is generally found hanging by a few threads from the tops of the most expanded branches of the most lofty trees, especially those that spread over ponds or rivers.

In cultivating *Tillandsia* in our stoves, the parasitical species may either be hung up in baskets of moss, or fastened in moss to some plant, or to the stump of a tree set up on purpose: if planted in pots, they require but little water, and a sandy loam, with bits of sticks and small pieces of potsherds mixed with it. (*Sweet.*) They are, however, extremely difficult to manage under any mode of treatment.

750. *Pontederia*. So named in memory of Julius Pontederia, professor of botany at Padua, author of *Tabula Botanica*, 1718, &c. This is a genus of aquatic, herbaceous, perennial plants, with fibrous roots sheathing stem-leaves, and blue flowers in spikes or umbels from the cloven sheath of the leaves. A loamy soil in a cistern of water grows them well, and they are not without beauty.

751. *Hæmanthus*. From *αἷμα*, blood, and *ανθος*, a flower, in allusion to the brilliant red colors of the flowers. An ornamental genus, which thrives best in sandy loam and a little peat, and placed in a dry stove or bulb-house near the glass. The species require no water when in a dormant state, as the bulbs then ripen, and afterwards flower freely. (*Sweet.*)

752. *Galanthus*. From *γαλα*, milk, and *ανθος*, a flower, on account of the milky whiteness of the blossoms. It is rather singular, and also to be regretted, that no variations or hybrids have been produced from this early and pretty little flower.

753. *Leucojum*. From *λευκος*, white, and *ιον*, a violet. A genus resembling the last in habit, but differing in technical characters. The little autumn species is very pretty, but difficult to cultivate.

734. STRUMARIA. Jac.	STRUMARIA				<i>Amaryllidæe.</i>	<i>Sp. 9—11.</i>			
4170 truncata W.	truncated	△	or	1	ap.my	W	C. G. H.	1795.	O s.l
4171 rubella W.	pale-red	△	or	1	my.jn	Pk	C. G. H.	1795.	O s.l
4172 angustifolia W.	narrow-leaved	△	or	1	ap.my	Pk	C. G. H.	1795.	O s.l
4173 linguafolia W.	tongue-leaved	△	or	1	ap.my	W	C. G. H.	1795.	O s.l
4174 filifolia H. K.	fine-leaved	△	or	1	h	W	C. G. H.	1774.	O s.l
4175 spiralis H. K.	spiral	△	or	1	ap.au	Pk	C. G. H.	1774.	O s.l
4176 crispa B. M.	curled-flower'd	△	or	1	ap.au	Pk	C. G. H.	1790.	O s.l
4177 stellaris Jacq.	starry	△	or	1	o.n	Pk	C. G. H.	1794.	O s.l
4178 gemmata B. M.	Jewel-flowered	△	or	1	au	Pa.Y	C. G. H.	1812.	O s.l

735. CRINUM. W.	CRINUM.				<i>Amaryllidæe.</i>	<i>Sp. 26—28.</i>			
4179 americanum W.	American	△	or	2	jl.au	W	S. Amer.	1752.	O r.m
4180 erubescens W.	blush-colored	△	or	2	jn.au	Pa.w	W. Indies	1789.	O r.m
4181 Commelinii Ker.	Commelin's	△	or	2	jn.au	W	S. Amer.	1798.	O r.m
4182 defixum Ker.	marsh	△	or	2	au.s	W	E. Indies	1810.	O r.m
4183 amœnum Roxb.	delightful	△	or	2	...	W	E. Indies	1810.	O r.m
4184 sumatranum Ker.	Sumatra	△	or	5	...	W	Sumatra	1810.	O r.m
4185 longifolium Ker.	long-leaved	△	or	3	...	W	Bengal	1810.	O r.m
4186 cruentum Ker.	red-flowered	△	or	4	jn.au	R	E. Indies	1810.	O r.m
4187 asiaticum W.	Poison-bulb	△	p	3	jn.au	W	China	1732.	O r.m
	<i>C. toxicarium</i> Roxb.								
4188 amabile Donn.	beautiful	△	or	5	jn.au	Pu	E. Indies	1810.	O r.m
4189 bracteatum W.	bracteated	△	or	2	jn.au	W	Mauritius	1810.	O r.m
4190 canaliculatum Ker.	channelled-lvd.	△	or	4	...	W	.....	1810.	O r.m
4191 pedunculatum B. R.	long-peduncld.	△	or	3	jn.au	W	N. S. W.	1790.	O r.m
4192 ensifolium Roxb.	sword-leaved	△	or	3	...	W	Pegu	1819.	O r.m
4193 lorifolium Roxb.	strap-leaved	△	or	5	...	W	Pegu	1819.	O r.m
4194 augustum Roxb.	noble	△	or	4	jn.au	Pk	Mauritius	1818.	O r.m
4195 brachyandrum Herb.	short-stamened	△	or	5	jn.au	W	N. Holl.	1819.	O r.m
4196 plicatum Hort.	plaited	△	or	2	jn.au	W	China	1818.	O r.m
4197 declinatum Herb.	sloping	△	or	2	my	W	Silhet	1818.	O r.m
4198 submersum Herb.	lake	△	or	1½	jl	Pk	Rio Janei.	1820.	O r.m
4199 Careyænum Herb.	Carey's	△	or	2	jl	W	Mauritius	1821.	O r.m
4200 confertum Herb.	crowded	△	or	2	jn	W	N. Holl.	1822.	O r.m
4201 aquaticum Bwch.	water	△	or	4	au.s	Pk	C. G. H.	1820.	O r.m
4202 arenarium Herb.	sand	△	or	2	my	W	N. Holl.	1822.	O r.m
4203 mauritianum Herb.	African	△	or	4	nr	Pk	Mauritius	1812.	O r.m
4204 scabrum Herb.	rough	△	or	4	my	Pk	Azores	1810.	O r.m

736. CYRTANTHUS. H. K.	CYRTANTHUS.				<i>Amaryllidæe.</i>	<i>Sp. 7—8.</i>			
4205 angustifolius W.	narrow-leaved	△	or	1	my.jn	O	C. G. H.	1774.	O r.m
4206 collinus B. Reg.	hill	△	or	1	my.au	Cr	C. G. H.	1816.	O r.m
4207 spiralis B. Reg.	spiral-leaved	△	or	1	my.au	S	C. G. H.	1790.	O r.m
4208 obliquus W.	oblique-leaved	△	or	2	my.au	G.o	C. G. H.	1774.	O r.m
4209 uniflorus Ker.	one-flowered	△	or	1	my.au	W.R	C. G. H.	1816.	O r.m
4210 odorus Ker.	sweet	△	or	1	my.jl	Cr	C. G. H.	1818.	O r.m
4211 pallidus Sims.	pale	△	or	1	my.jl	Pk	C. G. H.	1822.	O r.m

737. BRUNSVIGIA. Heist.	BRUNSVIGIA.				<i>Amaryllidæe.</i>	<i>Sp. 8.</i>			
4212 Josephinae R. L.	Josephine's	△	or	1½	jn.au	S	C. G. H.	1814.	O r.m
β minor B. Reg.	smaller	△	or	1	jn.au	S	C. G. H.	1814.	O r.m
4213 multiflora H. K.	many-flowered	△	or	1	jn.au	R	C. G. H.	1752.	O r.m
4214 marginata H. K.	red-margined	△	or	1	s.o	S	C. G. H.	1795.	O r.m
4215 Rádula H. K.	rasp-leaved	△	or	1	ap.au	R	C. G. H.	1790.	O r.m
4216 striata H. K.	striated	△	or	1	s.o	Pk	C. G. H.	1795.	O r.m
4217 falcata B. M.	sickle-leaved	△	or	1	my.jn	R	C. G. H.	1774.	O r.m
4218 toxicaria Ker.	Poison-bulb	△	p	1	s.o	Pk	C. G. H.	1774.	O r.m
β coranica Ker.	cor. Poison-bulb	△	p	1	s.o	Pk	C. G. H.	1815.	O r.m
4219 ciliaris Ker.	fringed	△	or	1	...	Pk	C. G. H.	1752.	O r.m



History, Use, Propagation, Culture,

734. *Strumaria*. From *struma*, a tubercle; a name given by Jacquin, on account of the swelling of the middle of the style. Pretty little delicate plants; their culture as in *Hæmanthus*.

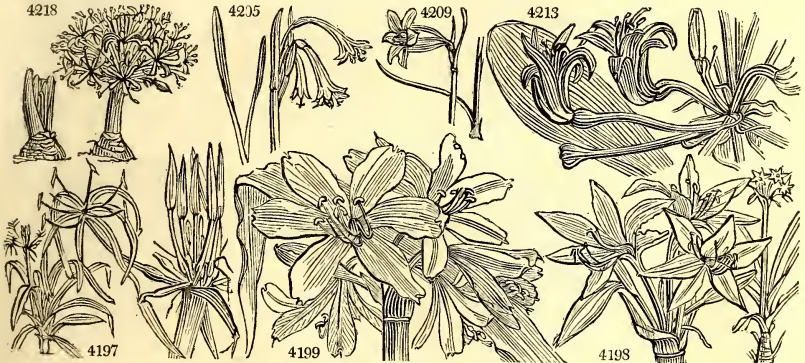
735. *Crinum*. *Keion* is Greek for a lily. Its limits as a genus are defined by the hypocateriform flower with linear reflexed segments. Some unwise attempts have been made to destroy this distinction, by admitting into this genus plants with the characters of *Amaryllis*. We, however, have adhered to the old, and, as we think, most intelligible, mode of understanding the genus. This is a fine stately genus of the *Amaryllidæe*: several beautiful species have lately been introduced. They grow best in rich loam, mixed with a little rotten dung, and potted in large pots they will flower abundantly. They may be increased by suckers from the root, or by seed. If the plant be shy in producing suckers, it may be cut down near to the root, and it will send out plenty. (*Bot. Cult.* 46.)

- 4170 Leaves linear ensiform rounded obtuse flat, Scape compressed, Stamens longer than cor.
 4171 Leaves linear obliquely bent, Petals flat
 4172 Leaves linear flat, Germen with three glands
 4173 Leaves linear ensiform rounded obtuse flat, Scape rounded, Stamens as long as cor.
 4174 Leaves filiform, Petals acute
 4175 Leaves filiform spiral, Petals acute colored outside
 4176 Leaf filiform straight, Umb. many-flowered, Petals wavy flat
 4177 Sepals spreading alternately bearded beneath the ends
 4178 Scape flexuose much longer than the lanceol. ciliated leaves, Pedunc. very long, Petals wavy channelled
- 4179 Leaves striated, Umbel sessile many-flowered, Tube furrowed about as long as limb
 4180 Lvs. lanc. lor. with cartil. teeth, Umb. subs. many-fl. Tube longer than limb, Stam. little long. than style
 4181 Ends of sepals hooked inwards, Leaves linear channelled, Scape 4-f.
 4182 Bulb with a very long tap-root, Leaves stiff erect with long points smooth at edge, Umb. sess. many-fl.
 4183 Bulb spherical, Leaves narrow with a nearly smooth edge, Umb. few-fl. scas. Sep. lin. lanc. as long as tube
 4184 Bulb oval not with a neck, Lvs. broad lin. lanc. straight with a white cartil. toothed edge, Umb. of fl. sess.
 4185 Bulb round, Leaves narrowed lax channelled hispid at edge, Umb. sess. many-fl. Seg. shorter than tube
 4186 Bulb ovate with a neck, Leaves broad subulate roughish at edge, Scape herbaceous
 4187 Bulb cylind. above ground, Lvs. lanc. smooth at edge longer than scape, Umb. stalk. Sep. long lin. reflexed
- 4188 Bulb very large with long red neck, Lvs. broad glauc. smth. at edge, Umb. many-fl. Tube shorter than limb
 4189 Bulb with long neck, Lvs. obl. lanc. with obt. point smooth wavy at edge, Umb. many-fl. with pale bracts
 4190 Bulb cylindrical scarcely with a neck, Leaves lorate with a smooth edge, Umb. on a very long stalk
 4191 Bulb cylindrical like a leek, Scape central broad compressed, Umb. many-fl. lax stalked
 4192 Bulb ovate, Leaves scattered straight of one form
 4193 Bulb cylindrical ovate, Leaves lorate very long, Umb. many-fl. stalked
 4194 Bulb colum. above ground, Lvs. many lanc. with smooth edge, Scape as long as lvs. Umb. stalk. 20-30-fl.
 4195 Bulb columnar, Leaves many bluntly acuminate, Flowers sessile, Segments longer than tube
 4196 Like *C. asiaticum*, but with leaves strong plaited backwards about their middle
 4197 Bulb oblong, Leaves acute wavy smooth at edge, Flowers many stalked decinate
 4198 Bulb oblong ovate red, Leaves rough at edge, Flowers spreading, Sepals lanceolate flat not revolute
 4199 Bulb round, Lvs. wavy rough at edge, Sepals obov. flat, Flowers very large with a tinge of pink at back
- 4200 Bulb ovate, Leaves narrow channelled acute, Flowers upright crowded
 4201 Bulb ovate, Leaves very long narrow green twisted, Flowers campanulate, Stamens spreading
 4202 Bulb ovate, Leaves a little rough at edge, Umbel 5-flowered shortly stalked, Sepals lanc. flat
 4203 Leaves long narrow weak, Scape shorter than leaves, Umbel 5-6-flowered
 4204 Leaves long narrow recurved rough at edge, Scape 2-edged, Umb. 5-flowered, Sepals broad
- 4205 Leaves linear channelled, Flowers cernuous, Tube cylindrical
 4206 Leaves 3 linear glaucous, Pedunc. somewhat shorter than flower, Stamens included
 4207 Many-flowered, Leaves 3 ligulate spiral obtuse glaucous
 4208 Leaves lanceolate obtuse flat oblique, Cor. pendulous obversely conical
 4209 Leaf solitary linear glaucous, Limb as long as throat
 4210 Flowers about 4 straightish nodding, Anthers included, Leaves linear not glaucous
 4211 Leaves linear lanc. keeled appearing after the flowers, Cor. nodding, Limb as long as tube

4212 Lvs. strap-shaped erect spreading glaucous, Scape twice as long as the rays of the many-flowered umbel

- 4213 Leaves linguiform lying on the ground smooth
 4214 Leaves linguiform pressed on the ground with a cartilaginous edge
 4215 Leaves elliptical pressed on the ground rough with little pustules
 4216 Leaves elliptical ovate erect edged
 4217 Leaves falcate with a mucricated discolored cartilaginous edge
 4218 Umbel hemispherical close, Leaves many erect oblique glaucous

4219 Leaves strongly fringed with white hairs



and Miscellaneous Particulars.

736. *Cyranthus*. From *zyeros*, curved, and *aspos*, a flower. The tube of the flower is long and round. This is an elegant genus, and the species grow well in sandy loam mixed with a little peat. They require plenty of water when in a growing state, but scarcely any when dormant; and they should be fresh potted just before they begin to grow, then they will flower freely. They may be increased by offsets from the bulbs, or from seeds. (*Bot. Cult.* 176.)

737. *Brunsvigia*. Named after the noble family of Brunswick. This is a splendid genus; some of the bulbs grow to a great size, and require large pots to have them thrive and flower in perfection. They require plenty of water when in a growing state; but must when dormant be kept so by wholly withholding water.

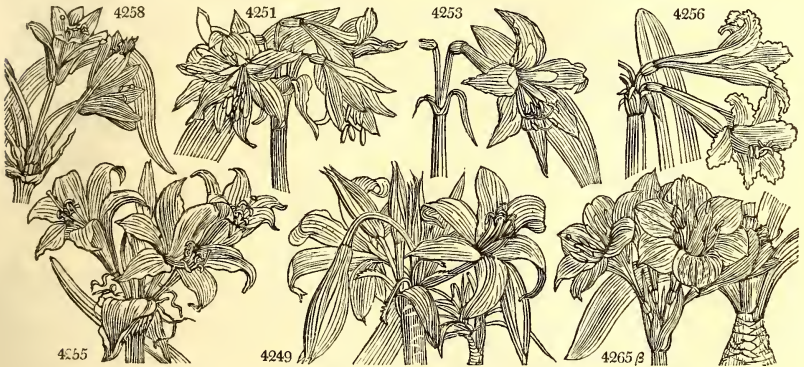
NERINE.		NERINE.		Amaryllidæe.		Sp. 12.	
4220	curvifolia W.	Fothergill's	glittering	1	my.s	P	C. G. H. 1777.
4221	corusca B. M.	Guernsey Lily	poppy-colored	1	jn.jl	S	C. G. H. 1809.
4222	sarniensis W.	Zigzag	small	1	s.o	R	Japan 1659.
4223	venusta B. M.	waved-flowered	golden	2	jn.jl	S	C. G. H. 1806.
4224	flexuosa W.	snow-drop-leav.	rose-colored	1	s.o	Pk	C. G. H. 1795.
4225	humilis W.	broad-headed	pretty	2	jn.jl	R	C. G. H. 1795.
4226	undulata W.	pretty		1	au	Pk	C. G. H. 1818.
4227	aurea W.			2	jl	Pk	C. G. H. 1820.
4228	radiata			1	au	Pk	C. G. H. 1818.
4229	rosea Herb.			2	jl	Pk	C. G. H. 1820.
4230	laticauda Ker.			1	au	Pk	C. G. H. 1818.
4231	pulchella Herb.			2	jl	Pk	C. G. H. 1820.
739. AMARYLLIS. W.		AMARYLLIS.		Amaryllidæe.		Sp. 33-39.	
4232	Pumilio W.	dwarf	modest	1	jn	Pk	C. G. H. 1774.
4233	pubida Ker.	Jacobea Lily	crowned	1	my.jl	Pk	C. G. H. 1795.
4234	formosissima W.	parrot	green-flowered	1	my.au	D.R	N. Amer. 1658.
4235	aúlica Ker.	Barbadoes lily	larger	1	my.au	G.s	Brazil ...
4236	psittacina Ker.	Mexican Lily	streaked-flow.	1	my.au	G.s	Brazil 1816.
4237	calyptrata Ker.	solandra-flow.	pale	1	my.au	G.s	Brazil 1816.
4238	equestris W.	solandra-flow.	ap	1	jl	S	W. Indies 1710.
4239	reginae W.	solandra-flow.	ap	1	jl	S	W. Indies 1710.
4240	advena B. M.	solandra-flow.	ap	2	my.jn	S	America 1725.
4241	cerina Lindl.	solandra-flow.	ap	2	my.jn	S	Chili 1807.
4242	solandraræfóra Lindl.	solandra-flow.	ap	1	my.jn	P.v	Chili 1821.
4243	pulverulata Herb.	solandra-flow.	ap	1	ap	P.v	S. Amer. 1820.
4244	acuminata Ker.	solandra-flow.	ap	1	ap.my	R	Brazil 1819.
4245	cyrtanthoides Sims.	Cyrtanthus-like	fiery	1	jn	Cr	Chili 1821.
4246	igneá Lindl.	white	netted-veined	1	n	S	Chili 1824.
4247	can'dida Lindl.	Maranhão	striped-leaved	1	s	W	Peru 1822.
4248	marinensis Ker.	netted-veined	striped-leaved	1	my.jn	Ru	Maranhão 1821.
4249	reticulata W.	New Holland	noble	1	ap.my	Pu	Brazil 1777.
4250	striatifolia	new Holland	noble	2	ap.my	Pu	Brazil 1815.
4251	australásica Ker.	new Holland	noble	2	jl.au	W	N. Holl. 1816.
4252	insignis Ker.	new Holland	noble	3	jl.au	Pk	E. Indies 1819.
4253	Crinum latifolium Roxb.	Molucca	safron-flower.	2	jl.au	Pk	Moluccas 1819.
4254	moluccana	safron-flower.	fiery	1	ap.my	Ve	Brazil 1815.
4255	crocata K. R.	fiery	striped-tubed	1	ap.my	S	Brazil 1815.
4256	rútila K. R.	striped-tubed	charming	1	ap.my	Ve	Brazil ...
4257	fúlgida B. Reg.	charming	belladonna	1	my.jn	Pk	C. G. H. 1754.
4258	blanda K. R.	Belladonna Lily	pale-flowered	2	jl.s	F	W. Indies 1712.
4259	Belladonna W.	pale-flowered	superb	2	jl.s	F	C. G. H. ...
4260	pállida	superb	large	1	ap.my	St	..... 1769.
4261	vittata W.	large	sickle-leaved	2	my.jl	St	C. G. H. 1774.
4262	major Lindl.	sickle-leaved	long-leaved	2	jl.au	P.Pu	C. G. H. 1816.
4263	coránica K. R.	long-leaved	Gowen's	2	jl	Pk	C. G. H. 1752.
4264	longifolia W.	Gowen's	revolute	2	jn.jl	Pk	.....
4265	Gowenia	revolute	Ceylon	2	s	Pk	C. G. H. 1774.
4266	revoluta W.	Ceylon	Yucca-flowered	3	jl.au	Pu	Ceylon 1771.
4267	zeylanica W.	Yucca-flowered	gigantic	2	jn.jl	W.pu	Guinea 1774.
4268	ornata W.	gigantic	broad-leaved	2	jl.au	W	S. Leone 1792.
4269	gigantæa K. R.	broad-leaved	Tartarian	3	jl.s	W	E. Indies 1806.
4270	latifolia W.	Tartarian		1	... B	B	Siberia 1822.
4271	tatarica Pall.			1	... B	B	Siberia 1822.
740. VALLOTA. Herb.		VALLOTA.		Amaryllidæe.		Sp. 1.	
4272	púrpúrea Herb.	scarlet	smaller	1	my.jn	S	C. G. H. 1774.
4273	minor	smaller		1	my.jn	S	C. G. H. 1774.



History, Use, Propagation, Culture,

738. *Nerine*. A fanciful name. *Nerine* was the daughter of *Nereus*. The plant has become naturalized in Guernsey, having been part of the cargo of a Cape ship, which was cast away many years ago on the coast of the island. *N. sarniensis* is a popular autumnal bulb, imported annually from the islands of Jersey and Guernsey, where it is grown in the open air in a sandy soil. Here it requires the protection of a frame to perfect the bulbs, so as it may flower the following year. The reason is, that the leaves on which the perfection and future flowering of every bulb depends, are protruded in the beginning of winter, and our winters are too long, gloomy, and severe, to admit of these leaves performing their functions properly. Hence two or more winters in a very mild situation in the open air are required to do what in Jersey is done in one winter; or two winters (as W. Williamson experienced) in a cold frame, or one winter only (agreeably to Knight's experience) in a frame with artificial heat. (*Hort. Trans.* iii. 450. iv. 177, and *Caled. Mem.* ii. 62.)

- 4200 Leaves narrow sub-involute glaucous falcate, Petals lin.-lanc. wavy, Stamens erect sub-exserted
 4201 A mere variety of the foregoing, from which it differs in having crimson flowers
 4202 Many-fl. Leaves many narrow sub-involute not glaucous upright
 4203 Like the last, but the flowers are scarlet and appear at the same time as leaves
 4204 Lvs. very narrow obt. min. pustulate, Sepals recurved divaricating: the one bearing the stamens remote
 4205 Leaves few ligulate channelled, Sepals turned upwards oblique, Stam. declinate shorter than cor.
 4206 Laxly many-fl. Lvs. few lin. Cor. recurved stel. irregular, Sepals curled; the lowest placed under the stem.
 4207 Fl. stalked erect, Cor. infundibulif. clavate, Sepals linear lanceolate, Stamens straight, Leaves quite blue
 4208 Five sepals, or all rising in a semicircular ray wavy, Stam. deflexed twice as long as cor.
 4209 Leaves broad nerved lying on the ground, Sepals equally revolute, Stamens very long
 4210 Leaves linear lorate, Scape flat smooth, Peduncles upright hispid 3-cornered twice as long as flower
 4211 Leaves glaucous, Cor. deformed pale streaked with red
 4232 Flower sessile, Leaf one linear, Sepals longer than tube ovate obl. reflexed acute, Stamens inclined
 4233 One-flowered, Cor. regular erect turbinate conniving, One sepal pushed aside by the stamens
 4234 Tube fringed, Cor nodding with a very ringent limb, Stam. included in the involute lower segments
 4235 Tube crowned by a short entire green membrane
 4236 Two-flowered half ringent, Membrane of the tube very short two-colored toothletted, Stamens included
 4237 Mem. of orifice erect, Limb half ringent nodding with outer seg. incurved at end, the inner recurved
 4238 Tube fringed, 2-3-fl. Stalks shorter than the erect spatha, Tube horizontal, Limb curved upwards
 4239 Tube fringed, 2-4-fl. Lvs. few lorate acum. with a keeled rib, Cor. cernu. deeply turbin. Tube short thick
 4240 Many-fl. Tube fringed, Leaves 1 or more linear ligulate involute glaucous, Stalks as long as nodding cor.
 4241 Flowers about 2 with a very long tube and a nearly regular limb
 4242 Leaves long strap-shaped with the scape very cœsius, Flowers 4 ringent with taper pointed segments
 4243 Cor. funnel-shaped campanulate drooping, Stamens straight exserted, Leaves green lorate obtuse
 4244 Umbel 6-fl. Sepals rolled into a cylindrical tube, Flower-stalks the length of flowers, Stigma simple
 4245 Flower solitary erect, Sepals conniving, Stamens ascending, Anthers innate, Leaves linear fleshy
 4246 Flower nodding ringent, Outer sepals broadest, Throat naked, Tube the length of the ovary
 4247 Leaves several lorate-oblong narrow. towards the base, Flower cernuous cucul. tubular obliquely ringent
 4248 Leaves linear very long and weak, Limb nodding 2-lipped, Flower-stalks many times longer than ovary
 4249 Lvs. numerous spreading flat with rough edge, Fl. about 10 with nodd. spreading obsolete 2-lipped limb
 4250 Bulb spherical, Spathe bifid erect obtuse, Flowers sessile, Leaves with a long point wavy downwards
 4251 Spathe withered scarcely as long as stalks, Cor. cern. uneq. Tube as long as germen, Upper sepal remote
 4252 About 2-fl. Spathe arid refl. Limb turbin. bilabiate: three upper sep. conniv. recurv. lower narr. remote
 4253 Leaves obl. lanc. not glaucous, Flowers nodding with an oblique mouth, the upper one much reflexed
 4254 Lvs. many obl. obtuse, Pedunc. divaricating as long as fl. Tube short turbin. Limb recurved spreading
 4255 With many fl. on stalks, Lvs. ligul. Cor. regular turbin. nodd. Sepals recurv. at end, Tube scarcely any
 4256 Cor. cucul. campanulate, Outer sepals separate to the bottom; inner united half way by the interior ribs
 4257 Lvs. altern. turn. both ways fal. Scape flat, Cor. regul. Tube twice as short as revol. limb. Stam. erect spread.
 4258 Umb. many-fl. shortly stalked, Leaves attenuated glaucous, Tube about twice as long as limb
 4259 Many-fl. Leaves acuminate glaucous, Flowers erect recurved stalked cucullate, Limb spreading revolute
 4260 Leaves many lorate lanceolate wavy thick in the middle, Limb cernuous as long as tube
 4261 Lvs. many lorate atten. channelled rough at edge, Limb obsolete 2-lipped shorter than tube nodding
 4262 Leaves obl. lanceolate narrowed both ways wavy rough at edge, Limb nodding shorter than tube
 4263 Spathe many-fl. Flowers stalked tubular at base, Leaves obl. lanceolate
 4264 Spathe 2-fl. Cor. campan. deeply 6-parted, Upper seg. very narr.; lower ob. acum. Lvs. lin. longer than scape
 4265 The only species, *Amaryllis purpurea* of Willd



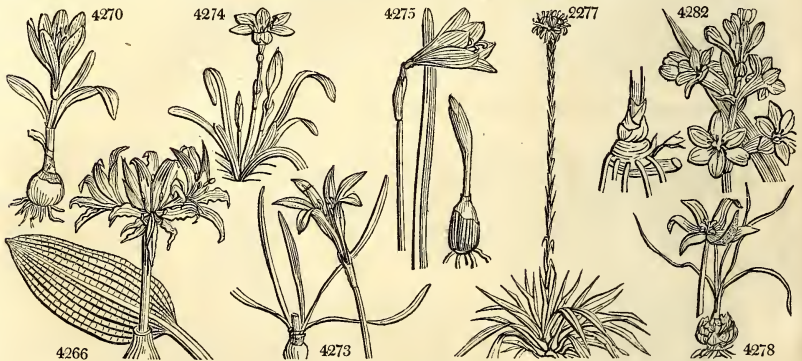
and Miscellaneous Particulars.

739. *Amaryllis*. Name of a nymph celebrated by the poets, and especially by Virgil. Derived from *ἀμαρύνω*, to be resplendent. This is a superb genus: the greenhouse sorts thrive best in a rich loamy soil, and should have but little water given them after they have done flowering, so that the bulbs may harden, to produce more flowers the following season. Most of them are increased freely by offsets, and ripen plenty of seed. A shell taken from the bulb, with a leaf on it, and planted in a pot of mould, will produce a bulb; as will almost any bulbous-rooted plant. (*Bot. Cult.* 131.)

The stove *Amaryllises* grow best in light loam and rich soil, and the strong growing kinds require large pots to flower in perfection; they are increased by offsets and by seeds, which they bear plentifully, if care be taken to shake some pollen on the stigma at the proper period.

740. *Vallota*. A name of unknown meaning. The only species of this genus is a beautiful Cape plant, with bright purple flowers, of which two varieties are known in gardens.

741. GRIFFINIA. Ker. GRIFFINIA.				<i>Amaryllidæe.</i> Sp. 2.				
4266 hyacinthina Ker.	blue	♂	△ or	1 jn.s	B	S. Amer.	1815.	O r.m Bot. reg. 165
4267 parviflora Ker.	small-flowered	♂	△ or	1/2 jn.s	Pa.P	S. Amer.	1815.	O r.m Bot. reg. 511
742. STERNBERGIA. W. STERNBERGIA.				<i>Amaryllidæe.</i> Sp. 4—5.				
4268 colchiciflora W. & K.	Colchicum-fl.	♂	△ or	1/2 aus	Y	Hungary	1816.	O r.m W. & K. t. 2. 157
4269 clusiana Ker.	Ecluse's	♂	△ or	1/2 aus	P.Y	Constant.	...	O r.m Clu. hist. 1. t. 163
4270 lutea Ker.	yellow	♂	△ or	1/2 aus	Y	S. Europe	1596.	O r.m Bot. mag. 290
4271 chloroleuca Ker.	one-leaved	♂	△ or	1/2 my.au	P.Gr	.....	...	O r.m Ker. rev. pl. 8. f. 2
43. ZEPHYRANTHES. Herb. ZEPHYRANTHES.				<i>Amaryllidæe.</i> Sp. 3.				
4272 tubispatha Herb.	tube-sheathed	♂	△ or	1/2 my.jl	W	S. Amer.	...	O r.m Bot. mag. 1586
4273 atamas'co Herb.	Atamasco-Lily	♂	△ or	1/2 my.jn	W	N. Amer.	1629.	O r.m Bot. mag. 239
4274 ramosa Lindl.	rosy	♂	△ or	1/2 my.jn	R	Havann.	1823.	O r.m Bot. reg. 821
744. HABRANTHUS. Herb. HABRANTHUS.				<i>Amaryllidæe.</i> Sp. 2.				
4275 versicolor Herb.	changeable	♂	△ ft	1/2 s	Pk	S. Amer.	1821.	O r.m Bot. mag. 2485
4276 gracilifolius Herb.	slender	♂	△ ft	1/2 ja	W	S. Amer.	1821.*	O r.m Bot. mag. 2464
745. DORYANTHES. R. Br. DORYANTHES.				<i>Amaryllidæe.</i> Sp. 1.				
4277 excelsa R. Br.	gigantic	♂	△ or	20 jl.au	Cr	N. S. W.	1800.	Sk s.p Bot. mag. 1685
746. GETHYLLIS. H. K. GETHYLLIS.				<i>Amaryllidæe.</i> Sp. 4—10.				
4278 spiralis W.	spiral-leaved	♂	△ or	1/2 jn.jl	W	C. G. H.	1780.	s.p Bot. mag. 1088
4279 ciliaris W.	fringed	♂	△ or	1/2 jn.jl	W	C. G. H.	1788.	s.p Jac.schoen. 1. t. 79
4280 villosa W.	hairy	♂	△ or	1/2 jn.jl	W	C. G. H.	1787.	s.p
4281 lanceolata W.	spear-leaved	♂	△ or	1/2 jn	W	C. G. H.	1790.	s.p
747. POLIANTHES. L. TUBEROSE.				<i>Hemerocallidæe.</i> Sp. 2.				
4282 tuberosa W.	common	♂	△ or	3 aus.	W	E. Indies	1629.	O r.m Bot. reg. 63
β flore pleno	double	♂	△ or	3	W	.....	...	O r.m
4283 gracilis Lk.	slender	♂	△ or	3 aus.	P.Y	Brazil	1822.	O r.m
748. ALSTREMERIA. W. ALSTREMERIA.				<i>Amaryllidæe.</i> Sp. 5—14.				
4284 Pelegrina W.	spotted-flower.	♂	△ or	1 jn.s	St	Peru	1753.	S r.m Bot. mag. 139
4285 Light W.	striped-flower'd	♂	△ or	1/2 f.mr	S	Peru	1776.	R l.s.p Bot. mag. 125
4286 salsilla W.	eatable-rooted	♂	△ ft	6 jn.jl	G.Cr	S. Amer.	1806.	R l.s.p Bot. mag. 1613
4287 Flos Martini Ker.	Flor de St. Mar.	♂	△ or	1 1/2 jn	w.p.x	Chili	1822	S l.s.p Bot. reg. 731
4288 pulchella Sims.	red-flowered	♂	△ or	3 jn	S	Chili	1822.	S l.s.p Hook. ex. fl. 64
749. CONANTHERA. Fl. per. CONANTHERA.				<i>Amaryllidæe.</i> Sp. 1—2.				
4289 campanulata Lindl.	bell-flowered	♂	△ or	1/2 mr	B	Chili	1823.	R l.s.p Bot. mag. 2496
750. HYPOXIS. W. HYPOXIS.				<i>Hypoxidæe.</i> Sp. 15—19.				
4290 erecta W.	upright	♂	△ or	1/2 jn.jl	Y	N. Amer.	1752.	O p.1 Bot. mag. 710
4291 sobolifera W.	creeping	♂	△ or	1/2 jn.s	Y	C. G. H.	1774.	O p.1 Bot. mag. 711
4292 villosa W.	villous	♂	△ or	1/2 jn.s	Y	C. G. H.	1774.	O p.1 Jac. ic. 2. t. 307
4293 decumbens W.	decumbent	♂	△ or	1/2 jn.s	Y	Jamaica	1755.	O p.1 Mill. ic. 1. t. 39. f. 2
4294 obliqua W.	oblique-leaved	♂	△ or	1/2 jn.jl	Y	C. G. H.	1793.	O p.1 Bot. rep. 195
4295 aquatica W.	water	♂	△ or	1/2 jn.jl	Y	C. G. H.	1787.	O p.1
4296 alba W.	white	♂	△ or	1/2 jn	W	C. G. H.	1806.	O p.1 Jac. coll. 4. t. 2. f. 1
4297 obtusa B. Reg.	obtuse	♂	△ or	1/2 jn	Y	C. G. H.	1816.	O p.1 Bot. reg. 159
4298 ovata W.	smooth-leaved	♂	△ or	1/2 f.m.y	Y	C. G. H.	1806.	O s.p Bot. mag. 1010
4299 stellata W.	star-flowered	♂	△ or	1/2 ap.jn	W.B	C. G. H.	1732.	O s.p Bot. mag. 662
β elegans P. S.	white star-flow.	♂	△ or	1/2 ap.jn	W.B	C. G. H.	1752.	O s.p Bot. mag. 1223



History, Use, Propagation, Culture.

741. *Griffinia*. Named by Mr. Ker, after William Griffin, Esq. of South Lambeth, an amiable man, and most assiduous and successful collector of bulbous plants. His collection is even now one of the finest in Europe. These species resemble *Amaryllis*, but have broad-stalked leaves, and blue flowers.

742. *Sternbergia*. Named after Count Caspar Sternberg, a celebrated botanist and patron of botany. The species consist of the hardy plants formerly referred to *Amaryllis*; they are all hardy, and, with the exception of *S. lutea*, very rare.

743. *Zephyranthes*. A fanciful name employed by Mr. Herbert. It seems to mean wind-flower. These are pretty plants, with solitary white or pink flowers. The species are so nearly hardy, as to survive in a warm border all but our severest winters.

744. *Habranthus*. From *ἀβρα*, delicate, and *ανθος*, a flower. Small Chilian plants resembling the last in habit, and principally distinguished by their very unequal declinate stem.

745. *Doryanthes*. So called by Correa de Serra, from *δορυ*, spear, and *ανθος*, a flower, on account of the long straight stem, surmounted by a head of crimson flowers. This is a fine plant from New South Wales. It grows freely in a mixture of sandy loam and peat, but does not flower till it gets large: a conservatory is the most proper place for it, as the flower-stem grows to a great height before the flowers expand. It may be increased by suckers from the roots, but these are sparingly produced. (*Bot. Cult.* 151.)

746. *Gethyllis*. From *γη*, to rejoice. The flowers are much valued at the Cape of Good Hope for the delicious perfume of their flowers. The species are very curious: but few have been introduced. Their bulbs require the usual attention as to not watering them when in a dormant state; they are increased by offsets or seeds.

- 4266 Leaves with a flat stalk, The three lower sepals wavy, Scape with a prominent line along each side
 4267 Leaves oval-lanceol. with a stalk two-edged crosswise, Umbel remarkably stalked, Sepals uniform
- 4268 Leaves linear obliquely twisted shining
 4269 Leaves lorate flat very glaucous laxly spiral
 4270 Leaves many-keeled, Flower sessile on a two-edged scape, Sepals oval-oblong obtuse
 4271 About 2-flowered, Leaf linear, Tube very short, Sepals rounded at end
- 4272 Leaves few linear, Spathe 1-leaved sheathing erect bifid twice as short as stalk
 4273 Leaves many ligulate, Spathe bifid longer than stalk, Sepals acuminate
 4274 Leaves lying flat on the ground shorter than the one-flowered scape, Spathe bifid fleshy at end
- 4275 Leaves linear
 4276 Leaves cylindrical
- 4277 The only species
- 4278 Leaves linear spiral smooth, Sepals ovate oblong
 4279 Leaves linear spiral ciliated, Sepals ovate oblong
 4280 Leaves linear filiform spiral villous, Sepals ovate oblong
 4281 Leaves lanceolate flat, Sepals lanceolate

4282 Leaves linear lanceolate, Sepals oblong

4283 Leaves linear, Scape racemose, Sepals linear

- 4284 Stem erect, Cor. spreading, Three outer sepals wedge-shaped 3-toothed, Leaves lin. lanc. sessile
 4285 Stem erect, Leaves spatulate oblong, Pedunc. longer than involucr. Cor. 2-labiate
 4286 Stem twining, Cor. cylindrical in branched umbels
 4287 Stem erect, Leaves linear lanceolate, Flower-stalks twisted, Outer sepals obcordate mucronate
 4288 Stem weak, Leaves spatulate ciliated, Umbel many-flowered, Peduncles 2-flowered

4289 Flower campanulate spreading

- 4290 Hairy, Scape 4-fl. shorter than lin. lanc. leaves, Pedunc. twice as short as leaves
 4291 Like the last, but the leaves are shorter more villous and incurved, Petals more obtuse
 4292 Villous, Scape 4-fl. shorter than lin. lanc. lvs. Pedunc. shorter than flower, Fruit cylindrical
 4293 Pilose, Scape 2-fl. decumbent shorter than lin. lanc. leaves
 4294 Scape 3-fl. pilose as long as leaves, Pedunc. thrice as long as fl. Leaves lanc. smooth obliquely bent
 4295 Leaves linear, Scapes umbelliferous or 1-fl. Height depending on depth of water
 4296 Scape 1-flowered shorter than filiform rounded smooth leaves
 4297 Leaves hispid many-flowered racemose, Sepals obtuse
 4298 Leaves ovate-lanceolate entire smooth, Scapes 1-flowered
 4299 Scape 1-flowered shorter than the lin. lanc. loose keeled smooth leaves



and Miscellaneous Particulars.

747. *Polyanthes*. From *πολύς*, many, and *ἄνθος*, a flower; in allusion to the abundance of the blossoms. This is a very popular bulb, on account of its highly odoriferous flowers. It is imported annually from Italy and America, and flowers freely in pots of sandy loam and some rotten dung or leaf mould. R. A. Salisbury is of opinion that we might grow our own bulbs, by planting the offsets in such a situation as would obtain for them a "sufficient degree of heat in summer to bring their leaves out to their full magnitude, that of the roots following of course." "The theory," he adds, "which I would recommend any intelligent gardener to adopt in its general management is, to keep the roots growing as vigorously as possible from May to October, but in a state of complete rest and drought for the rest of the year." (*Hort. Trans.* i. 53.)

748. *Alstrœmeria*. So named from Baron Claudius Alstrœmer, of Sweden, who in his travels through Europe sent many plants to Linnæus. The species are beautiful, and *A. Ligtu* is as fragrant as mignonette. *A. Salsilla* is cultivated in Peru and the West Indies for its roots, which are used like the tubers of the potatoe.

A. Ligtu, Sweet observes, "is generally considered difficult to flower; but it will blossom well by letting the pots be dry for a considerable time till the shoots are all dried up; then give it a good watering, and put it in a moist heat, and it will flower abundantly. It may be increased by parting the roots or by seed." (*Bot. Cult.* 15.) The finest kinds have not yet been introduced to this country.

749. *Conanthera*. From *κωνίς*, a cone, and *ἄνθος*, an anther; their anthers being, which is singular among these plants, united to a cone. A pretty little Peruvian genus, of which two species are now known.

750. *Hypoëis*. From *ὑπο*, beneath, and *εἶδος*, pointed, in allusion to the sharp points of the inferior sepals. The species are plants with yellow flowers of little beauty, if we except *H. stellata*, which has a dark spot at the claws of its white petals. They increase fast by seeds or offsets.

4300 stellipilis Ker.	starry-haired	✓	△	or	1	jl	Y	C. G. H.	1821.	O	s p	Bot. reg. 663
4301 veratrifolia W.	plaited-leaved	✓	△	or	2	jn, jl	Y	C. G. H.	1788.	O	l p	Jac. ic. 2. t. 367
4302 linearis B. Rep.	linear-leaved	✓	△	or	1	ap, my	Y	C. G. H.	1792.	O	l p	Bot. rep. 171
4303 serrata W.	saw-leaved	✓	△	or	1	jn, jl	Y	C. G. H.	1788.	O	l p	Bot. mag. 709
4304 juncea W.	rushy	✓	△	or	½	jn, jl	Y	Carolina	1787.	O	l p	Smi. spic. 15. t. 16
751. CURCULIGO. H. K.	CURCULIGO.											
4305 sumatrana Roxb.	Sumatra	✓		or	3	jl	Y	Sumatra	1818.	O	l p	Bot. cab. 443
4306 plicata H. K.	plaited-leaved	✓	△	or	1½	jn, jl	Y	C. G. H.	1788.	O	l p	Bot. reg. 345
4307 orchoides W.	narrow-leaved	✓	△	or	½	jn, jl	Y	E. Indies	1800.	O	l p	Roxb. cor. 1. t. 13
4308 brevifolia H. K.	short-leaved	✓	△	or	½	my, jl	Y	E. Indies	1804.	O	l p	Bot. mag. 1076
4309 latifolia H. K.	broad-leaved	✓	△	or	1½	my, au	Y	Poolo Pin.	1804.	O	l p	Bot. mag. 2034
4310 recurvata H. K.	recurved-leaved	✓	△	or	1	...	Y	Bengal	1805.	O	l p	Bot. reg. 770
752. BAMBU'SA. W.	BAMBOO CANE.											
4311 arundinacea W.	common	✓	□	ec	40	...	Ap	India	1730.	S	1	Roxb. cor. 1. t. 79
4312 verticillata W.	whorl-flowered	✓	□	cu	20	...	Ap	India	1802.	S	1	Roxb. cor. 1. t. 80
753. CALAMUS. W.	CALAMUS.											
4313 ruden'tum W.	common	✓	□	ec	50	...	Ap	E. Indies	1812.	S	s. l	Rumph. 5. t. 52
4314 Zalacca W.	Java	✓	□	cu	20	...	Ap	E. Indies	1812.	S	s. l	Rumph. t. 57. f. 2
754. EHRHARTIA. W.	EHRHARTIA.											
4315 panicea W.	Panic-grass	✓	△	cu	2	my, jl	Ap	C. G. H.	1790.	S	co	Smith ined. 1. t. 9
755. A'CORUS. W.	ACORUS.											
4316 calamus W.	sweet-flag	✓	△	m	2	jn, jl	Ap	Britain	pools.	D	m s	Eng. bot. 356
4317 gramineus W.	grass-leaved	✓	△	cu	½	f	Ap	China	1786.	D	s p	Smi. spic. 15. t. 17
756. ORONTIUM. W.	ORONTIUM.											
4318 aquaticum W.	aquatic	✓	△	cu	½	jn	Ap	N. Amer.	1775.	D	s p	Hook. ex. fl. 19
4319 japonicum W.	Japan	✓	△	ec	2	ja, ap	Ap	Japan	1783.	D	s p	Bot. mag. 898
757. TUPISTRA. B. M.	TUPISTRA.											
4320 squallida B. M.	Amboyna	✓	△	cu	2	ap	Ld	Amboyna	1810.	R	l p	Bot. reg. 704
758. TAC'CA. W.	TACCA.											
4321 pinnatifida W.	Salep	✓	△	ec	2	...	Pu	E. Indies	1793.	R	l p	Bot. cab. 692
4322 integrifolia B. M.	entire-leaved	✓	△	cu	2	my, jl	Pu	E. Indies	1810.	Sk	l p	Bot. mag. 1488



History, Use, Propagation, Culture.

751. *Curculigo*. From *Curculio*, the weevil, one of the Coleopterous insects; the seed having a process resembling the rostrum or beak of that animal. The species are of the easiest culture and increase, but of little beauty. They in most respects resemble *Hypoxis*.

752. *Bambusa*. Latinized from the Indian name *Bambos*. *B. arundinacea* has a woody, hollow, round, straight culm, forty feet high and upwards, simple and shining; the internodes a foot in length and circumference; sheaths thick, hairy, rough, convolute, deciduous; branches alternate, slender, solid, spiny, reclining, springing out from the base to the very top; the lower ones being usually cut off. Panicle of flowers diffused in spikes.

It grows naturally almost every where within the tropical regions. Over a great part of Asia it is very common; in China, Cochin-China, Tonquin, Cambodia, Japan, Ceylon, the peninsula of India, and the islands. It has been long introduced into the West Indies, and is said to flourish likewise in South Carolina.

There is, perhaps, scarcely any plant that serves for such a variety of domestic purposes. In the East Indies great use is made of it in building, and the houses of the meaner people are almost entirely composed of it. Dr. Patrick Brown mentions, that it was yet strong and perfect in some of the houses which had been built by the Spaniards in Jamaica above a hundred years before. Bridges also are made of it, masts for their boats, boxes, cups, baskets, mats, and a great variety of other utensils and furniture, both domestic and rural. Paper also is made from it, by bruising and steeping it in water, and thus forming it into a paste. It is the common fence for gardens and fields; and is frequently used as pipes for conveying water. The leaves are generally put round the chests of tea which are sent to Europe from China, as package, fastened together so as to form a kind of mat. The tops of the tender shoots are frequently pickled in the West Indies.

In the cavities or tubular parts of the bamboo is found at certain seasons a concrete white substance, called *Tabasheer* or *Tabachir*, an article which the Arabian physicians hold in high estimation. It is commonly found in what are called the female or large bamboos. The bamboos which contain this concrete are found on shaking to contain a fluid, which, after some time, gradually lessens, and then they are opened in order to extract the *Tabasheer*. The nature of this substance is very different from what might have been expected in the product of a vegetable. Its indestructibility by fire, its total resistance to acid, its uniting by fusion with alkalis in certain proportions into a white opaque mass, into a transparent permanent glass, and it being again separable from these compounds entirely unchanged by acids, &c. seem to afford the strongest reasons for considering it as very nearly identical with common siliceous earth. As to its medical virtues, though the drug be, as before observed, in much esteem with the orientalists, yet they are not such as to cause it to have any regard paid it in the modern practice of physic in Europe.

The bamboos grow rapidly to a great height in our stoves in moist loamy soil, and they are readily increased by suckers.

753. *Calamus*. From *καλαμος*, a reed, in Greek; *qalem*, in Arabic; *calam*, in Slavonic; *calamus*, and *cubmus*, in Latin. This genus seems to form the connecting link between the palms and the gramineous plants, having the inflorescence of the former, and the habit of the latter. It furnishes the rattan canes, of which

4300 Leaves radical numerous white beneath with stellate hairs, Umbel few-flowered
 4301 Scape 1-fl. shorter than the oblong elliptical smooth plaited leaves
 4302 Leaves linear smooth channelled, Flower solitary green outside
 4303 Scape 1-fl. shorter than the linear ciliate serrate keeled leaves, Flowers out of flower reflexed
 4304 Leaves channelled hairy entire, Scapes 1-fl.

4305 Leaves lanceolate on long stalks, Head sessile, Flowers shorter than bracts
 4306 Leaves linear subulate, Flowers sessile
 4307 Leaves linear subulate, Flowers stalked
 4308 Leaves lanceolate, Tube of flower very long
 4309 Leaves elliptical, Head sessile, Tube of flower scarcely longer than limb
 4310 Leaves elliptical recurved, Head stalked cernuous, Tube of flower very short

4311 Panicle branched divaricating
 4312 Spike terminal simple whorled

4313 Prickles of stem reflexed, Spadix divaricating straight
 4314 Prickles spreading, Spadix radical

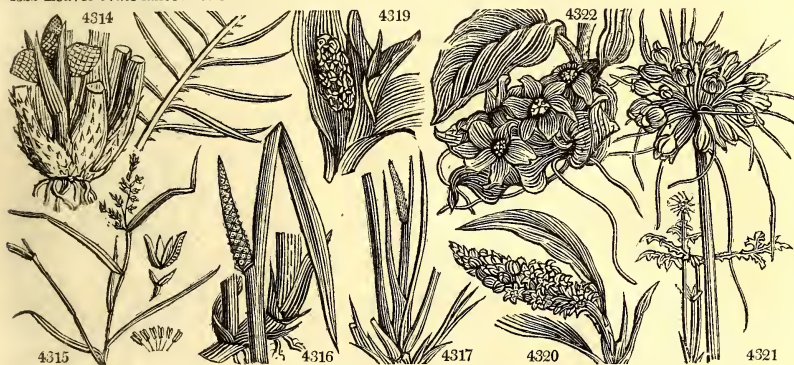
4315 Culm divided, Panicle branched, Flowers erect dignous

4316 Point of scape very long leafy
 4317 Point of scape scarcely longer than spadix

4318 Leaves lanceolate-ovate
 4319 Leaves ensiform

4320 The only species

4321 Leaves tripartite multifid
 4322 Leaves ovate lanceolate entire stalked



and Miscellaneous Particulars.

there are several species or varieties, all distinguished by a stem which is perennial, unbranched, long, round, solid, jointed, scandent when near trees, but without prickles or tendrils, extremely tough and pliable. The different sorts grow on the banks of rivers in the East, like our reeds, and furnish valuable props for plants, cables, ropes, withs, wicker and wattled work, baskets, hoops for petticoats, walking-sticks, &c.

C. Zalacca, the Salxck, is cultivated for the fruit, which is about the size of a walnut, and covered with scales like those of a lizard; within the scales are two or three sweet yellow kernels. This tree is supposed to yield the dragon's blood.

754. *Ehrharta*. So named by Linnæus, in honor of Frederick Ehrhart, a native of Switzerland, a very diligent and acute observer. These are very curious grasses, of which an account has been published in the Transactions of the Linnean Society.

755. *Acorus*. From α , private, and $\rho\alpha\rho\eta$, the pupil of the eye, maladies in which are supposed to be cured by the virtues of this plant. *Acorus Calamus*, Linnæus observes, is the only native aromatic plant of northern climates; the root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent, bitterish taste. The flavor is greatly improved by drying. The roots are commonly imported from the Levant; but those of our own growth are full as good. The Turks candy them, and regard them as a preservative against contagion. In many counties of England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes; a purpose for which its fragrant leaves made it very suitable.

The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in intermittent fever even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitters, and stomachic infusions. Thomson says, (*Mat. Med.* 134.) it is too seldom prescribed. Though the plant is abundant in the fenny districts of England, yet what is used by the druggists is imported from the Levant. No cattle whatever eat the plant.

756. *Orontium*. The Greek name of a plant now unknown to us as such. It is thought to have been so called from growing on the edge of the Orontes, a river of Asia Minor. *O. japonicum* has broad leaves like those of the lily of the valley, green on the upper side, and covered with very minute hairs, so that they look like a fine velvet. Cattle, hogs, and stags, are very fond of these leaves in the spring, and they come out among the earliest. Kalm states, that the Indians gather the seeds and eat them when dried like peas, boiling them repeatedly in water before they are fit for use; they also boil them in milk or butter, and use them instead of bread. They call the plant *Tawkee*. It grows in marshes, near moist and low grounds, very plentifully in Virginia, Canada, and other provinces of North America.

757. *Tupistra*. A diminutive of $\tau\upsilon\pi\alpha\varsigma$, a mallet, on account of the peculiar form of the flower. An obscure plant, supposed to belong to the order Aroidæ. It has long lanceolate broad leaves, and radical spikes of dingy purple flowers. It requires the heat of a bark-bed.

758. *Tacca*. The Malay name of the plant. *T. pinnatifida* has a red root, the size of a man's fist, roundish.

759. ASPIDISTRA. Ker. ASPIDISTRA.		Aroideæ. Sp. 1.		China		1822. Sk co		Bot. reg. 628	
4323 lurida Ker.	dinky	☐	cu	1	jl	Pu			
760. JUN'CUS. L.		RUSH.		Junceæ. Sp. 23-39.					
4324 acútus W.	great sharp sea	☐	ec	6	jl.au	Ap	Britain	sea co.	S s Eng. bot. 1614
4325 marítimus P. S.	lesser sharp sea	☐	ec	4	au	Ap	Britain	sal. m.	S s Eng. bot. 1725
4326 conglomerátus W.	common	☐	ec	2	jn.jl	Ap	Britain	moi. p.	S m.s Eng. bot. 835
4327 effúsus W.	soft	☐	ec	5	my.au	Ap	Britain	moi. p.	S m.s Eng. bot. 836
4328 glaucus W.	hard	☐	ec	2	jl	Ap	England	moi. p.	S m.s Eng. bot. 665
4329 bálticus L.	coast	☐	cu	1½	jl	Ap	Europe	1820.	S s
4330 árticus L.	arctic	☐	cu	1	my	Ap	Norway	1822.	S m.s Flor. Dan. t.1094
4331 filifórmis W.	least	☐	cu	½	au	Ap	Britain	tur.bo.	S m.s Eng. bot. 1175
4332 trifídus W.	three-leaved	☐	cu	½	jl	Ap	Scotland	sc.alp.	S m.s Eng. bot. 1482
4333 squarrósus W.	Goose-corn	☐	w	½	jn.jl	Ap	Britain	sa.hea.	S m.s Eng. bot. 935
4334 grácilis E. B.	slender	☐	cu	½	jl.au	Ap	Scotland	sc.alp.	S m.s Eng. bot. 2174
4335 capitátus W.	headed	○	cu	½	jl.au	Ap	Europe	1823.	S s
4336 lampocárpus L. T.	shining-fruited	☐	w	2	jn.au	Ap	Britain	moi. p.	S m.s Eng. bot. 2143
4337 acutiflórus L. T.	sharp-flowered	☐	w	2	jl.au	Ap	Britain	moi. p.	S m.s Eng. bot. 238
4338 obtusiflórus L. T.	blunt-flowered	☐	w	1½	au	Ap	Britain	mar.	S m.s Eng. bot. 2144
4339 uliginósus H. K.	little-bulbous	☐	cu	1	jn.jl	Ap	England	tur.he.	S m.s Eng. bot. 801
4340 aristátus Mich.	bearded	☐	cu	1	jl	Ap	N. Amer.	1823.	S s
4341 subverticillátus W.	half-whorled	☐	cu	1	jl.au	Ap	Europe	1821.	S m.s
4342 bulbósus W.	bulbous-rooted	☐	w	1	jl.au	Ap	Britain	...	S m.s Eng. bot. 934
4343 bufónius W.	toad	○	w	½	jl.au	Ap	Britain	w.s.gr.	S m.s Eng. bot. 802
4344 triglómis W.	three-flowered	☐	cu	½	jl	Ap	Britain	bgs.m.	S m.s Eng. bot. 899
4345 biglómis W.	two-flowered	☐	cu	½	au	Ap	Scotland	bgs.m.	S m.s Eng. bot. 898
4346 castáneus H. K.	black-spiked	☐	cu	1	jl	Ap	Scotland	sc.alp.	S m.s Eng. bot. 900
761. LU'ZULA. Dec.		LUZULA.		Junceæ. Sp. 10-25.					
4347 pilósa W.	hairy	☐	w	½	mr.my	Ap	Britain	groves.	S m.s Eng. bot. 736
4348 Forstéri E. B.	Forster's	☐	w	½	my.jn	Ap	England	woods.	S m.s Eng. bot. 1293
4349 máxima W.	wood	☐	w	2	my	Ap	Britain	woods.	S m.s Eng. bot. 737
4350 látea W.	yellow	☐	cu	1	my.jn	Ap	Switzerl.	...	S m.s
4351 álvida W	white-headed	☐	cu	1	my.jn	Ap	Switzerl.	...	S m.s Leer.her.t.13.f.6
4352 nívea W.	snowy	☐	cu	1	my.jn	Ap	Switzerl.	1770.	S m.s Sch.gram.t.7.f.7
4353 campéstris W.	field	☐	w	½	ap.my	Ap	Britain	bar.pa.	S m.s Eng. bot. 672
4354 congéstá W. en.	close-headed	☐	w	½	jn	Ap	France	1805.	S m.s Hos.gr.3.l.97.f.5
4355 spícata W	spiked	☐	cu	½	jl	Ap	Scotland	sc.alp.	S m.s Eng. bot. 1176
4356 flavéscens Lk.	yellowish	☐	cu	½	jl	Ap	Europe	1820.	S m.s Hos.gram.3.t.94
762. CO'RYPHA. W.		FAN-PALM.		Palmeæ. Sp. 2-10.					
4357 umbraculífera W.	great	☐	ec	100	...	Y	E. Indies	1742.	S r.m Rheede.3.t.1.12
4358 Taliéra Roxb.	Taliera Palm	☐	or	100	...	W.gr	E. Indies	1823.	S r.m



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In its natural state it is one of the most bitter and acrid, but loses something of these qualities by culture. The raw root is rasped, and washed frequently in water, when a white meal falls to the bottom like starch; this is again washed twice or thrice, till no more acrimony can be perceived in the water. The meal is then dried in the sun. The first infusions are thrown away carefully, being looked upon as noxious and even deadly. In Otahaité and the other Society isles, they make of this meal a tasteful, nourishing, gelatinous cake-like salep. In Banda, where sago bread is not common, they use this as a succedaneum, and it is even preferable to the other. They also apply it as a plaster to deep wounds. The petioles and stalk boiled a long time lose their acrimony, and are rendered fit for food, as well as the roots, in China and Cochinchina.

759. *Aspidistra*. From *ασπις*, a little round shield, on account of the form of the flower. A plant with the same habit as *Tupistra*, but with solitary radical flowers half buried in the earth.

760. *Juncus*. From the Latin, *jungo*, to join: the first ropes were made of rushes. The *Junceæ* and *Cyperacæ* form intermediate links between the *Gramineæ* and the *Liliacæ*; some of the latter, as *Anthericum*, bearing considerable resemblance to the *Juncus*.

J. acutus and *maritimus* are planted on the sea-embankments of Holland, and also in some parts of our own coasts, and in America. The roots run deep into the sand, and form a matted body which holds it together. In Holland, when the plants are fully grown and in flower, they are cut down, dried, and bound up like corn. The *J. acutus*, being very rough, is used for scouring copper and other vessels, and is one of the plants imported into this country for that purpose, under the name of the Dutch rush. The other species, and often both, are plaited into mats, baskets, chair-bottoms, ropes, &c.

J. conglomeratus and *effusus* are used when green for making little baskets and children's ornaments; and the pith of this and other species is used as wicks for watch-lights, and children's toys.

J. glaucus and *conglomeratus* are bad weeds in wet-bottomed clayey pastures. The best way of removing them is to dig them out, and to prevent their growth, to lay the land dry by surface and under-drainage. These species, and some others, are gathered green by the Dutch gardeners, and used when dry as ties for fruit-trees. Sir J. E. Smith says, "they both, probably, served for strewing floors in England, as mentioned by Shakspeare and Sir Thomas More, about the time of Edward IV., and later; till more refined manners wrought

4323 The only species

- 4324 Culm rounded mucronate, Panicle terminal, Invol. 2-leaved spiny
 4325 Panicle terminal proliferous, Involucre 2-leaved spiny, Caps. obl. acute as long as sepals
 4326 Culm upright, Pan. lateral globose, Caps. retuse, Flowers triandrous
 4327 Culm upright, Pan. lateral decompound effuse, Caps. clavate truncate at end
 4328 Culm glaucous at the end bent inwards and rounded, Pan. lat. erect, Caps. oblong acute
 4329 Culm pungent, Panicle effuse
 4330 Culm erect, Umbel lateral, Pedunc. many-fl. Flowers sessile
 4331 Culm filiform nodding, Panicle lateral
 4332 Leaves and flowers ternary terminal
 4333 Leaves setaceous, Heads clustered leafless
 4334 Leaves linear flat, Stem dichotomous racemose higher than leaves, Flowers solitary
 4335 Culm filiform, Head terminal sessile solitary in an involucre
 4336 Leaves jointed compressed, Culm not jointed, Panic. erect, Caps. colored shining
 4337 Leaves jointed compressed, Culm not jointed, Panic. compound dichotomous, Sepals acute
 4338 Leaves and stem jointed round, Panic. divaricating, Sepal obtuse as long as capsule
 4339 Leaves bristly somewhat knotty, Heads 3-flowered proliferous, Culm bulbous rooting
 4340 Bulbous, Culm leafy erect compressed, Flowers 3-androus and bractee bearded
 4341 Culm procumbent, Leaves setaceous jointed, Corymb dichotomous divaricating, Head 5-fl. sessile
 4342 Leaves linear channelled, Culm leafy at base, Pan. cymose, Caps. obtuse
 4343 Leaves linear channelled, Culm dichotomous racemose, Flowers solitary
 4344 Leaves flat, Head 3-flowered terminal erect leafless with bractee
 4345 Leaves flat, Head 2-flowered terminal one-sided leafy at base
 4346 Leaves flat stem-clasping, Head terminal double many-flowered leafy at base, Bractes acute

- 4347 Leaves pilose, Panic. cymose divaricating, Flowers solitary, Caps. obtuse
 4348 Leaves pilose, Panic. cymose erect, Flowers solitary, Caps. pointed
 4349 Leaves pilose taper-pointed, Panic. cymose decompound, Flowers in bundles
 4350 Leaves and sheaths smooth, Corymb comp. close, Pedunc. many-flowered, Sepals acute shining
 4351 Leaves pilose, Corymb decomp. spreading shorter than leaves, Sepals mucronate equal, Root fibrous
 4352 Leaves pilose, Corymb comp. contracted shorter than leaves, Sepals acute unequal, Root creeping
 4353 Leaves pilose, Spikes terminal, Capsules obtuse
 4354 Like the last, but the culm is paniced with ovate spikes
 4355 Leaves flat, Spike racemose nodding compound at base, Capsules acute
 4356 Like *Luzula pilosa*, but heads are yellower, Leaves broader, Flowers and capsules larger

- 4357 Fronds pinnate palmate with a thread between the segments, Spadix erect
 4358 Seeds roundish dark-colored rugose the size of a nutmeg



and Miscellaneous Particulars.

them into mats, and foreign commerce at length introduced carpets. For the former purpose, indeed, as well as for chair-bottoms and hassocks, *Scirpus lacustris* has superseded their use. (*English Flora*, p. 162.)

761. *Luzula*. These plants were called by the ancient botanists *Gramen Luzulae*; whence this name has been contrived by Decandolle to distinguish the rushes with flat leaves, from those which have leaves resembling the stem.

762. *Corypha*. From *κορυφή*, the summit of any thing; a name applied by Linnæus to this noble genus of palms, the topmost leaves of which form immense fans twenty feet long and fifteen wide. In Ceylon this palm is called Tallipot, and, according to Knox (*Hist. of Ceylon*), it grows as big and tall as a ship's mast, and very straight. The leaves are of great use, one being so broad and large, that it will cover fifteen or twenty men. Being dried it is very strong and limber; and though it be very broad when open, yet it will fold close like a fan, and then is no bigger than a man's arm. The whole leaf spread is round, but is cut into triangular pieces for use; these they lay upon their heads as they travel, with the narrow end foremost, to make their way through thickets. Soldiers all carry them, not only to shade them from the sun, and to keep them dry in case of rain on their march, but to make their tents for them to lie under. These leaves all grow on the top of the tree. It bears no fruit until the last year of its life, and then yellow blossoms, most lovely to behold, but smelling very strongly, come out on the top, and spread abroad in great branches; these come to a fruit, round and very hard, as big as our largest cherries; in such abundance, that one tree will yield seed enough for a country; but not good to eat. The flowers smell so strong, that they cut down the trees when they are near houses. The trunk within is a pith only, which they beat in a mortar to flour, and bake cakes of it, which taste much like white bread. The leaves also serve for covering their houses, and for writing on with an iron style. Most of the books which are shown in Europe for the Egyptian papyrus, are made from the leaves of this palm. In Malabar it is called Coddapanâ. Rumphius, Loureiro, and Adanson mention several other species of this palm.

The *C. taliera* is a fine tree of prodigious use in the northern provinces of India for covering houses and for other useful purposes.

763. LICUA ^a LA. W.	LICUALA.					<i>Palmæ.</i>	<i>Sp. 1—2.</i>						
4359 spinôsa W.	spiny	♂	□	ec	6	...	W.gr	E. Indies	1802.	S	r.m	Rump.amb.1	t.9
764. THRI ⁿ AX. W.	THRINAX.					<i>Palmæ.</i>	<i>Sp. 1—3.</i>						
4360 parviflôra W.	small	♂	□	ec	15	...	W.gr	Jamaica	1778.	S	r.m		
765. TRADESCAN ^t IA. W.	SPIDERWORT.					<i>Commelineæ.</i>	<i>Sp. 12—29.</i>						
4361 virginica W.	common	♂	△	or	1½	my.o	B	N. Amer.	1629.	D	p.l	Bot. mag.	105
4362 rôsea Ph.	rose-flowered	♂	△	or	1	my.o	Pk	Carolina	1802.	D	r.m	Bot. cab.	370
4363 subâspêra B. M.	Lyon's	♂	△	or	1	my.o	Pu	N. Amer.	1812.	D	r.m	Bot. mag.	1597
4364 crassifolia W.	thick-leaved	♂	△	or	3	jl.o	B	Mexico	1796.	L	s.p	Bot. mag.	1598
4365 êrêcta W.	upright	♂	○	or	2	jl.au	B	Mexico	1794.	S	r.m	Bot. mag.	1340
4366 discolor W.	purple-leaved	♂	□	or	1	aps.	W	S. Amer.	1783.	Sk	s.p	Bot. mag.	1192
4367 malabârica W.	Grass-leaved	♂	△	or	1	jl.au	Pu	E. Indies	1776.	Sk	r.m	Rheed.ma.9	t.63
4368 fuscâta Lodd.	rusty	♂	△	or	1	s.o	B	S. Amer.	1820.	L	r.m	Bot. reg.	482
4369 parviflôra R. Br.	small-flowered	♂	△	or	1	au.s	B	Peru	1822.	L	r.m	Fl. per. t.	272
4370 geniculâta W.	knotted	♂	△	or	1	jl.au	B	W. Indies	1783.	L	s.p	Jac. amer. t.	64
4371 cristâta W.	crested	♂	□	or	1	ils	B	Ceylon	1770.	D	r.m	Bot. mag.	1435
4372 Zanônia Red.	Gentian-leav'd	♂	△	or	1½	jl.d	B	W. Indies	1759.	S	r.m	Red. lil.	192
766. DICHORIZAN ^d RA. Vand.	DICHORIZANDRA.					<i>Commelineæ.</i>	<i>Sp. 1—4.</i>						
4373 thyrselflôra Vand.	thyrselflôra	♂	△	or	4	au	B	Brazil	1822.	R	r.m	Bot. reg.	682
767. AGAPAN ^t THUS. W.	AFRICAN LILY.					<i>Hemerocallidæ.</i>	<i>Sp. 2—3.</i>						
4374 umbellâtus R. Br.	large-flowered	♂	△	or	3	ja.au	B	C. G. H.	1692.	R	r.m	Bot. mag.	500
β variegatus	striped-leaved	♂	△	or	2	ja.au	B	.....	...	R	r.m		
4375 præ ^c ox W. en.	small-flowered	♂	△	or	4	ja.au	P.B	- C. G. H.	...	R	r.m	Bot. cab.	42
768. BLANDFOR ^d IA. R. Br.	BLANDFORDIA.					<i>Hemerocallidæ.</i>	<i>Sp. 2—3.</i>						
4376 nôbilis R. Br.	noble	♂	△	or	2	jl.au	Or	N. S. W.	1803.	S	s.l.p	Ex. bot. t.	4
4377 grandiflôra R. Br.	large-flowered	♂	△	or	2	jl.au	Cr	N. S. W.	1812.	S	s.l.p	Lab. no. hot.	111
769. HEMEROCAL ^l LIS. W.	DAY LILY.					<i>Hemerocallidæ.</i>	<i>Sp. 7—9.</i>						
4378 graminea H. K.	narrow-leaved	♂	△	or	1	jn.jl	LY	Siberia	1759.	R	s.l	Bot. mag.	873
4379 flavâ H. K.	yellow	♂	△	or	2	jn	Y	Siberia	1596.	R	s.l	Bot. mag.	19
4380 disticha Donn.	fan-like	♂	△	or	2	my.jl	Or	China	1798.	R	s.l	Sweet fl. gar.	28
4381 fîlva W.	copper-colored	♂	△	or	4	jn.au	Ful	Levant	1596.	R	s.l	Bot. mag.	64
4382 Liliâstrum W. en.	Savoy-Spiderw.	♂	△	or	1½	my.jn	W	Switzerl.	1629.	R	s.l	Bot. mag.	318
	<i>Anthericum Liliâstrum L.</i>												
4383 Japonica B. M.	white-flowered	♂	△	or	1	au.s	W	Japan	1790.	R	p.l	Bot. mag.	1433
4384 carûlea H. K.	blue-flowered	♂	△	or	1½	my.jl	B	Japan	1790.	R	p.l	Bot. mag.	894
770. A ^l LOE. W.	ALOE.					<i>Hemerocallidæ.</i>	<i>Sp. 99—116.</i>						
4385 atrovirens Dec.	dark-green	♂	||	gr	1	my	G	C. G. H.	1823.	S	s.l		
4386 tortuôsa Haw.	twisted	♂	||	gr	1	my.s	G	C. G. H.	1794.	S	s.l	Bot. mag.	1337
4387 rigida Dec.	rigid	♂	||	gr	1	my.s	G	C. G. H.	1795.	C	s.l	Plant. grass.	62
4388 âspêra Haw.	rough	♂	||	gr	1	jn	G	C. G. H.	1795.	C	s.l		
4389 viscôsa Haw.	clammy	♂	||	gr	1½	jn.jl	G	C. G. H.	1727.	Sk	s.l	Bot. mag.	814
4390 âlbicans Haw.	white-edged	♂	||	gr	1	jl	G	C. G. H.	1795.	Sk	s.l	Bot. mag.	1452
4391 cymbifôrmis Haw.	boat-leaved	♂	||	gr	1	my.au	G	C. G. H.	1795.	Sk	s.l	Bot. mag.	802
4392 reticulâta Haw.	netted	♂	||	gr	1	my.au	G	C. G. H.	1794.	C	s.l	Bot. mag.	1314
4393 recurva Haw.	recurve-leaved	♂	||	gr	1	au	G	C. G. H.	1795.	C	s.l	Bot. mag.	1353
4394 retûsa W.	smooth cushion	♂	||	gr	1	my.jl	G	C. G. H.	1720.	Sk	s.l	Bot. mag.	455
4395 mirâbilis Haw.	rough cushion	♂	||	gr	1	my.au	G	C. G. H.	1795.	Sk	s.l	Bot. mag.	1354
4396 translûcens H. K.	transparent	♂	||	gr	1	my.au	G	C. G. H.	1795.	Ls	s.l	Bot. mag.	1417



History, Use, Propagation, Culture,

763. *Licuala*. The Macassar name of this plant in the Moluccas. The fruit of this palm is a fleshy oval drupe, about the size of sweet-bay berries; it continues long green, but finally becomes brown or blackish: the nut is oblong, hard, and striated. In the Isle of Celebes, and in Macassar, they make much use of the narrow leaves for tobacco pipes, and of the middle broad one for wrapping up fruit, &c. The wood, if the pith and hard rind may be so called, like that of most palms, is of little use.

764. *Thrinax*. From *θεωαξ*, a fan. The leaves of this little palm form a sort of fan. Brown (*Hist. of Jamaica*.) says, that this tree covers whole fields in many parts of Jamaica; that it grows both in the rocky hills and low moist plains near the sea, but seems to thrive best in the former. It shoots by a simple stalk, and rises generally from four or five, to ten or fourteen feet in height. It is always furnished with leaves in form of a fan, sustained by slender compressed foot-stalks, and bears a great abundance of small berries, which serve to feed both the birds and beasts of the wood, when they are in season. The trunk seldom exceeds four or five inches in diameter: it is much used for piles in wharfs, and other buildings made in the sea; for it stands the water well, and is never touched by the worms. The foot-stalks of the leaves split and pared, serve to make baskets, bow-strings, ropes, &c. where strength and toughness are required. The leaves are called thatch, and are used as such, especially for out-houses, and stand the weather many years; but such coverings are apt to harbour rats and other vermin.

765. *Tradescantia*. So named by Ruppinius, in memory of John Tradescant, gardener to Charles I. He introduced the first species to Europe. The museum of the Tradescants is celebrated as one of the earliest ever

- 4359 Frond palmate, Segments linear toothed truncate at end, Stem spiny
- 4360 Fronds flabelliform palmate plaited with stiff lanceolate segments, Stem compressed not prickly
- 4361 Erect, Leaves lanceolate smooth, Flowers umbelled clustered terminal
- 4362 Erect, Leaves grassy very long, Peduncles few-flowered, Cal. smooth
- 4363 Erect smooth branched, Leaves long recurved ciliated, Pedunc. lat. and term.
- 4364 Leaves ovate at the edge and under woolly, Flowers umbelled clustered terminal
- 4365 Erect, Leaves ovate narrow at base smooth, Peduncle terminal naked bifid racemose
- 4366 Stemless smooth, Bractes equitant compressed, Leaves lanceolate colored beneath
- 4367 Erect smooth, Peduncles solitary very long
- 4368 Stemless with rusty hairs, Leaves elliptical acuminate radical
- 4369 Creeping, Leaves ovate oblong : under the flowers cordate, Pedunc. umbelled axillary
- 4370 Procumbent hairy
- 4371 Creeping smooth, Spathes 2-leaved imbricated
- 4372 Erect, Leaves broad lanceolate, Pedunc. lateral solitary many-flowered, Bractes double
- 4373 Leaves oval lanceolate whole-colored, Racemes thyrsoid many-flowered
- 4374 Peduncles length of corolla, Leaves linear
- 4375 Peduncles twice as long as corolla, Leaves linear
- 4376 Bractes twice as short as flower-stalks, Leaves very narrow
- 4377 Bractes as long as flower-stalks : the inner much the shortest
- 4378 Leaves linear keeled, Three inter. petals wavy, Nerves of the petals undivided
- 4379 Leaves linear keeled, Petals flat acute, Nerves of the petals undivided
- 4380 Leaves linear keeled distichous, Sepals wavy acute spreading reflexed, Nerves branched
- 4381 Leaves linear keeled, Three inner petals obtuse wavy, Nerves of outer petals branched
- 4382 Leaves linear flat, Scape simple, Nerves of petals undivided
- 4383 Leaves cordate acuminate, Cor. funnel-shaped
- 4384 Leaves ovate acuminate, Limb of cor. campanulate
- § 1. *Flowers small. Cor. bilabiate. (APICRA. W.)*
- 4385 Leaves spreading ovate 3 cornered, Edge and keel with short subulate teeth
- 4386 Leaves spirally trifarious spreading blackish, on the outside smooth, Stem much twisted
- 4387 Nearly stemless, Leaves multifarious green not spotted : the upper horizontal rugose
- 4388 Leaves trifarious orbicular ovate acuminate green beneath very rough, Stem erect
- 4389 Leaves trifarious ovate acute very green not warted, Stems upright simple
- 4390 Leaves polished mucronate whitish, Edges and keel cartilaginous
- 4391 Leaves cymbiform obtuse glaucous very hollow above, Suckers numerous
- 4392 Leaves equilaterally triquetrous obtuse glaucous netted above concave
- 4393 Leaves subulate thick erect recurved concave above warted beneath, Edges obscurely pearly
- 4394 Leaves 6-farious at the end retuse deltoid pale-green lined above
- 4395 Leaves ciliate spiny 5-farious deltoid cuspidate at the edge and keel ciliate spiny, Obsoletely netted below
- 4396 Proliferous, Leaves multifarious lanceolate rounded elegantly ciliated ; at end with obl. pellucid spots



and Miscellaneous Particulars.

formed in this country : it was left to Ashmole, from whom it came to the university of Oxford, bearing his name. All the species are of the easiest culture, but few of them can be called beautiful. *T. virginica* is usually admitted as a border-flower.

766. *Dichorizandra*. A name contrived by Mikán, from *dis*, two, *χρῆσις*, separately, and *ανης*, in botanical composition, a stamen ; to express the separation of two anthers, upon which the character of the genus depends. Beautiful herbaceous stove plants, with the foliage of *Commelina* or *Tradescantia*.

767. *Agapanthus*. From *αγαπᾶω*, to love, and *ανθος*, a flower ; lovely-flower. The blossoms are of a bright agreeable blue color, and the plant itself much prized. It is nearly hardy, and cultivated without any trouble, in large pots of common earth.

768. *Blandfordia*. In compliment to George, Marquis of Blandford, son of the second Duke of Marlborough, a lover of plants, but not of honor. Beautiful New Holland liliaceous plants, very rarely seen in collections. Their flowers resemble those of *Cyrtanthus*.

769. *Hemerocallis*. From *ἡμερα*, the day, and *καλος*, beautiful : beautiful day-lily. This is an ornamental genus of the easiest culture. The species are remarkable among border flowers for their fine orange, yellow, or blue flowers. The *Hemerocallis cærulea* has been considered a distinct genus by Mr. Salisbury, and called *Saussurea*.

770. *Aloc.* A word for which several derivations have been offered. That it has been obtained from the Arabic *alloch*, seems most probable. The genus has been divided by Mr. A. H. Haworth and others into

4397 púmila Haw.	small-cobweb	Y	Δ	gr	1	my	G	C. G. H.	1752.	Sk s.l	Bot. mag. 1361
4398 arachnoides Haw.	cobweb	Y	Δ	gr	1	au	G	C. G. H.	1727.	Ls s.l	Bot. mag. 756
4399 rádula Haw	raspy-pearl	Y	Δ	gr	1½	au	G	C. G. H.	1805.	Sk s.l	Jac. schen. t. 35
4400 atónuata Haw.	chalky-pearl	Y	Δ	gr	1	my.au	G	C. G. H.	1790.	Sk s.l	Bot. mag. 1345
4401 mínima Haw.	least-pearl	Y	Δ	gr	½	my.s	G	C. G. H.	1725.	Sk s.l	Bot. mag. 1360
4402 minor Haw.	lesser-pearl	Y	Δ	gr	1	my.au	G	C. G. H.	...	Sk s.l	Bot. mag. 815
4403 margaritifera H. K.	larger-pearl	Y	Δ	gr	1	my.s	G	C. G. H.	1739.	Sk s.l	Brad.succ.3. t.21
4404 Hawórhth Hort.	largest-pearl	Y	Δ	gr	1	au	G	C. G. H.	1801.	Sk s.l	
4405 bulluláta Jacq.	blistered	Y	Δ	gr	1½	my.jn	G	C. G. H.	...	Sk s.l	
4406 pseudo-rigida Salm.	gunpowdered	Y	Δ	gr	½	ap.my	G	C. G. H.	...	Sk s.l	
4407 bicarináta Haw.	double-keeled	Y	Δ	gr	1	jn	G	C. G. H.	1820.	S s.l	
4408 spirális Haw.	great-spiral	Y	Δ	gr	1	au.s	G	C. G. H.	1790.	S s.l	
4409 spirélla Haw.	small-spiral	Y	Δ	gr	1½	au	G	C. G. H.	1808.	S s.l	
4410 pentagóna Haw.	five-sided	Y	Δ	gr	1¼	jn.jl	G	C. G. H.	1731.	Sk s.l	Bot. mag. 1338
	<i>β torta</i>			gr	1						
4411 imbricáta Haw.	rough-flowered	Y	Δ	gr	1½	jn.jl	G	C. G. H.	1731.	Sk s.l	Bot. mag. 1455
4412 foliolósa Haw.	small-leaved	Y	Δ	gr	1	jn.au	G	C. G. H.	1795.	C s.l	Bot. mag. 1352
4413 semiglabráta Haw.	half-smoothed	Y	Δ	gr	½	...	G	C. G. H.	1811.	Sk s.l	
4414 erécta Haw.	erect-pearl	Y	Δ	gr	½	...	G	C. G. H.	1818.	Sk s.l	Pl. grasses, 57
4415 brévis Haw.	short-pearl	Y	Δ	gr	½	jn.jl	G	C. G. H.	1810.	Sk s.l	Bot. mag. 1360
4416 fasciáta Haw.	barred-pearl	Y	Δ	gr	½	...	G	C. G. H.	1818.	Sk s.l	
4417 scábra Haw.	rough	Y	Δ	gr	½	jn.jl	G	C. G. H.	1818.	Sk s.l	
4418 papillósa Salm.	papillose	Y	Δ	gr	1	jl.au	G	C. G. H.	1820.	Sk s.l	
4419 pseudo-tortuósa Sal.	twisted-triang.	Y	Δ	gr	1	jl.au	G	C. G. H.	1818.	Sk s.l	
4420 concinna Haw.	mat	Y	Δ	gr	½	...	G	C. G. H.	1818.	Sk s.l	
4421 cordifólia Haw.	heart-leaved	Y	Δ	gr	½	...	G	C. G. H.	1817.	Sk s.l	
4422 asperisúcula Haw.	small-thick	Y	Δ	gr	½	jn	G	C. G. H.	1818.	Sk s.l	
4423 cúrta Haw.	short-twisted	Y	Δ	gr	½	...	G	C. G. H.	1816.	Sk s.l	
4424 tortélla Haw.	little-twisted	Y	Δ	gr	½	jl	G	C. G. H.	1817.	Sk s.l	
4425 nitida Salm.	shining	Y	Δ	gr	1	jl	G	C. G. H.	...	Sk s.l	Bot. mag. 2304
4426 setáta Haw.	bristle-edged	Y	Δ	gr	½	jn	R	C. G. H.	1818.	Sk s.l	
4427 obliqua Haw.	broad-marbled	Y	Δ	gr	1½	jn.au	R	C. G. H.	1759.	Ls s.l	Bot. mag. 979
4428 maculáta H. K.	narr.-marbled	Y	Δ	gr	3	jl.au	R	C. G. H.	1759.	C s.l	Bot. mag. 765
4429 nigricans Haw.	dark-tongue	Y	Δ	gr	2	jn.jl	R	C. G. H.	1790.	Ls s.l	Bot. mag. 838
4430 glábra Haw.	smooth-keeled	Y	Δ	gr	3	jn.jl	R	C. G. H.	1796.	Sk s.l	
4431 carináta W.	rough-keeled	Y	Δ	gr	2	jn.jl	R	C. G. H.	1731.	Ls s.l	Bot. mag. 1331
4432 lingua W.	acute-tongue	Y	Δ	gr	3	mr.n	R	C. G. H.	...	Ls s.l	
4433 anguláta Haw.	retuse-tongue	Y	Δ	gr	2	mr.n	R	C. G. H.	1791.	Sk s.l	
4434 acinacifólia Haw.	longsword-lvd.	Y	Δ	gr	3	mr.s	Or	C. G. H.	1819.	Sk s.l	Bot. mag. 2369
4435 brevifólia Haw.	sht.-lvd.-tongue	Y	Δ	gr	3	jl.au	R	C. G. H.	1809.	Sk s.l	
4436 intermédia Haw.	middle-tongue	Y	Δ	gr	2	mr.n	R	C. G. H.	1790.	Sk s.l	
4437 verrucósa W.	warted	Y	Δ	gr	2	mr.n	R	C. G. H.	1731.	Sk s.l	Bot. mag. 837
4438 nitens Haw.	shining	Y	Δ	gr	3	mr.n	Or	C. G. H.	1818.	Sk s.l	
4439 subcarináta Salm.	obscure-keeled	Y	Δ	gr	2	jn.jl	Or	C. G. H.	1818.	Sk s.l	
4440 túrgida Haw.	turgid-cushion	Y	Δ	gr	½	s	P.Gr	C. G. H.	1818.	Sk s.l	
4441 acumináta Haw.	mid.-hedgheg	Y	Δ	gr	3	mr.my	Or	C. G. H.	1795.	Sk s.l	Bot. mag. 757
4442 tuberculáta Haw.	tuberc.-hedgheg.	Y	Δ	gr	2	mr.my	Or	C. G. H.	1796.	Sk s.l	
4443 hómilis W.	dwarf-hedgheg.	Y	Δ	gr	1	mr.jn	Or	C. G. H.	1731.	Sk s.l	Plant. grass. 39
4444 can'dicans Haw.	marbled-white	Y	Δ	gr	1	jl	Or	C. G. H.	1796.	Sk s.l	
4445 vírens Haw.	apple-green	Y	Δ	gr	3	aus.	Y	C. G. H.	1790.	Sk s.l	Bot. mag. 1355
4446 dichótoma W.	smooth-stem'd.	Y	Δ	gr	8	...	R	C. G. H.	1780.	Ls s.l	
4447 pseudo-africana Sal.	narrow-tongue	Y	Δ	gr	6	mr.n	Or	C. G. H.	1731.	Sk s.l	Bot. mag. 1322
4448 Prin'cipis Haw.	the Prince's	Y	Δ	gr	5	mr.n	Y	C. G. H.	1821.	Sk s.l	
4449 echináta Salm.	great-tuberc.	Y	Δ	gr	6	...	...	C. G. H.	1821.	Sk s.l	
4450 vulgáris H. K.	yellow-flower'd	Y	Δ	m	12	my.au	Y	Levant	1596.	Sk s.l	Plant. grass. 27
4451 purpuráscens Haw.	purple	Y	Δ	m	12	jl.o	Pu	C. G. H.	1789.	C s.l	Bot. mag. 1474
4452 soccotrina Haw.	succotrine	Y	Δ	m	12	f.ap	R	C. G. H.	1731.	C s.l	Bot. mag. 472
4453 arbórescens H. K.	tree	Y	Δ	m	12	mr.n	R	C. G. H.	1731.	C s.l	Bot. mag. 1306
4454 férox H. K.	great-hedgheg.	Y	Δ	m	6	ap.my	Y	C. G. H.	1759.	C s.l	Bot. mag. 1775
4455 supralávis H. K.	uprig.-hedgheg.	Y	Δ	m	5	...	Or	C. G. H.	1731.	S s.l	Com.prae.71. t.20



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many genera, but their opinion has not been adopted by men of science. The species consist of odd looking succulents; some of them may be classed as trees, others as shrubs, but the greater number have more the habit and appearance of evergreen herbaceous plants. One or two species are used in medicine or the arts.

A. vulgaris purpurascens, soccotrina, and arborecens, which some consider as not specifically different

- 4397 Leaves very green, Spines marginal herbaceous, Tubercles numerous
 4398 Leaves expanded lanceolate flat above, with the edges cartilaginous thick ciliated
 4399 Leaves erect recurved subulate all over rough, Tubercles very minute numerous and pearly
 4400 Leaves erect recurved subulate, Tubercles above large pearly below very minute
 4401 Leaves spreading ovate acuminate with very numerous small warts
 4402 Leaves long oblong acuminate with middle-sized pearly warts in rows
 4403 Dichotomous, Leaves long ovate acuminate with great pearly warts, Capsules wrinkled across
 4404 Stemless, Lvs. ovate acum. cuspidate upw. 3-cor. keeled, Edges and keeled cren. with coarse pearly warts
 4405 Leaves rigid spirally 5-farious ovate acuminate sparingly warted with dark-green tubercles
 4406 Leaves spirally trifarious recurved at end covered all over with minute dark-green warts
 4407 Lvs. multifarious cordate very hard deep-green twice keeled, with dark-green raised warts on under side

§ 2. *Flowers small. Cor. regular.*

- 4408 Leaves very spiral 5-farious ovate acum. smooth dark-green with some obscure spots beneath
 4409 Leaves very spiral 5-farious lanc. acum. smooth pale-green with some obscure spots beneath
 4410 Leaves 5-farious and spiral smooth green obsoletely spotted beneath

- 4411 Erect rounded, Cor. rugose, Leaves multifarious erect polished not spotted
 4412 Leaves multifarious very short and close together orbic. ovate horizontal polished bright-green
 4413 Stemless dichotomous, Leaves dark-green erect ovate obl. acum. mucronate
 4414 Leaves upright straight the old ones incurved ovate-obl. abruptly acuminate with small warts
 4415 Soboliferous, Leaves spreading ovate acute with large warts
 4416 Leaves erect lanc. acuminate above flat and smooth barred with large warts beneath
 4417 Leaves semi-cylindrical 3-cornered thickened upwards very rough except at base
 4418 Leaves attenuated erect with large white warts depressed in the centre
 4419 Stem twisted, Leaves trifarious spiral imbricated spreading ovate acute smooth
 4420 Leaves nearly trifarious densely imbricated spreading with an obtuse recurved point
 4421 Leaves very rigid cordate stem-clasping thick dark-green above keeled and rough, Edge rough
 4422 Leaves rigid rounded cordate closely inflexed dark-green edged a little rough above
 4423 Leaves spirally trifarious blackish-green equilaterally triangular very rough
 4424 Leaves close spirally trifarious blackish quite smooth outside, Stem much branched

§ 3. *Flowers curved. (GASTERIA. How.)*

- 4425 Differs from *A. acinacifolia* only in having blunter points to the leaves
 4426 Leaves lorate lanceolate with a long bristly point keeled above at the edge fringed with memb. bristles
 4427 Leaves spirally multifarious mottled brown linguiform obtuse with a point
 4428 Leaves tongue-shaped smooth pointed, Flowers racemose, cernuous curved
 4429 Differs from *A. lingua* only in having broader and shorter leaves
 4430 Smooth, Lvs. multifarious acuminate spotted deeply keeled beneath with a cartilaginous edge and keel
 4431 Stemless, Leaves acinaciform papillose
 4432 Leaves distichous tongue-shaped acute spotted serrated with tubercles at edge
 4433 Leaves distichous tongue-shaped retuse with a point obscurely spotted curved to one side
 4434 Stemless, Leaves distichous acinaciform with cartilaginous prickly edges
 4435 Leaves exactly distichous parabolically tongue-shaped short obtuse with edges smooth upwards
 4436 Leaves bifarious ensiform bright-green
 4437 Leaves ensiform acute papillose distichous
 4438 Leaves spiral multifarious shining deeply keeled at the sides obscurely spotted, Edges cartilaginous
 4439 Lvs. bright-green multifarious spreading with white warts obtuse with a point, Edges densely cartilaginous
 4440 Leaves oblong acute entire above towards the end swollen pellicid with darker markings

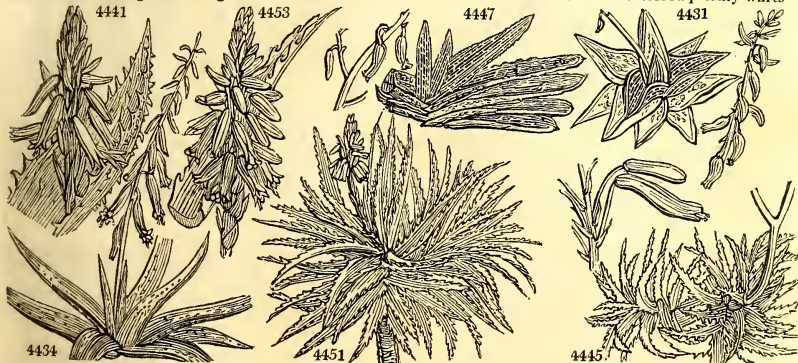
§ 4. *Flowers large. (ALOE.)*

* *Stemless.*

- 4441 Leaves acuminate glaucous above flat smooth sparingly prickly beneath very rough
 4442 Leaves acuminate above a little hollow very prickly all over
 4443 Stemless, Leaves spiny ascending 3-cornered subulate
 4444 Leaves distichous ensate lean smooth beneath white with warts running together
 4445 Leaves oblong lanceolate green sparingly spotted, Edges with a few distant green spines
 4446 Stem dichotomous, Leaves ensiform serrated, Stamens longer than cor.
 4447 Stem shrubby simple, Lvs. revol. recurved narrow ensiform glauc. Warts prickly scatt. over both sides
 4448 Leaves very green erect recurved, marginal and dorsal spines at the end red
 4449 Leaves oblong lanceolate spiny toothed beneath white with warts, Petals unequal

** *With a stem.*

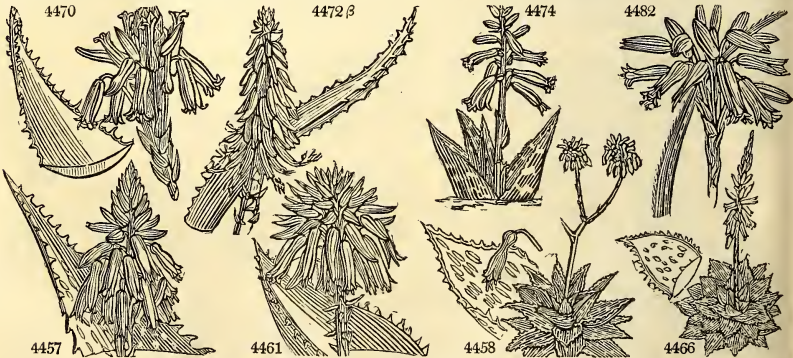
- 4450 Leaves spreading ascending spiny at edge, Pedunc. branched, Branches with a double bract
 4451 Leaves ensiform glaucous recurved at end, Marginal serratures white
 4452 Leaves oblong ensiform somewhat spotted, Edges cernuous white with straight spines
 4453 Leaves stem-clasping reflexed spiny at edge
 4454 Leaves ovate ensiform glaucous deflexed covered over especially beneath with scattered spines
 4455 Leaves oblong ensiform glaucous incurved above smooth beneath covered with scattered prickly warts



and *Miscellaneous Particulars.*

are cultivated in Barbadoes and other West India islands, to obtain the hepatic aloes, which are brought to England and used chiefly for horses. The aloes known by the name of Succotrine, is made chiefly from the species of that name, and *A. spicata*; being originally manufactured in the island of Socotra or Socotora, in the straits of Babelmandel it retains the name: this drug is lighter colored, and not so coarse as the horse or

4456 flavispina Haw.	yellow-spined	st. | gr	5	au	R	C. G. H.	1790.	C s.l	
4457 picta H. K.	great-soap	st. | gr	4	au.o	R	C. G. H.	1727.	C s.l	Bot. mag. 1323
4458 latifolia Haw.	broad-ld.-soap	st. | gr	6	jl.au	S	C. G. H.	1735.	Sk s.l	Bot. mag. 1340
4459 saponaria Haw.	common-soap	st. | gr	4	jl.au	R	C. G. H.	1727.	Sk s.l	Bot. mag. 1460
4460 serrulata H. K.	saw-leaved	st. | gr	7	jl.au	R	C. G. H.	1789.	C s.l	
4461 mitræformis Dec.	common-mitre	st. | gr	6	au	R	C. G. H.	1732.	C s.l	Bot. mag. 1270
4462 nòbilis Haw.	great-mitre	st. | gr	5	au	R	C. G. H.	1800.	Sk s.l	
4463 distans Haw.	small-mitre	st. | gr	6	au	R	C. G. H.	1732.	Sk s.l	Bot. mag. 1362
4464 albispina Haw.	white-spined	st. | gr	7	...	S	C. G. H.	1736.	Ls s.l	
4465 distans H. K.	short-leaved	st. | gr	2	jn.au	R	C. G. H.	1731.	C s.l	Plant. grass. 81
4466 depræssa H. K.	flat-leaved	st. | gr	6	au	O	C. G. H.	1731.	Ls s.l	Bot. mag. 1332
4467 suberecta Haw.	lesser-hedgeh.	st. | gr	5	mr.jn	S	C. G. H.	1789.	S s.l	
4468 paniculata Jacq.	streaked	st. | gr	5	...	S	C. G. H.	1795.	Sk s.l	Jacq. fragm. t.62
<i>A. striata</i> Haw.									
4469 lineata H. K.	lined	st. | gr	5	...	S	C. G. H.	1789.	Sk s.p	
4470 glauca H. K.	glaucous	st. | gr	4	ja.s	R	C. G. H.	1731.	Sk s.l	Bot. mag. 1278
4471 spicata W.	spike-flowered	st. | m	4	...	R	C. G. H.	1795.	Sk s.p	
4472 africana H. K.	African	st. | gr	8	ja	R	C. G. H.	1731.	Sk s.l	
<i>β angustifolia</i>	narrow-leaved	st. | gr	7	ja	R	C. G. H.	1819.	Sk s.l	Bot. mag. 2517
4473 plicatilis W.	fan	st. | gr	8	jn.jl	R	Africa	1723.	C s.l	Bot. mag. 457
4474 variegata W.	partridge.-breast	st. | gr	4	mr.s	Pk	C. G. H.	1720.	Sk s.l	Bot. mag. 513
4475 Commelini Salm.	Commelin's	st. | gr	3	...	O	C. G. H.	1819.	Sk s.l	
4476 macra Haw.	lean	st. | gr	3	jn	O	Mauritius	1817.	Sk s.l	
4477 albocincta Haw.	white-edged	st. | gr	3	jn	O	.....	1812.	Sk s.l	
4478 serrâ Dec.	saw-leaved	st. | gr	4	jl	O	C. G. H.	1818.	Sk s.l	
4479 chinensis Hort.	Chinese	st. | gr	3	...	Y	China	1821.	Sk s.l	
4480 rufocincta Haw.	rosy-edged	st. | gr	3	jn	O	E. Indies	1818.	Sk s.l	
4481 cæ'sia Salm.	caesious	st. | gr	5	jl	O	C. G. H.	1818.	Sk s.l	
4482 micracantha B. M.	small-spined	st. | gr	3	jn	Pk	C. G. H.	1819.	Sk s.l	Bot. mag. 2272
4483 xanthacantha Salm.	yellow-spined	st. | gr	3	jn	O	C. G. H.	1817.	Sk s.l	
771. LYLIUM. W. LILY.									
4484 candidum W.	white	st. | Δ or	3	jn.jl	W	Levant	1596.	O r.m	Bot. mag. 278
4485 japonicum W.	Japan	st. | Δ or	2	jl.au	W	China	1804.	O r.m	Bot. mag. 1591
4486 longiflorum Thunb.	long-flowered	st. | Δ or	2	my.ja	W	China	1840.	O r.m	Bot. reg. 560
4487 carolinianum Psh.	Carolina	st. | Δ or	2	jl.au	O	N. Amer.	1819.	O r.m	Bot. reg. 580
<i>autumnale</i> Lodd.									
4488 bulbiferum W.	orange	st. | Δ or	3	jn.jl	O	Italy	1596.	O p.l	Bot. mag. 36
<i>β umbellatum</i>	umbel-ft. orange	st. | Δ or	3	jn.jl	O	Italy	1596.	O p.l	Bot. mag. 1018
4489 dauricum Ker.	Daurian	st. | Δ or	2	jn.jl	LO	Dauria	1754.	O p.l	Bot. mag. 872
<i>pensylvanicum</i> B. M.									
4490 con'color H. K.	self-colored	st. | Δ or	2	jl	R	China	1806.	O p.l	Bot. mag. 1165
4491 Catesbæ'i W.	Catesby's ~	st. | Δ or	1	jl.au	O	Carolina	1787.	O p.l	Bot. mag. 259
4492 philadelphicum W.	Philadelphian	st. | Δ or	5	jl.au	LO	N. Amer.	1777.	O r.l	Bot. mag. 519
<i>β andinum</i> Ker.	Louisiana red	st. | Δ or	4	jl.au	Sc	N. Amer.	1819.	O r.l	Bot. reg. 594
4493 canadense W.	Canadian	st. | Δ or	4	jl.au	LO	N. Amer.	1629.	O p.l	Bot. mag. 800
<i>β rubrum</i>	red-flowered	st. | Δ or	4	jl.au	O	N. Amer.	1629.	O p.l	Bot. mag. 858
4494 superbum W.	superb	st. | Δ or	6	jn.au	LO	N. Amer.	1727.	O p.l	Bot. mag. 936
4495 Martagon W.	Turk's Cap	st. | Δ or	3	jl.au	Pu	Germany	1596.	O co	Bot. mag. 693
4496 croceum Bernh.	yellow	st. | Δ or	3	jl.au	Y	.....	1596.	O co	
4497 spectabile Link.	showy	st. | Δ or	3	jl.au	O	.....	1596.	O co	
4498 chalcedonicum W.	Scar.-Martagon	st. | Δ or	4	jl.au	R	Levant	1596.	O p.l	Bot. mag. 30
4499 pyrenaicum W. en.	Pyrenean	st. | Δ or	2	jl.au	D.O	Pyrenees	1596.	O p.l	Red. lil. 145
4500 pomponium W.	Scar.-Pompone	st. | Δ or	2	my.jn	R	Siberia	1629.	O r.l	Bot. mag. 971
4501 monadelphum B.M.	monadelphous	st. | Δ or	2	jn.jl	Y	Caucasus	1800.	O r.l	Bot. mag. 1405
4502 tigrinum H. K.	tiger-spotted	st. Δ or	6	jl.s	O	China	1804.	O r.l	Bot. mag. 1237
4503 pæmulum R. L.	dwarf	st. Δ or	1	jn	Sc	Dauria	1816.	O r.l	Bot. reg. 132

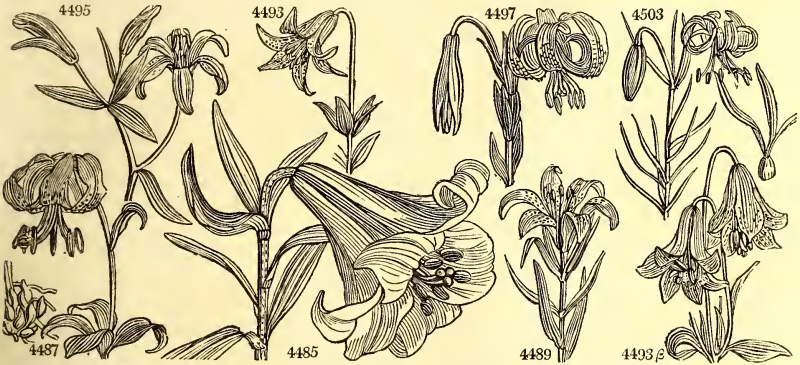


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hepatic aloes. *A. spicata* is cultivated extensively at the Cape of Good Hope, and a considerable part of what is sold as coming from Socotora is from that quarter. All the medicinal aloes are grown on the poorest soil. In preparing the drug, the leaves are cut off close to the stem, then cut in pieces, and the juice expressed; this is allowed to remain at rest for forty-eight hours, during which time a feculent matter is deposited; after which the supernatant liquor is poured off into flat dishes and evaporated in the sun. At the Cape, in the month of July, the leaves are pulled, then cut into pieces, the juice expressed, and inspissated by means of heat.

The month of March is the period for cutting the aloes in the island of Barbadoes. The leaves are cut off close to the stem, and disposed in tubs, in such a manner that the juice runs out. After a sufficient quantity of it is collected, it is exposed to heat in copper boilers; and as it becomes more inspissated by a constant and regular fire, it is ladled from one boiler to another, and fresh juice added, until that in the last, which is called the *teache*, acquires the consistence of honey; when it is poured into calabashes, and hardens by age. It is

- 4456 Suckers from the root, Lvs. obl. acum. glauc. spread. cover. at side and back with very broad brown spines
 4457 Caulcescent, Leaves ensiform toothed mottled spreading
 4458 Leaves ovate lanc. pale-green with obl. obsolete whitish barred spots, Spines rufous
 4459 Leaves obl. lanc. dull green rather glaucous with obl. large transverse spots and rufous spines
 4460 Leaves spotted, Edges and keel serrulate at end
 4461 Leaves thick spiny at edge below spinulose appressed not dotted, Racemes in umbels
 4462 Leaves erect broadly ovate acute, Spines marginal numerous white
 4463 Leaves erect spreading remote ovate acute, Spines marg. few large yellow
 4464 Leaves ovate acum. green, Edge and keel very spiny, Spines long very white
 4465 Leaves caspitose very short glaucous 3-cornered at end, Angles with numerous white spines
 4466 Distinguished from *A. serra* by the spines not being united at base
 4467 Leaves acuminate above flat smooth beneath warted
 4468 Leaves glaucous streaked, Edges obsoletely toothletted
 4469 Leaves green lined, Spines red
 4470 Leaves very glaucous, Spines red
 4471 Leaves lorate ensiform downward spotted with white, Marginal spines middle-sized red
 4472 Leaves broad ensiform recurved smooth hard, Spines marginal and dorsal red at end
 4473 Leaves tongue-shaped smooth distichous, Flowers racemose pendulous cylindrical
 4474 Leaves trifarious painted channelled, Angles cartilaginous
 4475 Leaves ovate oblong attenuate spreading glaucous, The edge and keel upwards with white spines
 4476 Caudex leafy, Leaves lorate ensiform channelled spreading green serrulate
 4477 Glaucous polished, Leaves oblong acuminate with a deep white entire cartilaginous edge
 4478 Leaves tufted with the spines of the edge united at base, Scape toothed
 4479 Leaves smooth pale-green straight erect-spreading soft
 4480 Leaves lorate lanceolate acuminate green, Edge red with many white teeth
 4481 Stem shrubby, Leaves long-lanceolate recurved at end glaucous smooth spotted with red spines
 4482 Lvs. narrow sword-shaped beneath spotted with white, Spots warty scatt. Edge with minute white spines
 4483 Caulcescent, Lvs. ovate acum. glaucous spreading at the edge and back spiny, Spines very broad yellow
 4484 Leaves lanc. scattered narrowed at base, Cor. camp. smooth inside
 4485 Leaves scattered lanc. Cor. cernuous campanulate
 4486 Leaves scattered lanceolate, Cor. tubular campan. Stem smooth
 4487 Leaves nerveless whorled cuneate-lanceolate, Flowers solitary with revolute spotted sepals
 4488 Leaves scattered, Cor. campan. upright rough inside
 4489 Leaves scattered lanc. : the upper whorled, Stem 1-flowered winged
 4490 Leaves scatt. lanc. obl. Cor. erect revol. camp. within papillose without smooth
 4491 Leaves scatt. lin. lanc. Stem 1-flowered, Cor. erect, Pet. with long claws wavy at edge reflexed at end
 4492 Leaves whorled, Flowers erect, Cor. campan. Petals clawed
 4493 Leaves whorled linear, Flowers reflexed, Cor. revolute campanulate
 4494 Lower leaves whorled; upper scatt. Flowers racemose reflexed, Cor. revolute
 4495 Leaves whorled ovate lanceolate, Flowers reflexed, Cor. revolute
 4496 Leaves ternate or scattered lin. falc. 3-nerved ciliated, Pedunc. pubes. Cor. erect rough inside
 4497 Leaves ternate or scattered linear 3-nerved ciliated, Pedunc. tomentose, Flowers erect rough inside
 4498 Leaves lin. lanc. scattered, Flowers reflexed, Cor. revolute dotted inside
 4499 Leaves scattered linear, Pedunc. long, Flowers reflexed, Cor. revolute papillose inside
 4500 Leaves scattered lin. subulate, Flowers reflexed, Cor. revolute toothed and warted inside
 4501 Like a Martagon, but the stamens are united in a tube
 4502 Leaves scattered sessile 5-nerved, The upper cord. ovate, Cor. revolute papillose inside
 4503 Leaves linear subulate scattered smooth, Flowers reflexed, Sepals revolute smooth inside



and Miscellaneous Particulars.

brought home in these calabashes, or large gourd-shells, which contain from sixty to seventy pounds weight each. (*Thomson's Mat. Med.* 141.)

In the West Indies, the Cape, and most countries where the woody prickly species abound naturally, they are planted as hedges, and the fibres of the leaves, after being macerated for juice, manufactured into cordage or coarse cloth

A. picta, *latifolia*, and *saponaria* are so named from the spots of the leaves, which are of the color of soft soap.

The curious species of aloes, inhabitants of the greenhouse, require but little water: sandy loam, mixed with a little lime rubbish or gravel, suits them best; and they flower more abundantly by being exposed to the open air in summer. They are increased by suckers; or leaves, stripped off the plants and laid on a pot of mould, or planted shallow in it, will produce young plants. (*Bot. Cult.* 130.)

771. *Lilium*. From the Celtic word *Li*, which signifies whiteness. The lily has always been considered the

TULIP.		Liliaceæ. Sp. 9—11.									
772. TU'LIPA. W.	wild	♂	Δ or 1	ap.my	Y	England	ch. pit.	O	s.l	Eng. bot. 63	
4504 sylvêstris W.	nar.-waved-lvd.	♂	Δ or 2	ap.my	St	.....	.....	O	s.l	.....
4505 túrcica Roth.	Agen	♂	Δ or 1	ap	R.B	Italy	1816.	O	s.l	Bot. reg. 204	
4507 Géseriána W.	common	♂	Δ or 2	ap.my	St	Levant	1577.	O	r.m	Bot. mag. 1135	
4508 suavêolens W.	Van Thol	♂	Δ or 3	mr.ap	R.y	S. Europe	1603.	O	r.m	Bot. mag. 839	
4509 clusiána B. M.	Clusius's	♂	Δ or 1	jn	W.pu	Sicily	1636.	O	r.m	Bot. mag. 1390	
4510 celsiána P. S.	Cels's	♂	Δ or 1½	jn.jl	Y	Levant	.....	O	r.m	Bot. mag. 717
4511 cornúta R. L.	horned	♂	Δ or 2	my	St	Levant	1816.	O	r.m	Bot. reg. 127	
4512 biflóra L.	two-flowered	♂	Δ or 3	ap	Y	Russia	1806.	O	r.m	Bot. reg. 535	
FRITILLA'RIA. W. FRITILLARY.		Liliaceæ. Sp. 12—19.									
4513 Imperiális W.	Crown Imper.	♂	Δ or 4	mr.ap	P	Persia	1596.	O	co	.....
α rúbra	red-flowered	♂	Δ or 4	mr.ap	R	Persia	1596.	O	co	Bot. mag. 194	
β fláva	yellow-flowered	♂	Δ or 4	mr.ap	Y	Persia	1596.	O	co	Bot. mag. 1215	
4514 pérsica W.	Persian	♂	Δ or 1½	ap.my	Br	Persia	1596.	O	co	Bot. mag. 1537	
β mínima Swert.	dwarf-Persian	♂	Δ or 1	ap.my	Br	Persia	1596.	O	co	Bot. mag. 962	
4515 obliqua B. M.	oblique-leaved	♂	Δ or 1	ap	Br.P	Caucasus	.....	O	co	Bot. mag. 857
4516 tulipífólia Bieb.	tulip-leaved	♂	Δ or 1	my	Br.P	Crimea	1822.	O	co	.....
4517 verticilláta W.	whorled	♂	Δ or 1	a	Pu	Crimea	1823.	O	co	.....
4518 pyrenáica H. K.	cluster-flowered	♂	Δ or 1½	my.jn	D.P	.....	1605.	O	co	Bot. mag. 952
4519 nigra B. M.	Pyrenean	♂	Δ or 1	my	Y.Pu	Pyrenees	1596.	O	co	Bot. mag. 664	
4520 nervósa W. en.	nerve-leaved	♂	Δ or 1	my	D.P	Caucasus	.....	O	co	.....
4521 látca Bieb.	yellow-flower.	♂	Δ or 1	ap.my	Y	Caucasus	1812.	O	co	Bot. mag. 1538	
4522 latifólia W.	broad-leaved	♂	Δ or 1	ap.my	R	Caucasus	1604.	O	co	Bot. mag. 853	
4523 Meleagriis W.	chequered	♂	Δ or 1	mr.my	Pu	Britain	mol.p.	O	co	Eng. bot. 622	
4524 lanceoláta Ph.	spear-leaved	♂	Δ or 1	my	Y	Kamschat.	1759.	O	co	Lin. tr. 10. t. 11	
Lilium kamchatsense W.											
774. DRACÆ'NA. W. DRAGON-TREE.		Asphodelææ. Sp. 7—20.									
4525 Dráco W.	common	♂	□ or 10	W	E. Indies	1640.	C	p.l	Blackw. t. 358	
4526 isifólia W.	sword-leaved	♀	□ or 2	W	1800.	C	p.l	



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emblem of whiteness. This is a splendid genus, all the species of which are considered border flowers of great beauty. The more common sorts, species, and varieties, will thrive in any soil and situation, even under the shade of trees. The Canadian, Pomponian, and Philadelphia martagons are somewhat tender, and require the protection of ashes or rotten bark in winter. They are generally planted in borders, and need not be taken up oftener than every three or four years in September, and replanted six inches deep in the October following. None of the species can be safely transplanted after they have pushed leaves, without weakening them so as to prevent their flowering for several years. This remark, indeed, will apply to most bulbous rooted plants. Mr. Griffin, of South Lambeth, whose superior skill in the cultivation of bulbous plants is well known (*Hort. Trans. iv. 544.*), has been in the practice of keeping the *lilium japonicum* in pots, protected by a greenhouse or garden frame; but he thinks they thrive best in the former. He places the bulb in twenty-four sized pots, not lower than an inch from the surface of the mould, which is composed of about two-thirds peat and one-third loam, the bottom of the pot being covered to the depth of two inches, with broken pieces of tile and the rough siftings of peat. The plants are kept entirely from frost, and are watered very little when in a dormant state, for they are then very impatient of wet in excess. The pots kept in the greenhouse are placed at a distance from the flue to prevent the mould drying quickly. (*Hort. Trans. iv. 554.*) Mr. S. Brooks grows in a brick-pit, which he can cover with mats or glasses at pleasure; but he says, it "appears to be sufficiently hardy to endure our winters, as I have had a bed of them two years in the open ground without protection." (*Hort. Trans. iv. 552.*)

772. *Tulipa*. Linneus classed this among barbarous names. In Persian it is called *thoidybân* (*De Souza*), whence undoubtedly its origin. In old French it is called *tulipan*. T. Gesneriana (Gesner, a Zurich botanist), may be called the king of florists' flowers, having been a prime object of attention with this class of cultivators for nearly three centuries. It appears to have been brought to Europe from Persia by way of Constantinople in 1559, and in a century afterwards to have become an object of considerable trade in the Netherlands, and a sort of mania among the growers, who bought and sold bulbs at prices amounting to 500l. sterling and upwards; in those days an immense sum. The taste for tulips in England was at its greatest height about the end of the seventeenth and the beginning of the eighteenth century. It afterwards declined, and gave way to a taste for rare plants from foreign countries. The tulip, however, is still extensively cultivated in Holland, from which all Europe is supplied with bulbs, and also to a considerable extent in England, both in tradesmen's gardens and in those of the opulent. It is, however, like the auricula, pink, &c. more the poor man's flower than that of the botanists or country gentleman.

The varieties of the tulip are endless, and their names arbitrary, like those of all florists' flowers. One of the latest London catalogues (Mason's) enumerates six sorts of early blowing tulips; four perroquets or middle blowers; twenty-two double sorts; and upwards of 600 single late sorts; the last being the only sorts valued by florists as competition flowers. These late sorts are classed by the Dutch as under:—
 Prime baguets (*baguette*, Fr. a rod or wand); very tall; fine cups with white bottoms, well broken with fine brown, and all from the same breeder.
 Baguets Rigaut's (supposed from Rigaud, some eminent florist's name, or *rougeaude*, red face); not quite so tall, but with strong stems, and very large well-formed cups, with white bottoms, well broken with fine brown, and all from the same breeder.

- 4504 Stem 1-fl. smooth, Flower nodding, Petals acute bearded at end, Leaves lanceolate
 4505 Flower erect, Petals lanceol. acuminate, Leaves lanceolate linear
 4506 Coat of bulb woolly inside, Leaves ciliated glaucous, Stem and flower smooth
 4507 Stem 1-fl. smooth, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate
 4508 Stem 1-fl. pubescent, Flower erect, Petals obtuse smooth, Leaves ovate lanceolate
 4509 Flower erect stellate with a dark eye, Leaves linear lanceolate
 4510 Leaves lin. lanc. convolute, Petals lanceolate greenish outside
 4511 One-flowered, Flower from fusiform spreading, Sepals very long caudate
 4512 Flowers erect flat, Stem 2-leaved 2-3-flowered, Leaves linear subulate

4513 Raceme comose naked below, Leaves entire

4514 Raceme naked, Leaves oblique

- 4515 Leaves glaucous numerous oblique, Cor. turbinate
 4516 Leaves lanc. alternate remote, Stem 1-flowered naked upwards, Angles of caps. obtuse
 4517 Leaves linear whorled opp. and alternate when old cirrhose, Stem many-flowered, Capsule winged
 4518 Lower leaves opp. Inner flowers among the leaves
 4519 Leaves scattered flat coriaceous glaucous, Cor. campanulate revolute at end
 4520 Leaves alternate linear nerved flat, Stem 1-flowered
 4521 Leaves lin. lanc. alternate; the upper approximated shorter than the terminal solitary flower
 4522 Leaves lanc. approximated, the upper opp. as long as the terminal solitary flower, Capsule obtuse angled
 4523 Leaves alternate linear channelled, Stem one-flowered
 4524 Leaves whorled, Flower erect, Cor. campanulate, Petals sessile

- 4525 Leaves fleshy spiny at end
 4526 Herbaceous caulescent, Leaves ensiform



and Miscellaneous Particulars.

Incomparable Verports; very perfect cups, cherry and rose, and white bottoms, well broken with shining brown.

Byblomens, or mixt flowers, the *flamands* of the French florists, with bottoms white, or nearly so, from different breeders, and broken with variety of colors.

Bizarres (*bizarre*, Fr. odd, irregular); ground yellow, from different breeders, and broken with variety of colors.

What are called breeders are procured from seed, and consist of one plain color on a white or yellow bottom. These being cultivated on a dry and rather poor soil, become broken or variegated, and produce new varieties. The time that elapses before they break, varies from one to twenty years or more, and sometimes this change never takes place, so that whoever thinks of raising new varieties of tulips from seed, must be possessed of an ample fund of patience and perseverance. The early dwarf tulip, known among florists as the Van Thoil, is a distinct species, *T. suaveolens*.

In raising tulips from seed, the florists pursue a mode in some respects the reverse of that practised with other plants. Instead of saving the seed to be sown from the finest variegated tulips, they prefer unbroken flowers or breeders, selecting such of these as have tall strong stems, with large well-formed cups, clear in the bottom. Plants raised from seed saved from the finer variegated sorts, form poor weak breeders of no value. The seed is sown on fine light soil, thinly covered, and protected and shaded by a frame. At the end of the second year the bulbs are taken up and replanted three inches apart; and again at the end of the fourth year. Some will bloom the fourth year, most the fifth, and all of them the seventh year. Being now furnished with a set of breeders, all that the florist can do is to take up and replant till they break or shew variegation, which, as already observed, some will do in a year or two, and some not for a long period, or never. Some vary the soil to promote breaking, but in doing this there is often danger of weakening the strength of the flower.

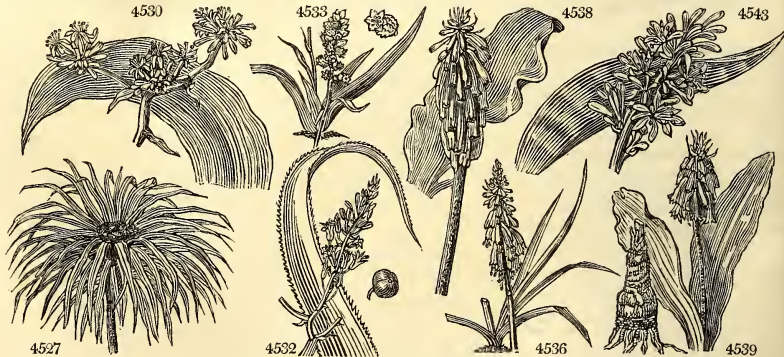
In cultivating choice tulips, an open airy situation, dry at bottom, is made choice of; there excavations are made commonly in the form of beds four feet broad, of any convenient length, and two and a half or three feet deep. In the bottom a layer of well rotten hot-bed dung is laid and well trod in, and on this two or two and a half feet of rich fresh sandy loam. On this the roots are planted six inches apart, and covered four inches. The best season is the beginning of November. In very severe winters, protection by mats or by a layer of decayed tanner's bark, may be requisite; but the tulip is very hardy, and almost the only protection it requires is shading and shielding from rain and winds during full bloom. The bulbs should be taken up annually, as soon as the flowers are decayed, and kept in a dry airy situation till wanted for planting. (See *Madocks, Hogg, Emerton, &c.*)

T. clusiana and *T. celsiana* are both elegant little border bulbs, inferior indeed to their prototypes in splendour of coloring, but more elegant in their simplicity.

773. *Fritillaria*. *Fritillus* signifies a dice-box, and is said to have been the origin of this name. This is a genus with flowers shewy and singular in appearance. They require a deep loamy soil, and are readily increased by offsets or seeds. They will grow in the shade of trees and shrubs, and do not require to be taken up above once in three years.

774. *Dracæna*. From *Δρακαινα*, the female of *δρακων*, a dragon, because the inspissated juice becomes a red powder very like the eastern dragon's blood. *D. draco* has the habit of a palm. The trunk is nearly

4527 umbraculifera <i>W.</i>	umbel-flowered	☉	or	10	...	W	Mauritius	1788.	C	p.l	Bot. cab. 289	
4528 cernua <i>W.</i>	drooping	☉	or	10	my	W	Mauritius	...	C	p.l	Jac. sch. 1. t. 96	
4529 férrea <i>H. K.</i>	purple	☉	or	8	mr.ap	W	China	1771.	R	p.l	Bot. mag. 2053	
4530 frágrans <i>H. K.</i>	sweet-scented	☉	or	6	f.my	W	Africa	1768.	R	p.l	Bot. mag. 1081	
4531 ovata <i>B. M.</i>	oval-like	☉	or	2	au.s	Pk	S. Leone	...	R	p.l	Bot. mag. 1180	
775. PHYLLO'MA. <i>B. M.</i>	PHYLLOMA.											
4532 aloifórum <i>B. M.</i>	aloe-like	☐	or	10	ap	Or	Bourbon	1766.	R	p.l	Bot. mag. 1585	
776. ALETRIS. <i>W.</i>	ALETRIS.											
4533 farinosa <i>W.</i>	colic-root	☉	△	or	½	jn	W	N. Amer.	1768.	R	s.p	Bot. mag. 1418
4534 áurea <i>Ph.</i>	golden-tipped	☉	△	or	½	jl.au	Y	N. Amer.	1811.	R	s.p	Willd. ho. ber. 8
777. TRITOMA. <i>B. M.</i>	TRITOMA.											
4535 Uvária <i>H. K.</i>	great	☉	△	or	2	au.s	O	C. G. H.	1707.	R	p.l	Bot. mag. 758
4536 média <i>H. K.</i>	lesser	☉	△	or	2	jn.d	O	C. G. H.	1789.	R	p.l	Bot. mag. 744
4537 pámla <i>H. K.</i>	least	☉	△	or	1	s.n	O	C. G. H.	1774.	R	p.l	Bot. mag. 764
778. VELTHEIMIA. <i>H. K.</i>	VELTHEIMIA.											
4538 viridifolia <i>W.</i>	green-leaved	☉	△	or	2	ap.n	F.w	C. G. H.	1768.	Sk	r.m	Bot. mag. 501
4539 gláuca <i>W.</i>	glaucous	☉	△	or	2	ja.ap	F.w	C. G. H.	1781.	Sk	r.m	Bot. mag. 1091
779. SANSEVIE'RA. <i>W.</i>	SANSEVIERA.											
4540 gláuca <i>Haw.</i>	sprdg.-glaucous	☉	△	cu	2	...	W.g	Sk	s.l	
4541 stenophýlla <i>L. K.</i>	narrow-leaved	☉	△	cu	3	1818.	Sk	s.l	
4542 polyphýlla <i>Haw.</i>	upright-glauc.	☉	△	cu	2	...	W.g	Sk	s.l	
4543 guineénsis <i>W.</i>	Guinea	☉	△	cu	2	jn.n	G	Guinea	1690.	Sk	s.p	Bot. mag. 1179
4544 late-virens <i>Haw.</i>	light-green	☉	△	cu	2	...	W.g	Sk	s.p	
4545 fulvocin'cta <i>Haw.</i>	fulvous-edged	☉	△	cu	1	Brazil	1818.	Sk	s.p
4546 spicáta <i>Haw.</i>	spiked	☉	△	cu	2	...	W.g	E. Indies	1790.	Sk	s.p	Cav. ic. 3. t. 246
4547 zeylána <i>W.</i>	Ceylon	☉	△	cu	2	jn.n	W.g	Ceylon	1731.	Sk	s.p	Bot. reg. 160
4548 lanuginósa <i>W.</i>	woolly	☉	△	cu	2	E. Indies	...	Sk	s.p	Rheed. 11. t. 42
4549 grandicóspis <i>Haw.</i>	large-pointed	☉	△	cu	3	...	W.g	Sk	s.p	
4550 pámla <i>Haw.</i>	dwarf	☉	△	cu	1	...	W.g	C. G. H.	1796.	s.p		
4551 cárnea <i>H. K.</i>	flesh-colored	☉	△	cu	1	mr.jn	F	China	1792.	lp		Bot. rep. 361
sessiliflóra <i>B. M.</i>												
780. TULBA'GHIA. <i>W.</i>	TULBAGHIA.											
4552 alliícea <i>W.</i>	Narcissus-lvd.	☉	△	or	1	my.jl	Br	C. G. H.	1774.	r.m	Bot. mag. 806	
4553 cepácea <i>W.</i>	onion-scented	☉	△	or	½	ap	Br	C. G. H.	1795.	r.m		
781. YUC'CA. <i>W.</i>	ADAM'S NEEDLE.											
4554 gloriósa <i>W.</i>	superb	☉	or	4	jl.au	W.gr	America	1596.	S	r.l	Bot. mag. 1260	
4555 aloifolia <i>W.</i>	Aloe-leaved	☉	or	2	au.s	W.gr	S. Amer.	1696.	R	r.l	Bot. mag. 1700	
4556 aloifolia <i>Haw.</i>	slender-leaved	☉	or	1	...	W.gr	Malta	1817.	R	r.l		
4557 gracónis <i>W.</i>	drooping-lvd.	☉	or	8	au.s	W.gr	S. Amer.	1732.	R	r.l	DI. el. t. 324. f. 417	
4558 concáva <i>Haw.</i>	hollow-leaved	☉	or	1½	au	W.gr	.....	1816.	R	r.l	
4559 obliqua <i>Haw.</i>	oblique-leaved	☉	or	4	...	W.gr	.....	1808.	R	r.l	
β májor	large	☉	or	4	...	W.gr	.....	1808.	R	r.l	
4560 flac'eida <i>Haw.</i>	fiacid	☉	or	2	...	W.gr	.....	1816.	R	r.l	
4561 serruláta <i>Haw.</i>	rough-edged	☉	or	10	...	W.gr	Carolina	1808.	R	r.l		
4562 recur'va <i>Haw.</i>	recurve-lvd.	☉	or	3	au	W.gr	Georgia	1794.	R	r.l	Par. lond. 31	
4563 superba <i>Haw.</i>	superb	☉	or	10	au	W.gr	.....	...	R	r.l	Bot. rep. 473
4564 glaucescens <i>Haw.</i>	glaucous	☉	or	2	jl.au	W.gr	N. Amer.	1819.	R	r.l	Sw. fl. gard. 53	
4565 filamentosa <i>W.</i>	thready	☉	or	2	s.o	W.gr	Virginia	1675.	S	r.l	Bot. mag. 900	



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equal in size, which is rarely more than eight or ten inches the whole length; the inner part very pithy, next to this a circle of strong fibres, and the outside soft; the same diameter the whole length; circular marks or rings are left the whole length where the leaves have fallen off. The top sustains a large head of these, coming out singly all round it.

775. *Phylloma*. From *φύλλον*, a leaf, and *λωμα*, an edge, in reference to the broad red edge of the leaves. The plant resembles an aloe in foliage and flowers, and requires the same culture.

776. *Aletris*. From *αλειμας*, meal, in allusion to the powdery dust with which the whole plant appears to be covered. Small North American plants, which may be cultivated with a little attention in rich leaf mould.

777. *Tritoma*. From *τριεις*, three, and *τεμνω*, to cut, in allusion to the three sharp edges of the ends of the leaves. (*v. Ker, in Bot. Mag. fol. 744.*) The species of this genus thrive best in peat soil, but will do very well in any other light earth. They are hardy enough to endure our mildest winters in the open air, and only require the protection of a frame in severe frosts. There being also a genus of insects called *Tritoma*, Professor Link calls this genus *Tritomanthe*.

778. *Veltheimia*. Frederick Augustus de Veltheim was a German botanical amateur, of whom nothing more is known. This genus resembles the last, and is of easy culture in any light loamy soil; and readily increased

- 4527 Leaves lanceolate narrowed each way, Corymb very short terminal many-flowered
 4528 Leaves lanc. obliquely bent, Panicle hanging down divaricating
 4529 Leaves lanceolate acute discolored
 4530 Leaves lanceolate lax, Flowers very fragrant
 4531 Head of flowers sessile in the centre of the ovate leaves

4532 Leaves tooth-spiny, Racemes axillary

- 4533 Flowers stalked oblong tubular, Cor. in fruit smooth mealy, Leaves broad lanceolate mucronate
 4534 Flowers sub-sessile campanulate, Cor. in fruit rugose very rough, Leaves lanc. ensiform acute

- 4535 Leaves with the keel and edge rough, Cor. clavate cylindrical
 4536 Leaves with keel and edge smooth, Cor. clavate cylindrical
 4537 Leaves with keel and edge rough, Cor. globose at end

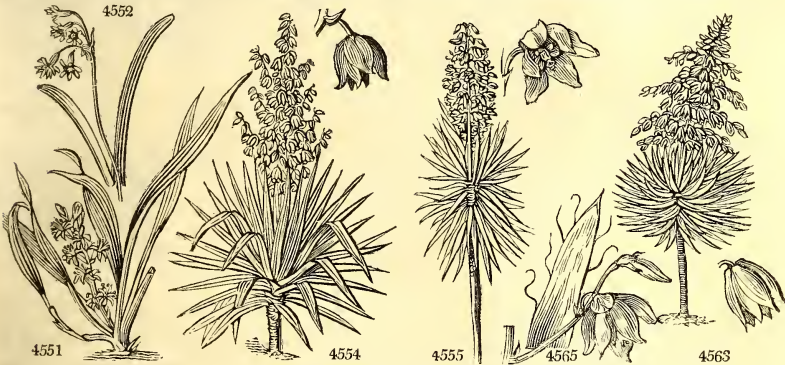
- 4538 Leaves lanc. plaited wavy obtuse, Teeth of the limb rounded straight
 4539 Leaves lanc. glaucous curled at edge mucronate at end, Limb spreading

- 4540 Leaves about 11 spreading flaccid broadly lanceol. ensiform glaucous obscurely barred
 4541 Leaves beneath convex lined channelled not barred
 4542 Leaves about 19 sub-erect rigid brittle broad lanceolate ensiform glaucous obscurely barred
 4543 Leaves lanc. uniform, Style twice as long as stamens, Bractes thrice as short as tube of cor. Flow. sessile
 4544 Leaves about three flaccid lanc. ensiform pale-green with scarcely any bars
 4545 Leaves lanc. revolute recurved dull green slightly edged with fulvous
 4546 Leaves about eleven nearly erect rigid brittle lanc. ensif. with very obscure bars
 4547 Leaves smooth oblong acute flat and lin. lanceolate channelled, Style the length of stamens
 4548 Leaves with woolly nerves : lower oblong ; rest lin. Pedunc. without bractesæ
 4549 Leaves about 12 sub-erect lanc. ensif. much barred with a small bristle at end
 4550 Leaves about 20 spreading lanc. ensif. much barred, with 4-6 strong lines beneath
 4551 Leaves distichous lanceolate ensiform keeled, Flowers solitary sessile

- 4552 Nectary 1-leaved 6-toothed
 4553 Nectary 3-leaved

- 4554 Leaves quite entire
 4555 Leaves crenulate straight
 4556 Leaves linear very narrow stiff closely curved back into a semicircle serrulate at edge
 4557 Leaves crenate nodding
 4558 Leaves erect incurved rough on both sides dull glaucous with strong white marginal threads
 4559 Leaves lorate linear lanc. obliquely bent glaucous, Suckers tuberosus

- 4560 Leaves all very flaccid weakly recurved with very strong brownish threads
 4561 Leaves in a close head very stiff green rough at edge
 4562 Leaves recurved deflexed with a few threads
 4563 Leaves a little plaited mucronate, Flowers very close together camp. not opening curved outwards at end
 4564 Leaves linear lanc. narrow glaucous with fine white marginal threads
 4565 Leaves erect recurved broadly channelled with very strong twisted brown marginal threads



and Miscellaneous Particulars.

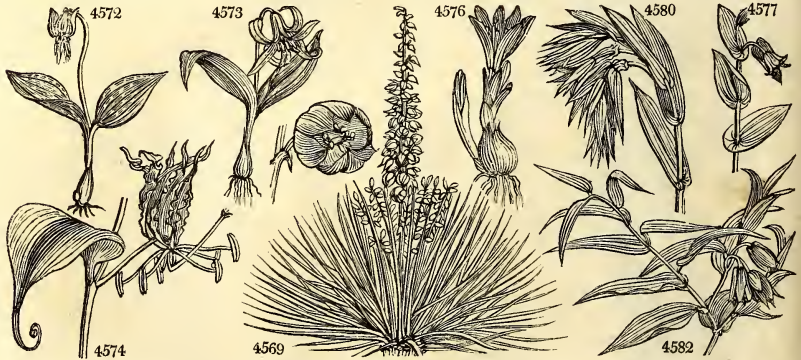
by offsets from the bulbs ; or by pulling off the leaves close to the bulb, and then planting them in pots of mould, when, like most other bulbous rooted plants, they will produce bulbs at their base. The species are quite hardy, although usually treated as greenhouse plants.

779. *Sansevieria*. This is a succulent genus, of the easiest culture and propagation in sandy loam with little water. It is probable that nearly all the numerous kinds adopted here from the works of Mr. A. H. Haworth, are varieties of one common stock, which in the woods of Guinea sports into an infinite number of forms.

780. *Tulbaghia*. This was named in honor of — Tulbagh, a Dutch governor of the Cape of Good Hope, who patronized travelling naturalists. Very pretty plants, less fragrant than beautiful ; they are rarely seen in collections, but may be cultivated in very light sandy peat in a good greenhouse.

781. *Yucca*. The inhabitants of St. Domingo call this plant *Yuca*. The species are considered highly desirable from their palm, or oriental pine-apple, or aloe character, and as being evergreens. For this reason they make a striking contrast in gardens and shrubberies, with European shrubs. They grow slowly, and do not flower freely. They are well adapted for a conservatory, as even the reputed hardy species do not thrive generally in the open air.

4566	rufo-cincta Haw.	rufous-edged	or	1½ jl	W.G	.....	1816.	Sk r.m	
4567	stricta Sims.	Lyons's	or	1 jl	W.G	Carolina	1817.	Sk r.m	Bot. mag. 2222
4568	conspicua Salm.	conspicuous	or	3 ...	W.G	.....	1816.	Sk r.m	
4569	angustifolia Ph.	narrow-leaved	or	2 jl.au	W.G	Missouri	1811.	Sk r.l	Bot. mag. 2222
4570	crenulata Haw.	rough-edged	or	2 ...	W.G	.....	1818.	Sk s.l	
4571	arcuata Haw.	bowed	or	1	W.G	.....	1817.	Sk s.l	
782.	ERYTHRONIUM.	W. Dog's-TOOTH	VIOLET.	<i>Liliaceæ.</i> Sp. 2.					
4572	ERYTHRONIUM.	common	or	½ mr	Pu	Europe	1596.	O p.l	Bot. mag. 5
	β albiflorum	white-flowered	or	½ mr	W				
4573	americanum H. K.	yellow-flowered	or	½ ap.my	Y	N. Amer.	1665.	O p.l	Bot. mag. 1113
783.	GLORIOSA. W.	GLORIOSA.		<i>Liliaceæ.</i> Sp. 2-3.					
4574	supérba W.	superb	or	6 jl.au	Or	E. Indies	1690.	O s.p	Bot. reg. 77
4575	simplex L.	blue-flowered	or	2 jl.au	B	Sencgal	1756.	O s.p	
784.	BULBOCODIUM.	W. BULBOCODIUM.		<i>Melanthaceæ.</i> Sp. 1.					
4576	vèrnum W.	spring-flower.	or	½ f.mr	D.Pu	Spain	1629.	O s.p	Bot. mag. 153
785.	UVULARIA. W.	UVULARIA.		<i>Melanthaceæ.</i> Sp. 6-9.					
4577	perfoliata W.	perfoliate	or	½ my.jn	Pa.Y	N. Amer.	1710.	Sk p.l	Ex. bot. 1. t. 49
4578	flava Ph.	deep-yellow	or	½ my.jn	Y	N. Amer.	...	Sk p.l	Ex. bot. 1. t. 50
4579	lancoellata W.	spear-leaved	or	½ jn.au	Y	N. Amer.	1710.	Sk p.l	Corn. can. t. 41
4580	grandiflora H. K.	large-yellow	or	1 my.jn	Y	N. Amer.	1802.	Sk p.l	Ex. bot. 1. t. 51
4581	sessilifolia W.	sessile-leaved	or	½ jn	L.Y	N. Amer.	1790.	Sk p.l	Ex. bot. 1. t. 52
4582	chinénsis B. M.	brown-flower'd	or	1 s.n	Pk	China	1801.	Sk p.l	Bot. mag. 916
786.	STREPTOPUS. M.	STREPTOPUS.		<i>Smilacææ.</i> Sp. 3.					
4583	amplexifolius R. L.	heart-leaved	or	1 my	W	Hungary	1752.	Sk lt.s	Red. lil. 259
4584	roseus Ph.	rose-colored	or	1½ jn.jl	Pk	N. Amer.	1806.	Sk lt.s	Bot. mag. 1489
4585	lanuginosus Ph.	woolly	or	1½ jn.jl	Y.Gr	N. Amer.	1812.	Sk lt.s	Bot. mag. 1490
787.	CONVALLARIA.	Desf. LILY OF THE VALLEY.		<i>Smilacææ.</i> Sp. 1.					
4586	majalis W.	common	or	½ my.jn	W	Britain	woods.	R s.l	Eng. bot. 1035
	β rubra	red-flowered	or	½ my.jn	F	Britain	gard.	R s.l	
	γ flore pleno	double	or	½ my.jn	W	Britain	gard.	R s.l	
788.	SMILACINA. Desf.	SMILACINA.		<i>Smilacææ.</i> Sp. 6.					
4587	umbellata Desf.	umbel-flower'd	or	½ my.jn	W	N. Amer.	1778.	R s.l	Bot. mag. 1155
4588	borealis Desf.	oval-leaved	or	1 my.jn	W	N. Amer.	1778.	R s.l	Bot. mag. 1403
4589	bifolia Desf.	least	or	½ my.jn	W	N. Eur.	1596.	R s.l	Bot. mag. 510
4590	trifolia Desf.	three-leaved	or	½ jn.jl	W	N. Amer.	1812.	R s.l	Gmel. sib. 1. t. 6
4591	stellata Desf.	star-flowered	or	½ my.jn	W	N. Amer.	1633.	R s.l	Bot. mag. 1043
4592	racemosa Desf.	cluster-flower'd	or	1 my.jn	W	N. Amer.	1640.	R s.l	Bot. mag. 899
789.	POLYGONA TUM.	Desf. SOLOMON'S SEAL.		<i>Smilacææ.</i> Sp. 7-8.					
4593	verticillatum Desf.	whorl-leaved	or	1 my.jn	W	Scotland	woods.	R s.l	Eng. bot. 128
4594	canaliculatum Ph.	channelled	or	1 jn	W	N. Amer.	1812.	R s.l	
4595	pubescens Ph.	pubescent	or	1 my.jn	W	N. Amer.	1812.	R s.l	Willd. ber. 45
4596	vulgare Desf.	angular	or	2 my.jn	W.G	England	moun.	R s.l	Eng. bot. 280
4597	multiflorum Desf.	common	or	2 my.jn	W	Britain	woods.	R s.l	Eng. bot. 279
4598	latifolium Desf.	broad-leaved	or	1 my.jn	W	Germany	1802.	R s.l	Jac. aus. 3. t. 232
4599	oppositifolium Lodd.	opposite-leaved	or	1 ap	W	Nepal	1822.	R s.l	Hook. ex. f. 125



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782. *Erythronium*. From *ερυθρος*, red, in allusion to the color of the flower and leaves. Beautiful little vernal bulbs, the favorites of gardeners, from the cottager's border to the nobleman's flower garden. The *E. americanum* runs very much at the root, and will not flower unless confined and prevented wasting its vigour in long subterraneous surculi.

783. *Gloriosa*. So named on account of the glorious colors of its flowers, and the elegance of their form. This is a splendid and curious genus, which requires considerable care in its treatment so as to make it flower freely. The late John Sweet, of Bristol, has given the following directions; "When the stalks and foliage have decayed in the autumn, and left the root, (like a well-ripened potato, in a dormant state, the pot in which it is, must be removed from the bark-bed (to a dry part of the house) at some distance from the fire: all the warmth at this time necessary being merely what is sufficient to keep the earth in the pot free from damp: and to prevent the waterings of the house, or other moisture, falling on the earth in the pot, it should be covered, by inverting upon it another pot of the same size; or if larger, it will hang over its edges, and more effectually exclude the wet. If the roots are small, two or three may be placed together in the same pot, whilst in their dormant state; but if they are thus shifted, the mould must be well shaken down in the pot, in order to prevent the access of air to them: the old mould in which they grew must also be used; for fresh earth or sand would stimulate them to move too early. About the second week in March, the roots must be replanted, putting one or two, according to their size, into pots measuring six inches over. The best compost for them is fresh loam, mixed with an equal quantity of peat-mould, of good quality; the loam should be good, not over rich with dung, nor too heavy. The roots are to be covered about two inches deep; and care must be taken not to break them, unless nature has shown where it is practicable to divide them easily. The pots, when filled, must be plunged into the bark-bed, where the heat should be equal to ninety-five degrees of Fahrenheit's scale. Water is to be given very sparingly at first; and though, as they grow,

- 4566 Leaves erect lin. lanc. flaccid glaucous green quite smooth with a slight red edge
 4567 Stemless, Leaves linear very straight, Scape branched at base, Cor. round campanulate
 4568 Leaves few loosely headed long lanceolate, their edges rough
 4569 Leaves erect rigid narrow ensiform glaucous with a broad white edge and a few threads
 4570 Leaves a little recurved glaucous lin. lanc. at the edge and keel rough, beneath glaucous
 4571 Leaves lin. lanceolate recurved almost into a circle deep green 7-8 lines broad roundish at edge

4572 Style filiform

4573 Style clavate 3-cornered

4574 Leaves cirriferous

4575 Leaves acuminate

4576 A small plant like a Crocus

4577 Leaves perfoliate ovate

4578 Leaves perfoliate elliptic oblong obtuse, Cor. narrowed at base scabrous within, Anthers cuspidate

4579 Leaves perfoliate ovate lanceolate acute

4580 Leaves perfoliate oblong acute, Petals smooth on both sides, Nect. roundish

4581 Leaves sessile

4582 Leaves stalked

4583 Leaves stem-clasping and stem smooth

4584 Smooth shining, Leaves stem-clasping serrulate ciliated, Anthers short 2-horned

4585 Downy hoary, Leaves sessile cordate acuminate, Pedicels in pairs on a very short stalk

4586 Scape naked smooth, Leaves ovate

4587 Leaves ovate oblong obtuse ciliated, Scape leafless, Umbel capitate

4588 Leaves radical elliptical, Umbel terminal

4589 Leaves cordate, Flowers tetrandrous

4590 Leaves stem-clasping in threes, Raceme terminal simple

4591 Leaves alternate stem-clasping elliptical acute, Raceme terminal simple

4592 Leaves alternate sessile ovate acuminate, Panicle terminal naked

4593 Leaves whorled

4594 Stem furrowed, Leaves alternate amplexicaul. oblong pubescent at edge, Pedunc. axillary 2-fl.

4595 Stem rounded furrowed, Leaves amplexicaul. ovate downy beneath, Pedunc. axill. about 2-fl.

4596 Leaves alternate stem-clasping, Pedunc. axillary 1-fl.

4597 Leaves alternate stem-clasping, Stem round, Pedunc. axillary many-fl.

4598 Leaves alternate stem-clasping acuminate, Stem angular, Pedunc. axillary many-fl.

4599 Stem round, Leaves opposite oblong acuminate shining, Pedunc. umbell. 3-5-flowered



and Miscellaneous Particulars.

they will require a more liberal supply, yet it is necessary at all times to be very moderate in giving it. The heat must be well kept up; and as the roots extend, they must be supported. Under such treatment as I have described, I have known one plant grow ten feet in the course of a season, and to have numerous blossom-stems upon it." It is readily increased by dividing the roots. (*Hort. Trans.* iii. 2, 3.) The flowers are at first green, they afterwards assume those beautiful markings of yellow for which they are so much esteemed.

784. *Bulbocodium*. From *βυλβος*, a bulb, and *κωδιον*, wool; its bulb is enveloped in a rough and velvety covering. A beautiful little vernal flower resembling a small species of *Colchicum*.

785. *Uvularia*. A diminutive of *uva*, a bunch of grapes. A genus of little beauty and of easy culture, constantly twisted. A plant like an *Uvularia* in habit.

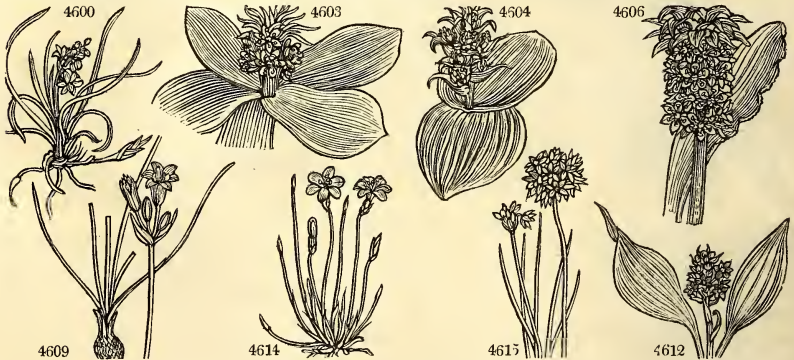
787. *Convallaria*. From *convallis*, a valley, in allusion to the places where it grows. (*Muguet*, Fr.) *C. majalis* is an elegant and delicate scented plant, which has long been a favorite of the florist; though, as it is not a native of hot countries, it is not likely to be the Lily of the Valley of Solomon. Notwithstanding the fragrance of the flowers when green, yet when dried they have a narcotic odour, and if reduced to powder excite sneezing. An extract prepared from the flowers or from the roots partakes of the bitterness, as well as of the purgative properties, of aloes. A beautiful and durable green colour may be prepared from the leaves with lime.

The plant is very common in the woods about Woburn in Bedfordshire, and from thence the London markets are supplied with the flowers. It forces freely, and few plants are more eligible for that operation.

788. *Smilacina*. A diminution of *Smilax*, another genus of plants, which see in its place. These are very pretty little hardy American flowers, requiring some delicacy in their management.

789. *Polygonatum*. From *πολυς*, many, and *γονυ*, a knee; on account of the numerous articulations of its

790. OPHIOPOGON. Ker. SNAKE'S BEARD.			<i>Smilacæ.</i>		<i>Sp. 2—3.</i>				
4600 japonicus Ker.	Japan	spiked	✓ Δ | cu	1 ½ jn	L Y	Japan	1784.	D s.p. Bot. mag. 1063	
4601 spicatus Ker.	Japan	spiked	✓ Δ | cu	1 au.s	V	China	1820.	D s.p. Bot. reg. 593	
791. EUCOMIS. W. EUCOMIS.					<i>Asphodelæ.</i>		<i>Sp. 7—9.</i>		
4602 nána W.	dwarf		✓ Δ | or	¾ jn	my Br	C. G. H.	1774.	O r.m Bot. mag. 1495	
4603 purpureocaulis H.K.	purple-stalked		✓ Δ | or	2	mr.ap G.B	C. G. H.	1794.	O r.m Bot. rep. 369	
4604 bifolia W.	two-leaved		✓ Δ | or	1	ap.my L.G	C. G. H.	1792.	O r.m Bot. mag. 840	
4605 régia W.	tongue-leaved		✓ Δ | or	2	mr.ap G	C. G. H.	1702.	O r.m Di. el. t.92. f.109	
4606 undulata W.	waved-leaved		✓ Δ | or	2	mr.ap G	C. G. H.	1760.	O r.m Bot. mag. 1083	
4607 punctata W.	spotted		✓ Δ | or	2	jl	G.B	C. G. H.	1783.	O r.m Bot. mag. 913
4608 striata H. K.	streaked		✓ Δ | or	2	jn.d G	C. G. H.	1790.	O r.m Bot. mag. 1539	
792. BRODIAEA. L. T. BRODIAEA.					<i>Heremacallidæ?</i>		<i>Sp. 3.</i>		
4609 grandiflora L. T.	large-flowered		✓ Δ | or	¾ jn	B	Georgia	1806.	O p.l Par. lond. t. 98	
4610 ixioidea Sims.	Ixia-like		✓ Δ | or	¾ jl	B	Chili	1821.	O p.l Bot. mag. 2382	
4611 congesta L. T.	close-headed		✓ Δ | or	¾ my	B	India	1806.	O p.l Lin. tr. v. 10. t. 1	
793. PELIOSANTHES. B. R. PELIOSANTHES.					<i>Asparagæ.</i>		<i>Sp. 2.</i>		
4612 humilis B. M.	small		✓ Δ | cu	1 ½	my.jn G	E. Indies	1809.	D r.l Bot. mag. 1532	
4613 Téta B. M.	green-flowered		✓ Δ | cu	1 ½	ap	G.Pu E. Indies	1807.	Sk s.p Bot. mag. 1302	
794. APHYLLANTHES. W. LILY PINK.					<i>Asphodelæ.</i>		<i>Sp. 1.</i>		
4614 monspeliensis W.	Rush-like		✓ Δ | pr	1	jn.jl R	France	1791.	R s.p Bot. mag. 1132	
795. SOWERBEA. L. T. SOWERBEA.					<i>Asphodelæ.</i>		<i>Sp. 1.</i>		
4615 álcea R. R.	Rush-leaved		✓ Δ | pr	1	my.jl Pk	N. S. W.	1792.	R s.p Bot. mag. 1104	
796. ALLIUM. W. GARLIC.					<i>Asphodelæ.</i>		<i>Sp. 76—107.</i>		
4616 Ampeloprásum W.	gt.-round-head.		✓ Δ | cu	2	jl.au Pu	England	sun. hi.	O co Eng. bot. 1637	
4617 Porrúm W.	Leek		✓ Δ | cul	2	ap.my W	Switzerl.	1562.	S r.m Blackw. t. 421	
4618 lineare W.	linear-leaved		✓ Δ | pr	1	jn.jl W	Siberia	1752.	O co Gmel. sib. 1. t.13	
4619 suaveolens W.	sweet-smelling		✓ Δ | pr	1	jn.jl W	Austria	1801.	O co Jac. ic. 2. t.564	
4620 victoriâns W.	long-rooted		✓ Δ | pr	1 ½	my W	Austria	1739.	O co Bot. mag. 1222	
4621 subhirsutum W.	hairy		✓ Δ | pr	1	my W	S. Europe	1596.	O co Bot. mag. 774	
4622 obliquum W.	oblique-leaved		✓ Δ | pr	1 ½	jn.jl W	Siberia	1759.	O co Bot. mag. 1408	
4623 mágium W.	Homer's Moly		✓ Δ | pr	1	jn.jl G.w	Austria	1596.	O co Bot. mag. 1143	
4624 róseum W.	Rose-colored		✓ Δ | pr	1	jn Pa.pu	France	1752.	O co Bot. mag. 978	
4625 deflexum W.	deflexed		✓ Δ | pr	1 ½	jn.jl Pa.pu	.....	1820.	O co
4626 strictum Schrad.	upright		✓ Δ | pr	1	jl Pk	.....	1821.	O co
4627 neopolítanum Cyr.	Neapolitan		✓ Δ | pr	1	jl W	Naples	1823.	O co	
4628 ciliátum Cyr.	ciliated		✓ Δ | pr	¾	my W	Naples	1820.	O co	
4629 tatáricum L.	Tartarian		✓ Δ | pr	¾	jn.jl W	Siberia	1787.	O co Bot. mag. 1142	
4630 descendens W.	purple-headed		✓ Δ | pr	1	jl Pu	Switzerl.	1766.	O co Bot. mag. 251	
4631 flávm W.	sulphur-colored		✓ Δ | pr	1	jn.jl Y	Austria	1759.	O co Bot. mag. 1330	
4632 pallens W.	pale-flowered		✓ Δ | pr	2	jn.jl Pa.Y	S. Europe	1779.	O co Bot. mag. 1420	
4633 paniculátum L.	panicled		✓ Δ | pr	2	jn.jl Pu	S. Europe	1780.	O co Bot. mag. 1432	
4634 caucásicum Bieb.	Caucasian		✓ Δ | pr	1	jn.jl Pk	Caucasus	...	O co Bot. mag. 973	
4635 rotándum L.	round		✓ Δ | pr	1 ½	jl Pu	S. Europe	1820.	O co	
4636 globósum Bieb.	globose		✓ Δ | pr	1	au.s Pu	Caucasus	1821.	O co Gmel. sib. 1. t.10	
4637 moscháturn L.	musky		✓ Δ | pr	¾	au.s W.pu	S. Europe	1823.	O co Wald.&K.1. t.68	
4638 guttátum Fisch.	spotted		✓ Δ | pr	1 ½	jl W	Odessa	1819.	O co	
4639 rupéstre Bieb.	rock		✓ Δ | pr	1 ½	jn Pu	Crimea	1824.	O co	
4640 pusillum W. en.	diminutive		✓ Δ | pr	¾	jn Pk	Siberia	1821.	O co	
4641 sphaerocéphalum W.	small-headed		✓ Δ | pr	1 ½	jl R	Europe	1759.	O co Bot. mag. 1764	
4642 parviflorum W.	small-flowered		✓ Δ | pr	1	jn.jl Pu	S. Europe	1781.	O co	
4643 cárneum W. en.	flesh-colored		✓ Δ | pr	1	jn.jl Pa.pu	.....	1816.	O co
4644 arenarium W.	sand		✓ Δ | pr	¾	jn Pu	Britain	moi. w.	O co Eng. bot. 1358	
4645 carinatum W.	mountain		✓ Δ pr	1	my.jn Pu	England	rocks.	O co Eng. bot. 1658	
4646 controversum W.en.	barren		✓ Δ pr	1	jn.jl Pu	1816.	O co	



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stem. The English name arises from the roots, which in P. vulgare are full or knots, and a transverse section of them shows characters which dreamers have discovered to represent the impress of the famous seal of Solomon.

790. *Ophiopogon*. From *opsis*, a snake, and *πωγων*, a beard; snake's-beard. This plant is best grown in pots, as it requires the protection of a frame during severe frosts.

791. *Eucomis*. From *eu*, well, and *κομη*, hair; on account of the fine tuft of leaves, in botanical language called *coma*, by which the stem is surmounted. Handsome herbaceous plants which are nearly hardy.

792. *Brodiaea*. Named by Sir James Smith, after James Brodie, Esq. of Brodie House, a gentleman to whom the botany of Scotland is indebted. Highly curious little plants with blue flowers.

793. *Peliosanthes*. From *πελιος*, livid, and *ανθος*, a flower, in allusion to the color of the flowers. *Téta* is the name of the plant in India; and having been adopted by Dr. Roxburgh, ought not to have been neglected in this country.

4600 Scape naked, Leaves linear thrice as long as scape

4601 Scape naked, Raceme spiked, Flowers aggregate

4602 Scape clavate, Leaves broad lanceolate acute

4603 Scape clavate, Leaves multifarious expanded

4604 Scape clavate, Leaves elliptical acute twin lying on the ground

4605 Scape cylindrical, Leaves tongue-shaped obtuse lying on the ground

4606 Scape cylindrical, Leaves ovate oblong wavy spreading, Crown as long as raceme

4607 Scape cylindrical, Leaves oblong lanceolate channelled spreading, Crown short, Racemes long

4608 Scape cylindrical, Leaves lanceolate spreading striped, Crown short, Raceme long

4609 Flowers large lax, Leaves of corona lanceolate undivided

4610 Leaves of the corona subulate

4611 Flowers clustered, Leaves of corona bifid

4612 Scape shorter than ovate-lanceolate leaves

4613 Scape branched longer than leaves

4614 The only species

4615 The only species

*A. Stem leafy. Leaves not fistular.
Umbel not bulbiferous. Leaves flat.*

4616 Umb. globose, Stam. 3 cusp. Sepals with a rough keel

4617 Stam. tricuspidate, Root tunicated

4618 Umb. globose, Stam. tricuspidate twice as long as flower

4619 Umb. capitate, Stam. subulate twice as long as flower

4620 Umb. capitate, Stam. lanceolate longer than flower, Leaves elliptical

4621 Umb. fastigiate, Stam. subulate, Leaves linear ciliated

4622 Stam. filiform thrice as long as flower, Leaves oblique

4623 Cauline leaves lanceolate, Umbel dense depressed, Stamens subulate shorter than flower

4624 Umb. fastigiate, Sepals emarginate, Stamens very short simple

4625 Stam. 3-pointed as long as flower, Leaves very narrow, Scape declinate

4626 Very upright, Leaves channelled

4627 Umb. loose few-flowered, Leaves smooth

4628 Very like *Allium subhirsutum* differing only in the smallness of the flowers, Sepals 3lines long

Umbel not bulbiferous. Leaves not flat.

4629 Stamens simple, Umbel flat, Leaves half-rounded

4630 Outer peduncles shorter than the rest, Stamens 3-pointed

4631 Flowers pendulous, Sepals ovate, Stam. longer than flower

4632 Flowers pendulous truncated, Stam. simple as long as flower

4633 Pedunc. capillary effuse, Stam. simple, Spathe very long

4634 Stam. simple twice as long as flower, Spathe as long as flower-stalks: one valve shorter

4635 Umbel globose, Stam. 3-pointed, Flowers lateral nodding, Leaves half-round

4636 Stamens simple twice as long as flower, Umbel globose, Spathe subulate very long

4637 Umb. fastigiate about 6-flowered, Sepals acute, Stamens simple, Leaves setaceous

4638 Umbel globose very dense, Spathe lanc. as long as flow.-stalks, Stam. 3-pointed longer than fl. Lvs. $\frac{1}{2}$ round

4639 Flower-stalks nearly equal, Sepals ovate conniving as long as simple stamens, Style longer than stamens

4640 Spathe ovate shorter than umbel, Stamens simple shorter than flower

4641 Leaves half-round, Stamens 3-pointed longer than flower

4642 Umbel globose, Stamens simple longer than flower, Spathe subulate

4643 Umbel sub-globose, Stamens 3-pointed shorter than flower

Umbel bulbiferous. Leaves flat.

4644 Sheaths of leaves rounded, Spathe blunt, Stamens 3-pointed

4645 Umbel spreading, Peduncles nodding, Stamens subulate, Spathe with very long points

4646 Flowers all male, Stamens 3-pointed, Spathe with a very long point



and Miscellaneous Particulars.

794. *Aphyllanthes*. From α , privative, $\phi\upsilon\lambda\lambda\omicron\nu$, leaf, and $\alpha\upsilon\theta\epsilon\varsigma$, a flower; leafless flower. Its stems are naked, like a rush, and bear on their summit a little tuft of blue flowers.

795. *Sowerbæa*. So named in honor of the late James Sowerby, an excellent draughtsman and ingenious naturalist. The power he possessed of representing the general features of plants within the compass of a few inches, as in his English Botany, has never been possessed in the same degree by any other individual than the late Sydenham Edwards. His execution as an artist is fully attested by the superb plates of the *Flora Londinensis*, of his own Fungi, and indeed of almost every botanical work of merit which appeared during his life. His talents and his reputation are inherited by his sons. This plant requires plenty of water, and is easily increased by dividing the roots.

796. *Allium*. From the Celtic *all*, which signifies hot or burning. This is a genus of strongly scented bulbous plants, all of them edible, and some of them of the greatest antiquity as potherbs.

4647 sativum <i>W.</i>	cultivated	♂	Δ	cul	1½	jn.jl	W	Sicily	1548.	O	r.m	Moris.s.4.t.15.f.9	
4648 Scorodoprasum <i>W.</i>	Rocamboles	♂	Δ	cul	3	jl	L.Pu	Denmark	1596.	O	co		
4649 monspessulan. <i>W.en.</i>	Montpellier	♂	Δ	pr	1	jn	Pa.pu	S. France	1822.	O	co		
4650 violaceum <i>W.en.</i>	violet	♂	Δ	pr	1	jn	V	S. Europe	1823.	O	co		
4651 foetidum <i>W.</i>	stinking	♂	Δ	pr	1	jl	D.Pu	.....	...	O	co	
4652 vineale <i>W.</i>	crow	♂	Δ	pr	1	jn	Pu	Britain	mea.	O	co	Eng. bot. 1974	
4653 oleraceum <i>W.</i>	purple-striped	♂	Δ	pr	1	jl	Pa.pu	England	corn fi.	O	co	Eng. bot 488	
4654 odorum <i>L.</i>	sweet-scented	♂	Δ	pr	1	jn	W	S. Europe	1820.	O	co		
4655 atropurpureum <i>w.&k.</i>	dark-purple	♂	Δ	pr	1	jl	D.Pu	Hungary	1821.	O	co	Wald.&K.1. t.17	
4656 nigrum <i>L.</i>	black	♂	Δ	pr	1	½	jl.au	W	Barbary	1818.	O	co	
4657 caspium <i>Bieb.</i>	Caspian	♂	Δ	pr	1	ap	W	Crimea	1822.	O	co		
<i>Amaryllis caspia L.</i>													
4658 albidum <i>Fisch.</i>	whitish	♂	Δ	pr	¾	jn.jl	W	Crimea	1820.	O	co		
4659 saxatile <i>Bieb.</i>	strong	♂	Δ	pr	1	½	jn.au	W	Crimea	1823.	O	co	
4660 Cowani <i>Lindl.</i>	Cowan's	♂	Δ	pr	1	½	jn	W	Chili	1823.	O	co	Bot. reg. 758
4661 acutangulum <i>W.en.</i>	acute-angled	♂	Δ	pr	1	jn.jl	W	.....	1816.	O	co	
4662 spirale <i>W.en.</i>	spiral	♂	Δ	pr	¾	jn.jl	W	Germany	1802.	O	co		
4663 nutans <i>W.</i>	nodding	♂	Δ	pr	1	½	jl.au	R	Siberia	1785.	O	co	Bot. mag. 1143
4664 ascalonicum <i>W.</i>	Shallot	♂	Δ	cul	1	½	jn.jl	Pu	Palestine	1548.	O	r.m	M.his.s.4.t.14.f.3
4665 senescens <i>W.</i>	Narcissus-leav.	♂	Δ	pr	3	jn.jl	W	Germany	1596.	O	co	Bot. mag. 1150	
4666 gracile <i>H. K.</i>	Carolina	♂	Δ	pr	3	mr.ap	W	Carolina	1776.	O	r.m	Bot. mag. 1129	
4667 angulosum <i>W.</i>	angular-stalked	♂	Δ	pr	1	jn.jl	L.Pu	Germany	1739.	O	co	Bot. mag. 1149	
4668 striatum <i>W.</i>	streaked-leaved	♂	Δ	pr	1	my.jn	W	C. G. H.	1800.	O	co	Bot.m.1035. 1524	
4669 narcissiflorum <i>W.</i>	Narcissus-flwd.	♂	Δ	pr	1	½	jl.au	W	France	...	O	r.m	Vill. delph. 2. t.6
4670 canadense <i>W.</i>	Canadian	♂	Δ	pr	1	½	jn.jl	W	N. Amer.	1739.	O	co	
4671 ursinum <i>W.</i>	Ramson	♂	Δ	pr	1	ap.my	W	Britain	woods.	O	co	Eng. bot. 122	
4672 triquetrum <i>W.</i>	triangular-stkd.	♂	Δ	pr	¾	my.jn	W	Spain	1759.	O	co	Bot. mag. 869	
4673 Clusianum <i>W.</i>	Clusius's	♂	Δ	pr	¾	jn.au	W	S. Europe	1803.	O	co	Clus.hist.1.p.192	
4674 Moly <i>W.</i>	great-yellow	♂	Δ	pr	1	½	jn	Y	S. Europe	1604.	O	co	Bot. mag. 499
4675 tricoccum <i>W.</i>	three-seeded	♂	Δ	pr	1	½	jn	W	N. Amer.	1770.	O	co	
4676 cernuum <i>Roth.</i>	drooping	♂	Δ	pr	1	½	jn	W.pu	N. Amer.	1806.	O	co	Bot. mag. 1324
4677 stellatum <i>B. M.</i>	Missouri	♂	Δ	pr	1	½	jn	Li	N. Amer.	1811.	O	co	Bot. mag. 1576
4678 bisulcum <i>B. M.</i>	furrowed	♂	Δ	pr	¾	jn	Pu	Siberia	...	O	co	Bot. mag. 1381	
4679 baicalense <i>W.en.</i>	Baical	♂	Δ	pr	1	½	jn.jl	Pu	Siberia	1816.	O	co	
4680 rubens <i>W.en.</i>	red	♂	Δ	pr	1	½	jn.jl	Pa.pu	Germany	1805.	O	co	
4681 fragrans <i>Vent.</i>	fragrant	♂	Δ	pr	1½	s.o	W	W. Indies	1822.	O	co		
4682 acutum <i>Spr.</i>	acute	♂	Δ	pr	1	½	jl	Pa.pu	1819.	O	co	
4683 foliosum <i>Fisch.</i>	leafy	♂	Δ	pr	1	½	jl	Pu	1817.	O	co	
4684 proliferum <i>Schr.</i>	Tree-Onion	♂	Δ	cu	3	jl.o	W	.....	1820.	O	co	Bot. mag. 1469
4685 ochroleucum <i>W.en.</i>	pale-yellow	♂	Δ	pr	1	½	jn.jl	Pa.Y	Hungary	1816.	O	co	Pl.rar.hu.2.t.186
4686 Cepa <i>W.</i>	common-onion	♂	○	cul	3	jn.jl	W	.....	...	S	r.m	
4687 fistulosum <i>W.</i>	Welsh-Onion	♂	Δ	cul	1½	ap.my	Gr	Siberia	1629.	O	co	Bot. mag. 1230	
4688 Schcenoprasum <i>W.</i>	Chives	♂	Δ	cul	1	my.jn	F	Britain	m.pas.	S	r.m	Eng. bot. 2438	
4689 sibiricum <i>W.</i>	Siberian	♂	Δ	pr	1	½	jl.au	W	Siberia	1777.	O	co	Bot. mag. 1141
4690 setaceum <i>B. M.</i>	bristly	♂	Δ	pr	1	½	jl.au	G.w	Hungary	1805.	O	co	Wald.&Kit. t.68
4691 Chamæ-Moly <i>W.</i>	dwarf-Moly	♂	Δ	pr	¼	ja.f	G.w	S. Europe	1774.	O	co	Bot. mag. 1203	
797. ALBU'CA. <i>W.</i>	ALBUCA.						<i>Asphodelea. Sp. 17—19.</i>						
4692 altissima <i>W.</i>	tall	♂	Δ	or	4	ap.my	W	C. G. H.	1780.	O	r.m	Jac. ic. 1. t. 36	
4693 major <i>W.</i>	great	♂	Δ	or	3	ap.my	G.y	C. G. H.	1759.	O	r.m	Bot. mag. 804	



History, Use, Propagation, Culture,

A. Porrum. (From *pori*, in Celtic, to eat.) *Leek*, Engl., *Poireau*, Fr., *Lauch*, Ger., and *Porro*, Ital., has a cylindrical scaly imperfect bulb, which is blanched in gardens, and much used in soups and stews. It is sown in March, transplanted in May in shallow drills, and being slightly earthed up as it advances, is fit for use in October, and remains in that state till April or May following.

A. sativum, *Ail*, Fr., *Knoblauch*, Ger., and *Aglío*, Ital., has soboliferous bulbs, which are used in seasoning, and sometimes in medicine. It is cultivated by dividing the bulb, and planting the soboles in February or March. They are fit to take up in the September following, and laid up in a dry situation till wanted for use.

A. scorodoprasum. (From *σσοδορον*, onion, and *πρασον*, leek, as if both leek and onion.) *Ail d'Espagne*, Fr., *Rockenböben*, Ger., and *Scorodopraso*, Ital., has bulbs like garlic, but the soboles or cloves are smaller. It is cultivated for the same purposes as that species, and is considered as having a more delicate flavor.

A. ascalonicum (growing near Ascalon). *Eschalote*, Fr., *Schalotte*, Ger., and *Scalogni*, Ital., is the mildest of cultivated Alliums. It has a soboliferous bulb, small fistular leaves, and seldom flowers. It is propagated by the clove, planted in autumn or spring, and taken up for use in August or September. It is very subject to insects, which autumn and shallow planting are found to counteract. (*Caled. Mem.* i. 109, and *Hort. Trans.* ii. 98. *Encyc. of Gard.* 3847.)

- 4647 Bulbs compound, Stamens 3-pointed
 4648 Leaves crenulate, Sheaths 2-edged, Stamens 3-pointed
 4649 Like *Allium carinatum*, but the stamens are three-pointed
 4650 Stamens subulate twice as long as flower, Spathe longer than umbel

Umbel bulbiferous. Leaves not flat.

- 4651 Leaves half round, Spathes much longer than umbel, Sepals obtuse, Stamens simple exerted
 4652 Stamens 3-pointed
 4653 Leaves rough half-round furrowed beneath, Stamens simple

B. Leaves radical, not fistular.

- 4654 Scape rounded, Umb. many-fl. fastigate, Leaves linear channelled angular beneath, Stam. subulate
 4655 Scape rounded, Leaves lin. lanceol. Umb. fastigate, Sepals very narrow, Stamens simple
 4656 Scape rounded, Leaves lanceolate, Umb. hemispherical, Sepals spreading, Stamens simple
 4657 Scape rounded, Lvs. lin. lanc. wavy, Umb. hemispherical, Roots very long, Stam. simple twice as long as fl.
 4658 Scape oblique 4 cornered, Leaves linear, Umb. fastigate, Stamens simple as long as fl.
 4659 Scape rounded, Leaves half-round, Spathe acum. longer than umbel, Stam. simple longer than flower
 4660 Scape $\frac{1}{2}$ rounded, Leaves lanceolate acuminate flaccid ciliated sheathing, Umbel fastigate, Sepals obtuse
 4661 Scape $\frac{1}{2}$ -edged angular, Umbel clustered, Stamens simple as long as flower, Leaves linear oblique
 4662 Scape nearly 2-edged, Umbel capitate, Stamens longer than flower, Leaves linear spiral
 4663 Scape 2-edged, Umb. drooping before flowering, afterw. erect, Lvs. lin. flat, Stam. 3-pointed longer than fl.
 4664 Scape rounded, Leaves subulate, Umbel globose, Stamens 3-pointed
 4665 Scape 2-edged, Leaves linear convex and smooth beneath, Umbel roundish, Stamens subulate
 4666 Scape rounded very long, Leaves linear channelled, Stamens subulate connate at base
 4667 Scape 2-edged, Leaves linear channelled angular beneath, Umbel fastigate
 4668 Scape 3-cornered shorter than the lin. furrowed leaves, Umb. fastigate, Stamens simple, Sepals obtuse
 4669 Scape rounded longer than the linear subulate leaves, Umb. fastig. Stamens simple, Sepals mucronate
 4670 Scape rounded, Leaves linear
 4671 Scape 3-cornered, Leaves lanceolate stalked, Umbels fastigate
 4672 Scape and leaves 3-cornered, Stamens simple
 4673 Scape rounded, Leaves linear flat ciliated, Umb. few-flowered, Sepals obovate concave
 4674 Scape nearly cylindrical, Leaves lanceolate sessile, Umbel fastigate
 4675 Scape half-round, Leaves lanceolate oblong flat smooth, Umbel globose, Seeds solitary
 4676 Scape 4-cornered, Umb. fastigate cernuous, Leaves linear flat, Stamens subulate longer than flower
 4677 Leaves twisted linear, Umbel loose, Filam. subulate as long as flower
 4678 Scape rounded longer than leaves, Umb. compact, Stam. subul. as long as flower
 4679 Scape rounded at end, Umbel half globose, Leaves linear flat chann. at base, Stam. subul. longer than fl.
 4680 Scape rounded, Umb. fastigate, Leaves half-round compressed, Stam. lanceolate shorter than fl.
 4681 Scape rounded, Umb. few-flowered fastigate, Leaves lin. channelled, Stam. lanceolate shorter than fl.

C. Leaves fistular.

- 4682 Scape leafy, Umb. fastigate, Spathes nearly equal, Sepals mucronate
 4683 Scape leafy at base
 4684 Scape fistular twisted, Umb. bulbiferous proliferous, Stamens 3-pointed
 4685 Scape rounded with an angle, Leaves linear obtuse, Umb. rounded, Stamens setaceous twice as long as fl.
 4686 Scape ventricose beneath longer than the round leaves
 4687 Scape as long as the round ventricose leaves
 4688 Scape as long as the round subulate leaves
 4689 Scape not quite naked round, Leaves half-round, Stamens subulate, Sepals lanceolate acute
 4690 Scape round, Leaves setaceous subulate ciliated, Sepals ovate lanceolate emarginate at ends
 4691 Scape scarcely any, Capsules cernuous, Leaves flat ciliated

§ 1. *Three stamens fertile.*

- 4692 Inner sepals glandular at end inflexed, Leaves subulate channelled recurved
 4693 Inner sepals glandular at end inflexed, Peduncles spreading, Leaves linear lanc. flat reflexed



and Miscellaneous Particulars.

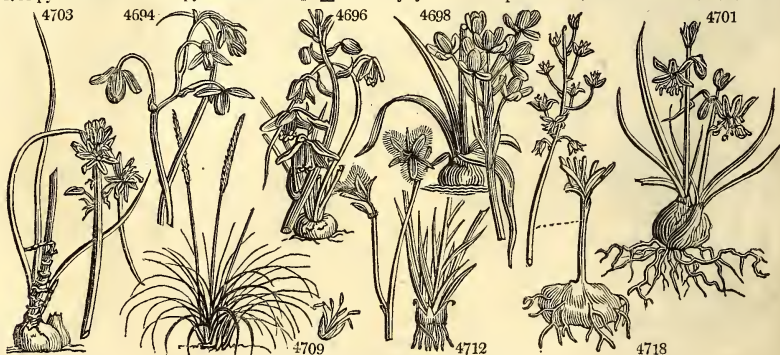
A. cepa. (*Cep* signifies head in Celtic. *Oignon*, Fr., *Zwiebel*, Ger. and *Cipolla*, Ital., is universally cultivated for the kitchen, and is used as a pot-herb, salad, and pickle. It is commonly raised from seed, which is sown on rich, loamy, and rather moist soil, in March; and being thinned, weeded, and the soil stirred, the bulbs will be fit to take up in September, when they may be kept through the winter like potatoes or apples. It is also grown from small bulbs, which are planted on the surface of the soil in March, and swell to a large size (if not earthed up) in the course of the season. Sometimes onion-seeds are sown in autumn in a very dry situation, and the young plants are taken up and transplanted in spring; or a sowing is made very early in spring on a warm border or on a hot-bed, and the crop transplanted from that.

There is a variety called the underground-onion, which multiplies its bulbs by offsets below the surface. The species called the tree onion, like several others, produces its bulbs instead of or among the umbel of flowers. It is occasionally cultivated, but chiefly as matter of curiosity.

A. fistulosum is grown chiefly as a scallion, or spring salad onion. It has almost no bulb, but large succulent fistular leaves, strong in flavor. It is sown in autumn, and fit to be used in spring.

797. *Albuca.* Derived from *alōus*, white, in allusion to the color of the flowers of this genus. Not a very happy allusion though, because the flowers are mostly green. The stem of the *Asphodel* was called *albuca* by

4694 minor <i>W.</i>	small	♂	△	or	1	my.jn	Y	C. G. H.	1768.	O	s.l	Bot. mag. 720
4695 falcata <i>Jac.</i>	flaccid	♂	△	or	2	my.jn	Y.W	C. G. H.	1791.	O	r.m	Jac. ic. 2. t. 144
4696 viridiflora <i>W.</i>	green-flowered	♂	△	or	1	jn.jl	G	C. G. H.	1794.	O	r.m	Bot. mag. 1656
4697 coarctata <i>W.</i>	channel-leaved	♂	△	or	2	my.jn	Y	C. G. H.	1774.	O	r.m	
4698 fastigiata <i>W.</i>	level-topped	♂	△	or	1½	my.jn	W	C. G. H.	1774.	O	r.m	Bot. rep. 450
4699 caudata <i>W.</i>	upright-flower.	♂	△	or	2	my.jl	W	C. G. H.	1791.	O	r.m	Jac. ic. 2. t. 442
4700 setosa <i>W.</i>	bristly	♂	△	or	1	my.jl	G	C. G. H.	1795.	O	r.m	Bot. mag. 1481
4701 vittata <i>B. M.</i>	ribbon	♂	△	or	½	jl.au	Y.G	C. G. H.	1802.	O	s.p	Bot. mag. 1329
4702 physodes <i>B. M.</i>	dinky-flowered	♂	△	or	1	jn.jl	W	C. G. H.	1804.	O	r.m	Bot. mag. 1046
4703 exuviata <i>B. M.</i>	Adder's-skin	♂	△	or	1	my.jl	W	C. G. H.	1795.	O	r.m	Bot. mag. 871
4704 aurea <i>Jacq.</i>	golden	♂	△	or	1½	my.jl	G.V	C. G. H.	1818.	O	r.m	
4705 abyssinica <i>Jacq.</i>	Abyssinian	♂	△	or	2	au	W	Abyssinia	1818.	O	r.m	
4706 fragrans <i>W.</i>	sweet-scented	♂	△	or	1	jn.jl	Y.G	C. G. H.	1791.	O	s.p	Jac.schoen. 1.t.81
4707 viscosa <i>W.</i>	clammy-leaved	♂	△	or	1	my.jn	W.G	C. G. H.	1779.	O	r.m	Jac. ic. 2. t. 445
4708 spiralis <i>W.</i>	spiral-leaved	♂	△	or	½	jn	W	C. G. H.	1795.	O	s.p	Jac. ic. 2. t. 439
798. XANTHORRHEA. <i>R. Br.</i>	XANTHORRHEA.							<i>Asphodeleæ.</i>	<i>Sp. 3-7.</i>			
4709 hastilis <i>R. Br.</i>	yellow-gum	♀	△	cu	4	ap.my	W	N. S. W.	1803.	Sk	s.p	
4710 minor <i>R. Br.</i>	small	♀	△	cu	2	...	W	N. S. W.	1804.	Sk	s.p	
4711 bracteata <i>R. Br.</i>	long-bracted	♀	△	cu	2	...	W	N. S. W.	1810.	Sk	s.p	
799. THYSANOTUS. <i>R. Br.</i>	THYSANOTUS.							<i>Asphodeleæ.</i>	<i>Sp. 2-21.</i>			
4712 juncus <i>R. Br.</i>	Rush-like	♂	△	pr	½	au.s	Pu	N. S. W.	1804.	O	s.p	Bot. reg. 656
4713 isantherus <i>R. Br.</i>	even-anthered	♂	△	pr	½	au.s	Pu	N. S. W.	1822.	O	s.p	Bot. reg. 655
800. ERIOSPERMUM. <i>W.</i>	ERIOSPERMUM.							<i>Asphodeleæ.</i>	<i>Sp. 5-9.</i>			
4714 latifolium <i>W.</i>	broad-leaved	♂	△	cu	1	jn.au	L.B	C. G. H.	1800.	Sk	s.p	Bot. mag. 1382
4715 pubescens <i>Jacq.</i>	downy	♂	△	cu	1	jn	W.G	C. G. H.	1820.	Sk	s.p	Bot. reg. 578
4716 lanceifolium <i>W.</i>	spear-leaved	♂	△	cu	1	jn.au	L.B	C. G. H.	1795.	Sk	s.p	Jac. ic. 2. t. 421
4717 parvifolium <i>W.</i>	small-leaved	♂	△	cu	1	jn.au	D.B	C. G. H.	1795.	Sk	s.p	Jac. ic. 2. t. 422
4718 folioliferum <i>B. R.</i>	leaflet-bearing	♂	△	cu	½	jn.au	Y.G	C. G. H.	1806.	Sk	s.p	Bot. reg. 795
801. GAGEA. <i>Sal.</i>	GAGEA.							<i>Asphodeleæ.</i>	<i>Sp. 6-7.</i>			
4719 lutea <i>B. M.</i>	bundle-flower'd	♂	△	pr	½	mr.ap	Y	Britain	woods.	O	s.p	Bot. mag. 1200
4720 sylvatica <i>W. en.</i>	wood	♂	△	pr	½	mr.ap	Y	Europe	...	O	s.p	P.i.u.N.a.5.t.1.f.1
4721 spathacea <i>W.</i>	sheathed	♂	△	pr	½	ny	Y	Germany	1759.	O	s.p	H.in.us.an.15. t1
4722 minima <i>P. S.</i>	starry	♂	△	pr	½	ny	Y	Sweden	1759.	O	s.p	
4723 circinata <i>W.</i>	netted	♂	△	pr	½	my.jn	Y	Siberia	1789.	O	s.p	Pall. it. t. D. f. 2
4724 serotina <i>B. M.</i>	mountain	♂	△	pr	½	ny	Y	Wales	...	O	s.p	Eng. bot. 793
802. ORNITHOGALUM. <i>W.</i>	STAR OF BETHLEHEM.							<i>Asphodeleæ.</i>	<i>Sp. 29-47.</i>			
4725 uniflorum <i>W.</i>	one-flowered	♂	△	or	½	my.jn	Y	Siberia	1781.	O	s.p	N. c.p.18. t.6. f.3
4726 ixioides <i>H. K.</i>	Ixia-like	♂	△	or	½	my.jn	W	California	1796.	O	s.p	
4727 niveum <i>W.</i>	snowy	♂	△	or	½	my.jn	W	C. G. H.	1774.	O	r.m	Bot. reg. 235
4728 umbellatum <i>W.</i>	common	♂	△	or	1	ap.jn	W	England	mc.pa.	O	co	Eng. bot. 130
4729 virens <i>Lindl.</i>	greenish	♂	△	or	11	jn.jl	G	Del. Bay	1823.	O	co	Bot. reg. 814
4730 narbonense <i>W.</i>	Narbonne	♂	△	or	1	jn.jl	W	S. Europe	1810.	O	co	Bot. mag. 2510
4731 fimbriatum <i>Eieb.</i>	fringed	♂	△	or	2	f.mr	W	Crimea	1820.	O	co	Lindl. coll. 28
4732 pyrendicum <i>W.</i>	spiked	♂	△	or	2	jn.jl	G	England	past.	O	co	Eng. bot. 499
4733 stachyodes <i>W.</i>	close-spiked	♂	△	or	2½	ap.jl	L.Y	S. Europe	1771.	O	co	Ren. spec. t. 90
4734 lacteum <i>W.</i>	milk-white	♂	△	or	1	jn.jl	W	C. G. H.	1796.	O	r.m	Bot. mag. 1134
4735 revolutum <i>W.</i>	revolute-flower.	♂	△	or	1	mr.jn	W	C. G. H.	1795.	O	r.m	Bot. mag. 653
4736 elatum <i>B. Rcp.</i>	tall	♂	△	or	3	mr	W	Egypt	1804.	O	r.m	Bot. rep. 573
4737 latifolium <i>W.</i>	broad-leaved	♂	△	or	1	jn.jl	W	Egypt	1629.	O	r.m	Bot. mag. 876
4738 scilloides <i>W.</i>	scull-like	♂	△	or	1	jn.jl	W	C. G. H.	1795.	O	r.m	Jac. sch. 1. t. 888
4739 prasinum <i>B. Reg.</i>	green-flowered	♂	△	or	1	jn.jl	G	C. G. H.	1816.	O	r.m	Bot. reg. 158
4740 comosum <i>W.</i>	short-spiked	♂	△	or	1	jn.au	W	Austria	1596.	O	p.l	Jac. ic. 2. t. 426
4741 pyramidalis <i>W.</i>	pyramidal	♂	△	or	2	jn.jl	W	Spain	1752.	O	r.m	Jac. ic. 2. t. 425



History, Use, Propagation, Culture.

the Latins. A genus of little beauty, but of easy management in sandy loam and decayed vegetable soil, and propagation is effected by suckers from the old bulbs; or by taking off leaves with a scale, and planting them round the edge of a pot of sandy loam.

798. *Xanthorrhæa*. From *ξανθος*, yellow, and *ῥαίζω*, to flow. The plant produces a yellow gum.

799. *Thysanotus*. From *θύσανος*, a fringe, on account of the fringe of the sepals. Elegant little New Holland plants, with bright purple blossoms and slender grassy leaves.

800. *Eriosperrnum*. From *ερίων*, wool, and *σπέρμα*, seed, on account of the envelope of the seed. Very curious little Cape plants, with deformed or unusually shapen leaves.

801. *Gagea*. Named by R. A. Salisbury, Esq., after his friend Sir Thomas Gage, a great amateur of botany. A genus of curious little bulbous plants, none of which exceed the height of more than three or four inches, and principally distinguished from *Ornithogalum* by the yellow color of their flowers.

- 4694 Inner sepals glandular at end inflexed, Scape erect, Fl. nodding, Lvs. linear subulate channelled smooth
 4695 Inner sepals glandular at end inflexed, Peduncles spreading at right angles, Lvs. lanc. lin. obliquely bent
 4696 Inner sepals glandular at end infl. Scape erect wavy, Fl. ceruuous, Lvs. lin. subul. chann. outside hairy
 4697 Inner sepals vaulted at end, Leaves smooth, Peduncles the length of bractes

§ 2. *Six stamens fertile.*

- 4698 Inner sepals vaulted at end, Leaves lin. flattish, Scape shorter than leaves, Pedunc. very long spreading
 4699 Inner sepals glandular at end inflexed, Leaves lin. lanc. convol. upright shorter than scape
 4700 Inner sepals glandular at end reflexed, Leaves lin. lanc. flattish, Pedunc. at right angles, Flowers erect
 4701 Scape shorter than leaves few-flowered, Flowers nodding, Filam. 2-toothed
 4702 Leaves lanceolate, Raceme pyramidal before the leaves, Filam. glandular at base
 4703 Leaves lin. subulate channelled, Scape simple shorter than leaves, Scales of root wrinkled across
 4704 Inner sepals glandular at end inflexed, Lvs. lin. lanc. flat, Pedunc. very long erect spreading, Fl. upright
 4705 Inner sepals vaulted at end, Leaves lin. lanceol. channelled upright, Pedunc. shorter than nodding flow.
 4706 Inner sepals vaulted at end, Leaves lin. lanc. channelled, Pedunc. spreading the length of nodding flow.
 4707 Inner sepals vaulted at end, Lvs. lin. subul. chann. hairy clammy, Ped. spread. twice as long as nodd. fl.
 4708 Inner sepals vaulted at end, Leaves lin. subulate convolute at the end spirally twisted villous

- 4709 Stem very short, Leaves 2-edged lengthwise, Scape very long higher than the spike
 4710 Stemless, Leaves 3 cornered flat in front beyond the middle hollowed, Scape very long higher than spike
 4711 Stemless, Leaves 3 cornered below the middle in front little raised above middle concave, Bracts very long

- 4712 Roots fibrous, Stems branched diffuse rounded striated, Branches somewhat angular, Anthers unequal
 4713 Bulbs fasciated, Leaves radical channelled nearly as long as the rounded simple stem

- 4714 Leaves roundish acuminate cucullate at base
 4715 Leaf sub-cordate acute cucullate pubescent
 4716 Leaves ovate lanceolate at the edge wavy involute
 4717 Leaves elliptical obtuse flat
 4718 Leaf proliferous, Leaflets filiform undivided sessile

- 4719 Radical leaf linear flat, Peduncles simple umbellate, Sepals obtuse smooth, Bulbs clustered
 4720 Radical leaf linear lanc. flat, Pedunc. simple somewhat umbellate, Sepals obtuse smooth, Bulb solitary
 4721 Leaves linear filiform upright, Pedunc. about 3 with a three-leaved involucrem
 4722 Scape angular naked, Pedunc. umbellate branched pubescent, Sepals lanc. acute
 4723 Scape naked, Pedunc. 3 umbell. pubescent, Leaves filiform, Three outer sepals longer than the others
 4724 Leaves half cylindrical, Cauline dilated at base

- 4725 Scape 2-leaved, Leaves opp. Pedunc. 1-fl. Outer sepals lanc. retuse : inner ellipt. twice as broad
 4726 Scape naked, Flowers umbelled, Filam. all 2-forked bearing the anther in the middle
 4727 Raceme few-flowered, Sepals lanceolate, Leaves filiform channelled, Filam. subulate
 4728 Corymb few-flowered, Pedunc. longer than bractes, Filam. subulate
 4729 Raceme spiked many-fl. Lvs. lin. lanc. weak, Every other stamen with two teeth, Bractes longer than fl.
 4730 Raceme oblong, Filam. lanceolate membranous, Pedunc. and fl. spreading
 4731 Corymb few-flowered shorter than lanceolate strongly fringed leaves
 4732 Raceme very long, Sepals linear obtuse, Filam. lanceol. equal, Style the length of stamens
 4733 Raceme very long, Sepals lanc. oblong, Filam. broad lanceol. alternately shorter
 4734 Raceme long, Filam. subulate alternate lanceolate, Bractes membranous ovate twice as long as pedunc.
 4735 Raceme few-flowered, Sepals linear oblong obliquely bent emarginate, Filam. lanc. subul. Leaves linear
 4736 Leaves short oblong erect, Scape very long, Flowers campanulate the length of stamens
 4737 Raceme very long, Filam. subulate, Pedunc. much longer than flower, Leaves lanceolate
 4738 Raceme very long, Filam. subul. Pedunc. length of fl. Bractes the length of pedunc. Lvs. lin. lanc. loose
 4739 Lvs. glaucous twisted upwards, Raceme divaricating on a long scape, Filaments with an ovate base
 4740 Raceme very short, Bractes lanc. the length of flowers, Sepals obtuse, Filam. subulate
 4741 Raceme conical, Fl. numerous ascending, Sepals oblong flat, Stam. lanc. equal, Style very short



and Miscellaneous Particulars.

802. *Ornithogalum*. From *ορνιθας*, a bird, and *γαλα*, milk. No good explanation has been offered of the application of this word; that of Tournefort is not worth quoting. *O. squilla* is the officinal squill. It has a bulb almost as big as the human head, pear-shaped, and truncate like the onion. From the middle of the root arise several shining leaves a foot long, and two inches broad at their base, lessening all the way to the top, where they end in points. They continue green all the winter, and decay in the spring; then the flower-stalk comes out, rising two feet high, naked about half way, and terminated by a pyramidal thyrse of white flowers.

The squill is one of the few medicines known in the early ages of Greece, which is still held in great estimation. It is very nauseous, intensely bitter and acrimonious, without any perceptible smell. It is poisonous to several animals: if much handled it excoriates the skin; and in large doses frequently repeated, it not only excites nausea, but strangury, bloody urine, and hemorrhoids, with fatal inflammation and gangrene of the stomach and bowels. Under proper management, however, it is a medicine of great practical utility. In

4742 odoratum W.	sweet-scented	♂	Δ	or	1 1/2	my.jn	P.Y	C. G. H.	1795.	O	r.m	Bot. rep. 260
4743 barbatum W.	bearded	♂	Δ	or	1	my.jl	W	C. G. H.	1795.	O	r.m	Jac. sch. 1. t. 91
4744 juncifolium W.	Rush-leaved	♂	Δ	or	1	jl.au	W	C. G. H.	1794.	O	r.m	Bot. mag. 972
4745 rupestre W.	rock	♂	Δ	or	1	my.au	W	C. G. H.	1795.	O	r.m	Bot. mag. 972
4746 arabicum W.	great-flowered	♂	Δ	or	1 1/2	mr.ap	W	Egypt	1629.	O	r.m	Bot. mag. 728
4747 thyrsoides W.	thyrs-flower.	♂	Δ	or	1 1/2	ju.jl	W	C. G. H.	1757.	O	r.m	Bot. mag. 1164
4748 aureum W.	golden	♂	Δ	or	1	ju.jl	Y	C. G. H.	1790.	O	r.m	Bot. mag. 190
4749 flavissimum Jac.	great-yellow	♂	Δ	or	1	ju.jl	Y	C. G. H.	1804.	O	r.m	Jac. ic. t. 436
4750 coarctatum W.	close-flowered	♂	Δ	or	1 1/2	ju.jl	W.G	C. G. H.	1804.	O	r.m	Jac. ic. t. 435
4751 caudatum W.	long-spiked	♂	Δ	or	3	f.au	W.G	C. G. H.	1774.	O	r.m	Bot. mag. 805
4752 unguiculatum B. M.	one-leaved	♂	Δ	or	3	ju.jl	W	Gibraltar	1805.	O	r.m	B. mag. 935, 953
4753 Scilla B. M.	official Scyll	♂	Δ	or	3	ap.my	W	S. Europe	1629.	O	r.m	Bot. mag. 918
803. SCILLA W.	SQUILL.							<i>Asphodelcea.</i>	Sp. 21—35.			
4754 italica W.	Italian	♂	Δ	or	3	ap.jl	B	Switzerl.	1605.	O	p.l	Bot. mag. 663
4755 peruviana W.	corymbosc	♂	Δ	or	1	my	D.B	Spain	1607.	O	r.m	Bot. mag. 749
4756 lusitana W.	Portugal	♂	Δ	or	1	my	L.B	Portugal	1777.	O	p.l	Bot. mag. 1999
4757 Lilio-Hyacinthus W.	Lily-rooted	♂	Δ	or	1	my.jl	B	S. Europe	1597.	O	co	Red. lil. 205
4758 amœna W.	nodding	♂	Δ	or	1	mr.ap	L.B	Levant	1596.	O	p.l	Bot. mag. 341
4759 sibirica H. K.	Siberian	♂	Δ	or	1	f.mr	B	Siberia	1796.	O	p.l	Bot. mag. 1025
4760 præcox W.	early-flowering	♂	Δ	or	1	mr.ap	D.B	.....	1790.	O	p.l	.....
4761 verna W.	vernal	♂	Δ	or	1	ap.my	B	Britain	rocks.	O	s.l	Eng. bot. 23
4762 unifolia L.	one-leaved	♂	Δ	or	1	my.ju	W	Portugal	.....	O	r.m	.....
4763 hyacinthoides W.	Hyacinth	♂	Δ	or	1	au	B	Madeira	1585.	O	s.l	Bot. mag. 1140
4764 autumnalis W.	autumnal	♂	Δ	or	1	aus	Pk	England	dr. pa.	O	p.l	Eng. bot. 78
4765 bifolia W.	two-leaved	♂	Δ	or	1	f.ap	B	England	woods.	O	p.l	Eng. bot. 24
4766 umbellata W. cn.	umbelled	♂	Δ	or	1	ap	B	Pyrenees	1822.	O	p.l	B. ph.n.41.t.8.f.6
4767 cœrua Lk.	cernuous	♂	Δ	or	1	ap.my	Pk	Spain	1815.	O	p.l	.....
4768 indica Roxb.	Indian	♂	Δ	or	1	.....	.....	E. Indies	1816.	O	p.l	.....
4769 campanulata W.	Spanish	♂	Δ	or	1	my.jn	D.P	Spain	1633.	O	p.l	B. mag. 127, 1102
4770 non scripta Sm.	Harebell's	♂	Δ	or	1	mr.jn	B	Britain	woods.	O	co	Eng. bot. 377
β cœrua	flesh-colored	♂	Δ	or	1	mr.jn	Pk	Britain	woods.	O	s.l	Bot. mag. 1461
γ alba	white	♂	Δ	or	1	mr.jn	W	Britain	woods.	O	s.l	.....
4771 brevifolia B. M.	short-leaved	♂	Δ	or	1	ja	Pk	C. G. H.	1811.	O	s.l	Bot. mag. 1468
4772 corymbosa B. M.	Cape	♂	Δ	or	1	aud	Pk	C. G. H.	1793.	O	s.l	B.m.1478 in note
4773 esculenta B. M.	Quamash	♂	Δ	or	1	my.jl	P.B	N. Amer.	1811.	O	s.l	Bot. mag. 1574
4774 romana B. M.	Roman	♂	Δ	or	1	my	W	Italy	1596.	O	s.l	Bot. mag. 939
804. PUSCHKINIA. Bieb.	PUSCHKINIA.							<i>Asphodelcea.</i>	Sp. 1			
4775 scilloides Bieb.	little	♂	Δ	or	1	my.jn	P.B	Siberia	1819.	O	s.l	Lindl. coll. 24
805. MASSONIA. W.	MASSONIA.							<i>Asphodelcea.</i>	Sp. 9—10.			
4776 latifolia W.	broad-leaved	♂	Δ	or	1	mr.ap	W	C. G. H.	1775.	O	s.l	Bot. mag. 848
4777 longifolia Jacq.	long-leaved	♂	Δ	or	1	mr.ap	W	C. G. H.	.....	O	s.l	Jac. sch. 4. t. 457
β candida Burchell	white	♂	Δ	or	1	mr.ap	W	C. G. H.	.....	O	s.l	Bot. rep. 694
4778 muricata H. K.	prickly-leaved	♂	Δ	or	1	ap.my	W	C. G. H.	1790.	O	s.l	Bot. mag. 559
4779 scabra H. K.	shagreen-leaved	♂	Δ	or	1	ja.ap	W	C. G. H.	1790.	O	s.l	Bot. rep. 220
γ pustulata B. M.												
4780 echinata W.	rough-leaved	♂	Δ	or	1	my	W	C. G. H.	1790.	O	s.l	.....
4781 pauciflora H. K.	few-flowered	♂	Δ	or	1	my	W	C. G. H.	1790.	O	s.l	.....
4782 angustifolia W.	narrow-leaved	♂	Δ	or	1	mr.ap	W	C. G. H.	1775.	O	s.l	Bot. mag. 736
4783 undulata W.	waved-leaved	♂	Δ	or	1	ap	W	C. G. H.	1791.	O	s.l	.....
4784 ensifolia B. M.	trumpet-flower.	♂	Δ	or	1	f.s	L	C. G. H.	1790.	O	s.l	Bot. mag. 554
806. EREMURUS. Bieb.	EREMURUS.							<i>Asphodelcea.</i>	Sp. 1			
4785 spectabilis Bieb.	channelled-lvd.	♂	Δ	or	1	my.jn	Y	Siberia	1800.	O	s.l	Bieb. cent. t. 61



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dropsy it has long been esteemed the most certain and effectual diuretic with which we are acquainted, and it is usually employed in asthma.

803. *Scilla*. From *σκύλλος*, to injure, according to Miller, because its root is a violent poison as well as an article of medicine. In Arabic it is called *asqyl*; has not the name *scilla* been obtained rather from this root? The genus is so ill defined that botanists are more guided by their blue colour than by any precise mark, in referring plants to this rather than Ornithogalum.

S. peruviana or hyacinth of Peru is erroneously named, being a native of Spain. It is valuable as an evergreen, or rather wintergreen, its fine lucid green leaves appearing before winter and continuing through that season, till it sends up its thick succulent scapes about the end of April. There are two varieties, one with a deep blue, and the other with a white flower. Like other Spanish bulbs it is liable to be destroyed by an extraordinary severe winter.

S. verna is a maritime plant found on the coast of Cornwall, Wales, the Isle of Man, and the Hebrides.

S. non-scripta is the Hyacinth of that name of Linnæus, the *Jacinte des bois*, of the French, and *Niederländische* or *Englische Hyacinthe*, of the Germans. The fanciful specific name of non-scriptus was

- 4742 Raceme long, Filam. subul. Sepals lanc. at the end callous inflexed, Leaves linear depressed flat
 4743 Raceme few-fl. Filam. subulate, Sepals lin. obtuse : 3 outer bearded at end; inn. mucron. Leaves filiform
 4744 Raceme long many-fl. Filam. subulate, Sepals lanc. acute, Leaves filiform subulate
 4745 Leaves filiform fleshy, Scape few-flowered
 4746 Corymb many-flowered, Filam. subulate, Cor. broadly campan. Outer sepals obsolete 3-toothed
 4747 Corymbs many-fl. racemose, Filam. alternately forked, Leaves lanceolate
 4748 Raceme contracted corymbose, Filam. alternately emarg. Leaves lanc. with cartilaginous teeth
 4749 Like the last, but the flowers very yellow, and the bractes very narrow the length of the flower-stalk
 4750 Raceme many-fl. contracted, Altern. filam. emarginate, Leaves linear channelled
 4751 Raceme very long, Leaves lanc. linear, Flowers spreading, Stam. dilated alternately wedge-shaped
 4752 Leaf solitary longer than scape, Flowers few spiked sessile
 4753 Flowers without the leaves, Bractes reflexed

- 4754 Raceme conical oblong
 4755 Corymb clustered conical
 4756 Raceme oblong conical, Sepals lined
 4757 Raceme few-flowered, Peduncles without bractes, Leaves lanceol. lying on the ground
 4758 Scape angular, Peduncles alternate shorter than flower, Bractes obtuse very short
 4759 Four-leaved, Scapes many half-rounded striated 2-flowered decumbent after flowering
 4760 Scape angular, Raceme corymbose, Peduncles twice as long as fl. Bractes obsolete
 4761 Raceme few-flowered with bractes, Flowers campanulate, Leaves linear channelled : radical many
 4762 Leaf roundish somewhat spiked on one side
 4763 Raceme cylindrical many-flowered, Sepals half as long again as the ovaries, Peduncles colored
 4764 Leaves filiform linear, Flowers corymbose, Peduncles naked ascending the length of the flower
 4765 Flowers racemose, Leaves lanceolate linear about two elevated on a scape
 4766 Scape rounded, Corymb few-flowered umbelled, Bractes filiform the length of peduncles
 4767 Flowers campanulate 6-parted, Raceme cernuous
 4768 A species which has not yet been seen in flower, nor described
 4769 Raceme many-fl. obl. conical, Flowers campan. erect, Bractes 2-parted longer than pedunc. Lvs. lanceol.
 4770 Flowers campanulate 6-parted revolute at end

- 4771 Flowers 6-parted, Raceme cernuous, Leaves shorter than scape
 4772 Flowers funnel-shaped corymbose erect, Scape shorter than the leaves
 4773 Scape longer than keeled linear leaves, Spike racemose, Five sepals ascending; the lower deflexed
 4774 Flowers campanulate half six-cleft racemose, Stamens membranous

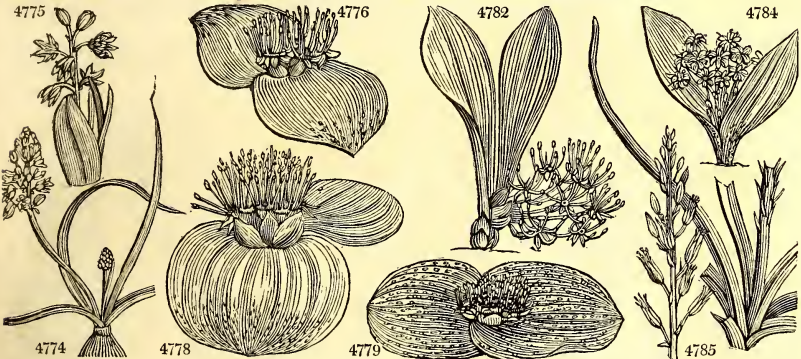
4775 The only species, like a pale-flowered variety of *Scilla sibirica*

- 4776 Leaves roundish smooth
 4777 Leaves lanceolate oblong acuminate

- 4778 Leaves roundish smooth towards the end muricated
 4779 Leaves roundish veiny warted rough

- 4780 Leaves ovate and lanceolate with hairy tubercles, Sepals filiform
 4781 Leaves lanceolate and elliptical veinless warted, Warts naked, Sepals ovate
 4782 Leaves oblong lanceolate flat smooth
 4783 Leaves lanceolate wavy smooth
 4784 Leaves lanceolate, Sepals much shorter than the tube, Filam. capillary alternately longer

- 4785 Scape naked simple, Stamens twice as long as flower, Leaves linear channelled



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applied to this plant by Dodonæus, because it has not the marks of Ai, Ai, on the petals, as other hyacinths are supposed to have, and therefore is not the *Hyacinthus poeticus*. This idea has its origin in the Roman mythology, in which Apollo, being much grieved for the death of the youth *Hyacinthus*, changed his blood into a flower which bore his name, &c. It is a native of almost every part of Europe and of Persia.

804. *Puschkinia*. Named after Count Mussin Pouschkin, a Russian botanist and patron of botany. A very remarkable little plant, resembling a *Scilla* in appearance, but well defined by the very curious union of its stamens into a cup.

805. *Massonia*. So named by Thunberg, after Mr. Francis Masson, author of *Stapelie Novæ*; a successful botanical collector at the Cape of Good Hope, Madeira, the West Indies, and finally North America, into whose wildernesses he went to die. Very singular plants, with broad leaves lying flat on the ground, and compact umbels of flowers.

806. *Eremurus*. From *ἐρημος*, desert, and *ὄστρον*, a tail: tail of the desert. Its long spikes of yellow flowers may be easily imagined to merit such an appellation in their native abodes.

807. BULBINE. <i>W. en.</i>	BULBINE.			<i>Asphodeleæ.</i>	Sp. 7—19.		
4786 frutescens <i>W. en.</i>	shrubby	✱	□	or	2	mr.au	Y
4787 rostrata <i>W. en.</i>	beaked	✱	□	or	2	mr.au	Y
4788 alooides <i>W. en.</i>	Aloe-leaved	✱	△	or	1	ap.au	Y
4789 pugioniforme <i>Lk.</i>	dagger-leaved	✱	△	or	1	ap.jn	Y
4790 longiscapa <i>W. en.</i>	glaucous-leaved	✱	△	or	1	ap.au	Y
4791 annua <i>W. en.</i>	annual	✱	○	or	2	my.jn	Y
4792 ciliata <i>Lk.</i>	ciliated	✱	△	or	2	my	Y
808. ASPHODELUS. <i>W.</i>	ASPHODEL.						
4793 luteus <i>W.</i>	yellow	✱	△	or	3	my.jn	Y
4794 tauricus <i>W. en.</i>	Taurian	✱	△	or	2	my.jn	W
4795 ramosus <i>W.</i>	branched	✱	△	or	2	my	W
4796 albus <i>W.</i>	upright	✱	△	or	2	my	W
4797 fistulosus <i>W.</i>	onion-leaved	✱	△	or	1½	jn.s	W
4798 clavatus <i>Rozb.</i>	club-seeded	✱	□	or	1	jl.au	W
4799 creticus <i>Lam.</i>	Candian	✱	△	or	2	jn	Y
4800 intermedius <i>Horn.</i>	intermediate	✱	△	or	1½	jl	W
809. ANTHERICUM. <i>W.</i>	ANTHERICUM.						
4801 nutans <i>W.</i>	nodding	✱	△	or	1	ap.au	W
4802 latifolium <i>W.</i>	broad-leaved	✱	△	or	2	ap.au	W
4803 serotinum <i>L.</i>	late-flowering	✱	△	or	½	aus.	W
4804 ramosum <i>L.</i>	branched	✱	△	or	2	my.jn	W
4805 pendulum <i>Horn.</i>	pendulous	✱	△	or	1½	jl	W
4806 albucoides <i>Ait.</i>	Albuca-like	✱	△	or	1	jl	W
4807 sulphureum <i>R. & K.</i>	sulphur-colored	✱	△	or	1	ap.au	P.Y
4808 glaucum <i>Fl. per.</i>	glaucous	✱	△	or	1½	...	W
4809 semibarbatum <i>R. Br.</i>	half-bearded	✱	△	or	1	jl	Y
4810 filifolium <i>Jacq.</i>	thread-leaved	✱	△	or	½	my	W
4811 pomeridianum <i>Ker.</i>	afternoon	✱	△	or	2	jn	W
	<i>Scilla pomeridiana</i>						
4812 physodes <i>B. M.</i>	dingy-flowered	✱	△	or	1	jn.jl	W
4813 asphodeloides <i>P. S.</i>	upright-leaved	✱	□	or	2	jn.au	W
4814 hispidum <i>P. S.</i>	hairy-leaved	✱	△	or	1½	my.jn	G.w
4815 fragrans <i>W.</i>	sweet-scented	✱	△	or	1	ap.my	W
4816 flexifolium <i>W.</i>	flexuose-leaved	✱	△	or	½	my.jn	W
4817 filiforme <i>W.</i>	thread-leaved	✱	△	or	1	ap	W
4818 floribundum <i>W.</i>	thick-spiked	✱	△	or	1	mr.ap	W
4819 revolutum <i>W.</i>	curled-flowered	✱	△	or	2	s.d	W
4820 vespertinum <i>W.</i>	afternoon-flow.	✱	△	or	2	mys	W
4821 graminifolium <i>W.</i>	waved-leaved	✱	△	or	1½	jn	W
4822 triflorum <i>W.</i>	three-flowered	✱	△	or	1	au.o	W
4823 canaliculatum <i>W.</i>	channeled-ld.	✱	△	or	1	ap.my	W.G
4824 Lillago <i>W.</i>	grass-leaved	✱	△	or	1	my.jn	W
4825 Lillas'trum <i>W.</i>	Savoy	✱	△	or	1½	my.jn	W
810. ARTHROPODIUM. <i>R. Br.</i>	ARTHROPODIUM.						
4826 paniculatum <i>R. Br.</i>	panicked	✱	△	or	3	mys	W
4827 cirratum <i>R. Br.</i>	New Zealand	✱	△	or	3	my.jn	W
811. CHLOROPHYTUM. <i>Ker.</i>	CHLOROPHYTUM.						
4828 inornatum <i>Ker.</i>	dwarf	✱	□	cu	1	jn.au	W
4829 elatum <i>R. Br.</i>	tall	✱	△	cu	2	aus.	W
	<i>Anthericum elatum</i>						
	H. K.						
4830 orchidastrum <i>Lindl.</i>	Orchis-like	✱	△	cu	2	ja.d	W
812. CÆSIA. <i>R. Br.</i>	CÆSIA.						
4831 vitata <i>R. Br.</i>	nodding-flower.	✱	△	or	1	jl.au	Pa B
813. NARTHECIUM. <i>B. M.</i>	NARTHECIUM.						
4832 ossifragum <i>Ph.</i>	Lancash.-Asphodel.	✱	△	cu	½	jl.au	Y
4833 americanum <i>B. M.</i>	American	✱	△	cu	½	jl.au	Y



History, Use, Propagation, Culture,

807. *Bulbine*. From *βολβος*, a bulb. The species are deservedly common in flower gardens, being at once showy, fragrant, of easy culture, and rapid increase by suckers.

808. *Asphodelus*. From *α*, privative, and *σφαλλω*, to supplant: that is to say, a flower which cannot be supplanted or surpassed. *Linn.* The yellow and white species are old inhabitants of our gardens, of easy culture and rapid increase. Immense tracts of land in Apulia are covered with the latter species, which affords very good nourishment to the sheep. It was sacred to Proserpine, and used in funeral ceremonies.

809. *Anthericum*. A name applied by the Greeks to the stem of the asphodel, and not misapplied to this set of plants, which in some sort resemble the asphodel. Plants with fleshy leaves, and spikes of bright yellow flowers; easily cultivated if kept dry.

- 4786 Leaves fleshy rounded, Stem shrubby erect branched
 4787 Leaves fleshy rounded glaucous, Stem shrubby short rooting
 4788 Leaves fleshy tongue-shaped lanceolate flat on both sides
 4789 Leaves fleshy linear acuminate channelled, Scape twice as long as leaves
 4790 Leaves fleshy subulate half rounded flexuose glaucous 3 times as short as scape
 4791 Leaves fleshy subulate rounded, Scape racemose
 4792 Leaves ensiform fleshy 3 cornered fringed, Scape simple, Raceme very long
- 4793 Stem leafy, Leaves 3 cornered striated
 4794 Stem leafy, Lvs. subul. 3 cornered striated, Bractes membranous lanceol. : the upper longer than flowers
 4795 Stem naked branched, Pedunc. altern. longer than bract, Leaves ensiform carinate smooth
 4796 Stem naked simple, Pedunc. clustered the length of bractes, Leaves linear keeled smooth
 4797 Stem naked, Leaves upright striated subulate fistular
 4798 Leaves linear weak, Scape erect branched, Flowers small
 4799 Stem leafy naked above branched, Leaves filiform striated toothed ciliated
 4800 Stem nearly naked, Leaves upright cylindrical fistular
- 4801 Leaves fleshy lanceolate flat concave at base reflexed at end, Raceme nodding at end
 4802 Leaves fleshy oblong lanceolate acuminate nerved straight 4 times as short as scape
 4803 Leaves flattish, Scape 1-flowered
 4804 Leaves flat, Scape branched, Flowers flat, Pistils straight
 4805 Leaves linear keeled shorter than the branched scape, Flowers clustered in threes pendulous
 4806 Leaves linear channelled smooth cartilaginous at edge, Scape simple
 4807 Leaves lanc. linear channelled with an obtuse concave end, Scape and raceme simple, Flowers spreading
 4808 Raceme simple long many-flowered, Pedunc. spreading in flower, appressed in fruit
 4809 Roots fibrous, Filaments declinate : the outer not bearded
 4810 Leaves filiform flexuose reflexed longer than scape, Scape simple filiform, Raceme few-flowered
 4811 Leaves fiaccid glaucous with the edge and nerves rough, Stem panicled branched, Filam. not bearded
- 4812 Leaves oblong, Raceme corymbose, Stamens dilated in middle papillose
 4813 Leaves linear-subulate half-rounded upright
 4814 Leaves fleshy compressed hispid
 4815 Leaves rounded filiform upright shorter than scape, Scape simple
 4816 Leaves linear filiform flexuose reflexed at base ciliated the length of the branched scape
 4817 Leaves filiform rounded roughish, Filaments smooth, Sepals lanceolate
 4818 Leaves flat smooth linear lanceolate acute, Scape simple, Raceme many-flowered cylindrical compact
 4819 Leaves 3-cornered rough, Scape branched, Flowers revolute
 4820 Leaves linear ensiform keeled 3-cornered shorter than the branched scape
 4821 Leaves linear flat depressed shorter than the branched scape, Alternate sepals wavy
 4822 Leaves channelled sword-shaped, Scape simple, Bractes remote 3-flowered
 4823 Leaves fleshy hairy sword-shaped 3-cornered channelled on the narrow side, Scape simple
 4824 Leaves fiat, Scape simple, Flowers flat, Pistil declinate
 4825 Leaves flat, Scape simple, Flowers campanulate, Stamens declinate
- 4826 Racemes divided, Pedicels clustered, Inner sepals crenulate, Capsules pendulous
 4827 Raceme divided, Bractes leafy, The bearded half of filam. with 2 appendages at base, Lvs. lanc. ensiform
- 4828 Stemless, Leaves lanceolate radical little longer than simple scapes
 4829 Leaves flat, Scape branched, Peduncles clustered, Flower flat
- 4830 Lvs. lanceol. acuminate upright spreading, Panicle branched upright many-flowered, Branches smooth
- 4831 Flowers nodding, Stamens propendent, Filaments striped, Leaves flat, Bulbs clustered

- 4832 Leaves ensiform, Filaments woolly
 4833 Bractes unequal : the lower embracing the stalk ; the upper setaceous



and Miscellaneous Particulars.

810. *Arthropodium*. From ἀρθρον, a joint, and πους, a foot, on account of the jointed footstalks of the flowers. Distinguished by its bearded filaments.
 811. *Chlorophytum*. From χλωρος, green, and φυτον, a plant. Very inconspicuous flowers requiring a bark-bed, but easily cultivated under such circumstances.
 812. *Casia*. Named after Frederick Cæsius, who lived in 1703.
 813. *Nartheceum*. From ναρθηκη, a rod or wand, in allusion to the slender spike of flowers. This genus resembles a small *Anthericum*, from which genus it has been separated.

814. DIANEL/LA. <i>Lam.</i>	DIANELLA.				<i>Asphodelaceae.</i>	Sp. 6—15.			
4834 <i>laevis R. Br.</i>	smooth	✳	△	or	2	au	B	N. Holl.	1822. Sk s.p
4835 <i>longifolia R. Br.</i>	long-leaved	✳	△	or	2	au	B	N. Holl.	1822. Sk s.p Bot. reg. 734
4836 <i>strumosa Ker.</i>	strumous	✳	△	or	1	mr	B	N. Holl.	1822. Sk s.p Bot. reg. 751
4837 <i>nemorosa Lam.</i>	wood	✳	△	or	2	au	B	E. Indies	1731. Sk s.p Bot. mag. 1404
	<i>D. ensifolia W.</i>								
4838 <i>carulea R. Rr.</i>	blue	✳	△	or	2	my.au	B	N. S. W.	1783. R s.p Bot. mag. 505
4839 <i>divaricata R. Rr.</i>	divaricated	✳	△	or	3	jl.au	B	N. S. W.	1805. R s.p
815. EUS/TREP/HUS. <i>R. Br.</i>	EUSTREPHUS.							<i>Asphodelaceae.</i>	Sp. 2.
4840 <i>latifolius R. Rr.</i>	broad-leaved	✳	□	or	3	jn.jl	P. Pu	N. S. W.	1800. C s.p Bot. mag. 1245
4841 <i>angustifolius R. Rr.</i>	narrow-leaved	✳	□	or	3	jl	P. Pu	N. S. W.	1820. C s.p
816. ASPAR/AGUS. <i>L.</i>	ASPARAGUS.							<i>Asphodelaceae.</i>	Sp. 21—32.
4842 <i>officinalis L.</i>	common	✳	△	cul	4	jn.au	G	England	sea co. S r.m Eng. bot. 339
4843 <i>sylvaticus W. & K.</i>	wood	✳	△	cu	2	jn.au	G	Hungary	R r.m Pl.rar.hu.3.t.201
4844 <i>verticillaris Bieb.</i>	whorl-leaved	✳	△	cu	2	jn.au	W	Caucasus	1752. R r.m Buxb. cen.5.t.37.
4845 <i>declinatus W.</i>	long-leaved	✳	△	cu	5	...	W.G	C. G. H.	1759. R s.p
4846 <i>maritimus Bieb.</i>	maritime	✳	△	cu	2	jn	G	Caspian	1823. R s.p
4847 <i>decumbens W.</i>	decumbent	✳	△	cu	2	my	W.G	C. G. H.	1792. R s.p Jac.schcen.1.t.97
4848 <i>scandens W.</i>	climbing	✳	△	cu	6	...	G	C. G. H.	1795. R s.p
4849 <i>dahuricus Fisch.</i>	Dahurian	✳	△	cu	3	my	G	Dauria	1823. R s.p
4850 <i>falcatus W.</i>	sickle-leaved	✳	△	cu	3	...	W.G	E. Indies	1792. R s.p Bur. zeyl.t.13.f.2
4851 <i>racemosus W.</i>	branching	✳	△	cu	3	...	W.G	E. Indies	1808. R s.p
4852 <i>Broussoneti Jacq.</i>	Broussonet's	✳	△	cu	2	...	...	Canaries	1822. R s.p
4853 <i>retrofractus W.</i>	Larch-leaved	✳	△	cu	4	aus	W	Africa	1759. R s.p Pluk. al.t.375.f.3
4854 <i>asiaticus W.</i>	Asiatic	✳	△	cu	3	...	W	Asia	1759. R s.p Pluk. al.t.15.f.4
4855 <i>aethiopicus W.</i>	angular-stalked	✳	△	cu	3	...	W	C. G. H.	1816. R s.p
4856 <i>albus W.</i>	white	✳	△	cu	2	...	W	Spain	1540. R s.p Moris. s.1. t.1.f.3
4857 <i>acutifolius W.</i>	needle-leaved	✳	△	cu	2	...	W.G	Spain	1640. R s.p Park. theat. f.3
4858 <i>flexuosus W.</i>	flexuous	✳	△	cu	3	jl.au	G	C. G. H.	...
4859 <i>aphyllus W.</i>	prickly	✳	△	cu	3	...	W.G	S. Europe	1640. R s.p Moris.s.1. t.1. f.2
4860 <i>subulatus W.</i>	awl-leaved	✳	△	cu	3	...	...	C. G. H.	1811. R s.p
4861 <i>capensis W.</i>	Cape	✳	△	cu	4	ap.my	G	C. G. H.	1691. R s.p Jac.schce.3. t.266
4862 <i>sarmentosus W.</i>	linear-leaved	✳	△	cu	6	au	W.G	Ceylon	1710. R r.m Rhe.mal.10. t.10
817. DRIM/IA. <i>Jacq.</i>	DRIMIA.							<i>Asphodelaceae.</i>	Sp. 7—11.
4863 <i>altissima Jacq.</i>	tallest	✳	△	or	1	au.s	W.G	C. G. H.	1791. O s.p Bot. mag. 1074
4864 <i>elata B. M.</i>	tall	✳	△	or	2	o.n	R.g	C. G. H.	1799. O s.p Bot. mag. 822
4865 <i>ciliaris B. M.</i>	ciliated	✳	△	or	1	s	Pu.w	C. G. H.	...
4866 <i>pusilla W.</i>	dwarf	✳	△	or	1	my.jn	G	C. G. H.	1793. O s.p Jac. ic. 2. t. 374
4867 <i>lancoefolia B. M.</i>	Copperas-leav'd	✳	△	or	1	s.o	Pu	C. G. H.	1800. O s.p Bot. mag. 643
4868 <i>revoluta B. M.</i>	reflex-flowered	✳	△	or	1	au	G	C. G. H.	1774. O s.p Bot. mag. 1380
4869 <i>media Jacq.</i>	intermediate	✳	△	or	1	au	W	C. G. H.	1820. O s.p
818. UROP/ETALON. <i>Ker.</i>	UROPETALON.							<i>Asphodelaceae.</i>	Sp. 4.
4870 <i>glaucum Burchell</i>	glaucous-leaved	✳	△	or	1	jl.au	G	C. G. H.	1816. O l.p Bot. reg. 156
4871 <i>crispum Burch.</i>	curled-leaved	✳	△	or	...	...	G	C. G. H.	1816. O l.p
4872 <i>serotinum Ker.</i>	late-flowering	✳	△	or	...	jn.au	G.R	Spain	1629. O l.p Bot. mag. 859
4873 <i>fulvum Hort.</i>	tile-red	✳	△	or	...	jn.au	G.R	Mogadore	1808. O l.p Bot. mag. 1185



History, Use, Propagation, Culture,

814. *Dianella*. A diminution of *Diana*, the name which the goddess originally received from Commerçon. The species are found in the recesses of forests, where the goddess of hunting may be supposed to inhabit.

815. *Eustrephus*. From *eu*, well, and *εστρεφω*, to turn, in allusion to the twining habit of the species.

816. *Asparagus*. From *ασπαργω*, to tear, on account of the strong prickles with which some of the species are armed. Some are diaceous, and others are prickly evergreen climbers. *A. officinalis*, *Asperge*, Fr., *Spargel*, Ger., and *Asparago*, Ital., is one of the oldest and most delicate of culinary vegetables. It is found on the sea-shores in different parts of Britain and in many parts of Europe, and is abundant in the inland sandy plains in Russia, Turkey, and Greece. *Asparagus* was in much esteem both among the Greeks and Romans. It is much praised by Cato and Columella, and Pliny mentions a sort which grew near Ravenna, a deep sandy country, three shoots of which would weigh a pound. It is equally admired by the moderns, and assiduously cultivated in private gardens everywhere, and to a great extent round London, Paris, and Vienna. In no part of the world is it grown to such perfection as in the market gardens round London. That of the parish of Mortlake is particularly strong and succulent: the soil is a sandy loam, deeply trenched, and well manured; the seed is sown in drills and thinned out till the plants stand six inches apart in the row, and the rows are a foot asunder. Round Paris and Vienna more pains are taken in preparing the soil, by forming excavations and filling them with layers of turf, durable manure, as bones, wood-chips, &c., sand, manure, loam, &c.; but though plantations on such beds last longer than on our's, they do not yield better shoots, and it may justly be questioned whether they are equally profitable to the cultivator.

The culinary preparations of asparagus are few, its very delicate flavor rather being deteriorated than improved by powerful tastes. It is best boiled and served alone, to be eaten with butter and salt; or with the points of the shoots cut in small pieces, and served up as green pease. It is esteemed diuretic, and in Paris

4834 Radical leaves sword-shaped flat shorter than the stem with the keel and edges smooth, Panicle simple
 4835 Radical leaves ensiform long smooth at the edge and keel, Panicle upright
 4836 Leaves bright-green smooth, Panicle lax decomp. Sepals of pendulous flower reflexed, Filam. strumous
 4837 Leaves linear-lanceolate at the edge prickly, Keel smooth

4838 Stem leaves numerous long ensiform rough at the edge and keel, Branches of panicle short
 4839 Leaves radical lin.-lanceolate at the keel and edges smooth, Panicle decompound straggling

4840 Leaves ovate or elliptical-lanceolate, Anthers after flowering twisted
 4841 Leaves linear or linear-lanceolate, Anthers after flowering straight

4842 Stem herbaceous round erect, Leaves setaceous
 4843 Stem herbaceous erect rounded, Leaves setaceous $\frac{1}{2}$ -whorled and whorled, Stipules solitary unarmed
 4844 Stem half-climbing, Branches straggling, Leaves setaceous curved, Flowers globose
 4845 Stem unarmed rounded, Branches declinate, Leaves setaceous
 4846 Stem much branched wavy, Leaves setaceous pungent, Flowers campanulate
 4847 Stem herbaceous unarmed decumbent much branched, Branches wavy, Leaves setaceous
 4848 Herbaceous unarmed twining, Leaves lanceolate falcate
 4849 Stem herbaceous erect, Branches straight, Leaves bundled setaceous long, Pedunc. sol. nodding
 4850 Prickly solitary recurved, Branches round, Leaves fascicled linear falcate, Pedunc. 1-fl. clustered
 4851 Prickles solitary, Branches striated, Leaves bundled linear-subulate falcate, Racemes many-fl. axillary
 4852 Branches striated, Leaves linear falcate unequal, Flowers few
 4853 Prickles solitary, Branches round reflexed bent back, Leaves setaceous bundled
 4854 Prickles solitary, Stem erect, Branches filiform, Leaves bundled setaceous
 4855 Prickles solitary reversed, Branches angular, Leaves lanceolate linear
 4856 Prickles solitary, Branches angular wavy, Leaves bundled 3-cornered blunt deciduous
 4857 Stem unarmed angular shrubby, Leaves needle-like rigid perennial mucronate equal
 4858 Herbaceous unarmed, Branches wavy, Leaves lanceolate
 4859 Stem unarmed angular shrubby, Leaves subulate striated unequal diverging
 4860 Unarmed, Branches bent back, Leaves rounded subulate
 4861 Spines 4, Branches clustered rounded, Leaves setaceous
 4862 Leaves solitary linear lanceolate, Stem wavy, Prickles recurved

4863 Leaves oval sub-erect plain, Raceme long cylindrical, Bractes hooked back upon themselves
 4864 Leaves linear lanc. obliquely bent smooth, Flowers nodding
 4865 Leaves linear keeled ciliated
 4866 Leaves lanceolate smooth channelled at base, Flowers erect
 4867 Leaves wedge-shaped smooth, Scape few-flowered
 4868 Leaves lanceolate smooth wavy, Peduncles horizontal
 4869 Leaves linear lanceolate half-round

4870 Leaves broad lanceolate erect much shorter than scape, Peduncles very long
 4871 An undescribed species, said to be in the gardens about London
 4872 Leaves bright green channelled striated, Sepals oval the length of stamens
 4873 Leaves glaucous, Raceme lax, Sepals linear much spreading longer than stam.



and Miscellaneous Particulars.

is much resorted to by the sedentary operative classes, as taylor, weavers, &c. when they are troubled with symptoms of gravel or stone.

There are some varieties and subvarieties of asparagus, but excepting the red-topped and green-topped, the others are merely local varieties, and can hardly be said to be obtainable by seed.

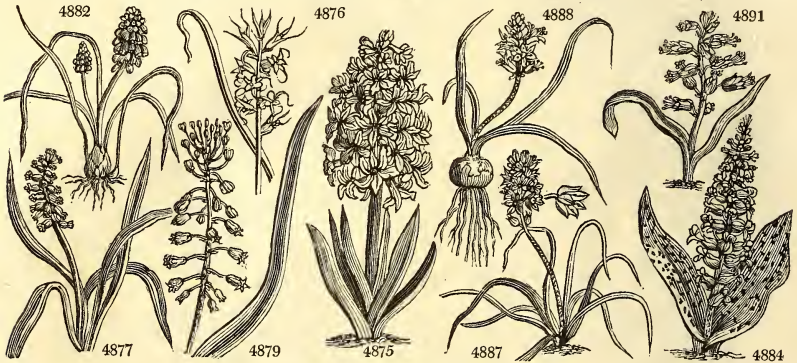
In the kitchen garden asparagus is generally grown in beds four feet broad, and in rows a foot or eighteen inches apart by nine inches in the row. The plants are either raised from seed where they are to remain, or raised on a seed-bed the preceding year and transplanted. The value of the crop depends on the soil being dry, sandy, trenched two and a half or three feet deep, and powerfully manured. During winter the beds are covered with dung or litter to protect them from the frost. In spring this is raked off into the alleys and dug in, while the beds are stirred with a fork, to admit the air, heat, rain, &c. to stimulate the rising shoots. Asparagus from seed will be fit to cut the third year, in perfection the fifth, and will continue good for ten or twelve years. The season for cutting is from the middle of April to the middle of June.

Asparagus is extensively forced, generally by taking up the roots and placing them on dung or tan beds; but sometimes a more gentle forcing is given by covering the beds with dung in the manner of forcing sea-cale. By the former mode earlier crops are obtained, but the roots are lost; by the latter, the crop is only forwarded a week or two, but the roots remain to produce the following year.

817. *Drimia*. So called from the Greek word *δριμος*, caustic, because the juice of the roots is so very acrid, as, when applied to the skin, to cause inflammation and even blisters.

818. *Uropetalon*. From *ὑρα*, a tail, and *πεταλον*, a petal, in allusion to the manner in which the divisions of the flower are twisted out. Curious and rare bulbous plants, very nearly related to Zuccagnia; perhaps not generically distinct.

819. HYACINTHUS. <i>E. M.</i> HYACINTH.				<i>Asphodelæ.</i>	<i>Sp. 2—3.</i>			
4874 amethystinus <i>W.</i>	Amethyst-col.	♂	Δ or	ap.my B	S. Europe	1759.	O l.p	Red. lil. 14
4875 orientalis <i>W.</i>	garden	♂	Δ or	mr.ap B	Levant	1596.	O r.m	Bot. mag. 937
820. ZUCCAGNIA. <i>Thunb.</i> ZUCCAGNIA.				<i>Asphodelæ.</i>	<i>Sp. 1—2.</i>			
4876 viridis <i>Thunb.</i>	green	♂	Δ	au	G	C. G. H.	O l.p	Red. lil. 203
821. MUSCARI. <i>B. M.</i> GRAPE-HYACINTH.				<i>Asphodelæ.</i>	<i>Sp. 6—8.</i>			
4877 moschatum <i>B. M.</i>	musk	♂	Δ or	ap.my B	Levant	1596.	O s.l	Bot. mag. 734
♂ <i>flavum</i> <i>B. M.</i>	yellow	♂	Δ or	ap.my G.v	Levant	1596.	O s.l	Bot. mag. 1565
4878 ciliatum <i>Cyr.</i>	ciliated	♂	Δ or	my	Br.pu	Crimea	O s.l	Bot. reg. 394
4879 comosum <i>R. L.</i>	purple	♂	Δ or	ap.my B	S. Europe	1596.	O s.l	Bot. mag. 133
♂ <i>monstrum</i>	feathered	♂	Δ or	ap.my B	S. Europe	1596.	O s.l	Moris.s.&t.11.f.2
4880 pallens <i>Fisch.</i>	pallid	♂	Δ or	my	Pa.B	Crimea	O s.l	Bot. mag. 157
4881 botryoides <i>B. M.</i>	blue	♂	Δ or	ap.my B	Italy	1596.	O s.l	Bot. mag. 157
4882 racemosum <i>B. M.</i>	starch	♂	Δ or	ap.my B	Europe	...	O s.l	Bot. mag. 122
822. LACHENALIA. <i>W.</i> LACHENALIA.				<i>Asphodelæ.</i>	<i>Sp. 26—29.</i>			
4883 glaucina <i>W.</i>	sea-green	♂	Δ	1 mr.ap	G.w	C. G. H.	O s.l	Jac. ic. 2. t. 391
4884 orchioides <i>W.</i>	Orchis-like	♂	Δ	1 f.ap	G.v	C. G. H.	O s.l	Bot. mag. 1269
4885 pallida <i>W.</i>	pale-flowered	♂	Δ	1 mr.ap	Pa.B	C. G. H.	O s.l	Bot. reg. 287
4886 hyacinthoides <i>W.</i>	Hyacinth-flow.	♂	Δ	1 mr.ap	W.R	C. G. H.	O s.l	Jac. ic. 2. t. 382
4887 angustifolia <i>W.</i>	narrow-leaved	♂	Δ	1 ap.my	W	C. G. H.	O s.l	Bot. mag. 735
4888 contaminata <i>W.</i>	contaminated	♂	Δ	1 f.mr	Pk	C. G. H.	O s.l	Bot. mag. 1401
4889 patula <i>W.</i>	spreading-flow.	♂	Δ	1 ap.my	W.pk	C. G. H.	O s.l	Jac. ic. 2. t. 384
4890 fragrans <i>W.</i>	sweet-scented	♂	Δ	1 mr.my	W.R	C. G. H.	O s.l	Bot. reg. 302
4891 unicolor <i>B. M.</i>	self-colored	♂	Δ	1 my.jn	Pk	C. G. H.	O s.l	Bot. mag. 1373
4892 lucida <i>B. M.</i>	glossy-leaved	♂	Δ	1 mr.my	Pk	C. G. H.	O s.l	Bot. mag. 1372
4893 racemosa <i>B. M.</i>	starch	♂	Δ	1 my	W.g	C. G. H.	O s.l	Bot. mag. 1517
4894 pustulata <i>W.</i>	blistered	♂	Δ	1 ja.ap	W.G	C. G. H.	O s.l	Bot. mag. 817
4895 purpureo-carul.b.m.	purple-blue	♂	Δ	1 ap.my	P.p	C. G. H.	O s.l	Bot. mag. 745
4896 nervosa <i>B. M.</i>	nerved-leaved	♂	Δ	1 jn	Pk	C. G. H.	O s.l	Bot. mag. 1497
4897 violacea <i>W.</i>	violet	♂	Δ	1 mr.ap	L.B	C. G. H.	O s.l	Jac. ic. 2. t. 394
4898 bifolia <i>B. M.</i>	cowled-leaved	♂	Δ	1 mr.ap	Pk	C. G. H.	O s.l	Bot. mag. 1611
4899 rosea <i>B. Rep.</i>	rose-colored	♂	Δ	1 ap.my	Pk	C. G. H.	O s.l	Bot. rep. t. 296
4900 unifolia <i>W.</i>	one-leaved	♂	Δ	1 mr.ap	W.B	C. G. H.	O s.l	Bot. mag. 766
4901 sessiliflora <i>B. Rep.</i>	sessile-flowered	♂	Δ	1 my.jn	R	C. G. H.	O s.l	Bot. rcp. 460
4902 isopetalata <i>W.</i>	equal-flowered	♂	Δ	1 my.jn	W.pu	C. G. H.	O s.l	Jac. ic. 2. t. 401
4903 tricolor <i>W.</i>	three-colored	♂	Δ	1 ap.my	R.v	C. G. H.	O s.l	Jac. ic. rar.1.t.61
4904 lutæola <i>Jacq.</i>	yellow	♂	Δ	1 ap.my	Y.r	C. G. H.	O s.l	Bot. mag. 82
4905 pendula <i>Jacq.</i>	pendulous	♂	Δ	1 mr.my	R.v	C. G. H.	O s.l	B. mag. 586. 1097
4906 rubida <i>W.</i>	dotted-flower'd	♂	Δ	1 s.o	R	C. G. H.	O s.l	Bot. mag. 993
4907 quadricolor <i>Jacq.</i>	four-colored	♂	Δ	1 mr.ap	Sc.v	C. G. H.	O s.l	Bot. mag. 590
4908 serotina <i>Jacq.</i>	late	♂	Δ	1 au	Pk	Spain	O s.l	Bot. mag. 122



History, Use, Propagation, Culture,

819. *Hyacinthus*. Every one knows the fable of Hyacinthus, who was killed by Apollo and changed to this flower. Bochart, however, remarking that the ancients applied the name to a red flower, concludes that the Arabic *yâdout*, which signifies red, has something to do with the name. A conjecture certainly sufficiently learned, but less plausible.

H. orientalis is the origin of one of our finest florist's flowers, and, like the tulip and narcissus, of a considerable commerce to the Dutch. It is a native of the East, and abundant about Aleppo and Bagdat, where it flowers in February. It seems to have been first cultivated as a flower by the Dutch; but when is unknown. Most probably in the beginning of the sixteenth century, soon after the revival of commerce in the west of Europe, when the merchants of Holland traded to the eastern shores of the Mediterranean and the Archipelago. About the end of the sixteenth century there were seven or eight varieties known in England. In 1620, Swertius, in his *Florilegium*, figured forty varieties; Miller says the Haarlem florists in his time (say 1720) had above 2000 varieties, and though the passion for this flower has greatly declined, they have still upwards of half that number. In England three or four hundred sorts are annually imported from the Dutch florists by the seedsmen.

A fine double hyacinth is characterized by strength and enlargement of all the parts, and by bright distinct colors. The fundamental varieties are double, semidouble, single, red, white, purple, blue, and yellow, in many different shades and variegations. A variety degenerates in a few years; but some have existed undeteriorated upwards of a century. Varieties are raised from seed, and flower the fourth or fifth year: their names are after the growers or their patrons, favorite friends, public characters, or the celebrated names of history and antiquity.

The seeds of the hyacinth are sown in October, after they have ripened, or in the following March. They remain three years with no other culture than covering with a little earth in autumn, but the fourth season they are transplanted into beds, where they remain two or three years longer till all the bulbs have flowered.

The soil is essentially a very sandy loam and vegetable mould; and if in forming the beds this soil can be made to the depth of two feet, and at the bottom of the bed a layer of six or nine inches of cow-dung

4874 Flowers campanulate half 6-cleft cylindrical at base
 4875 Flowers funnel-shaped half 6-cleft ventricose at base

4876 Leaves linear channelled longer than scape

4877 Flowers cylindrical ovate uniform horizontal subsessile

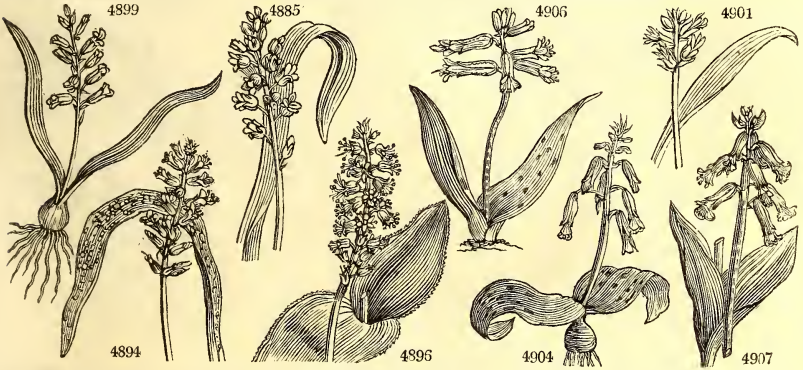
4878 Flowers camp. cylindrical half 6-cleft, Pedunc. in fruit very long and horizontal
 4879 Flowers cylindrical angular on long stalks, the upper sterile on very long stalks

4880 Flowers campan. cylindrical, Limb erect shorter than tube, Leaves lin. lanc. erect

4881 Flowers globose uniform : the lower remote, Leaves linear upright channelled

4882 Flowers ovate uniform clustered : the upper sessile, Leaves lax dependent linear

- 4883 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Leaves lin. lanc. smooth
 4884 Flowers campanulate sessile, Inner sepals longer spreading obtuse, Lvs. obl. lanc. with cartila. cren. edge
 4885 Flowers campanulate sessile, Inner sepals longer spreading obt. Scape ang. at end short. than lin. obl. lvs.
 4886 Fl. campanulate sessile, Inner sepals longer spreading emarg. Lvs. lin. chann. lax twice as long as scape
 4887 Fl. campan. sessile, Inner sepals longer spreading obov. obt. Lvs. lin. channelled lax longer than scape
 4888 Fl. camp. cylind. on short stalks erect, Inner sep. long lanc. obt. erect, Lvs. lin. chann. lax long. than scape
 4889 Flowers camp. stalked, Inner sepals longer obovate spreading, Lvs. lanc. channelled shorter than scape
 4890 Fl. camp. stalked horizontal, Inner sep. longer obt. Stam. longer than fl. Lvs. lanc. twice as short as scape
 4891 Leaves two, Scape not longer than leaves, Fl. short horizontal, Stamens long declinate
 4892 Leaves two oblong, Raceme compact, Flowers short campanulate nearly as long as stamens
 4893 Leaves three lanceolate blistered shorter than scape, Flowers campanulate erect
 4894 Flowers camp. on short stalks, Inner sep. long. obtuse, Scape 3 cornered reclinate, Leaves blistered
 4895 Fl. camp. stalked, Inner sep. long obt. revol. Stam. longer than fl. Scape angular at end, Leaves blistered
 4896 Leaves two oval-edged, Flower erect conical shorter than spreading stamens
 4897 Fl. camp. flat at base length of stalk, Inner sep. long. obt. Stam. longer than fl. Scape ang. at end, Lvs. obl.
 4898 Leaves lanceolate erect unequal : the larger cucullate at base, Scape few-flowered shorter than leaves
 4899 Lvs. lin. lanc. two-spreading, Flowers whole-colored with the outer sepals nearly as long as the inner
 4900 Flowers cylindrical length of stalks, Inner sepals longer obtuse unequal, Leaf one lin. lanceol.
 4901 Lvs. two lin. lanc. spreading, Fl. erect sessile clust. ovate with inner sep. much the narrowest and longest
 4902 Flowers cylind. stalked, Sepals linear obtuse equal, Scape angular at end, Leaves lanc. deflexed
 4903 Flowers cylind. stalked pendulous, Inner sepals longer emarginate, Leaves lanceolate
 4904 Flowers cylind. stalked pendulous, Inner sepals longer emarginate spreading, Leaves obl. spreading
 4905 Leaves twin obl. not spotted, Scape erect not spotted, Flowers cylindrical pendulous
 4906 Flowers cylind. on short stalks pendulous, Inner sepals longest, Leaves oblong
 4907 Leaves twin lin. lanc. spotted, Scape erect, Flowers pendulous with the inner limb of sepals spreading
 4908 Flowers camp. stalked, Outer sepals long spreading : inner connate, Leaves long channelled



and *Miscellaneous Particulars.*

deposited, the plants will thrive the better. The season of planting is from the middle of October to the middle of November. The bed should be protected from heavy rains and severe frosts by the usual means; and about the beginning of April, when the flowers begin to open, an awning of canvass should be fixed over them, to exclude all extremes of weather, and the more brilliant moments of sunshine. In three weeks or a month after blooming the bulbs should be taken up, unless they are intended to remain for seed. They should be dried in the shade, or under a few inches of dry earth, kept dry, and afterwards cleaned and wrapped up in separate papers, or laid on open airy shelves till wanted for replanting.

The hyacinth forces well, especially some of the blue sorts; it also does better than most bulbs when planted on water.

820. *Zuccagnia*. This plant was named in honor of Attili Zuccagni, superintendent of the garden at Florence. It is scarcely a different genus from *Uropetalon*.

821. *Muscari*. Something which smells of musk, called *μοσχος* in Greek, *muscus* in Latin, *misk* in Arabic. (*Forshall*.) *M. comosum*, β *monstrosum*, is a most ornamental border flower. The bulb is large, ovate, and solid : the leaves narrow, a foot long, with obtuse points : the flower-stalks rise near a foot and a half high; they are naked at the bottom for about seven or eight inches, above which the panicles of flowers begin, and terminate the stalks. The flowers stand upon peduncles which are more than an inch long, each sustaining three, four, or five flowers, whose petals are cut into slender filaments like hairs; they are of a purplish blue color, and, having neither stamina nor germ, never produce seeds. The other species are very pretty hardy flowers.

M. racemosum was named starch hyacinth by William Curtis, from the smell of the flower.

822. *Lachenalia*. So named in honor of Wernerus de la Chenal, of Switzerland, author of some medical and botanical tracts printed at Basle. The numerous species of this genus were chiefly introduced from the Cape by Masson; they bear a strong general resemblance, and are yet individually different; they may be styled diminutive, but pretty; they grow readily in sand and peat, and may be forced or retarded so as to flower at almost any season. They must be very sparingly watered when not in a growing state.

823. PHORMIUM. <i>W.</i>	FLAX-LILY.				<i>Asphodelea.</i>	<i>Sp. 1.</i>					
4909 tenax <i>W.</i>	Iris-leaved	£ Δ ec	6	au	G. w	N. Zeal.	1788.	R	l.s.p	Cook. it. v. 2. l. 96	
824. CYANEL/LA. <i>W.</i>	CYANELLA.				<i>Asphodelea.</i>	<i>Sp. 2—4.</i>					
4910 capensis <i>W.</i>	purple-flower.	£ Δ pr	1	jl. au	B	C. G. H.	1768.	O	s.p	Bot. mag. 568	
4911 lútea <i>W.</i>	yellow-flowered	£ Δ pr	1	jl. au	Y	C. G. H.	1788.	O	s.p	Bot. mag. 1252	
825. LEON'TICE. <i>W.</i>	LEONTICE.				<i>Berberideæ.</i>	<i>Sp. 2—3.</i>					
4913 chrysógonum <i>W.</i>	oak-leaved	£ Δ cu	1	mr. jn	Y	Levant	1740.	D	s.l.p	M. his. 3. t. 15. f. 7	
4913 Leontopétalon <i>W.</i>	Lion's-leaf	£ Δ cu	1	ap. my	Y	Levant	1597.	D	s.l.p	M. his. 3. t. 15. f. 6	
826. CAULOPHYLL/LUM. <i>Mich.</i>	CAULOPHYLLUM.				<i>Berberideæ.</i>	<i>Sp. 1—2.</i>					
4914 thalioides <i>Ph.</i>	Columbine-ld.	£ Δ cu	3	my	Y. G	N. Amer.	1755.	D	s.p	Mic. Am. 1. t. 21	
827. DIPHYLLEIA. <i>Mich.</i>	DIPHYLLEIA.				<i>Berberideæ.</i>	<i>Sp. 1.</i>					
4915 cymósa <i>Mich.</i>	blue-berried	£ Δ pr	3	my. jn	W	N. Amer.	1812.	D	lp	Bot. mag. 1666	
828. PRINOS. <i>W.</i>	WINTER-BERRY.				<i>Rhamneæ.</i>	<i>Sp. 6—11.</i>					
4916 verticillátus <i>W.</i>	deciduous	£ or	6	jl. au	W	N. Amer.	1736.	L	s.p	Dend. brit. 30	
4917 ambiguus <i>Ph.</i>	Carolina	£ or	4	...	W	Carolina	1812.	L	l.t.s	Dend. brit. 29	
4918 lævigátus <i>Ph.</i>	smooth	£ or	4	jl. au	W	N. Amer.	...	L	l.t.s	Dend. brit. 28	
4919 lanceolátus <i>Ph.</i>	scarlet-berried	£ or	4	jn. jl	W	Carolina	1811.	L	l.t.s		
4920 gláber <i>W.</i>	evergreen	£ or	1½	jl. au	W	Canada	1759.	L	l.t.s		
4921 lúcidus <i>W.</i>	shining	£ or	2	jn. jl	W	.....	1778.	L	l.t.s		
829. BERBERIS. <i>W.</i>	BERBERRY.				<i>Berberideæ.</i>	<i>Sp. 10—38.</i>					
4922 vulgáris <i>W.</i>	common	£ fr	8	ap. my	Y	England	bu. pl.	L	co	Eng. bot. 49	
β violácea	purple-fruited	£ fr	8	ap. my	Y	.....	...	L	co		
γ alba	white-fruited	£ fr	8	ap. my	Y	.....	...	L	co		
4923 canadénsis <i>Ph.</i>	Canada	£ fr	8	ap. my	Y	Canada	1759.	L	co		
4924 ilicifólia <i>W.</i>	Holly-leaved	£ or	4	jl. au	Y	T. del Fue.	1791.	L	r.m		
4925 crética <i>W.</i>	Cretan	£ or	6	ap. my	Y	Candia	1759.	L	co		
4926 sibírica <i>W.</i>	Siberian	£ or	1	jn. jl	Y	Siberia	1790.	L	co	Bot. reg. 487	
4927 emargináta <i>W. en.</i>	emarginate	£ or	3	ap. my	Y	Siberia	1790.	G	co		
4928 sinénsis <i>Desf.</i>	Chinese	£ or	4	ap. my	Y	China	1815.	G	co	Dend. brit. 26	
4929 fasciculáris <i>Dec.</i>	clustered	£ or	10	ap. my	Y	California	1819.	C	co	Bot. mag. 2396	
4930 aristáta <i>Dec.</i>	Nepal	£ or	6	ap. my	Y	Nepal	1820.	C	co	Hook. ex. fl. 98	
4931 heterophýlla <i>Juss.</i>	various-leaved	£ or	4	ap. my	Y	Magellan	1805.	L	co	Hook. ex. fl. 14	
830. NANDINA. <i>W.</i>	NANDINA.				<i>Berberideæ.</i>	<i>Sp. 1.</i>					
4932 doméstica <i>W.</i>	garden	£ or	6	jn. jl	G. Br	China	1804.	C	p.l	Bot. mag. 1109	
831. COSSIGNIA. <i>Juss.</i>	COSSIGNIA.				<i>Sapindaceæ.</i>	<i>Sp. 1.</i>					
4933 pinnáta <i>Lam.</i>	pinnated	£ or	10	...	..	Mauritius	1824.	C	p.l		
832. HILLIA. <i>W.</i>	HILLIA.				<i>Rubiaceæ.</i>	<i>Sp. 2.</i>					
4934 longifóra <i>W.</i>	long-flow'ered	£ or	1½	f.mr	W	W. Indies	1789.	C	s.p	Bot. mag. 721	
4935 tetrándra <i>W.</i>	mountain	£ or	1	jn. jl	W	Jamaica	1793.	C	s.p		



History, Use, Propagation, Culture,

823. *Phormium*. From φορμιος, a basket. This plant sends up numerous leaves, which in New Zealand and Norfolk Island are manufactured into matting; or a coarse thread is separated from them and made into cordage and coarse linen, as is done from different species of Aloe, Agave, and Liliaceæ in the Levant and south of Europe. The plant thrives in any rich light soil, increases readily by offsets, and is said to stand the open air about Cork, where thoughts are entertained of using it as a substitute for flax. The experiments, however, which have been made in New Holland by some spirited individuals respecting its cultivation, have all failed.

824. *Cyanel/la*. Derived from κυανος, blue, in allusion to the color of the flowers of some species; all are very pretty and easily cultivated.

825. *Leontice*. An abridgment of *Leontopetalum*, its ancient name; from λέων, a lion, and πτεῶλον, a leaf, because the shape of the leaves was thought to resemble the print of a lion's foot.

826. *Caulophyllum*. From καυλον, a stem, and φυλλον, a leaf. Its leaves are so terminated by the stalk, as to appear a mere continuation of a stem.

827. *Diphylleia*. From δις, two, and φυλλον, a leaf. The plant has never more than two leaves.

828. *Prinos*. This was the Greek name of the evergreen oak; from πριων, to saw, on account of the strongly toothed leaves of that plant. The species are low shrubs of little beauty; but of the easiest culture in any light soil.

829. *Berberis*. *Berbéry's*, according to Golius, (p. 246), is the Arabic name of this plant. *B. vulgaris* is at once an ornamental shrub, a fruit tree, a hedge plant, a dye, a drug, and a reputed enemy to the corn farmer. When covered with flowers in spring, or with fruit in autumn, it is a fine object. The leaves are of a yellowish or bluish green, and gratefully acid to the taste. The smell of the flowers is offensive when near, but pleasant at a certain distance. The berries are so very acid, that birds seldom touch them. The berberry, however, is cultivated for the sake of these, which are pickled and used for garnishing dishes; and being boiled with sugar, form a most agreeable rob or jelly; they are used likewise as a sweetmeat, and are put into sugar-plums or comfits. As a medicine the fruit is considered a mild restringent acid, agreeable to the stomach, and of efficacy (like other vegetable acids) in hot bilious disorders, and in a putrid disposition of the humours. The roots boiled in a lye yield a yellow colour: and in Poland they dye leather of a fine yellow

4909 The only species, resembling an *Agave*

4910 Stem leafy paniced, Racemes divaricating, Leaves lanceolate wavy
4911 Scape naked branched, Racemes erect, Leaves linear lanceolate flat

4912 Leaves pinnated, Leaflets whorled lanceolate acute 3-pointed
4913 Radical leaves biternate; cauline ternate, Fruit ovate

4914 Cauline leaf triternate; floral biternate

4915 Quite smooth, Leaves palmate angular lobed serrated with taper-pointed lobes

4916 Leaves obovate lanceolate acuminate doubly serrated, Veins beneath hairy
4917 Leaves oval pointed at each end mucronate serrulate pubescent beneath, Female flowers solitary
4918 Leaves lanceol. serrated acuminate smooth on each side, Flowers all 6-cleft
4919 Leaves lanceol. very finely and distantly serrated acute at each end quite smooth, Male flow. 3-androus
4920 Leaves lanceol. obt. smooth serrated at end
4921 Leaves elliptical acuminate smooth somewhat serrated at end

4922 Racemes simple pendulous, Leaves obovate ciliate-toothed

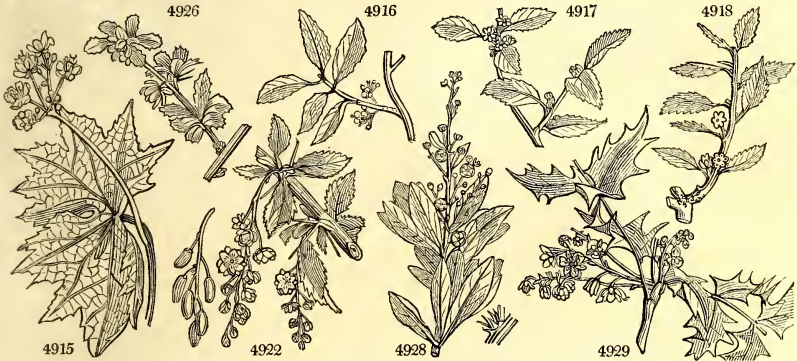
4923 Branches dotted, Prickles in 3s, Lvs. simple obovate remotely toothed, Racemes short, Fruit globular
4924 Spines 3-parted, Leaves oval with a few large spiny teeth, Ped. short 4-fl. Pedicels elongate corymbose
4925 Spines 3-5-parted, Leaves oval-oblong entire or serrated, Racemes 3-8-flow. almost shorter than leaves
4926 Spines 3-7-parted, Leaves lanceolate obovate ciliate-toothed, Peduncles 1-flowered shorter than leaf
4927 Spines 3-parted, Leaves lanceolate obovate ciliate serrate, Racemes pendulous, Petals emarginate
4928 Spines 3-parted very few, Leaves obl. obtuse entire or a little toothed, Racemes many-fl. nodding
4929 Lvs. pinnated in 4 or 5 pairs, Leaflets ovate lanceolate spreading toothed, Racemes erect much clustered
4930 Spines simple scarcely two-toothed at base, Lvs. obl. with 4 or 5 spiny teeth, Racemes spreading many-fl.
4931 Spines 3-parted, Lvs. ovate lanceolate smooth some entire some three-toothed, Pedicels solitary one-flow.

4932 Leaves supra-decompound with lanc. entire leaflets

4933 Leaves pinnate lanceolate emarginate

4934 Cor. 6-cleft, Segments lanceolate revolute, Leaves ovate acute

4935 Cor. 4-cleft, Segments ovate, Leaves obovate



and Miscellaneous Particulars.

with the bark of the root. The inner bark of the stems also will dye linen of a fine yellow, with the assistance of alum. Kine, sheep, and goats are said to eat it; horses and swine to refuse it. This species varies with red, purple, pale yellow, and stoneless fruit.

Insects of various kinds are remarkably fond of the flowers of the barberry; and the *Æcidium Berberidis*, its particular inhabitant, is supposed to generate the dust which, carried from the bush by winds, and lighting on wheat and other growing corns, gives rise to the Puccinia, a minute fungus, which closes up the pores of the leaves, and appears like rust or mildew. (*Sir J. Banks on Blight, &c.*) Many highly respectable authorities in Britain, on the continent, and in America, are in favor of and against this opinion. Willdenow, Withering, and Dwight have stated various remarkable cases on good authority. Sir J. Banks and his draughtsman Bauer proved the fact of the mildew being a fungus.

Linnaeus observed, that when bees in search of honey touch the filaments, the anthers approximate to the stigma and explode the pollen. Sir J. Smith ascertained that the same effect is produced by touching the inside of the filaments with a small bit of stick. (*Phil. Trans.* vol. lxxviii. 1. 158.)

All the other species are much esteemed as ornamental plants. *B. aristata* is a fine hardy evergreen shrub. *B. ilicifolia* and *emarginata* are also hardy, but less ornamental. *B. fascicularis* is a beautiful ornamental nearly hardy shrub, remarkable for its pinnated leaves.

830. *Nandina*. *Nandina* is the name of this shrub in Japan, where it is a garden shrub: the flowers are in panicles, and succeeded by berries of the size of a pea. In the greenhouse it grows freely in loam and peat, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

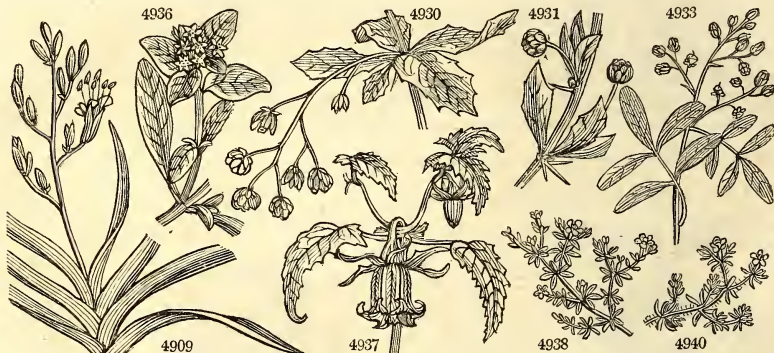
831. *Cossignia*. Named by Commerson, after M. de Cossigny, a French naturalist, then living at Pondicherry. Fine plants with handsome pinnated leaves.

832. *Hillia*. So named by Jacquin, in honor of Sir John Hill, author of many large works on botany and other parts of natural history, as well as general literature. Owing to some differences with his contemporaries, and writing against the Royal Society, after being rejected as a fellow, his memory in England has not met with much respect; in truth it was but little that it deserved. The species are of easy culture, and cuttings root readily in sand.

833. RICHARDIA. <i>L.</i>	RICHARDIA.	\square w	2	s	W	<i>Rubiaceæ.</i> Sp. 1.	Vera Cruz ...	C l p	Lam. ill. t. 254
4936 scábra <i>L.</i>	rough								
834. CANARI'NA. <i>W.</i>	CANARI'NA.	Δ | or	3		O	<i>Campanulacæ.</i> Sp. 1.	Canaries 1696.	R r m	Bot. mag. 444
4937 Campánula <i>W.</i>	Canary								
835. FRANKE'NIA. <i>W.</i>	SEA-HEATH.	∇ Δ cu	$\frac{1}{2}$	j l.	au	<i>Frankeniaceæ.</i> Sp. 4-16.	England sal. m.	D s l	Eng. bot. 205
4938 læ'vis <i>W.</i>	smooth	∇ Δ cu	$\frac{1}{2}$	j n.	au	F	1816.	D s l	Be. c. 171. t. 1. f. 2
4939 Nóthria <i>W.</i>	Cape	∇ Δ cu	$\frac{1}{2}$	j n.	jl	L B	Siberia 1789.	D s l	Fl. græc. 343
4940 hírsúta <i>W.</i>	hairy	∇ Δ cu	$\frac{1}{2}$	j l		R	England sea co.	D s l	Eng. bot. 9222
4941 pulverulénta <i>W.</i>	powdery	∇ Δ cu	$\frac{1}{2}$	j l					
836. PEP'LIS. <i>W.</i>	WATER PURSLANE.	\ominus O cu	$\frac{1}{2}$	j l.	s	<i>Salicariæ.</i> Sp. 1-2.	Britain wat. pl.	S aq	Eng. bot. 121
4942 Pórtula <i>W.</i>	common								

DIGYNIA.

837. ORY'ZA. <i>W.</i>	RICE.	\square ag	2	j l	Ap	<i>Gramineæ.</i> Sp. 1.	E. Indies 1596.	S aq	Cat. car. 1. t. 14
4943 satíva <i>W.</i>	common								
838. ATRAPHAX'IS. <i>W.</i>	ATRAPHAXIS.	Δ cu	2	au	Ap	<i>Polygonææ.</i> Sp. 2-3.	Levant 1732.	C l p	Dend. brit. 119
4944 spinósa <i>W.</i>	prickly	Δ cu	2	j n.	jl	Ap	C. G. H. 1732.	C l p	Dil. el. t. 32. f. 36
4945 unduláta <i>W.</i>	waved-leaved	Δ cu	2	j n.	jl	Ap			



History, Use, Propagation, Culture,

833. *Richardia*. So named by Houston, after Richard Richardson, an English botanist. Cuttings root in sand under a glass.

834. *Canarina*. That is to say, a plant native of the Canaries. This plant, Sweet observes, "is very desirable, as it flowers in autumn and winter, when few other plants are in bloom. After flowering, the stem lies down, and the roots continue dormant all the summer, when they need but little water. When they begin to grow they had better be placed in the stove, as they will not flower so abundantly in the greenhouse. A light loamy soil suits them best, or a mixture of loam and peat; and they are readily increased by dividing the roots, or from cuttings planted in the same kind of soil under a hand-glass." (*Bot. Cult.* p. 162.)

835. *Frankenia*. In honor of John Frankenius, professor of botany at Upsal, who first enumerated the plants of Sweden in *Speculum Botanicum*, 1638, and *Speculum Botanicum Renovatum* in 1659.

836. *Peplis*. One of the Greek names of the Purslane. The plant now so called resembles the Purslane in some points.

837. *Oryza*. From the Arabic word *bruz*, the Greeks coined their word *oryza*, and the various modern nations of Europe their *rice*, *riz*, *reis*, &c. *O. sativa*, the common rice, has the culm from one to six feet in length, annual, erect, simple, round, jointed. Leaves subulate-linear, reflex, embracing, not fleshy. Flowers in a terminating panicle. Calyxine leaflets lanceolate. Valves of the corolla equal in length; the inner valve even, awless; the outer twice as wide, four-grooved, hispid, awned. Style single, two-parted.

O. mutica, the dry or mountain rice, cultivated in Ceylon, Java, and of late in Hungary, has the culm three feet high, and more slender. Fruit longish, with awns the longest of all. It is sown on mountains and in dry soils; roots with a long inundation, and perishes with sea water.

The varieties of rice, as of other cultivated grain, are as numerous as the different soils, climates, and other physical circumstances, in which it is cultivated: besides the dry rice, the chief sorts, by some considered species, are the *O. præcox*, or early rice, and the *O. glutinosa*, or clammy rice, both cultivated in irrigated lands.

The native place of rice, like that of the other sorts of grain in common use, is unknown; it is cultivated in great abundance all over India, where the country will admit of being flooded; in the southern provinces of China, in Cochinchina, Cambodia, Siam, Japan, &c. In Japan it is very white, and of the best quality. It has also been introduced into cultivation in the southern kingdoms of Europe, Italy, Spain, the south of France, and within a few years into Hungary and Westphalia. In Carolina it has long been a staple commodity. Houghton's account of its introduction there is, that Ashby was encouraged to send a hundred pound bagfull of rice to that province, from which, in 1698, sixty tons were imported into England. Dalrymple says, that rice in Carolina is the result of a small bag of *paddy*, given as a present from Dubois, treasurer of the East India Company, to a Carolina trader. A Dutch vessel also, from Madagascar, brought rice into the same province; and to this is attributed their having two kinds. (*Oriental Repertory*, 1.)

In the hilly parts of Java, and in many of the Eastern islands, the mountain rice is planted upon the sides of hills, where no water but rain can come; it is, however, planted in the beginning of the rainy season, and reaped in the beginning of the dry season. The natives call it *Paddy Gumang*, which signifies mountain rice. It is entirely unknown in the western parts of India, but it is well known in Cochinchina, where it thrives in dry light soils, mostly on the sides of hills, not requiring more moisture than the usual rains and dews supply, neither of which are frequent at the season of its vegetation.

There is a kind of hill rice which is hardy enough to grow on the edge of the Himalayan snows. It is almost to be expected, that this will, at some future time, prove an acquisition of value to the European cultivator.

Rice is extensively cultivated in the East Indies and China, and chiefly on low grounds near large rivers,

4936 The only species, Leaves lanceolate ovate rough

4937 The only species, Leaves stalked hastate toothed

4938 Flowers solitary, Petals repand obtuse, Leaves linear ciliated at base

4939 Flowers fascicled, Petals acute, Leaves linear ciliated at base

4940 Flowers fascicled, Petals repand obtuse, Leaves linear oblong hairy at base

4941 Flowers solitary, Petals subrepand, Leaves roundish ovate powdery beneath

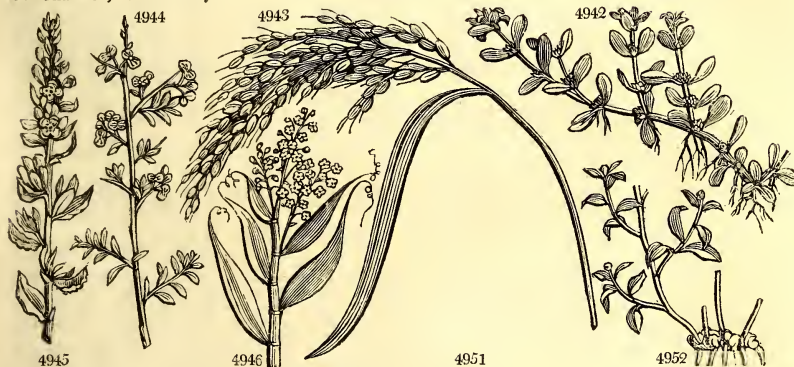
4942 Flowers hexandrous axillary solitary, Flowers stalked rounded ovate

DIGYNIA.

4943 The only species

4944 Prickly

4945 Unarmed, Leaves wavy



and Miscellaneous Particulars.

which are liable to be annually inundated, and enriched by the deposition of mud. According to Sir George Staunton's account, the Chinese obtain two crops of rice in a year from the same ground, and cultivate it in this way from generation to generation on the same soil, and without any other manure than the mud deposited by the water of the river used in overflowing it. After the waters of the inundation have withdrawn, a few days are allowed for the mud to get partially dry; then a small spot is enclosed by a bank of clay slightly ploughed and harrowed, and the grain, previously steeped in dung, diluted with animal water, is then sown very thickly on it. A thin sheet of water is immediately brought over it, either by a led stream, or the chain-pump. Thus a seed-bed or nursery is prepared, and, in the meantime, the remainder of the tract is preparing for being planted. When the plants are six or seven inches high, they are transplanted in furrows made by the plough, so as to stand about a foot apart every way; water is then brought over them, and kept on till the crop begins to ripen, when it is witheld; so that when harvest arrives the field is quite dry. It is reaped with a sickle, threshed with a flail or the treading of cattle, and the husk taken off by beating it in a stone mortar, or passing it between two flat stones, as in a common meal mill. The first crop being cut in May, a second is immediately prepared for by burning the stubble, and this second crop ripens in October or November. After removal, the stubble is ploughed in, which is the only vegetable manure such lands can be said to receive from man. In Japan, Ceylon, and Java, according to Thunberg, Davis, and Raffles, aquatic rice is cultivated nearly in the same manner. Mountain-rice is grown much in the same way as our barley.

In Lombardy and Savoy rice is sown on rich lands, the sower often wading to the knees in water: one crop a year only is obtained; but four crops are often taken in succession. In America a similar practice obtains.

In Westphalia, and some other parts of the south of Germany, rice has long been cultivated; there it is sown on lands that admit of irrigation; but the water is not admitted till the seed has germinated, and it is withdrawn, as in Italy, when the crop comes into flower. From long culture in a comparatively cold country, the German rice has acquired a remarkable degree of hardiness and adaptation to the climate; a circumstance which has frequently been alluded to as an encouragement to the acclimating of exotics. It is found, Dr. Walker remarks (*Essays on Nat. Hist.*), that rice seeds direct from India will not ripen in Germany at all, and even that Italian or Spanish seeds are much less early and hardy than those ripened on the spot.

In Hungary rice has not been long cultivated: the mountain sort has chiefly been tried, and that in the manner of our barley or summer-wheat.

In England a crop of rice has been obtained near Windsor, on the banks of the Thames.

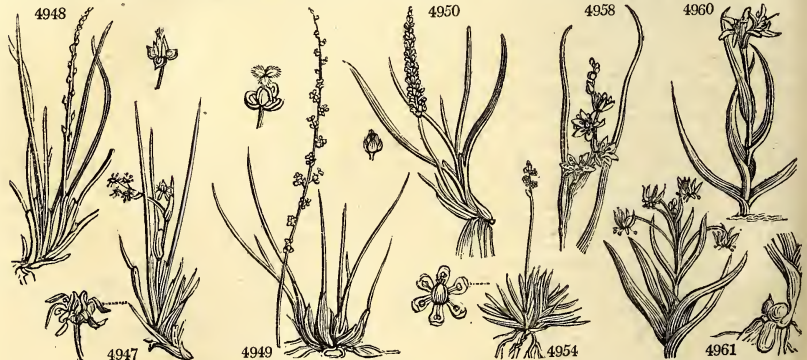
In the stove, or in a hot-bed, rice may be grown in pots of rich soil placed in pans of water, and in August they may be set in the greenhouse, or under any glass roof open at the sides, and they will produce perfect grains.

By far the best imported rice is that from Carolina: it is larger and better tasted than that of India, which is small, meagre, and the grains frequently broken. As an article of diet, rice has been extolled as superior almost to any other vegetable: but, whatever it may be in warmer climates, where it is a common, and to many persons almost their only food, it does not appear so well calculated for European constitutions as the potatoe; for we find that the poor constantly reject the use of rice when potatoes are to be had; and whilst these can be obtained, we may venture to predict, that rice will always be considered in this country, rather as a dainty, to be eaten with sweet condiments, spices, fruit, &c. than as ordinary food. (*Willich's Family Cyclopædia.*)

838. *Atraphaxis*. A name given by the Greeks to the *Atriplex* of the Latins; derived from α , privative, and $\tau\rho\alpha\phi\omega$, to nourish; that is to say, a plant yielding no nourishment. Cuttings root freely in sand under a glass; but the plants are of neither beauty nor curiosity.

TRIGYNIA.

839. FLAGELLA'RIA. <i>W.</i> FLAGELLARIA.	<i>Juncea?</i> Sp. 1.							
4946 indica <i>W.</i> Indian	■ □ cu 7	jn, jl	W	India	1782.	Sk p.l	Red. lil.	257
840. SCHEUCHZERIA. <i>W.</i> SCHEUCHZERIA.	<i>Alismaceae.</i> Sp. 1.							
4947 palustris <i>W.</i> marsh	♀ △ cu	½	my, jn	Br	England	sp. bo. S	m. s	Eng. bot. 1801
841. TRIGLO'CHIN. <i>W.</i> ARROW GRASS.	<i>Alismaceae.</i> Sp. 3-7.							
4948 palustre <i>W.</i> marsh	♀ △ ec	1	jl, au	G	Britain	w. a. me. S	m. s	Eng. bot. 366
4949 bulbosum <i>B. M.</i> bulbous-rooted	♂ △ cu	1	o	Pu	C. G. H.	1806. S	s. p	Bot. mag. 1445
4950 maritimum <i>W.</i> sea	♀ △ ec	1	my, au	G	Britain	sal. m. S	m. s	Eng. bot. 255
842. LICHTENSTEINIA. <i>W.</i> LICHTENSTEINIA.	<i>Melanthaceae.</i> Sp. 1.							
4951 laevigata <i>W.</i> smooth	♀ △ pr	1	...	B	C. G. H.	1824. S	s. l	
843. MYRSIPHYLLUM. <i>W. en.</i> MYRSIPHYLLUM.	<i>Smilacae.</i> Sp. 2.							
4952 asparagoides <i>W. en.</i> broad-leaved	♂ △ cu	6	mr. o	G. w	C. G. H.	1702. R	s. p ⁷	Her. lugd. t. 681
4953 angustifolium <i>W.</i> narrow-leaved	♂ △ cu	6	mr. d	G. w	C. G. H.	1752. R	s. p.	Til. p. 17. t. 12. f. 2
844. TOFIELDIA. <i>Hud.</i> TOFIELDIA.	<i>Melanthaceae.</i> Sp. 2-7.							
4954 alpina <i>Smith</i> Scotch	♀ △ cu	½	jl, au	G	Britain	bgs. m. S	m. s	Eng. bot. 536
4955 pubescens <i>Mich.</i> downy	♀ △ cu	½	ap. my	W	N. Amer.	1790. S	m. s	Pl. ma. t. 342. f. 3
845. MELANTHIUM. <i>L.</i> MELANTHIUM.	<i>Melanthaceae.</i> Sp. 6-12.							
4956 pumilum <i>W.</i> dwarf	♀ △ cu	½	my, jn	W	C. G. H.	1800. O	s. l	
4957 gramineum <i>Cav.</i> grassy	♀ △ cu	1	my, jn	W	Mogador	1823. O	s. l	Cav. ic. t. 587. f. 1
4958 juncea <i>W.</i> Rush-leaved	♀ △ cu	½	jn. n	Pk	C. G. H.	1788. O	s. p	Bot. mag. 558
4959 secundum <i>W.</i> side-flowering	♀ △ cu	1	jn. n	W	C. G. H.	1812. O	s. p	La. ill. t. 209. f. 2
4960 uniflorum <i>W.</i> yellow	♀ △ cu	½	jn, jl	L. Y	C. G. H.	1787. O	s. p	Bot. mag. 707
4961 viride <i>W.</i> branching	♀ △ cu	½	o. n	G	C. G. H.	1788. O	s. p	Bot. mag. 994
846. MEDEOLA. <i>W. en.</i> MEDEOLA.	<i>Smilacae.</i> Sp. 1.							
4962 virginica <i>W.</i> Indian Cucum.	♀ △ cu	½	jn	Y. g	Virginia	1759. R	s. p	Bot. mag. 1316
847. XEROPHYLLUM. <i>Mich.</i> XEROPHYLLUM.	<i>Melanthaceae.</i> Sp. 1.							
4963 setifolium <i>W.</i> bristle-leaved	♂ cu	2	my, jn	W	N. Amer.	1823. R	s. p	Bot. mag. 748
848. WURMBEA. <i>L.</i> WURMBEA.	<i>Melanthaceae.</i> Sp. 3.							
4964 longiflora <i>W.</i> bell-flowered	♀ △ cu	½	my, jn	W	C. G. H.	1788. O	s. l	Bot. mag. 1291
4965 spicata <i>B. M.</i> spiked	♀ △ cu	½	my, jn	Pu	C. G. H.	1788. O	s. l	Bot. mag. 694
4966 capensis <i>W.</i> spotted-flower.	♀ △ cu	½	my, jn	Br. y	C. G. H.	1768. O	s. p	
849. ANDROCYMBIUM. <i>W.</i> ANDROCYMBIUM.	<i>Melanthaceae.</i> Sp. 1.							
4967 eucomoides <i>W.</i> dwarf	♀ △ cu	½	mr. my	G	C. G. H.	1794. O	s. p	Bot. mag. 641
850. TRILLIUM. <i>W.</i> TRILLIUM.	<i>Melanthaceae.</i> Sp. 9-10.							
4968 sessile <i>W.</i> sessile-leaved	* △ or	½	ap. my	Br	N. Amer.	1759. R	s. p	Bot. mag. 40
4969 petiolatum <i>Ph.</i> Plantain-leaved	* △ or	½	ap. my	Br	N. Amer.	1811. R	s. p	
4970 erythrocarpum <i>Mi.</i> painted-flower.	* △ or	½	my, jn	W	N. Amer.	1811. R	s. p	
4971 ovatum <i>Ph.</i> purple-flower.	* △ or	½	my, jn	P. Pu	N. Amer.	1812. R	s. p	
4972 pumilum <i>Ph.</i> dwarf	* △ or	½	my, jn	R	Carolina	1812. R	s. p	
4973 cernuum <i>W.</i> drooping-flow.	* △ or	1	ap. my	W	N. Amer.	1758. R	s. p	Bot. mag. 954
4974 erectum <i>W.</i> stinking	* △ or	½	ap. my	Br	N. Amer.	1759. R	s. p	Bot. mag. 470
β album white-flowered	* △ or	½	ap. my	W	N. Amer.	...	R s. p	Bot. mag. 1027
4975 pendulum <i>Ph.</i> pendulous	* △ or	½	ap. my	W	N. Amer.	1805. R	s. p	W. ho. b. 1. t. 35
4976 grandiflorum <i>Ph.</i> large-flowered	* △ or	½	ap. jn	W	N. Amer.	1799. R	s. p	Far. lond. 1



History, Use, Propagation, Culture.

839. *Flagellaria*. From *flagellum*, a thong, in allusion to the length, toughness, and slenderness of its shoots.

840. *Scheuchzeria*. So named by Linnæus, in memory of the two brothers, John James Scheuchzer, professor of mathematics at Zurich, author of *Itinera Alpina*; and John, professor of physic at Zurich, author of a famous Treatise on Grasses. A curious little marsh plant.

841. *Triglochin*. From *τρις*, three, and *γλωγχις*, a point, in allusion to the three angles of the capsule. All domestic cattle are fond of the hardy species, which afford an early bite on the sides of Highland mountains, and are greedily eaten where they occur in salt marshes.

842. *Lichtensteinia*. Named after M. Von Lichtenstein, a Prussian traveller at the Cape of Good Hope.

843. *Myrsiphyllum*. From *μυρτινα*, a myrtle, and *φυλλον*, a leaf, in allusion to the resemblance between the leaves of the species and those of myrtle.

844. *Tofieldia*. Named by Hudson, after a Mr. Tofield, a country gentleman living near Doncaster.

TRIGYNIA.

4946 A shrub with distichous branches, Leaves cirrhus at end

4947 A rushy aquatic plant

4948 Capsules 3-celled linear

4949 Capsules 3-celled smooth linear narrowed at end

4950 Capsules 6-celled ovate

4951 The only species, Sepals very narrow

4952 Leaves ovate cordate at base oblique

4953 Leaves alternate ovate-lanceolate

4954 Smooth, Flowers clustered in spikes, Sepals obtuse, Capsules oblong

4955 Scape rachis and leaf-stalks downy all over

4956 Leaves lanceolate bearded at base, Stem 3-flowered, Sepals sessile

4957 Stemless, Leaves imbricated grassy, Flowers sessile

4958 Leaves linear subulate, the upper dilated at base, Spike wavy, Sepals with claws

4959 Leaves linear, Spike one-sided, Sepals with claws

4960 Leaves lin. lanc. longer than one-flowered stem, Sepals lanc. with claws

4961 Peduncles one-flowered cernuous

4962 Leaves whorled in the middle of stem, in threes at the summit

4963 Leaves of the stem setaceous

4964 Spike many-flowered longer than leaves, Tube twice as long as limb

4965 Leaves lanceolate channelled upright, Tube shorter than stellate limb

4966 Leaves lanceolate hooded

4967 Leaves oblong lanceolate cucullate

4968 Flower sessile erect, Petals lanceolate erect twice as long as calyx

4969 Flower sessile erect, Petals linear lanceolate erect a little longer than calyx

4970 Stalk of flower nearly erect, Petals oval-lanceolate acute recurved about twice as long as narrow calyx

4971 Stalk of flower erect, Petals oblong acute spreading a little longer than calyx

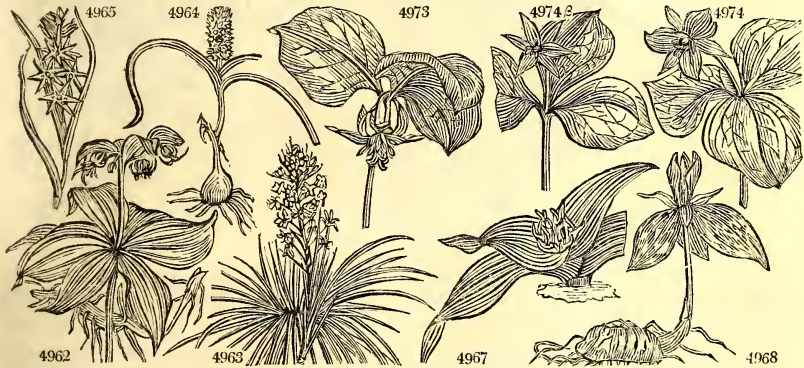
4972 Stalk of flower erect, Petals scarcely longer than calyx, Leaves oval oblong obtuse sessile

4973 Stalk of flower recurved, Petals lanceolate acuminate flat reflexed the length and breadth of calyx

4974 Stalk of flower inclining, Flower nodding, Petals scarcely longer but much broader than calyx

4975 Flower pendulous, Petals ovate with a short point, Leaves rounded rhomboid acuminate subsessile

4976 Flower cernuous, Petals spatulate-lanceolate erect at base much longer than calyx



and Miscellaneous Particulars.

845. *Melanthium*. A name applied by the Greeks to the *Nigella* of the Latins. What resemblance the modern plant bears to the ancient has not been stated.

846. *Medeola*. A name in remembrance of *Medea*, the famous sorceress, given to this plant on account of supposed powerful effects in medicine, but which it is now thought not to possess.

847. *Xerophyllum*. From *ξηρος*, dry, and *φυλλον*, a leaf: its leaves appear as if withered. An American plant with a long spike of white flowers, resembling *Helonias*.

848. *Wurmbea*. So called by Thunberg, in gratitude for services rendered him at Batavia by one Wurmbe, a Dutch agent there. Jussieu considers this not generically distinct from *Melanthium*.

849. *Androcymbium*. From *ανης ανδρος*, a man, or, in botanical language, a stamen, and *κυμπος*, a little boat, in allusion to the peculiar conformation of the stamens and their appendages.

850. *Trillium*. From *τριλιον*, triple; the calyx has three sepals, the corolla 3 petals, the pistil 3 styles, and the stem 3 leaves. These are curious little plants, somewhat difficult to keep. Sweet says, they do best on a bed of peat, and may be increased, though slowly, by the division of the root or by seeds.

851. COL/CHICUM <i>W.</i>	MEADOW-SAFFRON.				<i>Melanthaceæ.</i>	<i>Sp. 7.</i>						
4977 autumnale <i>W.</i>	common	♂	Δ	m	½ s.o	Pu	Britain	mead.	O	s.p	Eng. bot.	133
β album	white-flowered	♂	Δ	m	½ s.o	W	Britain	mead.	O	s.p		
4978 arenarium <i>W. en.</i>	sand	♂	Δ	or	½ s.o	Pu	Hungary	1816.	O	s.p	Pl. rar. h.	2.t.179
4979 byzantinum <i>B. M.</i>	broad-leaved	♂	Δ	or	½ s.o	Pu	Levant	1629.	O	s.p	Bot. mag.	1122
4980 variegatum <i>L.</i>	chequer-flower.	♂	Δ	or	½ au.o	Pu	Greece	1629.	O	p.l	Bot. mag.	1028
4981 umbrösium <i>Fisch.</i>	Crim	♂	Δ	or	½ au.o	Pk	Crimea	1819.	O	p.l	Bot. reg.	541
4982 versicolor <i>Ker.</i>	changeable	♂	Δ	or	½ au	Pu	Crimea	1820.	O	p.l	Bot. reg.	571
4983 montanum <i>L.</i>	mountain	♂	Δ	or	½ au	Pu	S. Europe	...	O	p.l	All. p. l. t.	74. f.2
852. HELO'NIAS. <i>L.</i>	HELONIAS.						<i>Melanthaceæ.</i>	<i>Sp. 8.</i>				
4984 lótea <i>B. M.</i>	spiked-flower.	♀	Δ	or	2 jl.au	Y	N. Amer.	1759.	R	s.p	Bot. mag.	1062
4985 bulláta <i>W.</i>	spear-leaved	♀	Δ	or	1 ap.my	Pu	N. Amer.	1758.	R	s.p	Bot. mag.	747
4986 læ'ta <i>B. M.</i>	channel-leaved	♀	Δ	or	½ jn	W	N. Amer.	1770.	R	s.p	Bot. mag.	803
4987 glabérrima <i>B. M.</i>	smooth	♀	Δ	or	1 my.jn	Y	N. Amer.	1811.	R	s.p	Bot. mag.	1680
4988 bractéata <i>B. M.</i>	large-bracted	♀	Δ	or	1½ my.jn	G	N. Amer.	1811.	R	s.p	Bot. mag.	1703
4989 ténax <i>Ph.</i>	tough-leaved	♀	Δ	or	1½ ...	W	N. Amer.	1811.	R	s.p	Ph. amer. 1. t.	9
4990 angustifólia <i>Mich.</i>	narrow-leaved	♀	Δ	or	1 my.jn	W	N. Amer.	1823.	R	s.p		
4991 graminea <i>B. M.</i>	panicled	♀	Δ	or	2 my.jn	W	N. Amer.	1812.	R	s.p	Bot. mag.	1599
853. NOL'NA <i>Mich.</i>	NOLINA.						<i>Melanthaceæ.</i>	<i>Sp. 1.</i>				
4992 georgiána <i>M.</i>	Georgian	♂	Δ	or	2½ jl.au	W	Georgia	1812.	R	s.p	Pl. ma. t.	342. f.1
854. APOGONETON. <i>W.</i>	APOGONETON.						<i>Fluviales.</i>	<i>Sp. 3.</i>				
4993 monostáchyon <i>W.</i>	simple-spiked	≡	Δ	cu	½ au.o	Pk	E. Indies	1803.	O	p.l	Bot. rep.	406
4994 distáchyon <i>W.</i>	broad-leaved	≡	Δ	cu	½ my.jl	W	C. G. H.	1788.	O	p.l	Bot. mag.	1293
4995 angustifólium <i>W.</i>	narrow-leaved	≡	Δ	cu	½ ap.s	W	C. G. H.	1788.	O	p.l	Bot. mag.	1268
855. SABAL. <i>P. S.</i>	SABAL.						<i>Palmæ.</i>	<i>Sp. 1.</i>				
4996 Adansóni <i>B. M.</i>	Adanson's	±	Δ	or	6 jn.au	G	Florida	1810.	S	s.l	Bot. mag.	1434
856. RU'MEX. <i>W.</i>	DOCK.						<i>Polygoneæ.</i>	<i>Sp. 37-79.</i>				
4997 Patiéntia <i>W.</i>	Patience	*	Δ	cul	4 jn.jl	G	Italy	1573.	R	co		
4998 sanguíneus <i>W.</i>	bloody-veined	*	Δ	cul	3 jn.jl	G	England	sha pl.	co		Eng. bot.	1533
4999 crispus <i>W.</i>	curled	*	Δ	m	2 jn.jl	G	Britain	rubble.	co		Eng. bot.	1993
5000 Británnica <i>W.</i>	Virginian	*	Δ	m	2 jn.jl	G	N. Amer.	...	co			
5001 perscarioides <i>W.</i>	Persicaria-like	*	Δ	m	2 jn.jl	G	N. Amer.	1773.	S	co		
5002 ægyptiacus <i>W.</i>	Egyptian	○	○	cu	1½ jn.jl	G	Egypt	1734.	S	co	Till. pis. t.	37. f.1
5003 dentátus <i>W.</i>	dentated	○	○	cu	½ jl.au	G	Egypt	1732.	S	co	Di. el. t.	158. f.191
5004 marítimus <i>W.</i>	golden	*	Δ	w	1 jl.au	G	Britain	salt mar.	R	co	Eng. bot.	725
5005 palústris <i>Sm.</i>	yellow-marsh	*	Δ	w	2 jl.au	G	England	mar.	R	co	Eng. bot.	1932
5006 divaricátus <i>W.</i>	spreading	○	○	w	2 jl.au	G	Italy	1793.	S	co	Til. pis. t.	37. f. 2
5007 acútus <i>W.</i>	sharp	*	Δ	dy	2 jn.jl	G	Britain	wat.pl.	R	co	Eng. bot.	724
5008 obtusifólius <i>W.</i>	broad-leaved	*	Δ	w	3 jn.au	G	Britain	rubble.	R	co	Eng. bot.	1999
5009 púlcher <i>W.</i>	Fiddle	*	Δ	w	2 jn.au	G	Britain	gra.pa.	R	co	Eng. bot.	1576
5010 confértus <i>W.</i>	close-headed	*	Δ	cu	4 jn.jl	G	.....	1796.	R	co		
5011 nemorósus <i>Schr.</i>	wood	*	Δ	cu	2 jl	G	Germany	...	R	co		
5012 condylódes <i>Bieb.</i>	whole-colored	○	○	cu	3 jl	G	Caucasus	...	S	co		
5013 brasiliénsis <i>Lk.</i>	Brazilian	♀	Δ	cu	1½ my	G	Brazil	1822.	R	co		



History, Use, Propagation, Culture,

851. *Colchicum*. From Colchis, saith Dioscorides, where this plant grows in abundance; but it is probable that the term *Colchicum* was applied to all poisonous plants, among which this certainly held no inconsiderable place. The economy of this plant in regard to its bulbs, flowers, and seeds, is singular, and may be classed with other anomalies found in *Crocus*, &c. The bulb, which in *C. autumnale* is about the shape and size of that of a tulip, is formed in the following manner:—

From the permanent, striated, dilated tuber of the old root, situated on one side, and clothed with the coats of the preceding root-leaves, a new plant springs, which is tuberosus at the base, throws out fibres at bottom like other bulbs, and is received into the bosom of the former tuber, which embraces it half round. This has an outer radical spathe, which is cylindrical and tubular, cloven at top on one side, and half under ground. From two to six flowers half emerge from this spathe without leaves. In the mean time the fruits, much larger than the flowers, sit on the stem rising out of the spathe. As the plant advances the new tuber increases, the old one, deprived of its nutriment, perishes, and at the same time the former pushes forth from its base the germ of a succeeding plant. There are commonly two lateral germs from the same tuber; one lower, just described, bearing the flower and seed; the other superior, caulescent like the former, but more slender, and scarcely fructiferous.

The flowers, which arise with long slender tubes from the root, die off in the end of October, without leaving any external appearance of seeds. These lie buried all the winter within the bulb; in spring they grow up on a fruit-stalk, and are ripe about the time of hay-harvest. May not the very great length of the styles account in some measure for the delay in the ripening of the seeds? As this plant blossoms late in the year, and probably would not have time to ripen its seeds before winter, Providence has contrived its structure such, that it may be performed at a depth within the earth, out of the reach of the usual effects of frost; and as seeds buried at such a depth are known not to vegetate, a no less admirable provision is made to raise them above the surface when they are perfected, and to sow them at a proper season.

4977 Leaves flat lanceolate erect

4978 Leaves linear channelled erect, Styles shorter than flower

4979 Leaves 5 ovate-oblong very broad, Flowers very numerous

4980 Leaves wavy spreading

4981 Two or many-flowered, Sepals linear oblong obtuse, Leaves small oval grassy-green

4982 Leaves 4 glaucous spiral, Flowers small very dwarf, Style one

4983 Leaves appearing with flower linear much spreading

4984 Scape leafy, Leaves oblong lanceolate, Flowers dioecious

4985 Leaves lanceolate ensiform nerved, Bractes linear-lanceolate

4986 Scape leafy, Raceme oblong, Bractes short oblong, Leaves smooth lanceolate linear

4987 Leaves channelled nerved, Segments of flower broad ovate with a transverse nectary at base

4988 Root horizontal, Leaves lanc. erect, Bractes longer than flower, Nectaries distinct

4989 Scape leafy, Raceme showy lax, Bractes membranous, Leaves subulate setaceous very long

4990 Raceme oblong lax, Leaves very long and narrow, Caps. oblong

4991 Leaves grassy, Panicle loose, Segments of flower ovate acute

4992 Leaves very long narrow dry, Flowers racemose

4993 Leaves oval, Spike one cylindrical

4994 Spike bifid, Leaves linear oblong floating, Bractes entire

4995 Spike bifid, Leaves linear lanc. erect, Bractes bipartite

4996 The only species

§ 1. *Hermaphrodite. Valves marked with a grain.*

4997 Valves cordate entire : one grained, Leaves ovate lanceolate

4998 Valves entire : one grained, Leaves cordate lanceolate

4999 Valves entire all grained, Leaves lanceolate wavy acute

5000 Valves ovate entire veinless all grained, Fruit-stalks pendulous, Leaves lanceolate

5001 Valves toothed all grained, Leaves lanceolate

5002 Valves trifid setaceous : one grained

5003 Valves toothed all grained, Leaves lanceolate

5004 Valves toothed grained, Leaves linear

5005 Valves lanceolate grained toothed at base, Leaves linear lanc. Whorls distant

5006 Valves toothed all grained, Leaves cordate-oblong obtuse pubescent

5007 Valves toothed all grained, Leaves cordate-oblong acuminate

5008 Valves toothed all grained, Leaves cordate oblong obtuse crenate

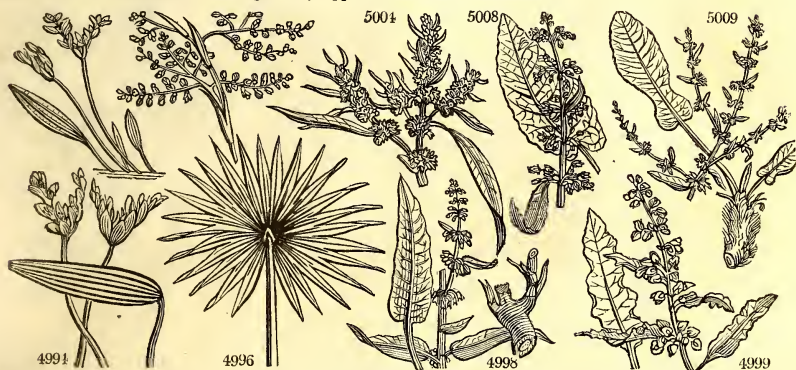
5009 Valves toothed : one grained, Radical leaves panduriform

5010 Valves rounded cordate repand : one grained, Leaves cordate oblong wavy at edge

5011 Valves oblong obtuse entire : one grained, Leaves lanceolate

5012 Valves entire lanceol. one grained, Leaves cordate lanceolate

5013 Valves entire lanceolate acute grained, Upper leaves linear-lanceolate



and Miscellaneous Particulars.

There are a few varieties of common *Colchicum* cultivated by florists; viz. the white, striped-flowered, striped-leaved, broad-leaved, many-flowered, and double-flowered. No cattle are said to eat it; though it is remarkably abundant in the meadows of the Italian Alps, and the leaves must certainly be frequently made into hay.

C. autumnale, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties: and on the continent, where it was recommended to notice by Baron Störck, it is a favorite remedy in dropsy, particularly hydrothorax, and in humoral asthma. But as it does not differ in its mode of action from squill, and is more uncertain in its operation, it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained: and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, diminishing the action of the arterial system. (*Thomson's Mat. Med.* 257.)

All the species are ornamental as border-flowers, and may be blown in water-glasses.

852. *Helonias*. Derived from ἕλος, a marsh. Some of the species grow in bogs in N. America. These plants delight in a moist situation and peat soil: they increase slowly by dividing at the root or by seeds.

853. *Nolina*. Named after an American botanist of French extraction, called P. C. Nolin. This plant is best grown in pots, as it requires protection during winter.

854. *Aponogeton*. A name of the same meaning as *Potamogeton* (see that genus), of which it is probably an incomplete anagram. These plants are bulbous aquatics, and grow freely in loam and peat plunged in a cistern of water. They are very pretty ornaments of the aquarium.

855. *Sabal*. A name employed by Adanson. It is supposed to have no meaning.

856. *Rumex*. A name given by the Latins to a root of thorn.

R. patientia (so called from the slowness of its operation as a medicine) and *sanguineus*, were formerly

5014 purpúreus Lk.	purple upright	✱ △ w	4 jl	G	.....	R co	
5015 strictus Lk.		✱ △ w	2 jn.jl	G	.....	1823.	R co
5016 ucránicus Horn.	Ukraine	○ cu	2 jn	G	Ukraine	1822.	S co
5017 aquáticus H. K.	great-water	✱ △ w	5 jl.au	G	Britain	riv.ba.	R co
5018 bucephalóphorus W.	Basil-leaved	○ cu	1 jn	G	Italy	1683.	S co
5019 Lunária W.	tree	✱ △ cu	2 jn.jl	G	Canaries	1698.	C s.l
5020 vesicárius L.	bladder	✱ △ cu	2 jl.au	G	Africa	1656.	S co
5021 róseus W.	rose	○ cu	1 jl.au	G	Egypt	1737.	S co
5022 tintánius W.	Tangier	✱ △ cu	1 1/2 jn.au	G	Barbary	1680.	R co
5023 scútátus W.	French-sorrel	✱ △ cu	1 1/2 jn.jl	G	France	1596.	R co
5024 sarcórhizus Lk.	fleshy-rooted	✱ △ cu	1 jl	G	C. G. H.	1824.	C co
5025 hastifólius Bieb.	spear-leaved	✱ △ cu	1 1/2 au	G	Crimea	1823.	R co
5026 alpinus W.	Alpine	✱ △ m	1 jn.jl	G	France	1597.	R lp
5027 aculeátus W.	small-prickly	✱ △ cu	1 jl	G	Candia	...	R co
5028 spinósus W.	large-prickly	✱ △ cu	2 jn.jl	G	Candia	1656.	S co
5029 gigantéus H. K.	tall	✱ △ cu	6 jn.au	G	Sandw. Is.	1796.	R co
5030 tuberósus W.	tuberous-root.	✱ △ cu	1 1/2 jn.au	G	Italy	1752.	R co
5031 acetosa W.	common-sorrel	✱ △ cu	2 jn.jl	G	Britain	me.pa.	R co
5032 acetosélla W.	Sheep's-sorrel	✱ △ w	1 my.jl	G	Britain	gra.pa.	R co
5033 arifólius W.	halberd-leaved	✱ △ cu	1 1/2 ap.d	G	Africa	1775.	C s.l
857. OXYRIA. Dec.	MOUNTAIN SORREL.	✱ △ cu	1 1/2 jn.jl	G	Polygoneæ.	Sp. 1.	
5034 ácida R. Br.	common	✱ △ cu	1 1/2 jn.jl	G	Britain	alp.pa.	R pl

POLYGYNIA.

858. WENDLANDIA. W. WENDLANDIA.					<i>Menispermæ.</i>	Sp. 1.	
5035 populifolia W.	Poplar-leaved	✱ △ or	6 jn.jl	W	Florida	1759.	C co
859. DAMASONIUM. W. DAMASONIUM.					<i>Hydrocharideæ.</i>	Sp. 1-2.	
5036 indicum W.	Indian	✱ △ or	1 jl.s	W	E. Indies	1800.	S aq
860. ACTINOCARPUS. R. Br. ACTINOCARPUS.					<i>Alismacææ.</i>	Sp. 2-4.	
5037 minor R. Br.	small	✱ △ or	1/4 my.au	W	N. S. W.	...	S s.l
5038 Damasónium R. Br.	common	✱ △ or	1/2 jn.au	W	England	dit.	S m.s
861. ALISMA. W. WATER PLANTAIN.					<i>Alismacææ.</i>	Sp. 5-9.	
5039 Plantágo W.	greater	✱ △ or	1 1/2 jn.jl	Pu	Britain	pools.	aq r.m
5040 lanceoláta With.	spear-leaved	✱ △ or	1 1/2 jn.jl	Pu	Britain	pools.	aq c.l
5041 trivialis Ph.	blunt-leaved	✱ △ or	1 1/2 jn.jl	W	N. Amer.	1816.	aq c.l
5042 nátans W.	floating	✱ △ or	1/2 jl.au	W	Wales	al.lak.	aq r.m
5043 ranunculoides W.	lesser	✱ △ or	1/2 au	Pu	Britain	tur.bo.	aq p



History, Use, Propagation, Culture,

used as spinage plants. The former is still used on the continent, and mashed with a small proportion of *R. acetosa* or *scutata*, makes a very good spinage.

R. crispus has a fusiform yellow root, which, taken in a recent state, and bruised and made into an ointment or decoction, is said to cure the itch.

R. obtusifolius is a domestic weed of the worst description: it is found in every country of Europe, but almost confined to cultivated grounds or rubbish, rick-yards, neglected gardens, and places used as retiring grounds by men or cattle. It is never found on poor or wet-bottomed land. It is refused by cattle; but the leaves were formerly used for wrapping round butter and cream-cheese; and the roots, along with those of *R. acutus*, by the dyers. In powder, the roots of most docks are said to be one of the best articles for cleaning the teeth. The leaves of all of them are considered laxative rather than otherwise.

R. acetosa has been long cultivated in gardens for its leaves as spinage and salad; but *R. scutatus* is much more delicate. The Laplanders use the leaves of the *R. acetosa* to turn their milk sour: in Ireland they are eaten with fish and other alkalies food. The root is powerfully astringent, and considered antiscorbutic: dried and boiled it gives out a beautiful red color. All domestic cattle eat this and most other species of the genus.

R. acetosella, where it abounds naturally, is a certain indication of dry, poor, gravelly, irony soil.

R. alpinus, monk's or bastard rhubarb, was formerly used as true rhubarb, but in larger doses. The different species of *Rumex* attract the cultivator's attention as weeds more powerfully than as culinary, medicinal, or dying plants. The sorts vulgarly known as docks produce a large quantity of seeds, and ripen them rapidly and perfectly. Fortunately they are heavy, and are not carried to a great distance from the parent; but almost every one grows, and once a year old they are tedious and expensive to eradicate. The first season they may be destroyed by hoeing; but when the tap-root is established, unless it be wholly eradicated by the weeding, or dock-hook, or spade, the ground cannot be considered as cleared. Any part of the

5014 Valves veiny toothed grained, Lower leaves cordate oblong, upper oval, all with colored veins

5015 Valves toothed one grained, Leaves ovate lanceolate repand entire

5016 Like *R. persicarioides* but differing in having auricled leaves and longer teeth to the valves

§ 2. *Hermaphrodite. Valves naked.*

5017 Valves entire, Leaves cordate smooth acute

5018 Valves toothed, Flower-stalks flat reflexed thickened

5019 Valves smooth, Stem shrubby, Leaves cordate

5020 Flowers in pairs, All the valves very large membranous reflexed, Leaves undivided

5021 Flowers distinct, Wing of one valve very large membranous veiny, Leaves eroded

5022 Flowers distinct, Valves cordate obtuse entire, Leaves hastate-ovate

5023 Leaves cordate hastate

5024 Stem shrubby, Root tuberous, Leaves roundish running down into the stalk

5025 Valves entire reniform, Leaves hastate, Middle lobe cordate, Stem much branched diffuse

§ 3. *Flowers diœcious.*

5026 Valves entire naked, Leaves cordate obtuse rugose

5027 Leaves lanceolate stalked, Fruit reflexed, Valves fringed

5028 Female calyx 1-leaved, Outer valves reflexed hooked

5029 Flowers monœcious, Valves naked, Leaves oblong ovate

5030 Leaves lanceolate sagittate, Lobes spreading

5031 Leaves oblong sagittate

5032 Leaves lanceolate hastate

5033 Leaves stalked hastate serrated acute with simple spreading auricles, Valves naked entire

5034 Leaves sagittate reniform

POLYGYNIA.

5035 Leaves alternate stalked cordate ovate with a glandular point

5036 Leaves cordate

5037 Fruit 8-cleft, Leaves 3-nerved

5038 Leaves cordate oblong, Fruit 6-cleft

5039 Leaves ovate acute, Capsules bluntly 3-cornered

5040 Leaves lanceolate

5041 Leaves oval cordate 9-nerved

5042 Leaves elliptical obtuse, Capsules striated

5043 Leaves linear-lanceolate, Capsules 5-cornered incurved



and *Miscellaneous Particulars.*

root left will generate buds and send them to the surface, and if the plough or spade cut a root into pieces an inch long, each piece will grow, whether near the surface or buried to some depth. The less careful agriculturist often receives dock-seeds with his grass-seeds, brought from the stable-keepers and not properly cleaned: these come up the first year, and establish themselves along with the clover unobserved. The second year they flower, and if the crop is not early cut the seed ripens, and in using the hay is either mixed with the litter of the stable or with the hay-seeds, to be again carried to the field. Such as purchase town-manure cannot avoid receiving dock-seeds; but they may destroy them by fermenting the manure well before using it: others, who desire to get rid and keep clear of this weed, should be most particular in their choice of seeds of every kind, especially of grass-seeds; should weed them out as soon as they can be discovered; and, for such as remain till the second year, they may be pulled by hand when in the flower-stalk, and during or after a day's rain. (See *Encyc. Agr. art. Peren. Weeds.*)

857. *Oxyria*. From *ὄξος*, acid, in allusion to the qualities of its leaves. The plant is one of those singular individuals which has the character of two distinct genera, and yet is referable to neither. Wahlenberg made it a *Rheum*, Linnæus a *Rumex*, Mr. Brown what it now is. It was formerly used as a salad.

858. *Wendlandia*. Named in honor of J. C. Wendland, a German botanist. He has published various works upon plants, many of them illustrated with numerous colored figures. This is a climbing plant, referred by Decandolle to *Cocculus*.

859. *Damasonium*. From *δαμασσω*, to take away or diminish. This plant had the reputation of removing the effects of the venom of the sea-dog. Handsome floating aquatics.


860. *Actinocarpus*. From *ακτιν*, a ray, and *καρπος*, fruit, in allusion to the radiate disposition of the little carpella round a common axis. Pretty floating aquatics.

861. *Alisma*. Derived from *alis*, water, in Celtic. *Alisma Plantago* grows in watery places, and is called water-plantain, from the resemblance between its leaf and that of the common plantain.



CLASS VII.—HEPTANDRIA. 7 STAMENS.

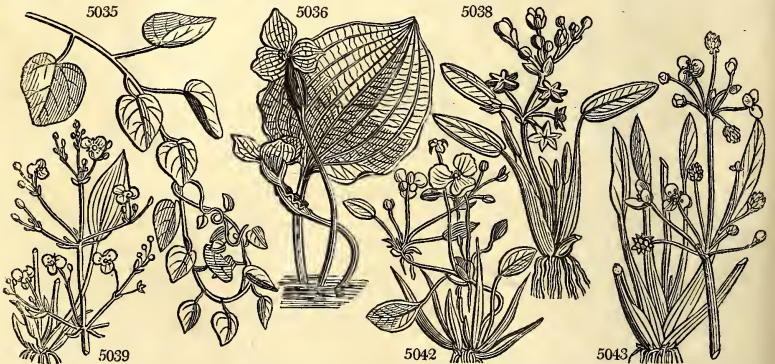
A SMALL class, of which the Parinarium, which is a good tropical fruit, and the valuable Horse-chesnut, Esculus, are the only remarkable genera. The Astranthus is a curious genus of the natural order of Homalinæe.

Order 1. MONOGYNIA.  7 Stamens. 1 Style.

- 862. *Trientalis*. Cal. 7-leaved. Cor. 7-parted, equal, flat. Berry without juice.
- 863. *Disandra*. Cal. about 7-parted. Cor. rotate, 7-parted. Caps. 2-celled, many-seeded.
- 864. *Pisonia*. Cal. campanulate, 5-cleft. Cor. O. Berry 1-celled, 1-seeded.
- 865. *Petiveria*. Cal. 4-leaved. Cor. O. Style lateral. Stigma pencil-shaped. Seed 1, with four reflexed awns at the end.
- 866. *Esculus*. Cal. 1-leaved, inflated. Cor. 4-5-petaled, unequal, pubescent, inserted in the calyx. Caps. 3-celled. Seeds large, chesnut-like.
- 867. *Jonesia*. Cal. 2-leaved. Cor. funnel-shaped, with a closed fleshy tube and 4-cleft limb. Nectary, a ring inserted in the throat of the tube. A Legumen.

MONOGYNIA.

862. TRIENTA'LIS. W.	WINTER-GREEN.																			
5044 europæa W.	oval-leaved			cu																
5045 americana Ph.	spear-leaved			cu																
863. DISAN'DRA. W.	DISANDRA.																			
5046 prostrata W.	trailing			or																
864. PISO'NIA. W.	PISONIA.																			
5047 aculeata W.	prickly			cu	10															
5048 fragrans Lk.	fragrant			cu	3															
5049 macrophylla Lk.	long-leaved			cu	3															
5050 nigricans W.	black			cu	3															
5051 obovata Lk.	obovate			cu	3															
5052 mexicana W.	Mexican			cu	4															
5053 nitida W.	shining			cu	3															
5054 grandis R. Br.	large			or	12															
865. PETIVE'RIA. W.	PETIVERIA.																			
5055 alliacea W.	Garlic-scented			cu	2															
5056 octandra W.	dwarf			cu	2															
866. ESCULUS. W.	HORSE-CHESNUT.																			
5057 Hippocastanum W.	common			tm	40															
5058 Pavia W.	red-flowered			or	20															
5059 discolor Ph.	dwarf			or	8															
5060 flava W.	yellow-flowered			or	20															
5061 glabra W. en.	smooth-leaved			or	12															



History, Use, Propagation, Culture,

862. *Trientalis*. From *triens*, the third of a thing; why so named we do not understand. Sir J. E. Smith says, "Few persons have seen the fruit of this plant, and it was most unaccountably mistaken, even by Linnæus and Gærtner. The valves of the ripe capsule become concave externally, convex and polished within, and have been taken for a permanent corolla. But they are opposite to the calyx leaves, which the segments of the corolla are not. The beautiful tunic of the seeds were supposed to be the skin of a dried berry, and are not faithfully represented by Gærtner. (*English Flora*, vol. ii. 208.)


863. *Disandra*. From *dis*, difficult, and *andros*, a male, or, in botanical composition, a stamen; that is to say, a plant of which the stamens are subject to vary, and therefore difficult for botanists. A trailing plant with bright yellow flowers.

864. *Pisonia*. So named by Plumier, in honor of William Piso, a physician at Amsterdam, author of the Natural History of Brazil, 1648, fol. *P. aculeata* is an inelephant tree with round recumbent spiny branches, wanting support. It is common in the savannahs and other low places in the island of Jamaica, and in


868. *Dracontium*. Spathe cymbiform. Spadix covered. Cal. O. Petals 5. A berry.

869. *Calla*. Spathe ovate. Spadix covered. Cal. O. Cor. O. A berry.

870. *Pavinarium*. Cal. 5-cleft. Petals 5. Stamens 14, of which 7 are barren. Drupe fleshy cribose. Nut 2-celled, with 1-seeded cells.


Order 2. DIGYNIA.  7 Stamens. 2 Styles.

871. *Limcum*. Cal. 5-leaved. Petals 5, equal. Caps. globose, 2-celled.

Order 3. TETRAGYNIA.  7 Stamens. 4 Styles.

872. *Saururus*. Cal. a spike of 1-flowered scales. Cor. O. Ovaries 4. Berries 4, 1-seeded.

873. *Astranthus*. Cal. O. Cor. hypocrateriform, with a 14-cleft limb. Seed 1, small, superior.

Order 4. HEPTAGYNIA.  7 Stamens. 7 Styles.

874. *Septas*. Cal. 7-parted. Petals 7. Ovaries 7. Caps. 7, many seeded.

MONOGYNIA.

5044 Leaves lanceolate entire

5045 Leaves narrow lanceolate acuminate oblique

5046 Leaves reniform crenate, Flower-stalks in pairs

5047 Spines axillary horizontal, Leaves ovate narrowed at each end, Corymbs axillary

5048 Unarmed, Leaves opposite acuminate narrowed into a short stalk very smooth fleshy

5049 Unarmed, Leaves opposite a little narrowed towards the base entire smooth, Lateral nerves parallel

5050 Unarmed, Leaves ovate acuminate, Flowers cymose erect, Fruit berried

5051 Unarmed, Leaves opposite acute scarcely narrowed at the base entire smooth with parallel nerves

5052 Leaves ovate entire villous, Flowers in umbels

5053 Leaves shining pointed (*Lilac de Madagascar*.)

5054 Leaves oblong acuminate smooth, Cymes compound, Flowers polygamous, Fruit spiny

5055 Flowers hexandrous

5056 Flowers octandrous

5057 Leaves digitate 7, Petals 5 spreading

5058 Leaves quinate smooth unequally toothed, Petals 4 with connivent claws the length of the calyx

5059 Leaves quinate pointed at each end downy beneath unequally toothed, Petals 4

5060 Leaves quinate beneath at the rib pubescent, Petals 4 with connivent claws longer than the calyx

5061 Leaves quinate quite smooth, Petals 4 spreading with claws the length of the calyx, Fruit spiny



and Miscellaneous Particulars.

several other islands in the West Indies, where it is very troublesome to whoever passes, fastening itself by its strong crooked thorns to the clothes; and the seeds being glutinous and burry, also fasten themselves to whatever touches them: so that the wings of the ground-doves and other birds, are often so loaded with the seeds, as to prevent their flying, by which means they become an easy prey.

865. *Petiveria*. So named by Plumier, in honor of James Petiver, apothecary of London, and fellow of the Royal Society, author of *Museum*, 1695; *Gazophylacium*, 1702, collected into one volume folio, with many plates. *P. alliacea*, is common in savannahs and woods in the West Indies, where it is a troublesome weed, and tastes the milk of cows that feed on it. It is so acrid, that on chewing a little, it burns the mouth and leaves the tongue black, dry, and rough, as it appears in a malignant fever. It is thought, however, to be covered by Guinea-hens, and hence its vulgar name of Guinea-hen weed.

866. *Esculus*, or *Esculus*, as Pliny writes it. A name which the Latins gave to a tree which furnished them with an esculent nut: that plant was the *Quercus Esculus* of Linnæus. *Marronier*, Fr., *Marronien-*

5062 <i>cárnea Hort.</i>	flesh-colored	半	or	7	jn	Pu	N. Amer.	1823.	G co	Dend. brit. 121
5063 <i>pállida W. en.</i>	pale-flowered	半	or	12	jn	G. y	N. Amer.	1812.	G co	
5064 <i>parvifóra H. K.</i>	small-flowered	半	or	6	jl. au	W	N. Amer.	1786.	L s. l	
867. <i>JONE'SIA. W.</i>	JONESIA.						<i>Leguminosæ.</i>	<i>Sp. 1.</i>		
5065 <i>pinnáta W.</i>	winged-leaved	†		20	...	O	E. Indies	1796.	C p. l	Rh. mal. 5. t. 59
868. <i>DRACONTIUM. W.</i>	DRAGON.						<i>Aroideæ.</i>	<i>Sp. 3-9.</i>		
5066 <i>polyphýllum W.</i>	purple-stalked	¥	△	cu	2	mr. jn	Ap	India	1759.	R lt. l Bot. reg. 700
5067 <i>spinósum W.</i>	prickly	¥	△	cu	2	ap. my	Ap	Ceylon	1759.	R lt. l
5068 <i>perátsum W.</i>	perforated	¥	△	cu	6	ap. jn	Ap	W. Indies	1752.	R p. l J. sch. 2. t. 184. 5
869. <i>CAL/LA. W.</i>	CALLA.						<i>Aroideæ.</i>	<i>Sp. 3-5.</i>		
5069 <i>ethiópica W.</i>	Ethiopian	¥	△	or	3	ja. my	Ap	C. G. H.	1731.	Sk r. m Bot. mag. 832
5070 <i>palústris W.</i>	marsh	¥	△	cu	3	jl. au	Ap	N. Europe	1768.	D p Bot. mag. 1831
5071 <i>aromática Roxb.</i>	aromatic	¥	△	or	2	jl	Ap	China	1813.	D r. m Bot. mag. 2279
870. <i>PARINARIUM. Juss.</i>	PARINARIUM.						<i>Chrysobalanæ.</i>	<i>Sp. 2-5.</i>		
5072 <i>excélsium Sab.</i>	Guinea Plum	¥	□	fr	60	...	W	S. Leone	1822.	C 1
5073 <i>macrophýllum Sab.</i>	Gingerbr. Tree	¥	□	fr	6	...	W	S. Leone	1822.	C r. l

DIGYNIA.

871. <i>LIMEUM. W.</i>	LIMEUM.						<i>Portulacææ.</i>	<i>Sp. 1-4.</i>		
5074 <i>africánium W.</i>	African	¥	△	w	3	jn. jl	W	C. G. H.	1774.	R s. p

TETRAGYNIA.

872. <i>SAURURUS. W.</i>	LIZARD'S-TAIL.						<i>Aroideæ.</i>	<i>Sp. 3.</i>		
5075 <i>cérnuus W.</i>	drooping	¥	△	cu	2	s	Ap	Virginia	1759.	D s. p
5076 <i>lúcidus Jacq.</i>	shining	¥	△	cu	1 1/2	s	Ap	N. Amer.	1791.	D 1 Jacq. ecl. t. 18
5077 <i>chinénsis Hort.</i>	Chinese	¥	□	cu	1 1/2	...	Ap	China	1819.	D 1
873. <i>ASTRANTHUS. L.</i>	ASTRANTHUS.						<i>Homalineeæ.</i>	<i>Sp. 1-2.</i>		
5078 <i>cochinchinénsis Lour.</i>	Cochinchinese	¥	□	cu	4	jn. jl	W	China	1823.	C r. m Bot. mag. 2659

HEPTAGYNIA.

874. <i>SEPTAS. W.</i>	SEPTAS.						<i>Sempervineeæ.</i>	<i>Sp. 3.</i>		
5079 <i>capénsis W.</i>	Cape	¥	△	cu	2	au. s	W	C. G. H.	1774.	R s. p Bot. rep. 90
5080 <i>globifóra B. M.</i>	globe-flowered	¥	△	cu	3	mr. ap	W	C. G. H.	1809.	R s. p Bot. mag. 1472
5081 <i>umbélla H. S.</i>	skreen	¥	△	cu	3	jl	W. a	C. G. H.	1800.	R s. p



History, Use, Propagation, Culture,

baum, Ger., and Marrone, Ital. E. hippocastanum (πικρος, horse, horse-chesnut; because it was formerly a veterinary medicine) is a magnificent tree, at once grand from its magnitude and massy form, and beautiful when in blossom, from being covered with spikes of delicate white and pink flowers, protruding from among elegant digitate leaves. It is a rapid growing tree, and speedily produces a considerable bulk of timber, which, however, is of little value as such. The plant is best adapted for an ornamental tree in the outskirts of plantations, in avenues, or singly on lawns. It is much prized by the French as an ornamental avenue tree, and when the geometric style of gardening was in vogue in this country was a good deal planted, as at Bushy park, Canons, Castle Howard, &c. During the rage for the picturesque, it fell into disrepute from its "compact lumpish parabolic form;" but the public are now convinced that there are other beauties besides those peculiarly adapted for representation by painters, and the taste for trees beautiful or interesting from their flowers, foliage, or other details, is now reviving. The nuts or capsules are large and mahogany colored, and have often occasioned regret that they are not edible, like those of the Spanish chesnut. Deer eat them greedily, and may be seen watching about the trees for their fall during windy weather. In Turkey they are ground and mixed with horse provender. According to some, swine and sheep may be fattened on them, and poultry when they are boiled. They are of a saponaceous nature, and broken and steeped in hot water might save soap, where that article is excessively dear. This tree migrated from the northern parts of Asia into England by Constantiople, Vienna, Italy, and France. Parkinson in 1629 places it in his orchard as a fruit tree, and describes the nuts as superior to the ordinary sort.

E. Pavia was so named by Boerhaave, in honor of Peter Paw, a Dutchman, and professor of botany at Leyden, in 1601.

The other species have beautiful flowers, but are not free growing trees.

- 5062 Leaves 6-7-nate obov. acuminate 2-serrate, Petals 4 connivent with claws shorter than cal. Anth. smooth
 5063 Leaves quinate, Petals spreading with claws shorter than calyx, Stam. twice as long as cor. Fruit spiny
 5064 Leaves quinate, Petals 4, Stamens twice as long as corolla

5065 The only species

- 5066 Leaves supradecomound, pedate, Segments pinnatifid, Scape much shorter than leaf-stalks
 5067 Leaves sagittate, Peduncles and petioles prickly
 5068 Stem climbing, Leaves cordate ovate bored through

- 5069 Leaves sagittate cordate, Spathe cucullate, Spadix male upwards
 5070 Leaves cordate, Spathe flat, Spadix hermaphrodite all over
 5071 Leaves cordate acuminate, Spathe boat-shaped hiding the spadix

- 5072 Leaves ovate-oblong green above white beneath
 5073 Leaves long oblong-lanceolate very white all over

DIGYNIA.

- 5074 Leaves oblong stalked

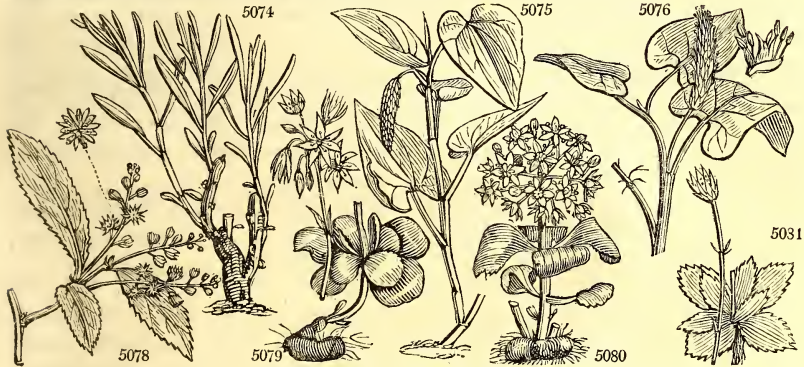
TETRAGYNIA.

- 5075 Leaves cordate stalked
 5076 Leaves deeply cordate ovate-lanceolate shining
 5077 Leaves cordate ovate acuminate shining nerved

- 5078 Leaves ovate lanceolate serrated

HEPTAGYNIA.

- 5079 Leaves connate crenate roundish, Stem nearly leafless
 5080 Floral-leaves 4 spatulate doubly crenate, Umbel compound
 5081 Stem-leaves about two hooded and connate into a skreen, Flowers many minute



and Miscellaneous Particulars.

867. *Jonesia*. Named in honor of the famous Sir W. Jones, who to his other accomplishments added the knowledge of botany. The most fragrant tree of India. Large cuttings root well in sand under a hand-glass.

868. *Dracontium*. From *δρακων*, a dragon. The stems of some species are mottled like the skin of a snake.

869. *Calla*. A name of one of Pliny's plants, which probably was applied to something of the same natural order as that now called *Calla*.

870. *Parinarium*. The Guiana name of the genus is *Parinari*. Very fine trees with fine bunches of terminal flowers, which are succeeded by plum-like fruits, that in hot climates are esteemed and served up at table. It has been called *Petrocarya* by Schreber and other Linnæan botanists, who fancy science to depend upon names.

871. *Limeum*. An ancient name of a poisonous plant. It is derived from *λοιμος*, pest, poison. It was used, says Pliny, to poison arrows with. The plant to which modern botany has applied this name is a dangerous poison.

872. *Saururus*. From *σαυρα*, a lizard, and *ουρα*, a tail; on account of its long and pyramidal tail, which may be compared to the tail of a lizard. Aquatic plants with neat foliage, but with no beauty in their flowers.

873. *Astranthus*. From *αστρον*, a star, and *ανθος*, a flower, on account of the star-like disposition of the segments of the flower. A small Chinese bush with serrated leaves, and spikes of pale whitish green flowers.

874. *Septas*. From *septem*, seven. All the parts of the flower are in seven. Very neat little Cape plants, with umbels of white flowers.



CLASS VIII. — OCTANDRIA. 8 STAMENS.

This is a class, which, with reference to the plants which compose it, is of much consequence to the botanist and gardener. To the former it is recommended by the singular Melastomaceous plants which it contains, the curious *Michauxia*, and the *Jeffersonia*, remarkable for its capsule, which opens like a snuff-box. To the gardener it possesses irresistible attraction, not only in the delightful *Tetrateas*, *Boronias*, and *Correas* of New Holland, in the *Dimocarpus* of China, celebrated for its truly excellent fruit, and in the *Fuchsias*, *Ænotheras*, *Combretums*, and *Vacciniums*, some of which form the pride of our hardy gardens; but also in the magnificent tribe of *Heaths*, which are certainly the most beautiful of plants, under cultivation. This is abundantly attested by the splendid collections of Lee of Hammersmith, Rollison of Tooting, and last, but not least, of Lodiges of Hackney, where the precision of science is combined with the allurements of form and coloring.

Order 1. MONOGYNIA.  8 Stamens. 1 Style.

§ 1. Ovary superior

875. *Tropæolum*. Cal. 1-leaved, 5-cleft, spurred. Petals 5, unequal. Nuts coriaceous, furrowed. Seed 1, roundish.
876. *Rozburghia*. Cal. 4-leaved. Petals 4. Nectary 4 lanceolate leaves inserted in the middle of the petals. Anthers 2, hanging down from the base of each nectarial leaf. Caps. 1-celled, 2-valved, many seeded. Seeds on a spongy placenta.
877. *Grislea*. Cal. 4-cleft. Pet. 4, from the recesses of the calyx. Filaments very long, ascending. Capsule globose, 1-celled, many-seeded.
878. *Boronia*. Cal. 4-cleft, persistent. Petals 4, ovate. Nect. coronate. Filam. ciliated, incurved. Stigma capitate. Caps. 4, 2-valved. Seeds solitary, with an arillus.
879. *Tetrateca*. Cal. 4-cleft. Petals 4. Anthers 4-celled. Caps. 2-celled, 5-valved: with valves bearing the septa in their middle. Seeds about 2.
880. *Correa*. Cal. campanulate. Petals 4. Caps. 4-celled, opening with 4 valves. Cells 1-2-seeded.
881. *Mimusops*. Cal. 4-leaved. Petals 4. Nectary 16-leaved. Drupe pointed.
882. *Ornithophe*. Cal. 4-parted. Petals 4, bearded in the middle. Ovary double. Berries 2, 1-seeded.
883. *Dimocarpus*. Sepals 5. Petals 5, reflexed, villous inside. Berries 2, one of which is often abortive, barked, tubercled, 1-celled, 1-seeded.
884. *Melicocca*. Cal. 3-parted. Petals 4, reflexed below the calyx. Stigma peltate. Drupe with a bark.
885. *Blighia*. Cal. 5-parted. Petals 5. Style very short. Stigmas 3. Seed solitary with a very large arillus.
886. *Mettaiba*. Cal. 5-parted. Petals 5, with two scales at their base. Caps. oblong, 1-celled, 2-seeded.
887. *Kötreuteria*. Sepals 5. Petals 4, irregular. Nect. 4 bifid scales. Caps. inflated, 3-celled, with 2-seeded cells.
888. *Guarea*. Cal. 4-toothed. Petals 4. Nectary cylindrical, bearing the anthers on the orifice. Caps. 4-celled, 4-valved. Seeds solitary.
889. *Amyris*. Cal. 4-toothed. Petals 4, oblong, spreading. Stigma capitate. Berry drupaceous, by abortion 1-seeded.
890. *Ximènia*. Cal. 4-cleft. Petals 4, hairy, revolute. Drupe 1-seeded.
891. *Bæchia*. Cal. 5-cleft. Petals 5. Caps. 3-4-celled, many-seeded, covered with the calyx. Seeds few.
892. *Erica*. Sepals 4, persistent. Cor. 4-cleft, persistent. Filaments inserted in the receptacle. Anthers bifid. Caps. membranous, 4-8-celled.
893. *Menziesia*. Cal. 1-leaved. Cor. 1-petalous, ovate. Filam. inserted in the receptacle. Caps. 4-celled, with the septa from the inflexed edges of the valves. Seeds many, numerous.
894. *Chlora*. Sepals 8 or 10. Cor. 1-petalous, 8-cleft. Caps. 1-celled, 2-valved, many-seeded.
895. *Michauxia*. Cal. many-cleft. Cor. rotate, 8-10-parted, revolute. Nect. 8-valved, stamiferous. Caps. 8-10-celled, many-seeded.
896. *Jeffersonia*. Sepals 5, colored, deciduous. Petals 8, incurved spreading. Stamens surrounding the ovary. Caps. obovate, stipitate, 1-celled, opening below the end.
897. *Donnæa*. Sepals 4. Cor. O. Filaments very short. Anth. oblong. Caps. 3-celled, 3-winged. Seeds 2.
898. *Lawsonia*. Cal. 4-cleft. Petals 4. Stamens in 4 pairs. Caps. 4-celled, many-seeded. Seeds angular.

§ 2. Ovary inferior.

A. Seeds many.

899. *Osbeckia*. Cal. 4-cleft: its lobes separated by a fringed scale. Cor. of 4 or 5-petals. Anthers rostrate. Caps. 4-5-celled, surrounded by the truncated tube of the calyx. Recept. compressed, half ovate.
900. *Rhexia*. Cal. urceolate, 4-5-cleft. Petals 4, inserted in the calyx, oblique. Anthers declinate. Caps. setose, 4-celled, inside the calyx. Recept. lunate. Seeds numerous cochleate.
901. *Ænothera*. Cal. tubular, 4-cleft, with deciduous deflexed segments. Petals 4, inserted in calyx. Stigma 4-cleft. Caps. 4-celled, 4-valved, inferior. Seeds naked, affixed to a 4-cornered central receptacle.
902. *Gaura*. Cal. 4-cleft, tubular. Petals 4, ascending towards the upper side. Nect. inferior, 1-seeded.
903. *Epilobium*. Cal. 4-cleft, tubular. Petals 4. Caps. oblong, inferior. Seeds comose.
904. *Fuchsia*. Cal. funnel-shaped, colored, deciduous. Petals 4, in the throat of calyx, alternate with its segments. Nectary an 8-furrowed gland. Stigma capitate. Berry oblong, obtuse, 4-cornered, 4-celled.
905. *Jambolifera*. Cal. 4-toothed. Petals 4, funnel-shaped. Filaments flattish. Stigma simple. Fruit a 4-celled drupa.
906. *Orycoccus*. Cal. 4-cleft. Cor. 4-parted, with linear revolute segments. Filaments conniving. Anthers tubular, 2-parted. Berry many-seeded.
907. *Vaccinium*. Cor. urceolate or campanulate, 4-5-cleft, with reflexed segments. Filaments inserted on the ovary. Berry 4-5-celled, many-seeded.

B. Seed one.

908. *Memecylon*. Cal. with a striated bottom, and an entire edge. Cor. 1-petalous. Anthers inserted on the side of the end of the filament. Berry crowned with the cylindrical calyx.
909. *Lagetta*. Cor. caducous, tubular, 4-toothed, with 4 petal-like glands. Drupe hairy, pisiform, 1-seeded.
910. *Daphne*. Cor. 4-cleft, like a corolla, withering, including the stamens. Drupe 1-seeded.
911. *Dierca*. Cor. tubular, with an obsolete limb. Stamens longer than tube. Berry 1-seeded.

912. *Gnidia*. Cor. funnel-shaped, 4-cleft; with 4-8-petaloid scales at the orifice. Nut somewhat drupaceous.
 913. *Stellera*. Cor. 4-cleft, inflated in middle. Stam. inserted in throat, very short. Nut 1, beaked.
 914. *Passerina*. Cor. 4-cleft, naked. Style filiform, lateral, long. Stamens inserted on the tube. Nut 1, coated.
 915. *Lachnæa*. Flowers in heads. Cor. 4-cleft, with an unequal limb. Filaments long, with an unequal insertion. Nut somewhat drupaceous.
 916. *Combretum*. Cal. 4-toothed, campanulate, superior. Petals 4, inserted in the calyx. Stamens very long. Caps. 4-angular, with membranous angles, 1-celled. Seed 1, oblong.

Order 2. DIGYNIA.  8 Stamens. 2 Styles.

917. *Galenia*. Cal. 4-cleft. Cor. O. Capsule roundish, 2-seeded.
 918. *Aphananthe*. Sepals 5. Two stamens opposite 2 sepals, 6 opposite and alternate with three other sepals.
 919. *Weinmannia*. Sepals 4. Petals 4. Caps. 2-celled, 2-beaked.
 920. *Möhringia*. Sepals 4. Petals 4. Caps. 1-celled, 4-valved.

Order 3. TRIGYNIA.  8 Stamens. 3 Styles.

921. *Polygonum*. Cal. O. Cor. 5-parted, like a calyx. Seed 1, angular, covered. (Stamens and styles uncertain in number.)
 922. *Coccoloba*. Cal. 5-parted, colored, finally becoming berried. Cor. O. Berry formed of the calyx, 1-seeded.
 923. *Paullinia*. Sepals 5. Petals 4. Nect. 4-leaved, unequal. Caps. turbinate, 3-cornered, 3-celled, with 1-seeded cells. Seeds with an arillus.
 924. *Seriana*. Sepals 5. Petals 4. Nect. 4-leaved. Samaræ 3, longitudinally united, globose, connected downwards in a membranous wing.
 925. *Cardiospermum*. Sepals 4. Petals 4. Nect. 4-leaved, unequal. Caps. 3, connate, inflated.
 926. *Sapindus*. Sepals 4. Petals 4. Caps. fleshy, connate, ventricose.

Order 4. TETRAGYNIA.  8 Stamens. 4 Styles.

927. *Verea*. Sepals 4. Cor. hypocateriform, 4-cleft, with acute segments, and a ventricose tube. Scales 4, at the base of the ovaries, linear. Capsules 4, 1-celled, many-seeded.
 928. *Bryophyllum*. Sepals 4. Petals 4, connate into a cylinder. Seeds many.
 929. *Paris*. Sepals 4. Petals 4, narrower. Anth. attached to the middle of filament. Berry 4-celled.
 930. *Adova*. Cal. 2-3-cleft, inferior. Cor. 4-5-cleft, superior. Berry 1-celled, 4-5-seeded, united with the calyx.
 931. *Elatine*. Sepals 4. Petals 4. Caps. 4-celled, 4-valved, depressed, many seeded; the dissepiments opposite the sutures.
 932. *Haloragis*. Sepals 4, superior. Petals 4, caducous. Drupe dry. Nut 4-celled.
 933. *Forsköhltea*. Cal. 4-leaved. Petals 8 spatulate. Seeds 4 enveloped in wool.

MONOGYNIA.

875. TROPÆOLUM. W.	INDIAN CRESS.	<i>Tropaeolæ.</i>	Sp. 5—13.					
5082 minus W.	small	♂	○ or	1	jn.o	O. v	Peru	1596. S s.l Bot. mag. 98
♂ <i>flore pleno</i>	double-flowered	♂	○ or	1	jn.o	O. v	Peru	1596. C s.l
5083 majus W.	great	♂	○ cul	6	jn.o	O. v	Peru	1886. S s.l Bot. mag. 23
♂ <i>flore pleno</i>	double-flowered	♂	○ or	6	jn.o	O	Peru	1886. C r.m
5084 aduncum Sm.	fringe-flowered	♂	○ or	3	jn.o	O	Peru	1775. S r.m Bot. mag. 1351
T. peregrinum B.M.								
5085 pinnatum B. R.	pinnate-flower.	♂	△ or	2	jn.o	P	.....	C r.m Bot. rep. 535
5086 hybridum W.	hybrid	♂	△ or	4	jn.au	O	.....	C r.m Ber. ac. h. 32. t 1
876. ROXBURGHIA. W.	ROXBURGHIA.							
5087 glorioides Roxb.	Gloriosa-leaved	♂	△ or	6	ap	Pk.G	E. Indies	1803. Sk p.l Bot. mag. 1500
877. GRISLEA. W.	GRISLEA.							
5088 tomentosa W.	downy	♂	□ pr	3	my.jn	R	E. Indies	1804. C s.p Bot. reg. 30
878. BORONIA. Sm.	BORONIA.							
5089 ledifolia Gay.	Ledum-leaved	♂	□ or	1½	mr.ap	W	N. S. W.	1814. L s.p Vent. malm. 59
5090 pinnata Sm.	Hawth.-scent.	♂	□ or	2	f.my	Pu	N. S. W.	1794. L s.p Bot. rep. 58
5091 serrulata Sm.	Rose-scented	♂	□ or	3	jn.jl	R	N. S. W.	1816. L s.p Bot. reg. 842
879. TETRATHECA. W.	TETRATHECA.							
5092 juncæa W.	rushy	♂	□ pr	2	jl.au	Pu	N. S. W.	1803. C s.p Sm. nov. h. 1. t.2
880. CORREA. W.	CORREA.							
5093 alba B. Rep.	white-flowered	♂	□ or	3	ap.jl	W	N. S. W.	1793. C s.p Bot. rep. 18
5094 speciosa B. Rep.	red-flowered	♂	□ or	3	ap.jl	R	N. S. W.	1806. L s.p Bot. rep. 26
5095 virens H. K.	green-flowered	♂	□ or	2	my.n	G	N. S. W.	1800. C s.p Bot. reg. 3
881. MIMUSOPS. W.	MIMUSOPS.							
5096 Elengi W.	pointed-leaved	♂	□ or	15	...	W	E. Indies	1796. C p.l Rox. cor. 1. t. 14
5097 Kañki W.	obtuse-leaved	♂	□ or	10	...	W	E. Indies	1796. C p.l Rum. am. 3. t. 8
5098 hexandra Roxb.	hexandrous	♂	□ or	10	...	W	India	1804. C p.l
882. ORNITROPHE. W.	ORNITROPHE.							
5099 serrata W.	saw-leaved	♂	□ or	12	...	W	E. Indies	1804. C p.l Rox. cor. 1. t. 61
5100 cominia W.	yellow-berried	♂	□ or	20	...	W	Jamaica	1759. C p.l Sl. ja. 2. t. 208. f.1
883. DIMOCARPUS. W.	DIMOCARPUS.							
5101 Litchi W.	Lee-Chee	♂	□ fr	15	my.jn	W	China	1786. L r.m Lam. ill. t. 306
5102 Longán H. K.	Longan	♂	□ fr	15	my.jn	W	China	1786. L r.m Buchoz. ic. t. 99
884. MELICOC'CA. W.	HONEY-BERRY.							
5103 bijuga W.	winged-leaved	♂	□ fr	16	...	Y	Jamaica	1778. C lt.l Ja. am. 106. t. 72
885. BLIGHIA. H. K.	AKEE-TREE.							
5104 sápidá H. K.	Ash-leaved	♂	□ fr	20	...	W	Africa	1793. S r.m An. bo. 2. t. 16, 17



History, Use, Propagation, Culture,

875. *Tropaeolum*. From *tropæum*, a trophy. The leaf resembles a buckler, and the flower an empty helmet, of which trophies were formed. *T. majus* is an ornamental annual, and also a culinary plant. The flowers are eaten in salads, and are very grateful: they are also used as a garnish. The seeds, which consist of three conjoined berries or nuts, with grooved wrinkled gibbous husks that become fungous when dry, are pickled in salt and vinegar, and used as a substitute for capers, to which some prefer them. In the evening the flowers emit spontaneously at certain intervals visible sparks like those of an electric machine. This was first observed by the daughter of Linnaeus.

876. *Roxburghia*. In honor of William Roxburgh, M. D. born in Scotland, and settled in the East Indies; author of a splendid work on the plants of the coast of Coromandel. A singular plant, the natural affinities of which are yet obscure; it grows in loam and peat, and may be increased, though but slowly, by dividing at the root.

877. *Grislea*. So named after G. Grisley, a Portuguese surgeon, author of *Viridarium Lusitanicum*, 1661. A free flowering shrub of considerable beauty; it grows in loam and peat, and cuttings root in sand under a hand-glass in heat.

878. *Boronia*. So named after Francis Borone, an Italian servant of Dr. Sibthorp, who perished from an accident at Athens. Pretty little New Holland plants, generally with red flowers. These are valuable plants, as flowering nearly all the year. "They thrive best in sandy peat, with the pots well drained with broken potsherds. They may be propagated by layers or ripened cuttings, taken off at a joint and planted in sandy peat, and placed under a bell-glass, will strike root, if properly managed: the glass must be taken off occasionally to dry them, as they are very liable to damp off."

879. *Tetradtheca*. From *τετρα*, four, and *θεκη*, a cell, in allusion to the four cells of the anthers, for which the plants are remarkable. Cuttings root in sand under a bell-glass.

880. *Correa*. So named after Joseph Correa de Serra, a learned Portuguese, who, without publishing much, was one of the most profound theoretical botanists of this age. He died at Lisbon in 1823. "Ripened cuttings

MONOGYNIA.

- 5082 Leaves peltate repand mucronate, Petals acute
 5083 Leaves peltate repand, Petals obtuse
 5084 Leaves peltate 5-lobed palmate toothed, Petals jagged
 5085 Leaves peltate, Lobes obtuse unequal, Flowers pinnate
 5086 Leaves peltate 5-lobed, Lobes obtuse repand, Petals cuneate toothed at end
 5087 Leaves cordate many-nerved
 5088 Leaves minute tomentose beneath, Corymbs axillary spreading
 5089 Leaves linear lanceolate entire tomentose beneath
 5090 Leaves pinnated with an odd one in 2-4-pairs very smooth, Leaflets linear acute, Pedunc. dichotomous
 5091 Leaves simple trapeziform acute serrulate at end smooth
 5092 Leaves alternate few lanceolate and branches smooth
 5093 Leaves ovate downy beneath, Teeth of calyx small acute distant
 5094 Leaves ovate obtuse beneath rusty with down, Flowers erect, Calyx truncate
 5095 Leaves ovate-oblong cordate, Flowers pendulous, Calyx with 4 acute teeth
 5096 Leaves alternate ovate acuminate
 5097 Leaves alternate clustered at the ends of the branches oblong very obtuse
 5098 Leaves alternate obovate emarginate, Flowers hexandrous
 5099 Leaves ternate rough, Leaflets stalked ovate acuminate serrate, Racemes simple
 5100 Leaves ternate, Leaflets stalked oblong narrowed at each end pubescent beneath, Racemes compound
 5101 Leaves pinnated, Leaflets flat acute, Fruit scaly, Flowers apetalous
 5102 Leaves pinnated, Leaflets rugose blunt, Fruit hispid, Flowers pentapetalous
 5103 The only species
 5104 The only species



and Miscellaneous Particulars.

will root freely in sand under a bell or hand-glass. The cuttings must not be planted too thick, or they will be liable to damp. *C. speciosa* has generally been reckoned difficult to strike from cuttings, but it roots as freely as the others if properly managed, and requires the same treatment."

881. *Mimusops*. From *μῦμος*, an ape, and *οψις*, figure. The flowers are thought to resemble the countenance of a monkey. Ripened cuttings root readily in sand under a hand-glass.

882. *Ornitrophe*. From *ορνις*, a bird, and *τροφη*, nourishment. Its fruit is much eaten by small birds. In the Isle de France it is called *bois de merle*, or *thrush-wood*. Cuttings root in sand under a hand-glass.

883. *Dimocarpus*. From *διδυμος*, double, and *καρπος*, fruit; its fruit grows in pairs. These are fruit-bearing trees, cultivated in China. The fruit is a berry in bunches of a red color, and rather larger than the grape. The bunches are small; the skin of the berry is tough and leathery; the pulp is colorless, semitransparent, and of a slightly sweet subacid taste. The fruit of *D. Litchi* is frequently brought to England dried like raisins; that of *D. Longan* has been ripened by John Knight, Esq. of Lee Castle, in a lofty stove, erected for the purpose of growing tropical fruits. A bunch was presented to the Horticultural Society, in September 1816, "supposed to be the only one ever produced in Europe, and which persons well acquainted with the long-yeu in its native places of growth, pronounced to be quite as good as those grown within or near the tropics." (*Hort. Trans.* ii. 408.)

884. *Melicocca*. From *μελι*, honey, and *κοκκος*, fruit; its fruit, which resembles the yolk of an egg, has a very sweet flavour mixed with a little acid. This tree is cultivated in some parts of South America and in Jamaica for its fruit, which grows to the size of a large plum, and is very mellow. The natives suck it for the sake of the salivation which it produces. In our stoves it thrives well in light loamy soil, and cuttings root in sand under a hand-glass in heat.

885. *Bighia*. Named in honor of the famous Captain Bligh, who first carried the bread-fruit to the West Indies. This is an esteemed African fruit tree with a reddish or yellow pome, about the size of a goose's egg,

886. METAIBA. <i>Aubl.</i> 5105 guianensis <i>Aubl.</i> <i>Ephelis frazinea</i> <i>W.</i>	METAIBA. Ash-leaved	♂	tm	60		<i>Sapindaceae.</i> ... W	<i>Sp. 1.</i> Guiana	1803.	C	p.i	Au. gui. 1. t. 123
887. KÖLREUTERIA. <i>W.</i> 5106 paniculata <i>W.</i>	KÖLREUTERIA. panicled	♂	or	10		<i>Sapindaceae.</i> jl.au W	<i>Sp. 1.</i> China	1763.	R	co	Bot. reg. 320
888. GUA'REA. <i>W.</i> 5107 trichilioides <i>W.</i>	GUAREA. Ash-leaved	♂	tm	15		<i>Meliaceae.</i> my.jn W	<i>Sp. 1-5.</i> S. Amer.	1752.	L	r.m	Cav. di. 7. t. 210
889. AMYRIS. <i>W.</i> 5108 polygama <i>W.</i> 5109 sylvatica <i>W.</i>	AMYRIS. simple-leaved wood	♂	or	12 16		<i>Terebintaceae.</i> jn.jl W jn.jl W	<i>Sp. 2-28.</i> Chili Carthag.	1790. 1793.	C C	p.l l.p	Cav. ic. 3. t. 239 J. a. ed. pi. t. 188
890. XIME'NIA. <i>W.</i> 5110 americana <i>W.</i>	XIMENIA. American	♂	or	15		<i>Olinaceae.</i> ... W	<i>Sp. 1-3.</i> W. Indies	1759.	C	s.p	J. am. pic. t. 107
891. BÆCKIA. <i>Sm.</i> 5111 frutescens <i>Sm.</i> 5112 virgata <i>Sm.</i> 5113 densifolia <i>Sm.</i>	BECKIA. Chinese twiggy close-leaved	♂	pr	3 3 3		<i>Myrtaceae.</i> s.d W au.o W au.o W	<i>Sp. 3-7.</i> China N. Caled. N. S. W.	1806. 1877. ...	L C C	s.l s.p s.l.p	Osborne iter. t. 1 Bot. rep. 596
892. ERICA. <i>W.</i> 5114 Plukenet's <i>L.</i> 5115 Petiverii <i>W.</i> 5116 Banksia <i>W.</i> 5117 penicilliflora <i>Sal.</i> <i>calyculata</i> <i>Wendl.</i> 5118 follicularis <i>Salisb.</i> <i>melastoma</i> <i>Andr.</i> 5119 verticillata <i>Andr.</i> 5120 Seba's <i>Donn.</i> 5121 Ewerána <i>H. K.</i> 5122 socciflora <i>Salisb.</i> 5123 densifolia <i>W.</i> 5124 grandiflora <i>L.</i> 5125 cephalotes <i>Thunb.</i> 5126 cruenta <i>H. K.</i> 5127 perspicua <i>W.</i> 5128 speciosa <i>Andr.</i> 5129 ignescens <i>Andr.</i> 5130 discolor <i>Andr.</i> 5131 versicolor <i>W.</i> 5132 fascicularis <i>H. K.</i> <i>octophylla</i> <i>L.</i> <i>coronata</i> <i>Andr.</i> 5133 splendens <i>P. S.</i> 5134 mammosa <i>L.</i> 5135 procera <i>W.</i> 5136 gelida <i>Andr.</i> 5137 serratifolia <i>Andr.</i>	HEATH. Plukenet's Petiver's Banks's white-pencilled yellow-pencill. verticillate Seba's Ewer's green-pencilled dense-leaved great-flowered purple-headed bloody-flowered clear-flowered specious fiery different-color. various-colored cluster-flower. splendid nipple lofty green verticill. saw-leaved	♂	spl spl el el cu or spl or el or el or or el or or or or or spl	1 2 2½ 2 2 3 1 2 1½ 2 1½ 2 2 2 2 2 2 1½ 2 6 3 3 or		<i>Ericaceae.</i> <i>Sp. 294-300.</i> R Y W.pu W Y Sc P.K.G G Y Pu D.R W.pu R.G R R.G R O S Pu W G.w O	<i>Sp. 294-300.</i> C. G. H.	1774. 1774. 1787. 1774. 1774. 1799. 1811. 1775. 1812. 1774. 1790. 1800. 1792. 1788. 1790. 1787. 1792. 1762. 1791. 1790. 1790. 1790.	C C	s.p s.p	And. hea. vol. 1 L. ill. t. 288. f. 3 And. hea. vol. 1 And. hea. vol. 2 And. hea. vol. 1 Bot. mag. 189 And. hea. vol. 1 W. er. 1. p. 7. c. ic. Bot. cab. 575 And. hea. vol. 2 And. hea. vol. 1 And. hea. vol. 1 And. hea. vol. 1 W. er. 8. p. 5. c. ic And. hea. vol. 1 C. s.p C. s.p Bot. cab. 699 And. hea. vol. 1



History, Use, Propagation, Culture,

with the arillus of the seed of a grateful subacid flavor. In the West Indies it is esteemed very wholesome and nourishing. Here it grows well in loam and peat, and ripened cuttings with all their leaves on root best in sand under a hand-glass.

886. *Metaiba*. The vernacular name of the plant in French Guiana. Large cuttings root best under a hand-glass in sand.

887. *Kölreuteria*. So named by Laxmann, in honor of Joseph Gottlieb Kölreuter, who published *De plantis quibusdam Rarioribus, Tubing, 1755*, with a dissertation *De Insectis Coleopteris*. He also made many experiments on the pollen of flowers, hybrid plants, &c. published in the Petersburg Transactions.

This shrub should be planted in as sheltered a situation as possible, as it will not flower if too much exposed; and if the wood is not well ripened, the tops of the shoots will be injured by the frost.

888. *Guarea*. The natives of Cuba call the plant *Guara*. This tree, though it has an inconspicuous flower, yet has fine large leaves. All parts of the plant, especially the bark, smell strong of musk, and may be used instead of that perfume for many purposes. The wood is full of a bitter resinous substance, which renders it unfit for rum-hogsheads, being observed to communicate both its smell and taste to all spirituous liquors: but it is often cut for staves and heading, when there is a scarcity of other timber. The powder of the bark is said to be a good emetic; and is sometimes used among the negroes for that purpose. Ripened cuttings root in sand under a hand-glass.

889. *Amyris*. Derived from *μύρρα*, myrrh. Its resinous gum has an excellent perfume. Almost every species of this genus produces some valuable gum or resin. A. gileadensis produces the celebrated balm of Gilead. It is a shrub with purplish branches, striated a little, with crowded ternate leaves, and protuberant buds loaded with balsamic resin.

5105 Leaves alternate abruptly pinnated in 2-3 or 4 pairs

5106 The only species. Leaves pinnated toothed torn

5107 Stalks of the leaves short tumid inflated

5108 Leaves simple lanceolate entire, Racemes simple axillary numerous

5109 Leaves ternate crenate acute

5110 Peduncles many-flowered, The lower usually changed into spines

5111 Leaves opposite beardless, Teeth of calyx membranous colored

5112 Leaves linear lanceolate, Peduncles axillary umbelled

5113 Leaves imbricated four ways obtuse with a little reflexed point, Teeth of calyx leafy

A. TUBIFLORE. *Corollas long and cylindrical.*

5114 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Bractes distant from calyx

5115 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. cylindrical

5116 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Segments of cor. reflexed

5117 Stamens long connivent colored, Lvs. in 3s, Cal. imbricated, Fl. 3, Cor. globose scarcely longer than cal.

5118 Stamens long connivent colored, Leaves in threes, Calyx imbricated, Flowers solitary, Cor. conical

5119 Anth. bearded, Style incl. Cor. cylind. contracted above the base, Fl. pend. Leaves 4 whorled

5120 Stamens long connivent colored, Leaves in threes, Cal. imbricated, Flowers 3, Cor. cylindrical incurved

5121 Anthers bearded, Leaves in threes, Flowers terminal solitary

5122 Stamens exerted colored, Leaves in 3s, Cal. imbricated, Flowers 3, Cor. conical, Leaves recurved

5123 Anth. bearded incl. Style exert. Cor. tubular clavate pubes. Fl. axill. Leaves 3 imbricated

5124 Anthers beardless exerted, Cor. incurved smooth, Style long, Flowers axillary stalked, Lvs. 6 smooth

5125 Anth. beardless included, Style exerted, Cor. tubular clavate, Cal. pubescent, Fl. capitate, Leaves 6

5126 Ant. beard. includ. Style exert. Cor. tub. incurv. Cal. simple gland. tooth. Fl. axill. whorl. Lvs. 3 rough

5127 Anthers beardless, Lvs. 3, Flowers solitary or 3 term. Cal. imbric. Cor. villous [at edge

5128 Cor. cylind. Anthers bearded, Lvs. 3, Fl. term. 3, Cal. imbric. Style exerted rounded at end

5129 Anthers beardless, Lvs. 4, Fl. term. Bractes ovate distant from cal. Sepals ovate acumin.

5130 Anthers bearded included, Style exerted, Cor. tubul. clav. Cal. double, Fl. term. 3, Lvs. 3 smooth

5131 Anthers beardless, Leaves 3 smooth, Fl. 3 term. Cal. imbric. Corolla smooth

5132 Anth. bearded, Style incl. Cor. cylind. ventric. Flowers umbelled capitate, Lvs. 8 linear truncate

5133 Anth. beardless exerted, Cor. tub. clavate pubescent, Fl. term. racemose, Leaves 5 or more smooth

5134 Anth. bearded, Style includ. Cor. clav. cylind. Flow. umbell. Lvs. 6 linear reflexed

5135 Anth. beardless included, Style exerted, Cor. ventricose at base, Fl. term. Lvs. 4 pubescent erect

5136 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Bract lanc. Sepals broad lanceol.

5137 Anth. beardless, Lvs. 4 ciliated, Fl. term. Two bractes next cal. one distant, Cor. smooth



and Miscellaneous Particulars.

A. *Opobalsamum* produces the balsam of Mecca. It has pinnate leaves, with sessile leaflets. It grows near Bederhunin, a village between Mecca and Medina, in a sandy rocky soil, confined to a small tract about a mile in length, and attains the height of fifteen feet. The balsam is obtained by incision. Neither of these species are yet introduced to Britain: those we possess grow in loam and peat, and cuttings root freely in a pot of sand under a hand-glass.

890. *Ximenia*. Francis Ximenes was a Spanish naturalist from whom we have, published in 1615, four works upon the plants and animals useful in medicine in New Spain. The flowers of this tree have an odor like frankincense: the fruit is yellow, shiny, the size of a pigeon's egg, with a thin rind and sweet subacid pulp: it is eaten by negroes and children in the West Indies. Cuttings root in sand under a hand-glass.

891. *Bæckia*. From Abraham Bæck, who was physician in ordinary to the king of Sweden, and who communicated plants to Linnæus, by whom the genus was dedicated. These plants are of free growth in sandy loam and peat, and so hardy as to require little more than protection from frost during winter. Young cuttings root in sand under a bell-glass.

892. *Erica*. From *εἴκα*, to break, in allusion to the brittle branches of the plant. It was also reputed a specific for breaking the stone in the bladder. *La bruyère*, Fr., *Heide*, Ger., *Erica*, Ital., and *Brezu*, Span. Ling or common heath abounds in barren wastes in every part of Europe, and especially in the northern countries. Though little regarded in warm climates, the different species of native *Erica* are made subservient to a great variety of purposes in the bleak and barren highlands of Scotland, and other northern countries. The poorer inhabitants cover their cabins with them instead of thatch, or else twist them into ropes, and bind down the thatch with them in a kind of lattice work. They also make the walls with alternate layers of heath, and a sort of cement made of black earth and straw. The hardy Highlanders frequently

5138 clavarióflora Salisb. sessiliflora Andr.	club-flowered	se	el	½ au.o	G	C. G. H.	1799.	C s.p	And. hea. vol. 2
5139 spicata Thunb.	spiked	pr	2½ ja.d	L.Y	C. G. H.	1789.	C s.p	And. hea. vol. 1	
5140 transparent W.	transparent	de	1½ my	W	C. G. H.	1800.	C s.p	And. hea. vol. 2	
5141 viridescens Lodd.	greenish	or	1 my	Y.g	C. G. H.	1820.	C s.p	Bot. cab. 233	
5142 flam'mea Andr.	flame-flowered	or	1½ my.o	L.Y	C. G. H.	1798.	C s.p	And. hea. vol. 2	
5143 Patersonia Andr.	Paterson's	or	2½ mr.au	Y	C. G. H.	1791.	C s.p	And. hea. vol. 1	
5144 glandulosa W.	glandul.-haired	or	1 my.jn	R.o	C. G. H.	1801.	C s.p	And. hea. vol. 2	
5145 glauca Wendl.	dull-yellow	or	1 my.jn	Y	C. G. H.	1820.	C s.p	And. hea. vol. 3	
5146 Sparman'ni W.	Sparmann's	spl	1 mr.s	D.O	C. G. H.	1794.	C s.p	And. hea. vol. 1	
5147 perspicua Wendl.	glassy	or	1½ my.jn	Pk	C. G. H.	1819.	C s.p	And. hea. vol. 2	
5148 costata Andr.	ribbed-flowered	or	2 f.jn	Pk	C. G. H.	1795.	C s.p	Bot. cab. 703	
5149 purpurea W.	purple-flower.	el	2 ja.d	L.Pu	C. G. H.	1789.	C s.p	And. hea. vol. 2	
5150 elata Andr.	tall	or	3 jl.s	O	C. G. H.	1790.	C s.p	Bot. mag. 1984	
5151 sulphurea Lodd.	sulphur	el	2 jn.jl	Y	C. G. H.	1805.	C s.p	And. hea. vol. 1	
5152 laniflora Wendl. sordida Andr.	sordid	or	1 mr.au	L.S	C. G. H.	1790.	C s.p	And. hea. vol. 1	
5153 tubiflora L.	tube-flowered	de	2 ap.jl	Pk	C. G. H.	1775.	C s.p	And. hea. vol. 1	
5154 simpliciflora Donn.	single-flowered	or	2 mr.jl	O	C. G. H.	1774.	C s.p	W. er. 17. p. 69	
5155 Archeria Andr.	Lady Archer's	or	1½ au.n	D.S	C. G. H.	1796.	C s.p	And. hea. vol. 2	
5156 spuria Andr.	spurious	or	2 ap.au	Pu	C. G. H.	1796.	C s.p	And. hea. vol. 1	
5157 Hibbertia Andr.	Hibbert's	spl	2 jn.s	O.Y	C. G. H.	1800.	L s.p	And. hea. vol. 3	
5158 conspicua H. K.	conspicuous	or	2 my.au	D.Y	C. G. H.	1774.	C s.p	And. hea. vol. 2	
5159 curviflora L.	curve-flowered	or	2 jl.o	Y	C. G. H.	1774.	C s.p	And. hea. vol. 1	
5160 triphylla Lk.	three-leaved	spl	2 jl.n	R.v	C. G. H.	1822.	C s.p	And. hea. vol. 1	
5161 monadelphæ B. M.	monadelphous	or	1½ my.jn	Pk	C. G. H.	1789.	C s.p	Bot. mag. 1370	
5162 concinna H. K.	blush	de	2½ s.o	F	C. G. H.	1773.	C s.p	And. hea. vol. 2	
5163 pellucida Andr.	pellucid	or	2 jn.n	W	C. G. H.	1800.	C s.p	And. hea. vol. 3	
5164 Linneana H. K.	Linnaeus's	de	1½ ja.my	W	C. G. H.	1790.	C s.p	And. hea. vol. 2	
5165 hirsuta Lodd.	hairy	el	1 mr.ap	W.pu	C. G. H.	1800.	C s.p	Bot. cab. 754	
5166 erubescens Andr.	reddish	or	1½ mr.jl	F	C. G. H.	1800.	C s.p	And. hea. vol. 3	
5167 Leena H. K.	Lee's	or	2½ ja.au	O.Y	C. G. H.	1788.	C s.p	And. hea. vol. 1	
5168 colorans Lodd.	coloring	or	2 ap.jn	W.R	C. G. H.	1817.	C s.p	Bot. cab. 224	
5169 onosmaeflora Sal.	onosma-flower.	el	1½ mr.s	Y	C. G. H.	1789.	C s.p	And. hea. vol. 1	
5170 viridis Andr.	green-flowered	cu	2½ my.s	D.G	C. G. H.	1800.	C s.p	And. hea. vol. 2	
5171 sanguinea Lodd.	bloody	el	1 ja.d	Cr	C. G. H.	1815.	C s.p	Bot. cab. 86	
5172 longifolia Donn.	long-leaved	or	2 f.jl	R	C. G. H.	1787.	C s.p	Ic. hor. kew. 4	
5173 pinea W.	Pine-tree-leav.	or	2 au.d	R	C. G. H.	1790.	C s.p	And. hea. vol. 2	
5174 aërea Andr.	gold-colored	el	2 jl.s	O	C. G. H.	1799.	C s.p	And. hea. vol. 2	
5175 elongata Lodd.	turbinate	de	1½ f.n	W	C. G. H.	1810.	C s.p	Bot. cab. 738	
5176 lanata Wendl.	woolly	or	1 f.my	O	C. G. H.	1775.	C s.p	W.eric.5 p.5.c.ic	
5177 Bowieana Lodd.	Bowie's	or	1 au.d	W	C. G. H.	1822.	C s.p	Bot. cab. 842	
5178 coccinea L.	scarlet-flower'd	or	1 ja.d	D.R	C. G. H.	1783.	C s.p	And. heaths, v.1	
5179 exudans Lodd.	dewy	cu	1½ o.n	R	C. G. H.	1810.	C s.p	Bot. cab. 287	
5180 Massoni Thunb.	Masson's	gr	2½ jl.o	R.g	C. G. H.	1787.	L s.p	Bot. mag. 356	
5181 gemmifera Lodd.	gem-bearing	spl	1 my.jl	S	C. G. H.	1802.	C s.p	Bot. cab. 457	
5182 bicolor Andr.	two-colored	or	2 mr.o	G.R	C. G. H.	1790.	C s.p	And. heaths, v.3	
5183 exsturgens Andr.	quiver-formed	spl	1½ ja.d	D.O	C. G. H.	1792.	C s.p	Bot. cab. 835	
5184 vestita Thunb. a álba	tremulous	spl	3 ja.d	W	C. G. H.	1789.	C s.p	And. heaths, v.1	
β incarnata	white	el	2 ja.d	W	C. G. H.	1789.	C s.p	And. heaths, v.2	
γ purpurea	flesh-colored	spl	2 ja.d	Pk	C. G. H.	1789.	C s.p	And. heaths, v.1	
δ rosea	purple	spl	2 ja.d	Pu	C. G. H.	1789.	C s.p	And. heaths, v.2	
ε fulgida	rosy	de	3 ja.d	L.R	C. G. H.	1789.	C s.p	And. heaths, v.2	
ζ coccinea	bright-red	or	3 ja.d	O	C. G. H.	1789.	C s.p	And. heaths, v.1	
η lítea	scarlet	spl	3 ja.d	D.R	C. G. H.	1789.	C s.p	And. heaths, v.3	
5185 rosea Andr.	yellow	spl	3 ja.d	Y	C. G. H.	1789.	C s.p	Bot. cab. 782	
5186 Nivénia Andr.	rose-colored	el	2½ jn.o	L.R	C. G. H.	1798.	C s.p	And. heaths, v.2	
5187 áspera Andr.	Niven's	el	1 f.jl	Pu	C. G. H.	1799.	C s.p	And. heaths, v.3	
5188 cylindrica Andr.	rough	or	1 my.jn	Y	C. G. H.	1802.	C s.p	And. heaths, v.3	
	cylindric	or	2 my.jn	W	C. G. H.	1798.	C s.p	And. heaths, v.3	



History, Use, Propagation, Culture,

make their beds with it. In most of the western isles they dye their yarn of a yellow color, by boiling it in water with the green tops and flowers of this plant; and woollen cloth boiled in alum water, and afterwards in a strong decoction of the tops, comes out a fine orange color. In some of these islands they tan their leather in a strong decoction of it. Formerly the young tops are said to have been used alone to brew a kind of ale; and Boethius relates that this liquor was much used by the Picts. In some of the isles it is said they still brew ale with one part malt, and two parts of the young tops of heath, sometimes adding hops. In many parts of Great Britain besoms are made of it. The turf, with the heath growing on it, is cut up and dried for the fuel of the cottager, for heating ovens, covering under-ground drains, &c. Sheep and goats will sometimes eat the tender shoots, but they are not fond of them. Cattle not accustomed to browse on heath give bloody

5138 Anth. bearded, Lvs. 4-6, Fl. axill. Cal. imbr. Sepals orbicular obovate

5139 Anthers bearded, Lvs. 4-6, Flow. axillary, Cal. imbric. Sepals rhomboid with long claws

5140 Anth. beardless, Leaves 4 3-cornered ciliated, Flowers terminal subsolitary

5141 Anthers included bearded, Cal. leafy, Leaves 4 hairy, Flowers terminal, Style exerted

5142 Anthers beardless included, Lvs. 3-4, Flowers terminal few, Cal. imbr. Cor. pubescent

5143 Anthers bearded, Lvs. 4-6, Fl. axillary, Cal. imbric. Sepals subulate from a broad base

5144 Anth. beardless, Lvs. 4 linear glandular hairy, Cor. clavate, Cal. hispid

5145 Anthers bearded, Style incl. Cor. cylind. Sepals membran. Fl. axill. whorl. Lvs. 4 lin. smooth

5146 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in a 4-cornered head, Sep. lin.-subul. Ped. very short

5147 Anthers beardless, Flowers solitary or 3, Cal. imbric. Cor. villous

5148 Anthers beardless, Flowers 3, Cal. imbricated, Cor. smooth, Leaves pubescent

5149 Anth. beardless exerted, Ovary turbinate, Lvs. 4-6, Fl. axillary, Two bractes close to cal. one remote

5150 Anthers beardless exerted, Lvs. 4-6, Flowers axill. Bractes remote, Ovary with 8 furrows smooth

5151 Anthers beardless included, Bractes next calyx, Cor. hairy solitary, Leaves 4 hairy

5152 Anthers exerted gibbous at base, Bractes remote, Cal. leafy, Lvs. 4, Branches hairy, Fl. terminal

5153 Anthers beardless, Lvs. 4, Bractes a little distant from cal. Sepals oblong revolute at edge

5154 Anthers beardless exerted, Lvs. 4, Bractes linear distant from cal. Sepals ovate acuminate

5155 Anth. beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. pubescent viscid

5156 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes lin. remote, Sepals ovate acuminate

5157 Anthers beardless, Lvs. 4-6, Fl. axill. Two bractes next cal. one remote, Ovary cylind. Cor. smooth viscid

5158 Anthers beardless included, Lvs. 4, Fl. term. few, Bractes remote, Sepals ovate obtuse

5159 Anth. beardless, Cor. curved clavate smooth, Fl. solitary term. Leaves 4 linear smooth

5160 Anth. beardless included, Cal. leafy imbricated, Leaves 3 smooth spreading, Style exerted

5161 Anth. beardless exerted, Cor. cylind. ovate, Sepal col. obl. obt. Leaves 3 appressed erect, Fl. 3 terminal

5162 Anth. beardless included, Cor. cylindrical narrowed at base, Fl. term. umbell. Leaves 6 smooth

5163 Anth. beardless, Lvs. 4, Fl. term. 4 closely packed in 4-cornered head, Sepals lin. subul. Ped. length of fl.

5164 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals lanceolate

5165 A handsome species with tufted hairy leaves. It resembles *E. linnaeana*

5166 Anth. beardless, Leaves 4, Fl. term. 4 closely packed in a 4-cornered head, Sepals ovate roundish

5167 Anth. beardless, Leaves 4, Fl. axillary, Cor. ribbed, Bractes nearly as long as calyx

5168 Anthers beardless included, Leaves 6 ciliated, Flowers terminal, Cor. clavate at first white afterwards red

5169 Anth. beardless, Lvs. 4-6, Fl. axillary, Cor. ribbed cylind. with a spreading limb, Bractes $\frac{1}{2}$ length of cal.

5170 Anth. beardless, Lvs. 4-6, Fl. axill. Cor. ribbed widest in middle with a revol. limb, Bractes length of cal.

5171 Leaves spreading smooth, Flowers clavate incurved smooth

5172 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals linear

5173 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals from a broad base linear subulate

5174 Anth. beardless, Leaves 4-6, Fl. axillary, Cor. not ribbed, Sepals ovate acuminate

5175 Leaves upright smooth, Fl. term. 4 turbinate hairy

5176 Anth. includ. beardless, Bractes remote from flower, Leaves very short imbricated

5177 Leaves 3 smooth spreading distant, Fl. axillary pendulous cylindrical smooth

5178 Anth. beardless included, Leaves 4-6, Fl. axill. Two bractes next cal. : one remote, Ovary turbinate

5179 Leaves 4 hairy clammy, Fl. cylindrical terminal curved smooth, Style exerted

5180 Anth. beardless, Leaves 4-6 hairy, Fl. axill. Two bractes next cal. : one remote, Ovary clavate

5181 Leaves short with long hairs, Fl. large axillary pendulous cylindrical with a green mouth

5182 Anth. bearded, Leaves 3 ovate rough, Fl. 3 cernuous smooth, Cal. villous colored

5183 Anth. beardless exerted, Leaves 4-6, Fl. axill. Bractes remote, Ovary with 4 furrows smooth

5184 Anth. beardless included, Lvs. 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary with 8 furrows

[silky upwards]

5185 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. erect spreading

5186 Anth. beardless exerted, Leaves 3, Fl. terminal numerous, Bractes remote

5187 Anth. beardless included, Leaves 3 hairy, Fl. capitate, Cal. imbr. Cor. very hairy

5188 Anth. beardless, Leaves 4 triangular smooth, Fl. term. cylindr. smooth

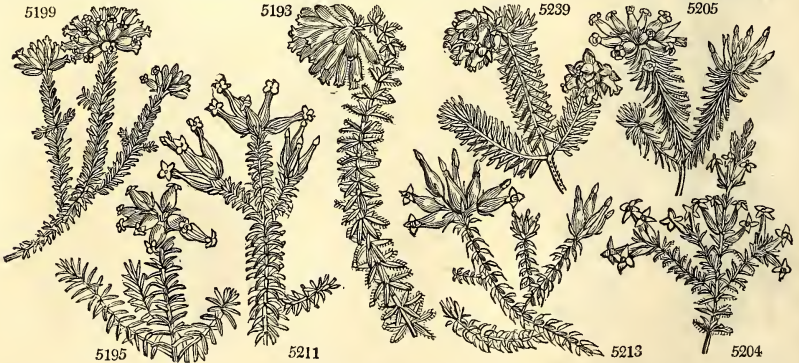


and Miscellaneous Particulars.

milk, but are soon cured by drinking plentifully of water. The branches of heath afford shelter, and the seeds a principal part of their food to many birds, especially those of the grouse kind: and for this purpose the seed-vessel is formed and protected in such a manner, that the seeds are preserved a whole year, or even longer. Bees collect largely from the flowers, and honey made from them was anciently supposed to be of a bad quality, but in fact it is only of a darker color. The foliage affords nourishment to the *Phalena quercus* or great egg-moth. Dodder frequently entwines itself about this plant, and gives it a singular appearance.

Till the latter end of the last century, this genus consisted of three or four humble British shrubs, and the heath of Spain (*E. mediterranea*), a slow growing tree. But when the Cape of Good Hope fell into the hands of the British, collectors were sent out, and soon brought to light some hundreds of species. It may serve as

5189	<i>Monsónia Thunb.</i>	Lady Monson's	葉	el	4	ap.s	W	C. G. H.	1787.	C	s.p	Bot. mag. 1915
5190	<i>Halicácaba L.</i>	bladder-flower.	葉	or	1	my.au	Y	C. G. H.	1780.	C	s.pj	And. heaths,v.2
5191	<i>lanuginósa Andr.</i>	large brown-fl.	葉	or	1½	ja.s	P.Y	C. G. H.	1803.	C	s.p	And. heaths,v.3
5192	<i>glábra Lk.</i>	smooth	葉	de	1	my.au	W	C. G. H.	1820.	C	s.p	
5193	<i>cerinthóides L.</i>	Honey-wort-fl.	葉	spl	4	my.n	D.S	C. G. H.	1774.	C	s.p	Bot. mag. 220
5194	<i>pectinifólia Sal.</i>	pectinated	葉	or	2	jn.n	R	C. G. H.	1800.	C	s.p	
5195	<i>princeps Andr.</i>	fine-red	葉	or	1½	my.jl	S	C. G. H.	1800.	C	s.p	Bot. cab. 647
5196	<i>blánda Andr.</i>	charming	葉	or	¾	ap.s	L.P	C. G. H.	1800.	C	s.p	And. heaths,v.3
5197	<i>infláta W.</i>	inflated	葉	or	1½	my.s	W.R	C. G. H.	1800.	C	s.p	Theric.67.t.2 f.2
5198	<i>ferrugínea Andr.</i>	rusty	葉	or	1	my.jl	R	C. G. H.	1798.	C	s.p	And. heaths,v.3
5199	<i>Aitónia Andr.</i>	nine-pin	葉	el	1	jn.au	O	C. G. H.	1798.	C	s.p	Bot. mag. 612
5200	<i>túmida Ker.</i>	tumid	葉	or	1½	my.s	Sc	C. G. H.	1812.	C	s.p	Bot. reg. 65
5201	<i>fistulefóra Sal.</i>	white slender-fl.	葉	de	2	s	W	C. G. H.	1800.	C	s.p	And. heaths,v.3
5202	<i>obbáta Andr.</i>	bottle	葉	or	1½	ap.jl	W.R	C. G. H.	1796.	C	s.p	And. heaths,v.2
5203	<i>acumináta Andr.</i>	pointed-leaved	葉	el	1½	jl.o	R	C. G. H.	1800.	C	s.p	Bot. cab. 216
5204	<i>Lawsóni B. M.</i>	red slender-fl.	葉	el	3	ap.jn	F	C. G. H.	1802.	C	s.p	Bot. mag. 1720
5205	<i>ventricósa Thunb.]</i>	Porcelain	葉	cu	1	ap.s	F	C. G. H.	1787.	C	s.p	Bot. mag. 350
5206	<i>prægnans Andr.</i>	swelled	葉	or	2	my.jl	R	C. G. H.	1796.	C	s.p	And. heaths,c.ic
5207	<i>glutinósa W.</i>	glutinous	葉	or	2	jn.o	Pu	C. G. H.	1787.	C	s.p	Ico. hor.Kew.17
	<i>β ároscolédes Lam.</i>	sandew-like	葉	or	2	jl.o	Pu	C. G. H.	1787.	C	s.p	Pet. mus. t. 161
5208	<i>tetrágóna Thunb.</i>	square-flower'd	葉	or	1½	jl.s	L.Y	C. G. H.	1789.	C	s.p	And. heaths,v.3
5209	<i>Irbyána Andr.</i>	Irby's	葉	or	1½	jn.o	W.G	C. G. H.	1800.	C	s.p	And. heaths,v.3
5210	<i>Jasminifóra Andr.</i>	Jasmine-flower.	葉	de	2	jn.n	W.pk	C. G. H.	1794.	C	s.p	And. heaths,v.1
5211	<i>apullácea Curt.</i>	flask	葉	or	2	jn.au	W.R	C. G. H.	1790.	C	s.p	Bot. mag. 303
5212	<i>Shannoniána Lodd.</i>	Lady Shannon's	葉	el	1½	jn	W.pu	C. G. H.	1806.	C	s.p	Bot. cab. 168
5213	<i>retórta Thunb.</i>	recurved-leav'd	葉	or	1	my.au	Pk.w	C. G. H.	1787.	C	s.p	Bot. mag. 362
5214	<i>tenuífóra Andr.</i>	yellow-slend-fl.	葉	or	1½	ap.jn	L.Y	C. G. H.	1800.	C	s.p	And. heaths,v.3
5215	<i>Cliffórdia Lodd.</i>	Lady Clifford's	葉	de	1	ap.my	W	C. G. H.	1812.	C	s.p	Bot. cab. 34
5216	<i>hyacinthoides Andr.</i>	Hyacinth-flow.	葉	or	1	jn.au	Pk	C. G. H.	1798.	C	s.p	And. heaths,v.3
5217	<i>fástigiáta L.</i>	clustered	葉	or	1½	my.s	Pu	C. G. H.	1797.	C	s.p	Bot. cab. 256
	<i>Walkéria Andr.</i>											
5218	<i>infundibuláris Lk.</i>	funnel-shaped	葉	or	1	ap.my	Pu	C. G. H.	1821.	C	s.p	Bot. cab. 589
5219	<i>Aitónia Andr.</i>	Aiton's	葉	or	2	ju.s	W.pu	C. G. H.	1790.	C	s.p	Bot. mag. 429
5220	<i>lútea L.</i>	yellow	葉	or	¾	f.my	P.Y	C. G. H.	1774.	C	s.p	And. heaths,v.1
5221	<i>comósa L.</i>	tufted	葉	or	¾	ap.au	W	C. G. H.	1787.	C	s.p	Ico. hor.Kew.18
	<i>α rábra</i>	red-flowered	葉	de	¾	ap.au	Pk	C. G. H.	1787.	C	s.p	W.eri.12.p.7.c.ic
	<i>β álba</i>	white-flowered	葉	de	¾	ap.au	W	C. G. H.	1787.	C	s.p	And. heaths,v.2
5222	<i>muscári W.</i>	musk	葉	fr	1½	mr.jl	W	C. G. H.	1790.	C	s.p	And. heaths,v.1
5223	<i>daphnæfóra Sal.</i>	Daphne-flower.	葉	de	1½	ap.my	Pa.pu	C. G. H.	1791.	C	s.p	Bot. cab. 154
5224	<i>Parmentieri Lodd.</i>	Parmentine's	葉	de	1	jl.au	Pa.pu	C. G. H.	1810.	C	s.p	Bot. cab. 197
5225	<i>Bonplándia Lodd.</i>	Bonpland's	葉	pr	1	mr.s	Pa.Y	C. G. H.	1812.	C	s.p	Bot. cab. 345
5226	<i>Humeána Lodd.</i>	Sir A. Hume's	葉	el	1½	mr.ap	Pk	C. G. H.	1808.	C	s.p	Bot. cab. 389
5227	<i>denticuláta L.</i>	toothletted	葉	or	1½	ap.my	Pu	C. G. H.	1821.	C	s.p	
5228	<i>radiáta Andr.</i>	radiated	葉	or	1	au.n	C	C. G. H.	1798.	C	s.p	And. heaths,v.1
5229	<i>aristáta Andr.</i>	awned	葉	or	1½	mr.au	D.P.W	C. G. H.	1801.	C	s.p	And. heaths,v.3
5230	<i>primuloides Andr.</i>	Cowslip-flower.	葉	or	1½	ap.jl	P.w	C. G. H.	1802.	C	s.p	Bot. mag. 1548
	<i>β mándula Lodd.</i>	neat	葉	pr	¾	my.jl	R.w	C. G. H.	...	C	s.p	Bot. cab. 114
5231	<i>moscháta Lodd.</i>	musk-scented	葉	ft	1½	my.jl	G	C. G. H.	1805.	C	s.p	Bot. cab. 614
5232	<i>concáva Lodd.</i>	concave	葉	el	1	mr.ap	Pa.pu	C. G. H.	1808.	C	s.p	Bot. cab. 134
5233	<i>Coventryána Lodd.</i>	Lord Coventry's	葉	pr	1	ju.jl	Pk	C. G. H.	1808.	C	s.p	Bot. cab. 423
5234	<i>erósa Lodd.</i>	bitten	葉	de	¾	ap.my	Pa.pk	C. G. H.	1817.	C	s.p	Bot. cab. 133
5235	<i>juliana Lodd.</i>	July	葉	el	¾	jl	R	C. G. H.	1800.	C	s.p	Bot. cab. 799
5236	<i>trósa Lodd.</i>	neat	葉	pr	1½	ap.my	W.pk	C. G. H.	1800.	C	s.p	Bot. cab. 668
5237	<i>corifólia L.</i>	Coris-leaved	葉	pr	1½	au.d	Pa.pu	C. G. H.	1774.	C	s.p	Bot. mag. 423
	<i>calycína W.</i>											
5238	<i>andromedæfóra An.</i>	Andromeda-fl.	葉	pr	2	mr.jn	Pk	C. G. H.	1803.	C	s.p	Bot. mag. 1250
5239	<i>élegans Andr.</i>	elegant	葉	el	¾	mr.n	G	C. G. H.	1799.	C	s.p	Bot. mag. 966
5240	<i>triflóra L.</i>	three-flowered	葉	or	1½	my.jn	W	C. G. H.	1774.	C	s.p	Wen.eri.12.p.13



History, Use, Propagation, Culture,

an easily recollected date, to say that all of them were sent home during the reign of George III., and as a tribute to merit, that most of them were gathered by Mr. Francis Masson. Their beauty needs no encomium; many are pretty, some are graceful or elegant, a few splendid, and there are curious, grotesque, and odorous species. Their culture and propagation is one of the most delicate branches of the art of gardening: it may be said to have been invented in England, and in the Hammersmith nursery, and places Britain far before all countries in this art as in so many others.

The only soil in which heaths will grow is earth of peat: if any substitute can be found, it is in leaf-mould

B. VENTRICOSÆ. *Corolla inflated.*

- 5189 Anthers bearded, Bractes oblong next cal. Cor. twice as long as calyx
 5190 Anthers bearded, Bractes ovate next cal. Cor. 4-cleft thrice as long as calyx
 5191 Anthers bearded, Bractes ovate next cal. Cor. 4-parted scarcely twice as long as calyx
 5192 Anthers bearded included, Cal. leafy, Bractes remote from fl. Leaves 4 spreading smooth
 5193 Anthers beardless, Flowers terminal, Two bractes next fl.: one remote, Cor. viscid-hairy
 5194 Cal. rhomboid-spatulate, Cor. woolly inside, Leaves narrow-ovate cuneate pectinate
 5195 Anth. beardless, Fl. term. Two bractes next fl.: one remote, Cor. smooth, Sepals lin. lanceolate
 5196 Anth. bearded, Two bractes next fl.; one remote, Leaves 6, Beards of anth. very short
 5197 Anth. bearded, Bractes remote, Leaves 4 smooth, Beards of anth. very long
 5198 Anth. beardless, Fl. term. 8, Bractes remote, Leaves 4, Sepals terminated by 3 or more bristles
 5199 Anth. beardless, Fl. term. Two bractes next cal.; one remote, Cor. smooth, Sepals ovate acuminate
 5200 Pubescent, Two subul. bractes next cal. Leaves decussate 4, Cor. villous many times longer than calyx
 5201 Cal. minutely ciliated, Tube narrow-cylindrical urceolate, Anthers beardless
 5202 Anth. beardless, Fl. term. 4, Cal. imbric. Sepals ovate oblong acute, Leaves recurved ciliated
 5203 Anth. beardless, Fl. term. many, Cal. imbric. Leaves recurved terminated by a bristle

C. LIMBATE. *Corolla elongated, narrowed upwards, with a flat limb.*

- 5204 Anth. beardless, Leaves ciliated and flowers 4, Sepals subulate, Stigma exserted
 5205 Anth. bearded, Bractes remote, Leaves 4 ciliated, Beards of anth. very short
 5206 Anth. bearded included, Leaves 4 ciliated, Fl. capitate, Bractes remote
 5207 Anth. bearded included, Cor. globose ovate, Leaves opposite and scattered fringed with glands linear

- 5208 Anth. beardless, Fl. terminal 3, Leaves 3, Bractes remote, Sepals subulate, Cor. 4-cornered
 5209 Anth. included beardless, Fl. umbelled, Bractes remote
 5210 Anth. beardless, Fl. term. 3, Leaves 3, Bractes remote, Sepals ovate oblong
 5211 Anth. beardless, Fl. term. 4, Leaves 4, Bractes remote
 5212 Flowers long conical striped, with a flat limb, The whole surface of corolla shining
 5213 Anth. beardless, Fl. term. 8, Leaves 4, Bractes remote, Sepals terminated by a long bristle
 5214 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals from a broad base, subulate, entire
 5215 Anth. beardless, Fl. term. Leaves 4 smooth, Cor. slender, Style included
 5216 Anth. beardless, Fl. term. 4, Cal. imbricated, Sepals ovate acuminate serrulate
 5217 Anth. beardless included, Flowers fasciated, Style included, Leaves 4

- 5218 Anth. included beardless, Leaves 4 smooth erect, Fl. term. Cal. imbricated leafy
 5219 Anth. beardless, Leaves 3, Fl. term. Fl. 3, Bractes remote, Cor. viscid
 5220 Anth. bearded, Style included, Flowers terminal, Leaves lin. 2 smooth, Branches deflexed
 5221 Anth. beardless included, Style included, Leaves 4, Flowers clustered

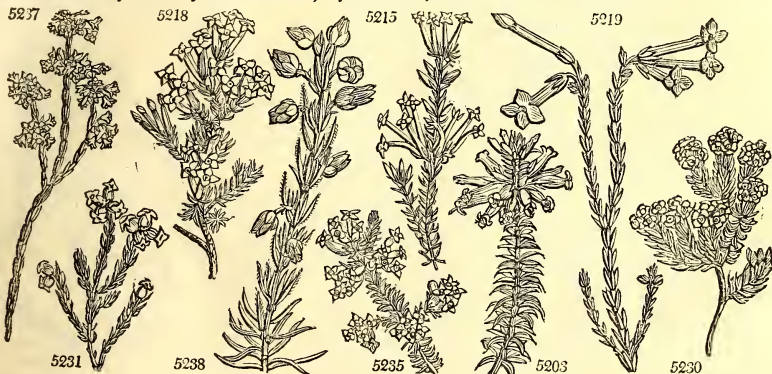
- 5222 Anth. beardless, Cor. somewhat 4-cornered, Sepals lanceolate entire, Fl. term. sessile, Leaves 4 smooth
 5223 Cal. ovate cuspidate scarcely serrated, Cor. three lines long, Limb twice as short as tube recurved
 5224 Leaves 4 spreading, Fl. 4 terminal
 5225 Leaves 4 erect, Fl. simple on little axillary branches, Cor. ovate
 5226 Leaves 3 smooth erect imbricated, Fl. 3 terminal, Cor. hypocrateriform, Tube slender
 5227 Anth. beardless included, Sepals membranous ciliate toothed, Fl. term. sessile, Leaves 4 smooth
 5228 Anth. beardless included, Leaves 4-6, Fl. axill. Bractes remote, Limb of cor. revolute, Ovary smooth
 5229 Anth. beardless, Fl. terminal, Cal. imbricated, Fl. 4. Sepals oblong obtuse, Leaves recurved setose
 5230 Anth. beardless, Flowers terminal subsessile 5, Bractes next calyx, Leaves spreading 5

- 5231 Leaves short erect, imbricated, Flowers terminal solitary, Tube ovate, Limb recurved
 5232 Leaves 3 filiform spreading, Fl. 3 term. rotate, Stamens and styles exserted
 5233 Leaves dense acerose smooth erect, Fl. axillary, Tube cylindrical
 5234 Leaves densely imbricated erect, Flowers large axillary, Petals sawed
 5235 Leaves dense spreading, Fl. 4 terminal, Tube ovate longer than limb
 5236 Leaves 4 narrow erect smooth, Flowers terminal 4 very numerous, Tube ventricose

D. CALYCINÆ. *Corolla inclosed in the inflated calyx.*

- 5237 Anthers crested, Cor. ovate, Style included, Cal. turbinate, Leaves 3, Flowers umbelled

- 5238 Anthers crested, Bractes remote, Leaves 3 much longer than the joints green
 5239 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal, numerous
 5240 Anth. crested, Leaves 3, Cal. imbricated, Style included, Flowers terminal three



and Miscellaneous Particulars.

sifted very fine and mixed with fine sand. Earth of peat is obtained by collecting peats from bogs or turf from the surface of peaty wastes and moist places, and laying the peats or turves in a heap to rot and moulder into earth. This they will require several years to do; but in the meanwhile a portion of mould may be obtained whenever it is wanted, by turning the turves and sifting the fragments. Sometimes this peat is found without any mixture of sand; at other times, where streams have run into the bog or lake while the peat was forming, it is mixed with fine sand that had been held suspended in the water. This last is the best sort of peat for the *Erica* family; and therefore where peat is not sandy naturally, fine white sand

5241 flagelláris Lk.	wiry	■	pr	1½	my	P.y	C. G. H.	1820.	C	s.p	
5242 bractéata Thunb.	red-bracted	■	or	1	my.jn	R	C. G. H.	1800.	C	s.p	
5243 túrgida Lk.	turgid	■	el	1	ap.jl	Pu	C. G. H.	1821.	C	s.p	
5244 lachneafólia Andr.	Lachnea-leav'd	■	de	1½	my.jl	W	C. G. H.	1793.	C	s.p	And. heaths, v.3
5245 nigrita L.	black-tipped	■	cu	1	mr.jn	W	C. G. H.	1790.	C	s.p	And. heaths, v.1
5246 báccans L.	Arbutus-flower.	■	or	1½	ap.jn	W	C. G. H.	1774.	C	s.p	Bot. mag. 358
5247 fúgax Salisb.	fugacious	■	or	1½	mr.ap	Pu	C. G. H.	1800.	C	s.p	
5248 triúmphant Lodd.	conquering	■	el	2	my.jn	W	C. G. H.	1802.	C	s.p	Bot. cab. 257
5249 phylícoides W.	phlyca-like	■	or	1½	ap.jn	W	C. G. H.	1800.	C	s.p	
5250 incúrva Wendl.	incurved	■	de	1½	my.jl	W	C. G. H.	1821.	C	s.p	
5251 tenuifólia L.	slender-leaved	■	or	1½	ap.my	Pk	C. G. H.	1794.	C	s.p	Seb.mu.1.t.73.f.6
5252 Thunbérgia W.	Thunberg's	■	pr	1½	my.au	O	C. G. H.	1794.	C	s.p	Bot. mag. 1214
5253 taxifólia H. K.	Yew-leaved	■	or	1	jl.n	Pu	C. G. H.	1788.	C	s.p	And. heaths, v.1
5254 petioláta Thunb.	Rosemary-leav.	■	or	1	mr.jl	Pa.pu	C. G. H.	1774.	C	s.p	And. heaths, v.3
5255 imbricáta L.	woolly	■	cu	1	my.au	Pk	C. G. H.	1786.	C	s.p	
5256 velleriflóra Satisb.	imbricly-flower'd	■	cu	1½	f.jn	W	C. G. H.	1774.	C	s.p	And. heaths, v.1
5257 Bruniádes L.	Brunia-like	■	cu	1½	ap.jn	W	C. G. H.	1790.	C	s.p	W.er.16 p.53.c.1c
5258 capitáta L.	downy-headed	■	or	1½	mr.jl	Y	C. G. H.	1774.	C	s.p	And. heaths, v.1
5259 párens Andr.	spreading	■	or	1½	mr.jn	Pu	C. G. H.	1800.	C	s.p	And. heaths, v.3
5260 imbríáta Andr.	fringed	■	or	1½	mr.jn	Pa.pu	C. G. H.	1800.	C	s.p	And. heaths, c.1c
5261 melanthéra Thunb.	dark-anthered	■	el	1½	jn	Pa.pu	C. G. H.	1803.	C	s.p	Bot. cab. 867
5262 fáccida Lk.	farric	■	de	1	my	W	C. G. H.	1822.	C	s.p	
5263 sexfária H. K.	six-angled	■	or	1½	my.au	W	C. G. H.	1774.	C	s.p	And. heaths, v.2
5264 frágrans Andr.	fragrant	■	ft	1	mr.jn	Pu	C. G. H.	1803.	C	s.p	And. heaths, v.2
5265 oppositifólia Andr.	opposite-leaved	■	or	1½	mr.my	W	C. G. H.	1804.	C	s.p	And. heaths, v.3
5266 biflóra Lk.	two-flowered	■	de	1	ap.jn	W	C. G. H.	1819.	C	s.p	Bot. cab. 633
5267 spumósa L.	frothy	■	de	1½	my.au	W	C. G. H.	1786.	C	s.p	Bot. cab. 566
5268 vulgáris L.	common	■	ec	1½	f.jl	Pu	Britain	heaths.	C	s.p	Eng. bot. 1013
<i>Calluna vulgaris</i> Sal.											
β álba	white-flowered	■	or	2	f.jl	W	.....	...	C	s.p	
γ flore pleno	double-flowered	■	or	2	f.jl	Pu	.....	...	C	s.p	
5269 gláuca Sal.	glaucous	■	or	2	my.jl	D.Pu	C. G. H.	1792.	C	s.p	Bot. mag. 580
5270 pyrolæfóra Sal.	Pyrola-flower'd	■	or	1½	my.jl	W	C. G. H.	1790.	C	s.p	
5271 láxa Andr.	loose-flowered	■	or	1½	f.s	B	C. G. H.	1800.	C	s.p	And. heaths, v.3
5272 lúcida Andr.	lucid	■	or	1½	ap.jn	D.Pu	C. G. H.	1800.	C	s.p	And. heaths, v.2
5273 squamósa Andr.	scaly-cupped	■	or	1½	ap.jn	F	C. G. H.	1794.	C	s.p	And. heaths, v.3
5274 togáta B. M.	large-cupped	■	or	1	ju.jl	R	C. G. H.	1812.	C	s.p	Bot. mag. 1626
5275 canaliculáta Andr.	channelled	■	or	1	f.au	R	C. G. H.	1799.	C	s.p	And. hea. vol. 3
5276 horizontális Andr.	horizontal-lvd.	■	de	1½	jl.s	Pk	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5277 glóbósa W.	globular-flower.	■	or	1½	jl.s	Pk	C. G. H.	1789.	C	s.p	
5278 gnaphalódes W.	Gnaphal.-like	■	cu	1	f.au	W	C. G. H.	1812.	C	s.p	P.m.68.t.346.f.11
5279 rubélla Lodd.	thrift-flowered	■	pr	2	jn	Pk	C. G. H.	1814.	C	s.p	Bot. mag. 2165
5280 árdens Andr.	glowing	■	or	2	ap.jn	S	C. G. H.	1800.	C	s.p	Bot. reg. 115
5281 nitida Andr.	nitid	■	de	2	jl.o	W	C. G. H.	1800.	C	s.p	And. hea. vol. 3
5282 physódes L.	sticky	■	de	1½	mr.jl	W	C. G. H.	1783.	C	s.p	Bot. mag. 443
5283 viridipurpúrea W.	green and purp.	■	or	3	my.au	G.Pu	Portugal	...	C	s.p	Li. er. n.9.c.fig.fl
5284 arbórea L.	tree	■	or	5	f.jn	W	S. Europe	1658.	C	s.p	
β stylósa P. S.	long-styled	■	pr	5	f.jn	W	S. Europe	1658.	C	s.p	
5285 resinósa B. M.	varnished	■	or	1½	my.au	O	C. G. H.	1803.	C	s.p	Bot. mag. 1139
5286 Lambertia Andr.	Lambert's	■	de	1	my.au	W	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5287 incarnáta Thunb.	flesh-colored	■	or	1½	my.au	R	C. G. H.	1791.	C	s.p	And. hea. c.1c.
5288 rúbens Thunb.	red-flowered	■	or	1	jn.s	D.R	C. G. H.	1798.	C	s.p	Bot. cab. 557
5289 fibula Lk.	button	■	or	1½	jl	Pu	C. G. H.	1823.	C	s.p	
5290 axilláris Thunb.	axil-flowered	■	or	1	my.jl	Pk	C. G. H.	1798.	C	s.p	
5291 margaritácea Thunb.	pearl-flowered	■	el	1½	my.s	W	C. G. H.	1775.	C	s.p	And. hea. vol. 1
5292 péndula Wendl.	pendulous	■	or	1½	jl.au	Pu	C. G. H.	1791.	C	s.p	W.e. 10.p.13.c.1c
5293 laterális W.	side-flowered	■	cu	1½	mr.jl	R	C. G. H.	1791.	C	s.p	And. hea. vol. 1
5294 empetrifólia L.	Crowberry-lvd.	■	or	1½	ap.jn	Pu	C. G. H.	1774.	C	s.p	Bot. mag. 447
5295 incúrva Andr.	incurved	■	de	1	mr.my	W	C. G. H.	1802.	C	s.p	And. hea. c.1c



History, Use, Propagation, Culture,

or sand of any color, provided it be free from iron impregnation, should be procured and mixed with it. This sand admits the water to penetrate into the soil and reach the roots of the plant, and also to drain away from the roots so as not to rot them. Pots filled with pure peat-earth are apt to be either hard, dry, and impenetrable to water, or otherwise as wet as a saturated sponge. The free growing kinds (according to Sweet) thrive best in good black peat, and like largish pots to grow in. The dwarf and hard-wooded kinds like a very sandy peat, and smaller pot, well drained with broken potsherds and rough bits of turfy peat; they also require less water than the free growing kinds, as they grow chiefly at the Cape on the tops and sides of mountains, and in the crevices of rocks, &c. chiefly in very sandy soil, and but little of it.

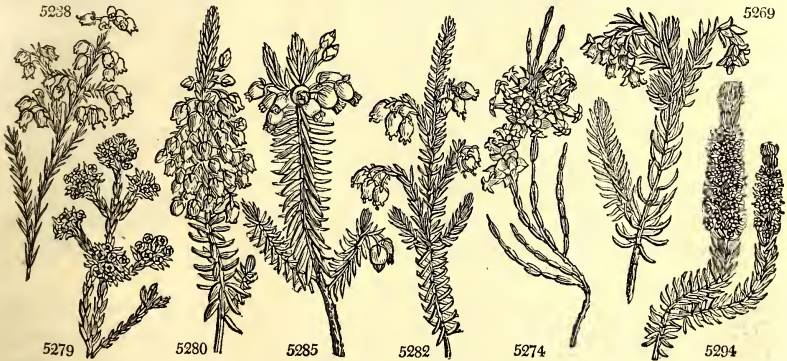
- 5241 Anth. crested, Leaves 3, Cal. imbricated, Sepals carinate, Flowers terminal three, Style included
- 5242 Anth. beardless, Leaves 3 lanceolate smooth, Fl. umbelled surrounded by colored bracts
- 5243 Anthers crested, Leaves 3 mucronate smooth with a white edge, Sepals lanceolate, Flowers terminal
- 5244 Anthers bearded, Leaves 3 oval imbricated, Flowers capitate
- 5245 Anthers bearded, Leaves 3 smooth, Cor. campanulate, Style included, Flowers 3 sessile
- 5246 Anthers bearded, Leaves 4, Appendages subulate pectinate longer than the anther
- 5247 Anthers bearded, Style included, Cor. ovate 4-cornered, Fl. terminal 3, Leaves 3 or 4, Stem pubescent
- 5248 Leaves long ciliated spreading, Fl. axill. Cor. cylindrical, Cal. with keeled sepals
- 5249 Anth. bearded included, Style included, Cor. campan. Fl. axill. nodding, Leaves 3 imbricated 6 ways
- 5250 Anth. beardless exserted, Style exserted, Cor. campan. Fl. terminal capitate, Leaves 4-incurved ciliated
- 5251 Anth. beardless included, Cor. and calyx scarlet, Leaves opposite
- 5252 Anth. beardless, Cor. flat, Tube globose, Style exserted, Leaves 3
- 5253 Anth. beardless included, Cor. ovate, Flowers in umbelled corymbs, Lvs. 3 triangular cartilagin. at edge
- 5254 Anthers beardless exserted, Style exserted, Cor. campanulate, Flowers 3 terminal, Lvs. 3 lanc. smooth
- 5255 Anthers beardless exserted, Cor. campanulate, Cal. imbricated, Style exserted, Leaves 3
- 5256 Anthers much exserted beardless, Cor. campanulate length of the very hairy calyx, Leaves spreading
- 5257 Anthers much exserted beardless, Cor. campanulate longer than the very hairy calyx, Leaves erect
- 5258 Anthers beardless included, Cor. globose campan. Cal. woolly, Flowers sessile, Lvs. 3 lin. obtuse villous
- 5259 Anthers beardless included, Leaves broadish, Fl. terminal, Cal. imbricated
- 5260 Anthers beardless included, Leaves 3 lines long, Fl. capitate, Cal. ciliated
- 5261 Anthers beardless of middle length, Cor. campan. longer than cal. Style exserted, Leaves 3
- 5262 Leaves 4 hairy, Fl. capitate, Sepals and bracts very hairy, Cor. globose, Anthers beardless exserted
- 5263 Anthers beardless exserted, Style exserted, Cor. campan. Leaves 3 imbricated in 6 rows
- 5264 Anthers beardless, Leaves linear 3 smooth, Limb of cor. revolute
- 5265 Anthers beardless, Leaves appressed, Fl. capitate, Cor. limbate
- 5266 Leaves 2 channelled, Fl. term. on short stalks, Sepals ovate acute, Anth. included crested
- 5267 Anth. beardless included, Cor. 3, Style exserted, Leaves 3
- 5268 Anthers bearded, Leaves opposite sagittate

- 5269 Anth. crested, Leaves 3 erect spreading much longer than joints glaucous, Bracts remote from calyx
- 5270 Leaves wedge-shaped, Cal. ovate cuneate, Cor. 4-cornered spherical, Anthers bearded
- 5271 Anth. crested, Leaves 3 ciliated, Cal. imbricated, Style exserted
- 5272 Anth. crested, Leaves 3 smooth, Cal. imbricated, Style exserted
- 5273 Anth. crested, Leaves 4
- 5274 Anth. crested, Leaves opp. appressed, Cal. large cup-shaped, Sepals rounded mucronate
- 5275 Anth. beardless, Leaves 3, Bracts remote, Cor. campan.
- 5276 Anth. beardless, Leaves and flowers 4
- 5277 Anth. beardless, Leaves 4, Flowers 8
- 5278 Anth. crested, Cor. ovate covered, Style included, Leaves 3, Stigma 4-parted
- 5279 Anth. beardless, Leaves opposite imbricated appressed, Umbels terminal many-flowered

E. GLOBOSÆ. *Corolla small, globose.*

- 5280 Cor. globose, Anth. crested, Two bracts next the calyx, the third remote
- 5281 Cor. globose, Anth. crested, All bracts close to calyx
- 5282 Cor. globose, Anth. crested, Bracts remote from cal. Leaves glandular at edge, Sepals ovate
- 5283 Anthers bearded, Cor. campanulate, Style included, Leaves 3, Flowers scattered
- 5284 Anth. bearded, Style exserted, Cor. camp. globose, Leaves 3 or 4 roughish, Branches pubescent

- 5285 Cor. globose glutinous, Anth. crested, Bracts remote, Leaves roughish
- 5286 Cor. globose, Leaves quite smooth, Anth. crested
- 5287 Anth. crested, Leaves 3 ovate smooth, Flowers umbelled ovate, Cal. entire, Branches villous
- 5288 Anth. crested, Leaves 3 linear smooth, Fl. umbelled globose, Cal. lanceolate short, Branches smooth
- 5289 Leaves 3 or 4 spreading finely ciliated, Fl. terminal, Bracts remote, Sepals ovate, Anth. included crested
- 5290 Anth. beardless, Leaves 3 triangular smooth, Fl. racemose globose, Branches downy
- 5291 Anth. crested, Style exserted, Cor. globose campanulate, Fl. terminal umbelled, Leaves 4 smooth erect
- 5292 Anth. crested, Style included, Cor. ovate, Umb. many-fl. terminal, Leaves 4 or 5, Branches pendulous
- 5293 Anth. bearded, Cor. globose camp. Cal. appressed ciliated, Fl. term. and axill. 1-sided, Lvs. 4 horizontal
- 5294 Anth. bearded, Style exserted, Cor. campanulate, Fl. whorled, Leaves 6 linear hairy
- 5295 Anth. beardless exserted, Cor. campanulate, Fl. term. capitate, Leaves 4 incurved ciliated



and Miscellaneous Particulars.

The climate for the heaths is not required to be warm during winter; if the frost is excluded, that will be enough. Some species, as the *E. persoluta* for example, will even bear to have the ground about their roots frozen without injury, provided it is not thawed in the sun, or too suddenly, or in a very warm temperature. In general the heaths may be kept in the coldest part of the greenhouse, and those not in flower in pits, well covered at night with mats or prepared coverings of reeds or straw. Too much fire-heat in winter will hurt them as much as any thing, as they only require to be kept from frost: most of the kinds might be preserved through the winter in frames: the only difficulty is to keep the damp from them.

Heaths require a great deal of air and light, and therefore should be placed near the glass and near such

5296 planifolia L.	flat-leaved	莖	or	2	jl.s	Pu	C. G. H.	1795.	C s.p	W. er. 8.p.7.c.ic.
5297 serpyllifolia Lodd.	thyme-leaved	莖	pr	2	jn.jl	W	C. G. H.	1810.	C s.p	Bot. cab. 744
5298 marifolia Thunb.	Marum-leaved	莖	or	2	my.jn	W	C. G. H.	1773.	C s.p	And. hea. vol. 1
5299 hispidula Thunb.	bristly-stemmed	莖	el	1	jn.au	Pu	C. G. H.	1791.	C s.p	
5300 Scholliana Lodd.	Scholl's	莖	cu	14	my.jn	Pu	C. G. H.	1810.	C s.p	Bot. cab. 538
5301 Blandfordia Andr.	Ld. Blandford's	莖	or	13	mr.jn	Y	C. G. H.	1803.	C s.p	And. hea. vol. 3
5302 sanguinolenta Lodd.	blood-colored	莖	pr	13	my.jl	R	C. G. H.	1818.	C s.p	Bot. cab. 468
5303 Savillea Andr.	clavate	莖	or	3	jn.jl	R	C. G. H.	1800.	C s.p	And. hea. c. ic.
5304 aggregata Wendl.	clustered	莖	el	1	my.jl	Pu	C. G. H.	1820.	C s.p	
5305 congesta Wendl.	white flowered	莖	el	1	my.jl	W	C. G. H.	1822.	C s.p	
5306 paniculata L.	close-headed	莖	el	1	jn.jl	W	C. G. H.	1820.	C s.p	
5307 paniculata L.	panicled	莖	or	1	f.ap	R	C. G. H.	1774.	C s.p	
5308 paniculata L.	white-flowered	莖	or	1	f.ap	W	C. G. H.	1774.	C s.p	
5307 suaveolens Lodd.	sweet-scented	莖	el	1	au	Pk	C. G. H.	1800.	C s.p	Bot. cab. 24
5308 amœna Wendl.	feathery	莖	or	1	mr.jl	Pu	C. G. H.	1795.	C s.p	W.e.17.p.73.c.ic
5309 levis Andr.	plumosa Andr.	莖	de	1	my.jn	W	C. G. H.	1821.	C s.p	
5310 Peziza Lodd.	mushroom	莖	de	1	mr.s	W	C. G. H.	1812.	C s.p	Bot. cab. 265
5311 gracilis Wendl.	gracile	莖	or	2	f.jn	W	C. G. H.	1794.	C s.p	W. er. 8.p.9.c.ic.
5312 nidularia Lodd.	nestling	莖	pr	2	mr.ap	Pk	C. G. H.	1809.	C s.p	Bot. cab. 764
5313 persolata L.	garland	莖	or	13	f.my	Pu	C. G. H.	1774.	C s.p	Bot. mag. 342
5314 grandinosa Lodd.	hallstone	莖	pr	1	mr.ap	W	C. G. H.	1810.	C s.p	Bot. cab. 627
5315 pubescens L.	pale-downy	莖	or	1	f.d	Pu	C. G. H.	1790.	C s.p	
5316 hirtiflora H. K.	hairy-flowered	莖	cu	1	ap.jn	Pu	C. G. H.	1790.	C s.p	Bot. mag. 481
5317 mistifolia Lk.	cistus-leaved	莖	cu	1	my.jn	W	C. G. H.	1823.	C s.p	
5318 mucosa L.	mucous	莖	el	13	f.au	R	C. G. H.	1787.	C s.p	And. hea. vol. 1
5319 ramentacea L.	slender-branch.	莖	el	13	jd	D.R	C. G. H.	1786.	C s.p	And. hea. vol. 1
5320 mellifera Lk.	honey-bearing	莖	or	1	ap.my	Pu	C. G. H.	1820.	C s.p	
5321 odorata Andr.	perfumed	莖	de	1	ap.jl	W	C. G. H.	1804.	C s.p	Bot. cab. 633
5322 canescens Andr.	hoary	莖	el	13	my.au	Pk	C. G. H.	1790.	C s.p	And. hea. vol. 2
5323 eriocéphala A. H.	pure	莖	pr	2	aus	W	C. G. H.	1807.	C s.p	Bot. cab. 72
5324 racemosa Thunb.	racemed	莖	el	13	ap.my	Pk	C. G. H.	1795.	C s.p	W. er.10.p.3.c.ic
5325 absinthoides L.	wormwood-like	莖	or	13	mr.jn	Pu	C. G. H.	1792.	C s.p	
5326 scariosa Thunb.	many-flowered	莖	or	1	jn.jl	Pu	C. G. H.	1800.	C s.p	Bot. cab. 477
5327 campanulata Wendl.	bell-flowered	莖	el	1	ap.au	Y	C. G. H.	1791.	C s.p	And. hea. vol. 1
5328 scoparia L.	small-green-fl.	莖	pr	6	ap.my	G	C. G. H.	1770.	C s.p	L.e. n. 14.c.fig.fl.
5329 triceps Lk.	three-headed	莖	de	1	my.jn	W	C. G. H.	1820.	C s.p	
5330 coarctata Wendl.	crowded	莖	cu	1	my.s	Pu	C. G. H.	1801.	C s.p	
5331 actæa Lk.	Actæon	莖	pr	1	my.jn	Pa.pu	C. G. H.	1822.	C s.p	
5332 conferta Andr.	crowded-flower.	莖	de	13	fo	W	C. G. H.	1800.	C s.p	And. hea. vol. 2
5333 penicilliflora Sat.	white-pencilled	莖	cu	2	my.au	W.Br	C. G. H.	1792.	C s.p	We.er.4.p.5.c.ic.
5334 villosa Andr.	villous	莖	cu	f.jn	W	C. G. H.	1800.	C s.p	And. hea. vol. 3	
5335 tiaræflora Andr.	turban-flowered	莖	pr	my.au	R	C. G. H.	1800.	C s.p	And. hea. vol. 3	
5336 mutabilis Andr.	mutable	莖	pr	f.fo	Cr	C. G. H.	1798.	C s.p		
5337 obliqua W.	oblique-leaved	莖	or	13	au.o	Pu	C. G. H.	1789.	C s.p	And. hea. vol. 1
5338 flava Andr.	three-lvd.-yell.	莖	el	13	s.ap	Y	C. G. H.	1795.	C s.p	Bot. cab. 882
5339 decora Andr.	graceful	莖	el	2	jan	Pu	C. G. H.	1790.	C s.p	And. hea. vol. 3
5340 cordata Andr.	heart-leaved	莖	de	5	ap.jn	W	C. G. H.	1799.	C s.p	And. hea. vol. 3
5341 Sparserina W.	Sparrow-wort	莖	cu	my.n	W	C. G. H.	1800.	C s.p	Pet. gaz. t. 3. f. 7	
5342 setacea Andr.	bristly-leaved	莖	pr	13	f.au	R	C. G. H.	1796.	C s.p	And. hea. vol. 1
5343 tenuissima P. S.	slender	莖	pr	f.au	W	C. G. H.	1803.	C s.p	W. er. 6.p.9.c.ic.	
5344 floribunda Lodd.	many-flowered	莖	cu	1	my.jn	Pa.pu	C. G. H.	1800.	C s.p	Bot. cab. 176



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glass as may be opened to admit air every mild day in the year. They require also very regular supplies of water; not much at a time, but so frequently that the earth may never get dry or the plant droop. Many kinds of plants, if they have suffered for want of water, may be recovered by an abundant supply, and placing them under a bell-glass on a little heat; but if once the roots of a heath are thoroughly dried, no art of the gardener will recover the plant. This is the true reason why so many heaths are destroyed when introduced as chamber plants, and also by gardeners who are ignorant of their nature.

Heaths are propagated by cuttings, seeds, and a few by layers. In propagating by cuttings, the tender tops are taken at whatever season of the year they begin to grow, which with most sorts is about the month of June. The strong growing kinds require the cuttings to be rather larger than the others, and some of the stunted growing kinds should be kept in the hot-house a little while when they begin to grow, to draw them to a sufficient length of young wood, or cuttings cannot be procured. Then take the extreme points of the shoots, and with a sharp penknife cut off their lower ends at right angles, placing the cutting on the nail of the thumb, as in cutting the nib of a pen. The cutting will be from three quarters to an inch long; strip off the leaves from the lower end to nearly half the length of the cutting; and, in order that this may be done

- 5296 Anth. bearded exserted, Cor. campanulate, Leaves 3 or 4 ovate acute fringed with glands
 5297 Leaves 3 ovate, Fl. very minute 3-6 term. Style long exserted
 5298 Anth. bearded, Cor. ovate conical, Style middling, Leaves 3 ovate pubescent white beneath
 5299 Anth. beardless included, Cor. roundish, Leaves 3 ovate acute ciliated, Stem hispid
 5300 Shoots long, Leaves smooth erect imbricated, Fl. axillary, Cor. globose shorter than stalk nodding
 5301 Tube of cor. cup-shaped, Fl. axillary, Cal. imbric. Leaves 4
 5302 Leaves 3 spreading acerose, Cor. campanulate rough with short hairs
 5303 Bractes remote, Cor. with a short open limb, Anth. included bearded
 5304 Flowers capitate, Bractes remote, Cor. hairy, Anth. included bearded
- 5305 Leaves hairy, Flowers capitate, Anth. included bearded
 5306 Bractes remote, Flowers very abundant, Anth. included bearded, Style exserted
- 5307 Leaves 3 ovate ciliated spreading, Fl. term. 3, Bractes remote, Cor. ovate shorter than its stalk
 5308 Anth. bearded, Style included, Cor. camp. Cal. villous, Fl. axill. whorled, Leaves 4 imbric. villous
- 5309 Anth. included bearded, Fl. capitate, Bractes remote
 5310 Leaves 3 narrow spreading, Cor. 4 globose campanulate [quite smooth
 5311 Anth. bearded, Style exserted, Cor. camp. Sepals linear smooth, Fl. terminal umbelled, Leaves 4, Stem
 5312 Branches slender upright, Leaves 3 short smooth, Fl. clustered terminal, Cor. globose campanulate
 5313 Anth. bearded, Style included, Cor. camp. Sepals ciliated, Leaves 3-4 smooth, Branches pubescent
 5314 Leaves 2 spreading very narrow, Leaves 3 terminal, Cor. globose smooth
 5315 Anth. bearded, Style included, Cor. ovate pubescent, Leaves 3 hairy, Stem hairy
 5316 Anth. bearded, Leaves 4 or more hairy, Fl. terminal, Cor. pubescent
- 5317 Leaves 4 covered with glandular hairs, Fl. capitate, Bractes none, Cal. hairy, Anth. included bearded
 5318 Anth. bearded, Cor. globose mucous, Ped. 3 term. longer than fl. Leaves 4 linear with a cartil. serrul. edge
 5319 Anth. crested, Style included, Cor. globose, Fl. umb. Leaves 4 linear 3-cornered smooth
 5320 Leaves 4 and branches hairy, Fl. capitate 4 or more, Cal. leafy, Anth. exserted bearded, Style long exserted
 5321 Anth. beardless, Bractes remote
 5322 Anth. beardless, Leaves linear 3 smooth, Limb of cor. revolute
- 5323 Leaves 3 short smooth, Fl. solitary term. Cor. ovate smooth, Anth. a little exserted
 5324 Anth. beardless, Leaves 4 lanceolate villous, Fl. racemose, Cal. downy
 5325 Anth. beardless included, Cor. ovate campanulate, Style exserted, Stigma funnel-form, Leaves 3
 5326 Anth. beardless, Leaves 3 linear smooth, Fl. camp. racemose, Bractes remote
 5327 Anth. beardless, Leaves linear 3 smooth, Limb of cor. spreading recurved
 5328 Anth. beardless, Leaves linear 3 smooth, Limb of cor. erect
 5329 Anth. beardless exserted, Leaves 3 ciliated at base, Fl. term. 3, Sepals scarious
 5330 Anth. beardless included, Stigma calypteate, Cor. dilated upwards, Bractes remote
 5331 Anth. beardless exserted, Leaves 3 smooth, Fl. term. Style exsert. Stigma peltate
 5332 Anth. beardless, Leaves linear 4 smooth, Flowers terminal nearly 12
 5333 Anth. beardl. exsert. Cor. urceol. smooth, Fl. term. umb. Leaves 3 pointed ciliated imbricated
- 5334 Anth. beardless exserted, Fl. urceolate villous, Leaves 3 revolute villous
 5335 Anth. beardless exserted, Fl. cernuous turban-shaped covered by calyx, Leaves 3
 5336 Leaves 3 or 4, Fl. terminal 2, Cor. downy changing from green to crimson
 5337 Anth. crested, Cor. ovate viscid, Fl. term. umb. Leaves scattered arcuate truncate
 5338 Leaves 3 erect imbricated smooth, Fl. axill. Cor. urceolate, Style exserted
 5339 Anth. beardless included, Fl. axillary spiked, Cor. campan. ribbed, Leaves 6 obtuse
 5340 Anth. beardless, Leaves 3 ovate villous
 5341 Anth. beardless, Leaves 3, Cal. 4-cleft very densely downy
 5342 Anth. beardless, Leaves 3 hispid, Sepals hairy upwards, Cor. smooth
 5343 Anth. bearded included, Cor. very small obov. obt. smooth, Fl. umb. erect and cernuous, Lvs. 3-4 smooth
 5344 Leaves two distant, Fl. numerous very minute globose campanulate, Style exserted



and Miscellaneous Particulars.

without injuring the shoot, use a sharp penknife or a pair of small scissors, for the least bruise or wound spoils the cutting. This done, dibble the cuttings into pots filled with moistened white sand from pits, or with any small sand from pits or rivers, or, in default of that, with powdered sandstone. When they are all planted, water the whole to fix them still better, and when the moisture has subsided, cover them with a small crystal or greenish crystal bell-glass fitted within the rim of the pot, and place them in the shade on a spent hot-bed, keeping them quite close till rooted. The free-striking sorts will have roots in two months, and the others at different periods from three to twelve months, most of them will be ready for transplanting into pots of the smallest size in the following March. Their rooting is easily known by their beginning to shoot, and then the bell should be taken off an hour or two daily.

Many *Ericas* ripen their seeds in this country, and of other sorts seeds are regularly obtained by the nurserymen from the collectors at the Cape of Good Hope. Imported seeds generally arrive in the winter, and should be sown early in the spring following, in pots filled with equal parts of peat and sand well incorporated; the seeds should be thinly covered with earth gently pressed down, and bell-glasses placed over them as over the cuttings. The soil must be kept moderately moist by gentle waterings, and in about six or seven weeks

5345 australis L.	Spanish	ec	1	jn.s	Pu	Spain	1769.	C s.p	And. hea. vol. 3
5346 cinerea H. K.	fine-leaved	ec	1	jn.s	Pu	Britain	hea.	L s.p	Eng. bot. 1015
β alba	white-flowered	ec	or	1	jn.s	W			
5347 stricta Donn.	straight-branc.	ec	or	2	au.n	Pu	S. Europe	1765.	And. hea. vol. 2
5348 reflexa Lk.	reflexed	ec	or	1	my.jn	W	C. G. H.	1820.	C s.p
5349 cœrua L.	drooping-flow.	ec	or	1	au.d	Pu	C. G. H.	1791.	Bot. cab. 822
5350 lanceolata Pers.	spear-leaved	ec	or	1	jn.d	W	C. G. H.	1791.	C s.p
5351 leucanthera Andr.	white-tipped	ec	or	1	ja.my	W	C. G. H.	1803.	C s.p
5352 tétralix L.	cross-leaved	ec	or	1	jn.au	F	Britain	moi. h.	C s.p
β alba	white-flowered	ec	or	1	jn.au	W	.....	.....	L s.p
5353 cinerascens W. cn.	ash-colored	ec	or	1	ap.my	Pu	C. G. H.	1810.	C s.p
5354 uercularis T.unb.	pitcher-flower.	ec	or	1	my.jl	W	C. G. H.	1778.	C s.p
5355 cœcuba L.	cube-flowered	ec	or	1	ap.jl	Pu	C. G. H.	1790.	C s.p
5356 assurgens Lk.	rising	ec	or	1	my.jn	W	C. G. H.	1821.	C s.p
5357 nudiflora W.	small-bracted	ec	or	2	jl.au	D.Y	C. G. H.	1783.	C s.p
5358 incana Wendl.	hoary	ec	or	1	jn.au	W	C. G. H.	1810.	C s.p
β rubra	red-flowered	ec	or	1	jn.au	R	C. G. H.	1810.	C s.p
5359 regerminans W.	cluster-flower.	ec	or	1	my.au	R	C. G. H.	1791.	C s.p
5360 scabriuscula Lk.	roughish	ec	or	1	my.jn	W	C. G. H.	1805.	C s.p
5361 bracteolaris Lam.	many-bracted	ec	or	1	mr.jl	R	C. G. H.	1800.	C s.p
5362 protrudens Lk.	protruding	ec	or	1	ap.my	W	C. G. H.	1805.	C s.p
5363 flexuosa Andr.	zigzag	ec	or	1	ap.jl	W	C. G. H.	1792.	C s.p
divaricata We.ndl.									
5364 umbellata L.	umbelled	ec	or	3	my.jl	Pu	Portugal	1782.	C s.p
5365 staminea Andr.	reflexed-stam.	ec	or	2	jn.s	R	C. G. H.	1799.	C s.p
5366 latifolia Andr.	broad-leaved	ec	or	2	my.au	R	C. G. H.	1800.	C s.p
5367 cœrua L.	early-fl. dwarf	ec	pr	1	ja.ap	Pa.pu	Germany	1763.	L s.p
β herbacea Wendl.	herbaceous	ec	pr	1	jn.ap	Pk	.....	.....	L s.p
5368 mediterranea L.	Mediterranean	ec	or	4	mr.my	Pu	Portugal	1648.	C s.p
5369 arbœscula Lodd.	little tree	ec	pr	1	f.au	R	C. G. H.	1810.	C s.p
5370 vâgans L.	Cornish	ec	or	1	jl.au	R	Cornwall	hea.	C s.p
β alba	white-flowering	ec	or	1	jl.au	W	.....	.....	C s.p
5371 longipedunculata L.	long-stalked	ec	pr	1	jl.au	Pk	C. G. H.	1805.	C s.p
5372 ciliaris L.	ciliated	ec	or	1	jl.s	Pu	Portugal	1759.	C s.p
5373 pilosa Lodd.	pilose	ec	or	1	jn	W	C. G. H.	1800.	C s.p
5374 albens W.	pallid	ec	or	1	mr.au	W	C. G. H.	1789.	C s.p
5375 propendens Andr.	pendent	ec	or	1	jl.au	Pu	C. G. H.	1800.	C s.p
5376 pyramidalis B. M.	pyramidal	ec	pr	1	f.my	Pk	C. G. H.	1787.	C s.p
5377 echiiflora Andr.	Echium-flower.	ec	or	1	f.jn	Sc	C. G. H.	1798.	C s.p
5378 filamentosa Andr.	long-peduncled	ec	or	2	ja.d	Pu	C. G. H.	1800.	C s.p
5379 pulchella Thunb.	neat	ec	or	2	jn.s	R	C. G. H.	1792.	C s.p
5380 viscaria W.	clammy-flower.	ec	or	2	mr.jl	R	C. G. H.	1774.	C s.p
5381 viscariaulis H. K.	crook-stalked	ec	or	1	ja.my	Pu	C. G. H.	1800.	C s.p
glandulosa Andr.									
5382 tenella Andr.	delicate	ec	or	1	my.au	Pu	C. G. H.	1791.	C s.p
5383 alopecuroides Wen.	scurfy	ec	or	1	my.jn	Pa.pu	C. G. H.	1810.	C s.p
5384 furfurosa Sal.	column-thread.	ec	or	1	au.d	R	C. G. H.	1789.	C s.p
5385 multiflora W.	many-flowered	ec	or	2	jn.n	F	France	1731.	C s.p
5386 depræssa W.	depressed	ec	or	1	jn.au	Y	C. G. H.	1789.	C s.p
rupêstris Andr.									
5387 nana Sal.	dwarf	ec	or	1	my.au	Y	C. G. H.	1792.	C s.p
5388 palustris Andr.	marsh	ec	or	1	my.o	F	C. G. H.	1799.	C s.p
5389 formosa W.	beautiful	ec	or	2	jn.s	R	C. G. H.	1795.	C s.p
α alba	white-flowered	ec	or	2	jn.s	W	C. G. H.	1795.	C s.p
β rubra	red-flowered	ec	or	2	jn.s	R	C. G. H.	1795.	C s.p
5390 florida W.	florid	ec	or	1	my.au	R	C. G. H.	1803.	C s.p



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the seeds, if fresh, will begin to come up, when the glasses may be removed by degrees, and the pots kept near the glass, and shaded from the mid-day sun till autumn, when they may be transplanted into pots of the smallest size.

Seeds which are saved in this country may be sown as soon as gathered, if they ripen before November; but if after that period, it will be better to preserve them till spring, and then treat them like foreign seeds.

Only a few heaths are propagated by layers, such as E. Massoni, retorta, petiolata, and one or two other delicate sorts, which when layed require two years to throw out roots. On the continent most sorts of heaths are propagated by layers, because there they are ignorant of the easiest mode of making cuttings.

One of the best growers of heaths in Britain is a gardener of the name of Henderson, at Woodhall, in West Lothian. This judicious cultivator has had an extensive collection of Erica for upwards of thirty years under his care, and has given some account of his mode of management in a late volume (vol. iii. p. 323.)

F. OVATE. *Corollas small, not globose.*

5345 Anthers crested, Cor. cylindrical, Style exserted, Leaves 3 spreading
 5346 Anthers crested, Cor. ovate, Leaves 3, Stigma capitate

5347 Anth. bearded, Style included, Cor. ovate, Fl. term. umbelled, Leaves 4 lin. horizontal
 5348 Anth. crested included, Leaves 3 recurved rough at edge, Cal. short, Cor. campanulate viscid
 5349 Anth. crested, Leaves 4 ovate ciliated, Fl. capitate, Cal. ciliated
 5350 Anth. crested, Leaves 4 lanc. erect smooth, Fl. capitate cernuous
 5351 Anth. crested included, Fl. capitate, Leaves 3 or 4 lines long
 5352 Anth. crested, Cor. ovate, Style included, Leaves 4 ciliated, Fl. capitate

5353 Very like *E. cinerea*, but the branches and calyx are downy with long hairs, Leaves 5 ciliated
 5354 Anth. bearded, Cor. ovate-conical villous, Style included, Sepals lanceolate, Fl. umb. Leaves 3
 5355 Anth. beardless included, Cor. camp acute, Style included, Cal. 4 cornered, Leaves 4 spreading
 5356 Anth. bearded included, Leaves 4 spreading hairy, Cor. dilated at end, Fl. terminal
 5357 Anth. beardless exsert. Style exsert. Leaves 3, Branches downy
 5358 Anth. bearded included, Leaves obtuse hairy, Fl. capitate, Bractes remote, Cor. silky

5359 Anth. bearded, Cor. ovate, Style included, Cal. acute, Fl. racemose
 5360 Anth. bearded included, Style included, Cor slender, Leaves 4 obtuse glandular, Fl. capitate
 5361 Anth. crested included, Cor. prismatical, Leaves 3, Fl. in bundles, Bractes many imbric. involving the fl.
 5362 Anth. beardless nearly exserted, Leaves 4 spreading hairy, Fl. terminal umbelled, Sepals ovate
 5363 Anthers beardless exserted, Cor. oval twice as long as smooth calyx

5364 Anthers beardless exserted, Cor. campan. Style exserted, Leaves 3 acerose
 5365 Anth. exserted, Fl. axill. Leaves linear 3, Filam. very long reflexed
 5366 Anth. exserted, Fl. axill. Leaves 3 ovate
 5367 Anth. exserted, Fl. axill. Leaves linear 3 or 4, Bractes in middle of flower-stalks, Cor. conical

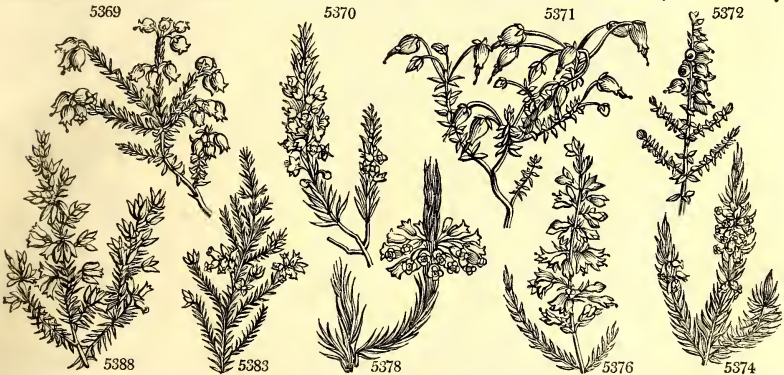
5368 Anth. exserted, Fl. axill. Leaves 4-5, Bractes above the middle of flower-stalk, Cor. urceolate
 5369 Leaves short spreading, Fl. terminal urceolate, Style a little spreading
 5370 Anth. exserted, Fl. axill. Leaves 4-5, Cor. campanulate, Pedunc. the length of cor.

5371 Anth. and style much exserted, Flowers axillary on very long slender hairy stalks
 5372 Cor. conical, Leaves 3 ovate ciliated, Anth. beardless
 5373 Plant all over hairy, Cor. ovate, Sepals brown at end, Stamens and style exserted
 5374 Cor. conical, Leaves 3 linear smooth, Anth. beardless
 5375 Cor. cylindrical, Fl. term. Bractes remote, Anth. beardless, Sepals ovate
 5376 Cor. cylind. dilated upwards, Fl. term. Bractes remote, Anth. beardless, Sepals subul. from a broad base
 5377 Cor. cylindrical dilated upwards, Fl. axill. Two bractes next cal. Sepals ovate oblong
 5378 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles longer than flower
 5379 Cor. cylindrical dilated upwards, Fl. axill. Sepals subulate, Peduncles much shorter than flower
 5380 Cor. cylindrical dilated upwards, Fl. axill. Sepals linear
 5381 Cor. conical, Anth. beardless, Leaves 4, Limb of cor. erect

5382 Anth. beardless, Leaves linear 4 smooth, Fl. terminal 4
 5383 Anth. beardless included, Fl. term. Bractes remote, Cor. narrowed upwards
 5384 Leaves 3, Anthers beardless exserted, Flowers terminal
 5385 Anth. exserted, Fl. axill. Bractes remote, Leaves lin. 5, Cor. camp. Limb reflex. Ped. twice as long as cor.
 5386 Cor. cylindrical, Fl. term. Bractes remote, Anth. bearded

5387 Stem spread on the ground, Leaves obtuse, Cor. dewy outside clavate, Anth. bearded
 5388 Anth. beardless included, Cor. linear downy, Leaves downy 4
 5389 Anth. crested, Leaves 3 ovate entire smooth, Fl. umb. furrowed, Cal. spreading entire

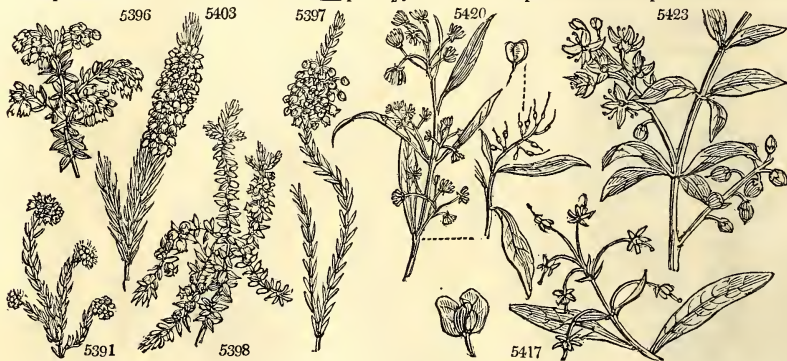
5390 Anth. bearded, Style included, Cor. globose, Cal. villous reflexed, Fl. term. umbelled, Leaves 4 hairy

*and Miscellaneous Particulars.*

of the Caledonian Horticultural Society's Memoirs. He keeps his *Ericas*, he says, "at all times cool and airy, opening the glasses in winter when there is no frost, and letting the wind blow on them, and using no fire but in time of frost." "Never," he says, "shift any plant till the pot is quite full of roots. When the plants get large, several of them will continue in good health for three or four years without shifting, and flower well. I have plants of *E. retorta* here, in pots seven inches in diameter, which are very bushy, being eighteen inches across, and fourteen inches high above the pot; *E. infundibuliformis*, two feet and a half in diameter, and two feet nine inches high; *Erica pilosa* between five and six feet high and three feet across, in pots eleven inches in diameter: these have not been shifted for five years, and are in high health, and covered with strong fine flowers from the mouth of the pot to the top of the plant." (*Caled. Mem.* iii. 327.)

"A prejudice," Page observes, "having spread that the culture of heaths is difficult, one of the greatest ornaments of the greenhouse has hence of late been neglected; although the method of culture is as easy and nearly as certain as that of the *Geranium*, but requiring a little more delicacy in the execution."

5391 <i>Solan'dra Andr.</i>	Solander's	葇	□	el	1	mr.s	Pk	C. G. H.	1800.	C	s.p	And. hea. vol. 2
5392 <i>acúta Andr.</i>	pointed-cupped	葇	□	de	1	my.jl	R	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5393 <i>empetróides Andr.</i>	close-flowered	葇	□	or	1½	my.au	R, L, F	C. G. H.	1788.	C	s.p	And. hea. vol. 2
5394 <i>turrigera Sal.</i>	Cypress	葇	□	or	1½	jn.s	R	C. G. H.	1796.	C	s.p	
5395 <i>Bergiána W.</i>	Bergius's	葇	□	cu	1½	ap.au	Pu	C. G. H.	1787.	C	s.p	And. hea. vol. 2
<i>quadriflóra Andr.</i>												
5396 <i>beáta Andr.</i>	bearded	葇	□	or	1	my.au	W	C. G. H.	1799.	C	s.p	And. hea. vol. 2
5397 <i>retroflex'a Wendt.</i>	jointed	葇	□	el	1	jl.s	W	C. G. H.	1787.	L	s.p	W. er. 8.p.7.c. ic.
<i>pulchélla Andr</i>												
<i>articuláris Thumb.</i>												
5398 <i>thymifólia Andr.</i>	Thyme-leaved	葇	□	de	¾	my.au	Pu	C. G. H.	1789.	C	s.p	And. hea. vol. 2
5399 <i>ténuis W. en.</i>	slender-flower.	葇	□	el	1	f.o	Pk	C. G. H.	1790.	C	s.p	
5400 <i>hirta W.</i>	hairy-leaved	葇	□	or	2	ap.jn	R, Pk	C. G. H.	1795.	C	s.p	Th. er. n. 56. t. 2
5401 <i>strigósa W.</i>	dwarf-downy	葇	□	or	1½	mr.ap	Pa, R	C. G. H.	1775.	C	s.p	
5402 <i>molléaris Sal.</i>	soft-leaved	葇	□	de	1	ap.o	R	C. G. H.	1803.	C	s.p	Schne. ic. n. 17
5403 <i>racemifera Andr.</i>	compact-flow.	葇	□	or	1½	ap.jn	R	C. G. H.	1803.	C	s.p	And. hea. vol. 3
5404 <i>pilulifera W.</i>	ball-bearing	葇	□	cu	1	ap.my	R	C. G. H.	1789.	C	s.p	
5405 <i>caterváfólia Sal.</i>	huddled-leaved	葇	□	or	1½	ap.jn	R	C. G. H.	1790.	C	s.p	
5406 <i>tardiflóra Sal.</i>	pubescent	葇	□	cu	1½	mr.s	Pu	C. G. H.	1790.	C	s.p	Bot. mag. 480
<i>E. pubescens B. M.</i>												
5407 <i>parviflóra Sal.</i>	small-fl.-downy	葇	□	pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
5408 <i>exigua Sal.</i>	small-downy	葇	□	pr	1	mr.s	Pk	C. G. H.	1790.	C	s.p	
893. MENZIESIA. Sm.	MENZIESIA.							<i>Sp. 5—6.</i>				
5409 <i>ferrugínea Ph.</i>	ferruginous	葇	□	or	½	my.jn	Br	N. Amer.	1811.	J.	s.p	Sm. ic. in. 1. t. 56
5410 <i>globuláris Ph.</i>	globular-flow.	葇	□	or	½	my.jn	Br	N. Amer.	1806.	L	s.p	Par. lond. 44
5411 <i>pilósa W.</i>	pilose	葇	□	or	2	jn.s	Pu	.....	1822.	L	s.p	
5412 <i>polifólia H. K.</i>	Irish	葇	□	cu	2	jn.s	Pu	Ireland	moun.	L	s.p	Eng. bot. 35
<i>β nána</i>	dwarf	葇	□	cu	½	jn.s	B ...	Ireland	...	L	s.p	
5413 <i>cerúlea L. T.</i>	Yew-leaved	葇	□	or	½	jn.jl	B ...	Scotland	hea.	L	s.p	Eng. bot. 2169
894. CHLO'RA. W.	YELLOW-WORT.							<i>Gentianæa. Sp. 1—2.</i>				
5414 <i>perfoliáta W.</i>	perfoliate	○	□	or	1	jn.jl	Y	Britain	ch. so.	S	s.l	Eng. bot. 60
895. MICHAUX'IA. W.	MICHAUXIA.							<i>Campanulacæa. Sp. 1.</i>				
5415 <i>campanulóides W.</i>	rough-leaved	☞	□	or	4	jn.au	L, B	Levant	1787.	S	r.l	Bot. mag. 219
896. JEFFERSON'IA. Ph.	JEFFERSONIA.							<i>Papaveracæa. Sp. 1.</i>				
5416 <i>diphylla Ph.</i>	two-leaved	☞	□	pr	½	my	W	N. Amer.	1792.	D	s.l	Bot. mag. 1513
897. DODON'EA. W.	DODONÆA.							<i>Terebintacæa. Sp. 5—17.</i>				
5417 <i>viscósá W.</i>	clammy	葇	□	un	6	jn.jl	G	S. Amer.	1820.	C	p.l	Cav. ic. p.4.t.327
5418 <i>bialáta Kth.</i>	two-winged	葇	□	un	4	...	G	S. Amer.	1822.	C	co	
5419 <i>oblongifólia Lk.</i>	oblong	葇	□	un	4	...	G	.....	1823.	C	co	
5420 <i>triquetra W.</i>	three-sided	葇	□	un	5	jn.au	G	N. S. W.	1790.	C	s.p	Bot. rep. 230
5421 <i>angustifólia W.</i>	narrow-leaved	葇	□	un	5	my.au	G	Jamaica	1758.	C	s.p	
898. LAWSON'IA. W.	LAWSONIA.							<i>Salicariæ. Sp. 3—6.</i>				
5422 <i>inérnis W.</i>	Henna-plant	葇	□	cu	10	...	W	Egypt	1759.	S	s.p	Rauw. ic. 60. t. 7
5423 <i>spinósa W.</i>	prickly	葇	□	cu	18	...	W	E. Indies	1759.	S	s.p	Ih. mal. 1. t. 40
5424 <i>purpúrea Lam.</i>	purple	葇	□	cu	12	...	Pu	E. Indies	1820.	S	s.p	
899. OSBECK'IA. W.	OSBECKIA.							<i>Melastomacæa. Sp. 4—7.</i>				
5425 <i>zeylánicá W.</i>	Ceylon	☞	□	pr	2	jl.au	Y	Ceylon	1799.	C	s.p.l	Bot. reg. 565
5426 <i>Chinénsis W.</i>	Chinese	葇	□	pr	2	jl	Pu	China	1818.	C	s.p	Bot. reg. 542
5427 <i>stelláta Don.</i>	starry	葇	□	pr	1	jn.au	Pk	Nepal	1820.	C	p.l	Bot. reg. 674
5428 <i>nepalénsis Hook.</i>	Nepal	葇	□	pr	1½	jn	Pu	Nepal	1821.	C	p.l	Hook. ex. fl. 31



History, Use, Propagation, Culture.

(*Prodromus*, &c. art. *Erica*.) Those who complain of the difficulty of growing the heath, are often, as Loddiges remarks, ignorant people who have never had a heath to grow.

One circumstance in favor of the culture of heaths is, that they are not subject to insects, or at least very rarely so. (*Greenhouse Companion*, p. 62.)

The number of species is here reduced to those which are certainly different from each other. Of those enumerated in garden catalogues many are mere repetitions of each other.

893. *Menziesia*. Named in honor of Mr. Archibald Menzies, an assiduous and successful botanist, who accompanied Vancouver, in the capacity of his surgeon, in his voyage round the world. He is still living, and the ornament of the private circle in which he moves. Small heath-like plants, all hardy, and requiring the same cultivation as *Erica*.

894. *Chlora*. From *χλωρος*, green, in allusion to the color of the dried flower of *C. perfoliata*. The whole plant dyes yellow.

895. *Michauxia*. In memory of Andrew Michaux, botanist to the king of France, who travelled into Syria,

- 5391 Anth. crested included, Flowers capitate campan. cernuous, Leaves 4 cernuous
 5392 Anth. crested included, Fl. 3, Leaves 4 subulate erect mucronate
 5393 Anth. bearded, Cor. campan. Fl. whorled, Leaves 6 hairy spiral
 5394 Leaves narrow, Cal. recurved horizontal, Cor. globose with segm. imbricated at base
 5395 Anth. crested, Leaves 3 lanceolate rough, Fl. 3, Cal. ciliated reflexed

- 5396 Anth. crested included, Cor. urceolate hairy, Fl. umbelled, Leaves 4 ovate
 5397 Anth. bearded included, Cor. globose much less than colored calyx, Leaves 3 with a membranous edge

- 5398 Anth. 2 horned included, Cor. axill. solitary, Leaves 3 ovate cordate ciliated
 5399 Anth. bearded included, Style exerted, Cor. camp. smooth, Fl. term. sol. Leaves 3 lin. Branches hairy
 5400 Anth. bearded, Leaves 3 linear hispid, Fl. umbelled, Cal. rough
 5401 Anth. bearded, Cor. camp. smooth, Leaves 4 pubescent ciliated
 5402 Cal. 4-cleft, Cor. linear smooth urceolate with a recurved limb, Capsule hairy
 5403 Anth. bearded included, Flowers racemose, Leaves 6 clustered
 5404 Anth. bearded, Leaves 4 ciliated, Fl. umb. Cal. navicular ciliated at end
 5405 Anth. bearded perforated, Leaves 4, Stem angular downy, Cor. narrow obovate
 5406 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with a very short recurved limb, Caps. hairy

- 5407 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubescent, Capsule smooth [smooth
 5408 Anth. bearded, Leaves 4, Cal. appressed, Cor. linear pubes. with an oval tube and very short limb, Caps.

- 5409 Leaves obov. lanc. beneath, beyond the nerves smooth, Cal. 4-cleft, Fl. urceol. 8-androus
 5410 Leaves pubescent beneath, Calyx 4-fid, Cor. with a globose tube
 5411 Leaves oval pubescent, Fl. term. aggregate nodding
 5412 Leaves beneath densely downy, Cal. 4-parted, Tube of cor. oval

- 5413 Leaves linear obtuse with cartilaginous teeth, Flowers 5-cleft decandrous

- 5414 Leaves perfoliate

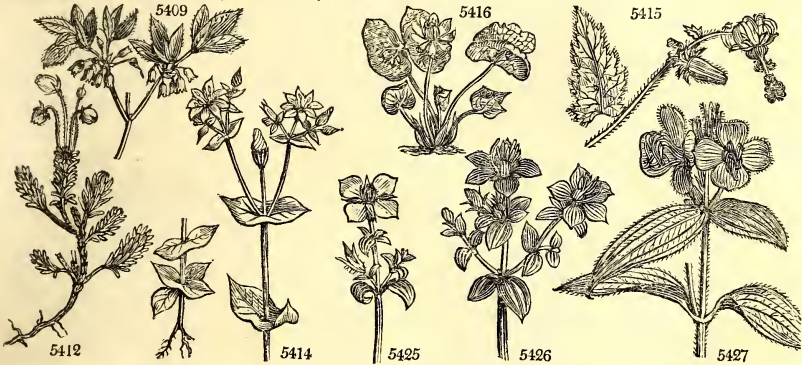
- 5415 The only species

- 5416 The only species

- 5417 Leaves obovate oblong viscous, Fl. racemose, Fruit with 2 or 3 wings longer than stalk
 5418 Leaves lanc. narrowed at both ends viscid, Racemes branched, Fruit always with 2 wings length of stalk
 5419 Leaves obl. mucronate entire, Fl. term. sessile
 5420 Leaves lanceolate narrowed at each end, Branches 3-cornered, Fruit with narrow wings
 5421 Leaves oblong lanceolate with revolute edge, rather clammy, Flowers in short racemes

- 5422 Unarmed, Leaves subsessile ovate acute at each end
 5423 Branches spiny
 5424 Leaves subsessile lanceolate with terminal corymbs of flowers

- 5425 Leaves stalked, Calyx hispid
 5426 Leaves sessile, Calyx smooth
 5427 Leaves lanc. obl. acumin. 5 nerved and branches hispid, Cal. covered with entangled radiate hairs
 5428 Leaves lanceolate sessile, Tube of calyx ciliate scaly



and Miscellaneous Particulars.

Persia, and North America, and discovered this his genus. It is a handsome biennial, which bears a profusion of showy flowers bearing some distant resemblance to those of the Passion-flower.

896. *Jeffersonia*. Named after Mr. Jefferson, the celebrated President of the United States. A very curious plant, remarkable for the peculiar mode of dehiscence of its capsule.

897. *Dodonæa*. So named in honor of Rambert Dodoens, professor of medicine, a famous botanist of the sixteenth century, author of *Fragum Historia*, 1552; and *Pemptades*, 1583. He was born at Malines, in 1518, and died in 1585. The species are ugly tropical shrubs, of neither use nor beauty.

898. *Lawsonia*. In memory of Isaac Lawson, M. D. author of *A New Voyage to Carolina*, London, 1709. *L. inermis* is the Henna plant, with the leaves of which the Egyptian women dye their nails pink. It is of easy culture and propagation.

899. *Osbeckia*. So named by Linnæus, in honor of Peter Osbeck, a Swedish clergyman, member of the academy of Stockholm, and of the society of Upsal: author of a voyage to China and the East Indies, in 1751. Englisbed by Forster, in 1771. Little plants resembling *Melastoma*. Young cuttings strike freely under a hand-glass.

900. RHEXIA. <i>W.</i>		RHEXIA.				<i>Melastomaceae. Sp. 7—50.</i>					
5429	<i>mariana W.</i>	Maryland	twigg	pr	4	jn.au	Pu	N. Amer.	1759.	D s.p	Bot. cab. 366
5430	<i>viminea Don.</i>	ciliated	marsh	or	6	jn.au	Pu	Brazil	1821.	D s.p	Bot. reg. 664
5431	<i>ciliosa Ph.</i>	two-valved	Virginian	pr	1	jn.au	Cr	Carolina	1812.	D p.l	Ph. am. 1. t. 10
5432	<i>bivalvis W.</i>	marsh	marsh	cu	2	my.jn	W	Guiana	1893.	S p.l	
5433	<i>virginica W.</i>	marsh	marsh	pr	2	jn.au	Pu	N. Amer.	1759.	D p.l	Bot. mag. 968
5434	<i>aquatica W.</i>	marsh	marsh	pr	...	...	...	S. Amer.	1793.	C p.l	Aub. qui. 1. t. 169
5435	<i>holosericea Humb.</i>	marsh	marsh	pr	10	jl	B	Brazil	1816.	C p.l	Bot. reg. 323
5436	<i>glomerata W.</i>	marsh	marsh	or	1 1/2	jn.au	W	W. Indies	1818.	C p.l	Bot. cab. 334
901. ENOTHE'RA. <i>W.</i>		ENOTHERA.						<i>Onagracee. Sp. 32—41.</i>			
5437	<i>biennis W.</i>	common	great-flowered	or	4	jn.s	Y	N. Amer.	1629.	S co	Flor. dan. 446
5438	<i>grandiflora W.</i>	common	small-flowered	or	4	jn.au	Y	N. Amer.	1778.	S co	Bot. mag. 2068
5439	<i>parviflora W.</i>	common	prickly-stalked	or	4	jn.au	Y	N. Amer.	1757.	S co	Meerb. ic. 1. t. 34
5440	<i>muricata W.</i>	common	long-flowered	or	3	jl.au	Y	N. Amer.	1789.	S co	M. co. got. 6. t. 1
5441	<i>longiflora W.</i>	common	soft wave-leav.	or	3	jl.s	Y	B. Ayres	1776.	S co	Bot. mag. 365
5442	<i>mollissima W.</i>	common	sweet-scented	or	2	jn.o	Y	B. Ayres	1732.	S co	Sch. han. 1. t. 105
5443	<i>odorata W.</i>	common	night-smelling	or	2	ap.au	Y	S. Amer.	1790.	D co	Bot. reg. 147
5444	<i>nocturna W.</i>	common	villous	or	2	jl.au	Y	C. G. H.	1790.	S co	Jac. ic. 3. t. 455
5445	<i>villosa W.</i>	common	toothed	or	2	jn.au	Y	Peru	1818.	D co	Lindl. coll. 10
5446	<i>dentata Lindl.</i>	common	shrubby	or	3	jn.au	D.Y	N. Amer.	1757.	D s.p	Bot. mag. 332
5447	<i>fruticosa W.</i>	common	dwarf	or	3	my.s	D.Y	N. Amer.	1757.	D p.l	Bot. mag. 355
5448	<i>pumila W.</i>	common	rosy-flowered	or	1	my.au	Pk	Peru	1783.	D p.l	Bot. mag. 347
5449	<i>rosea W.</i>	common	purple-flowered	or	1	my.au	Pu	N. Amer.	1794.	C co	Bot. mag. 352
5450	<i>purpurea W.</i>	common	corymbose	or	3	s	Y	Mexico	1816.	D co	Bot. mag. 1974
<i>(E. Romanzovii Bot. reg. 562.)</i>											
5451	<i>corymbosa B. M.</i>	upright	intermediate	or	1 1/2	jn.jl	Y	.....	1822.	S co	
5452	<i>stricta Ledebur</i>	linear	scollop-leaved	or	2	jl.au	Y	N. Amer.	1823.	D p.l	
5453	<i>media Link.</i>	linear	white-flowered	or	1 1/2	jn	Y	N. Amer.	1822.	D co	
5454	<i>linearis Mich.</i>	turfy	Missouri	or	3	jl	Y	N. Amer.	1770.	S s.l	M. co. got. 5. t. 9
5455	<i>sinuata W.</i>	turfy	glaucous	or	1	jn.au	W	Mexico	1796.	S s.l	Bot. mag. 468
5456	<i>tetraptera W.</i>	turfy	Fraser's	or	1	jn.jl	W	N. Amer.	1811.	D p.l	Bot. mag. 1593
5457	<i>caespitosa B. M.</i>	turfy	fine-leaved	or	4	jn.jl	Y	N. Amer.	1811.	D s.p	Bot. mag. 1592
5458	<i>macrocarpa B. M.</i>	turfy	stemless	or	2	my.o	Y	N. Amer.	1812.	D s.p	Bot. mag. 1606
5459	<i>glauca Ph.</i>	turfy	slender	or	1 1/2	my.o	Y	N. Amer.	1811.	D s.p	Bot. mag. 1674
5460	<i>Fraseri Ph.</i>	turfy	shewy	or	1 1/2	jl.s	Y.Pu	Peru	1824.	D co	
5461	<i>tenuifolia Fl. p.</i>	turfy	twigg	pr	1 1/2	my.s	W	Chili	1821.	D co	Bot. reg. 763
5462	<i>acaulis Cav.</i>	turfy	twigg	pr	1	ap.au	Pu	Chili	1822.	S co	Bot. mag. 2424
5463	<i>tenella Fl. per.</i>	turfy	twigg	pr	1	mr.s	W	N. Amer.	1821.	S co	Hook. ex. f. 89
5464	<i>speciosa Hook.</i>	turfy	twigg	pr	1 1/2	jn	Pu	Peru	1823.	D co	Fl. per. t. 315
5465	<i>virgata Fl. per.</i>	turfy	twigg	pr	1	my.jl	Y	California	1823.	D co	
5466	<i>hirta Lk.</i>	turfy	twigg	pr	1	my.s	Y	N. Amer.	1822.	D co	
5467	<i>triloba Nutt.</i>	turfy	twigg	pr	1	my.s	Y	N. Amer.	1822.	D co	
5468	<i>albicaulis Ph.</i>	turfy	twigg	pr	1	my.au	W	N. Amer.	1811.	S s.p	
902. GAU'RA <i>W.</i>		GAURA.						<i>Onagracee. Sp. 5—7.</i>			
5469	<i>biennis W.</i>	changeable	changeable	or	5	au.o	R.w	N. Amer.	1762.	S p.l	Bot. mag. 389
5470	<i>coccinea Ph.</i>	changeable	changeable	or	3	au.o	S	Louisiana	1811.	S s.l	
5471	<i>fruticosa W.</i>	changeable	changeable	pr	3	...	R.w	S. Amer.	1816.	S s.l	Jac. ic. 3. t. 457
5472	<i>mutabilis W.</i>	changeable	changeable	pr	1 1/2	jl.au	Y	N. Amer.	1795.	S s.l	Bot. mag. 388'
5473	<i>tripetala Cav.</i>	changeable	changeable	cu	1	au	Pk	Mexico	1804.	S s.l	Cav. ic. 4. t. 396. f. 1
903. EPILO'BIVM. <i>W.</i>		WILLOW-HERB.						<i>Onagracee. Sp. 15—20.</i>			
5474	<i>angustifolium W.</i>	linear-leaved	linear-leaved	or	4	jl.au	Pu	Britain	mea.	D m.s	Eng. bot. 1947
5475	<i>angustissimum W.</i>	Orache-leaved	Orache-leaved	or	2	jl.au	Pu	Al. of Eur.	1775.	D m.s	Bot. mag. 76
5476	<i>latifolium W.</i>	Orache-leaved	Orache-leaved	or	4	jl.au	R	N. Eur.	1779.	D co	Par. lond. 58

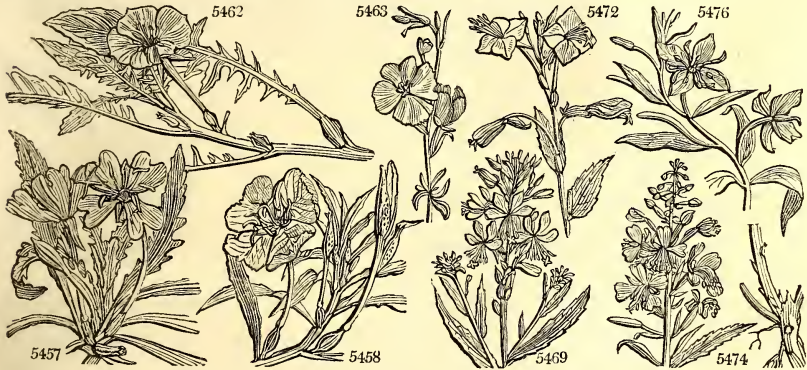


History, Use, Propagation, Culture.

900. *Rhexia*. A Greek name employed by Pliny to designate a Boraginaceous plant. It is derived from *ρῆξις*, to burst; that is to say, good against ruptures. The hardy species thrive best in a bed of peat; or they will grow very well in pots.

901. *Enothera*. Derived from *αινος*, wine, and *αηνω*, to hunt. The roots of this plant, *O. biennis*, eaten after meals, are incentives to wine-drinking, as olives are. This is an ornamental genus of easy culture in light rich soil, and they increase either by seeds or cuttings. *O. biennis* is called the night primrose, because the flowers usually open between six and seven o'clock in the evening. The mode of their expanding is curious. The petals are held together at top by the hooks at the end of the calyx, the segments of which first separate at bottom and discover the corolla, a long time before it acquires sufficient expansive force to unhook the calyx at top; when it has accomplished this, it expands very fast, almost instantaneously, to a certain point, and then makes a stop, taking a little time to spread out quite flat: it may be half an hour from the first bursting of the calyx at bottom to the final expansion of the corolla; which commonly becomes flaccid in the course of the next day, sooner or later according to the heat or coolness of the weather. The

- 5429 Lvs. sess. lanc. 3-nerved villous ciliated, Cal. stellate hairy
 5430 Leaves ovate lanc. 5-nerved hairy on each side, Panic. term. loosely many-fl.
 5431 Leaves finely hispid at edge, Stem quadrangular smooth, Flowers solitary in an involucre
 5432 Decandrous, Lvs. sessile smooth ovate obtuse 3-nerved, Caps. 2-valved
 5433 Lvs. sessile lanceolate 3-nerved serrate ciliated, Cal. glandular ciliated
 5434 Lvs. opp. cordate crenulate hairy, Pan. term. trichotomous, Branches filiform much spreading
 5435 Leaves cordate oval silky on each side 7-nerved sessile, Pan. term. Flowers with bractes 10-andr.
 5436 Lvs. stalked ovate entire 3-nerved villous, Fl. terminal clustered
- 5437 Lvs. ovate-lanceolate flat, Stem muricated villous, Stamens shorter than cor.
 5438 Lvs. ovate-lanceolate, Stamens declinate, Stem shrubby
 5439 Lvs. ovate-lanceolate flat, Stem smooth subvillous, Stamens longer than cor.
 5440 Lvs. lanc. flat, Stem purp. muricated, Stamens length of cor.
 5441 Lvs. toothletted, Stems simple hairy, Petals distant 2-lor.
 5442 Lvs. lanceolate wavy
 5443 Lvs. linear lanceolate toothletted wavy pubescent glaucous, Stem hairy
 5444 Lvs. lanc. repand toothed pubescent, Stem rounded pubescent
 5445 Lvs. lanc. villous, Stem angular hairy
 5446 Lvs. sublinear toothletted, Caps. cylindr. very narrow toothed
 5447 Lvs. lanceol. somewhat toothed acute, Caps. stalked obl. clavate angular
 5448 Lvs. lanc. entire obtuse, Caps. somewhat stalked ellipt. ovate angular
 5449 Lvs. ovate narrowed at each end toothed; lower lyrate, Caps. stalked obovate angular
 5450 Lvs. glaucous smooth lanceolate entire, Caps. sessile ovate angular
- 5451 Stem upright hispid furrowed, Leaves lanc. repand toothletted, Caps. sess. angular cylindrical
 5452 Stem muricated, Lower lvs. linear very long toothletted; cauline lanceolate
 5453 Stem erect pubescent, Lvs. lanc. lin. soft pubescent, Caps. obl. rounded sessile
 5454 Pubescent, Lvs. lin. lanc. acute at each end entire, Fl. term. aggregate, Caps. clavate 4-cornered
 5455 Lvs. toothed sinuated, Caps. prismatical
 5456 Lvs. lanc. pinnatifid at base, Caps. obovate with 4 wings
 5457 Lvs. lanc. cut-toothed, Caps. obl. sessile, Tube of cal. very long, Pet. 2-lor.
 5458 Stem branched, Lvs. lanc. stalked with distant glandular teeth, Caps. ellipt. 4-winged on short stalks
 5459 Leaves broad-oval repand toothed laevigated glaucous, Caps. ovate 4-cornered
 5460 Stem simple below, Leaves ovate stalked glandular toothletted, Racemes leafy, Caps. obovate 4-cornered
 5461 Lower leaves oblong, upper linear, Caps. cylindrical straight, Petals crenulate
 5462 Leaves pinnatifid, with the terminal segment large and toothletted
 5463 Leaves linear obovate, Caps. cylindrical curved
 5464 Downy, Leaves oblong lanc. toothed subpinnatifid, Raceme naked, Caps. obovate angular
 5465 Leaves lyrate and lanceolate toothed, Caps. stalked clavate
 5466 Hairy, Leaves lanc. toothletted, Caps. axillary curved angular acute
 5467 Very like *Enothera acaulis*, from which it is chiefly distinguished by its yellow flowers
 5468 Finely pubescent, Stem and nerves of leaves white, Leaves pinnatifid, Fl. spiked
- 5469 Leaves lanc. toothed, Pet. obovate ascending spreading, Style and stamens declinate
 5470 Leaves lin. lanc. toothletted, Spike close, Petals as long as cal. Stigma entire
 5471 Leaves lin. lanc. toothletted, Style and stamens straight
 5472 Leaves ovate toothed, Pet. ovate acute cruciate, Style and stamens straight
 5473 Leaves lin. lanc. deeply toothed, Pet. 3 ascending, Stamens 6 declinate
- 5474 Leaves scattered lin. lanc. entire veiny, Fl. unequal
 5475 Leaves scattered lin. obsolete toothletted veinless, Petals unequal entire
 5476 Leaves altern. and opposite lanc. ovate nearly entire pubescent veinless, Fl. unequal



and Miscellaneous Particulars.

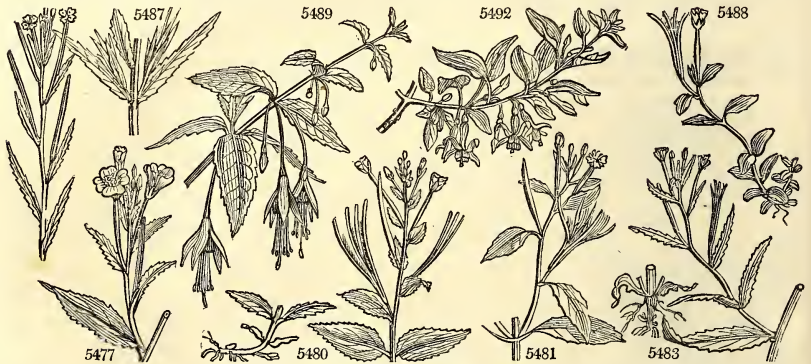
uppermost flowers come out first in June; the stalk keeps continually advancing in height, and there is a constant succession of flowers, till late in autumn. The roots are eaten in some countries in the spring.

O. longiflora has flowers uncommonly large and showy, which continue from July to October.
 The dwarf North American herbaceous kinds, are among the most beautiful plants of our borders.

902. *Gaura*. A very curious genus, so called from γαυρος, superb. Its flowers are rose colored, in fine terminal spikes. Plants with the habit of *Enothera*, and requiring the same management.

903. *Epilobium*. From επι, upon, and λοβος, a pod; that is to say, a flower growing upon a pod. *E. angustifolium* is a native of most parts of Europe, from Lapland to Italy. It is valuable in shrubberies as thriving under the drip of trees, and succeeds every where, even in the smoke of cities, and in parks: it is a good plant to adorn pieces of water, being hardy, of rapid increase, not much relished by cattle, and very showy when in flower. According to Haller, the young shoots are eatable, although an infusion of the plant stupifies: the pith when dried, is boiled, and becoming sweet, is by a proper process made into ale, and this into vinegar by the Kamtschatdales; it is also added to the cow-parsnip, to enrich the spirit that is prepared

5477 <i>hirsutum</i> W.	Codlins&Cream	△ or	4	jl.au	Pu	Britain	wat.pl.	D co	Eng. bot. 838
5478 <i>parviflorum</i> E. B.	small-flowered	△ pr	2	jl.au	Pu	Britain	wat.pl.	D co	Eng. bot. 795
5479 <i>villosum</i> W.	Cape	△ or	2	jl.au	Pu	C. G. H.	1799.	D co	
5480 <i>montanum</i> W.	broad-smth.lv.	△ w	2	jn.jl	Pu	Britain	woods.	D co	Eng. bot. 1177
5481 <i>roseum</i> Sm.	pale-smooth.lv.	△ w	1½	jl	Pk	England	mar.	D m.s	Eng. bot. 693
5482 <i>alsinifolium</i> Sm.	Chickweed.lvd.	△ w	2	jl	Pk	Britain	sc. al.	D m.s	Eng. bot. 2000
5483 <i>tetragonum</i> W.	square-stalked	△ w	2	jl	Pu	Britain	mar.	D m.s	Eng. bot. 1948
5484 <i>coloratum</i> W.	Pink-flowered	△ or	2	jl	Pu	N. Amer.	1805.	D l.p	
5485 <i>alpêtre</i> Schmidt.	alpine	○ pr	½	jn.jl	Pu	Switzerl.	1820.	S l.p	
5486 <i>dahuricum</i> Fisch.	Daurian	○ pr	½	jl	W	Dauria	1822.	S co	
5487 <i>palustre</i> W.	round-stalked	△ or	3	jl	Pu	Britain	mar.	D co	Eng. bot. 346
5488 <i>alpinum</i> W.	Alpine	△ w	½	jn	R	Britain	al.riv.	D s.l	Eng. bot. 2001
904. FUCHSIA. W.	FUCHSIA.					<i>Santalaceae.</i>	<i>Sp. 4—18.</i>		
5489 <i>coccinea</i> W.	scarlet	■ or	6	my.au	S.Pu	Chili	1788.	C p.l	Bot. mag. 97
5490 <i>gracilis</i> Lindl.	slender	■ or	3	my.o	S.Pu	Chili	1823.	C p.l	Bot. reg. 847
5491 <i>excorticata</i> B. M.	barked	■ or	3	jn.o	G.Pu	N. Zeal.	1824.	C p.l	Bot. reg. 857
5492 <i>lycoides</i> W.	Boxthorn-leav.	■ or	2	ap.o	S	Chili	1796.	C p.l	Bot. mag. 1024
905. JAMBOLIFERA. L.	JAMBOLIFERA.					<i>Terebintaceae.</i>	<i>Sp. 1—3.</i>		
5493 <i>pedunculata</i> Dec.	peduncled	■ cu	4	f.d	G	E. Indies	1800.	C tl.l	Vah. sym. 3. t.61
906. OXYCOC'CUS. P. S.	CRANBERRY.					<i>Ericaceae.</i>	<i>Sp. 3.</i>		
5494 <i>palustris</i> P. S.	common	■ fr	½	my.jn	Pk	Britain	tur.bo.	L p	Eng. bot. 319
5495 <i>macrocarpus</i> Ph.	large-fruited	■ fr	¾	my.jn	Pu	N. Amer.	1760.	L p	Dend. brit. 122
5496 <i>erythrocarpus</i> P. S.	upright	■ fr	2	my.jn	Pk	N. Amer.	1806.	L p	Dend. brit. 31
	<i>O. erectus</i> Psh.								
907. VACCINIUM. L.	WHORTLE-BERRY.					<i>Ericaceae.</i>	<i>Sp. 27—30.</i>		
5497 <i>myrtillus</i> L.	Bilberry	■ fr	1½	ap.jn	R	Britain	hea.	L p	Eng. bot. 456
	<i>β fructu albo</i>	white-fruited	■ fr	1½	ap.jn	G	Britain	moors.	L p
5498 <i>pal'lidum</i> H. K.	pale	■ or	2	my.jn	W	N. Amer.	1772.	L p	
5499 <i>stamineum</i> L.	long-stamened	■ or	2	my.jn	W	N. Amer.	1772.	L p	Pl. al. t. 339. f. 3
5500 <i>album</i> L.	white-flowered	■ or	2	my.jn	W	N. Amer.	1772.	L p	Bot. rep. 263
5501 <i>caspitosum</i> Mich.	turfy	■ fr	½	...	W	Hud. Bay	1823.	L p	
5502 <i>uliginosum</i> L.	Bleaberry	■ fr	2	ap.my	Pk	Britain	...	L p	Eng. bot. 581
5503 <i>diffusum</i> H. K.	tree	■ or	20	my.jl	Pk	Carolina	1765.	L p	
	<i>arborum</i> Mich.								
5504 <i>angustifolium</i> H. K.	Bluets	■ or	2	ap.my	Pk	N. Amer.	1776.	L p	
	<i>myrtilloides</i> Mich.								
5505 <i>dumosum</i> B. M.	bushy	■ or	3	my.jn	W	N. Amer.	1774.	L p	Bot. mag. 1106
	<i>hirtellum</i> H. K.								
5506 <i>fuscatum</i> H. K.	clustered-flow.	■ or	2	my.jn	Pk	N. Amer.	1770.	L p	Bot. rep. 97
	<i>formosum</i> Andr.								
	<i>β angustifolium</i>	narrow-leaved	■ or	2	my.jn	Pk	N. Amer.	...	L p
5507 <i>frondosum</i> L.	Blue Tangles	■ or	3	my.jn	W	N. Amer.	1761.	L p	Bot. rep. 140
	<i>glabrum</i> Mich.								
	<i>β venustum</i> H. K.	red-twigged	■ or	3	my.jn	Pk	N. Amer.	1770.	L p
5508 <i>ligustrinum</i> L.	Privet-leaved	■ or	3	my.jn	Pu	N. Amer.	...	L p	



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from that plant; as fodder, goats are said to be extremely fond of it, and cows and sheep to eat it; the down of the seeds mixed with cotton or fur has been manufactured into stockings and other articles of clothing.

E. hirsutum is found only in rich moist soil by water. The leaves smell like scalded codlins or gooseberry pye when green, but lose that odor when dry. Cattle are rather fond of the plant both recent and dried.

904. *Fuchsia*. So named in honor of Leonard Fuchs, a famous German botanist, author of *Historia Stirpium*, in 1542, with 516 excellent engravings in wood. *F. coccinea* is one of the most elegant of deciduous greenhouse shrubs; the young wood and nerves of the leaves are tinged with purplish red: the pendent blossoms, like most produced from the axils of the leaves, as the shoots grow, continue during the greater part of the growing season, and are succeeded as they fade by a purple berry. The finest specimen in England of this species is at Salt-Hill.

Many other species have been lately introduced, some of which will probably be very handsome. South America contains some most splendid species, of which we know nothing in this country.

905. *Jambolifera*. From *fero*, to bear, and *Jambol*, the name of a Malabar fruit. Cuttings strike freely in sand under a hand-glass.

906. *Oxycoccus*. From *oxys*, acid, and *κoccus*, fruit; on account of its acidity. A genus well distinguished from *Vaccinium*, by the narrow revolute segments of corolla. These are pretty little trailing evergreen plants, to which a peat soil and rather a moist situation are absolutely necessary: they are very little changed by culture.

O. palustris bears edible berries which are gathered wild both in England and Scotland, and made into tarts. Lightfoot says, twenty or thirty pounds worth are sold each market day, for five or six weeks together,

- 5477 Leaves opp. and altern. subamplexicaul. ovate-lanceolate hairy, Stem much branched hairy
 5478 Leaves sessile lanc. pubescent, Stem simple villous, Root fibrous
 5479 Leaves altern. lanceolate serrated hairy
 5480 Leaves opp. ovate toothed
 5481 Leaves stalked ovate acute toothed, Stem erect branched square, Petals bifid
 5482 Leaves on short stalks ovate acute toothed shining, Stem ascending simple, Petals half bifid
 5483 Leaves lanceolate toothletted: the lower opposite, Stem square
 5484 Stem round pubescent, Leaves lanc. serrul. stalked opp. upper alternate smooth veiny
 5485 Leaves opp. and alt. ovate toothletted sess. smooth, Fl. axill. sess. Caps. 4-cornered
 5486 Stem erect simple, Leaves toothed pubescent, Ovary with scattered hairs
 5487 Leaves sessile lanc. toothletted, Stem rounded, Stigma undivided
 5488 Leaves on short stalks opp. lanc. ellipt. obt. entire, Stem ascending few-flowered
- 5489 Peduncles 1-flowered axillary, Leaves in threes serrated
 5490 Branches slightly downy, Leaves opposite stalked smooth, Flowers much longer than leaves
- 5491 Peduncles axillary 1-flowered, Leaves ovate alternate
 5492 Flowers stalked axillary, Sepals reflexed, Leaves ovate-lanceolate about 5
- 5493 Leaves oblong lanceolate smooth, Cymes terminal shorter than the leaves
- 5494 Leaves oval revolute at edge acute white beneath, Segm. of cor. oval
 5495 Leaves oblong flat obtuse, Segm. of cor. lanceolate
- 5496 Leaves oval acuminate serrulate ciliated, Flower not revolute at first
- 5497 Peduncles 1-flowered, Leaves serrate ovate deciduous, Stem angular
- 5498 Leaves ovate acute serrulate smooth, Racemes with bractes, Cor. cylind. camp.
 5499 Leaves oval ac. ent. glauc. beneath, Pedic. sol. axill. filif. Cor. open camp. Anth. exserted [exserted
 5500 Lvs. oval or obov. acute ent. glauc. ben. Nerves and veins pub. Ped. axill. sol. filif. Cor. open camp. Anth.
 5501 Dwarf tufted glabrous, Leaves cuneate rounded deeply sawed membranous, Fl. sol.
 5502 Leaves small obov. obt. ent. above smooth, beneath veiny pubescent glaucous, Fl. sol. cor. urceolate
 5503 Leaves stalked obovate acute at each end serrate, Racemes nodd. Cor. cylind. camp. Anth. included
- 5504 Leaves narr. lanceol. membr. ent. Nerves and edge pubescent beneath, Fl. scatt. sol. nearly sessile
 5505 Branches and lvs. covered with resin. dots, Lvs. obov. ent. Rac. with bractes, Cor. camp. with round. seg.
 5506 Lvs. obl. acute serrul. smooth, Racemes aggreg. term. corym. Cor. cylind. with short erect seg. Style exsert
- 5507 Leaves obov. blunt ent. glaucous and resinous beneath, Racemes loose, Cor. ovate campanulate
- 5508 Branches ang. Leaves subsess. erect mucron. lanc. Clusters sessile, Cor. oblong ovate, Fl. stalks none



and Miscellaneous Particulars.

in the town of Langtown, on the borders of Cumberland. The plant might no doubt be cultivated with equal ease as the American species.

O. macrocarpus furnishes the cranberries sent from America: it was first cultivated in this country by Sir J. Banks, on the margin of a pond (*Hort. Trans.* i. 71.), and subsequently both in moist and dry situations by different cultivators. Peat earth is essential to every mode of culture; but a much less degree of moisture will do than was at first believed. Salisbury found it do very well in pots of bog earth set in the shade; and Milne found "vigorous shoots and abundant crops produced on dry beds of peat earth, even in the warm summer of 1822." The American cranberry he found easier to cultivate than the common sort; but Hallet found both the cranberry and bilberry succeed perfectly under such treatment. (*Hort. Trans.* iv. 483, and v. 279.)

907. *Vaccinium*. A name, the derivation of which is not known. Neither are commentators more decided as to what was the *Vaccinium* of the Latins. The only conclusion to which they have come, is that the *Vaccinia nigra* of Virgil are the same as the *μυλαν βακκινος* of the Greeks. The species are neat little evergreen under shrubs, and inhabitants of moist alpine or subalpine regions in peat earth.

V. Myrtillus is an elegant and also a fruit-bearing plant. The young fresh green leaves, and wax-like red flowers appear in May, and towards autumn the leaves grow darker and more firm, and the ripe berries are gathered in the north for tarts, and in Devonshire and Poland are eaten with clotted cream. (*Eng. Bot.*) The berries are very acceptable to children, either eaten by themselves or with milk, or in tarts. The moor-game live upon them in the autumn. The juice stains paper or linen purple. Goats browse upon the plant; sheep are not fond of it; horses and cows refuse it. (*Withering.*) The berries have an astringent quality; and in Arran and the Western Isles are given in diarrhœas and dysenteries with good effect. The High-

5509	resinosum H. K.	clammy	♂	or	4	my.jn	...	N. Amer.	1772.	L	p	W. am. t. 30. f.69
	α viridescens	green-flowered	♂	or	3	my.jn	Y.G	Canada	1772.	L	p	
	β rubescens	red-flowered	♂	or	3	my.jn	Pk	N. Amer.	1772.	L	p	Bot. mag. 1388
	γ parviflorum Andr.	small-flowered	♂	or	3	my.jn	R.y	N. Amer.	1804.	L	p	Bot. rep. 125
5510	corymbosum L.	corymbose	♂	or	7	my	W	N. Amer.	1806.	L	p	
	disomorphum Mich.											
5511	amectatum H. K.	broad-leaved	♂	or	6	my.jn	Pk	N. Amer.	1765.	L	p	Bot. rep. 138
5512	virgatum H. K.	twiggy	♂	or	3	ap.my	Pk	N. Amer.	1767.	L	p	Bot. rep. 181
5513	galezans Mich.	Gale-leaved	♂	or	2	my.jn	W	N. Amer.	1806.	L	p	
5514	tenellum H. K.	Pennsylvanian	♂	fr	1½	my.jn	Pk	N. Amer.	1772.	L	p	
	pensylvanicum Mich.											
	ramulosum W.											
	hamile W.											
5515	padifolium Sm.	Madeira	♂	fr	4	jn.au	Pk	Madeira	1777.	L	p	Bot. mag. 974
	arctostaphylos B. M.											
5516	meridionale Swz.	Jamaica	♂	or	2	mr.jn	W.G	Jamaica	1778.	L	p	
5517	myrtifolium Mich.	Myrtle-leaved	♂	pr	1	my.jl	W	Carolina	1812.	L	p	
5518	crassifolium Andr.	thick-leaved	♂	pr	1	jn.jl	Pk	Carolina	1787.	L	p	Bot. mag. 1152
5519	Vitis Idæa L.	Cow-Berry	♂	pr	¾	ap.jn	Pk	Britain	...	Sk	p	Eng. bot. 598
	β majus	large	♂	pr	¾	ap.jn	Pk	N. Amer.	...	Sk	p	
	γ maximum	largest	♂	pr	¾	ap.jn	Pk	N. Amer.	...	Sk	p	
5520	hispidulum W.	Snowberry	♂	fr	1	ap.my	W	Huds.Bay	1815.	L	p	Pursh am. t. 13
	Gaultheria serpyllifolia Psh.											
5521	nitidum Psh.	glossy	♂	pr	2	my.jn	Pk	Carolina	1794.	L	p	Bot. rep. 480
	β decumbens	decumbent	♂	pr	¾	my.jn	Pk	Carolina	1794.	L	p	Bot. mag. 1550
5522	myrsinites Mich.	Myrsine-leaved	♂	pr	1½	my.jn	Pk	Carolina	...	L	p	
	β lanceolatum	lanceolate	♂	pr	1½	my.jn	Pk	Florida	...	L	p	
	γ obtusum	obtusely	♂	pr	1½	my.jn	Pk	Carolina	...	L	p	
5523	buxifolium Andr.	Box-leaved	♂	cu	1	my.jn	Pk	N. Amer.	1794.	L	p	Bot. mag. 928
	brachycerum Mich.											
908.	MEME/CYLON. W.	MEME/CYLON.						Santalacæe.	Sp. 1-6.			
5524	capitellatum W.	Ceylon	♂	or	10	jl	...	E. Indies	1796.	L	p.l	Bur. zeyl. t. 30
909.	LAGE'TA. J.	LAGE'TA.						Thymelæe.	Sp. 1.			
5525	lintearia P. S.	lace-bark	♂	cu	6	ja.d	W	Jamaica	1793.	C	l.p	Lam. ill. t. 289
910.	DAP'HNE. W.	DAPHNE.						Thymelæe.	Sp. 13-34.			
5526	Mezereum W.	Mezereon	♂	m	4	f.ap	Pk	England woods.	C	p.l		Eng. bot. 1381
	α rubrum	red-flowered	♂	or	4	f.ap	Pk	England woods.	C	p.l		
	β album	white-flowered	♂	or	4	f.ap	W	.....	C	p.l		
5527	Thymelæa W.	smooth-leaved	♂	or	3	f.ap	Y	Spain	1815.	G	s.l	Pl. al. t. 229. f. 2
5528	Tarton-raira W.	silvery-leaved	♂	or	3	my.jl	W	France	1640.	G	s.l	Fl. græc. 354
5529	alpina W.	Alpine	♂	or	2	my.jl	W	Italy	1759.	S	p.l	Bot. cab. 66
5530	Lauræola W.	Spurge Laurel	♂	or	6	ja.mr	G	Britain woods.	S	s.l		Eng. bot. 119
5531	põntica W.	Pontic	♂	or	3	ap.my	G	Pontus	1759.	C	s.l	Bot. mag. 1282
5532	tinifolia W.	Bonace-bark	♂	or	6	...	...	Jamaica	1733.	C	l.p	
5533	Gnidium W.	Flax-leaved	♂	or	2	jn.au	W	Spain	1597.	G	s.l	Bot. cab. 150
5534	odora W.	sweet-scented	♂	or	3	mr.d	Pu	China	1771.	C	r.m	Bot. mag. 1587
5535	Cneorum W.	trailing	♂	or	1	ap.s	Pk	Austria	1752.	L	s.p	Bot. mag. 313
5536	altica W.	Altaic	♂	or	3	ap.my	W	Siberia	1796.	G	p.l	Bot. mag. 1875
5537	oleoides B. M.	Olive-leaved	♂	or	2	ja.d	W	Crete	1815.	G	p.l	Bot. mag. 1917
5538	collina W.	hairy	♂	or	3	ja.jn	Pu	Italy	1752.	L	s.l	Bot. mag. 428
	β neapolitana Hort.	Neapolitan	♂	or	2	ja.jn	Pu	Naples	1822.	L	s.l	Bot. reg. 822



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landers eat them with milk, and make them into tarts and jellies, which last they mix with whisky to give it a relish to strangers.

V. uliginosum grows taller than the common bilberry, and has large globular, black, glaucous fruit. These have less flavor, but abound with a weak acid juice. (Eng. Bot.) In large quantities it occasions giddiness, and a slight head-ache, especially when full grown and quite ripe. (Linn. Succ. and Withering.) Many vintners in France are said to make use of the juice to color their wines red. (Withering.) They furnish an ardent spirit which is highly volatile and intoxicating. The Alpine birds feed upon the fruit, and it is very common in their haunts. (Villars.)

V. vitis idæa is of very humble growth and almost herbaceous, though evergreen. The berries are red, acid, astringent, and bitter. They are scarcely to be eaten raw, and though made into pies in Derbyshire, where they are called cow-berries, their flavor is far inferior to the cranberry. Their best use is for making a rob or jelly, which is eaten with all kinds of roast meat in Sweden, and is far preferable to that of the red currant as a sauce for venison. It is also an excellent medicine in colds, sore throats, and all irritation of the mouth or fauces. (Smith, Brit. and Eng. Bot.) Linnæus says, that they are sent in large quantities from West Bothnia to Stockholm for pickling, and the same thing is confirmed by Dr. Clarke. Miller was informed that this plant was used for edgings in Norway.

V. tenellum is a very good fruit.

5509 Lvs. stalked obl. oval blunt entire beneath resin. Racemes lateral one-sided, Cor. ovate conical 5 angular

5510 Fl. branches leafless, Lvs. obl. oval acute at each end ent. young ones downy on both sides, Rac. short scaly

5511 Flowering branches leafless, Lvs. obl. acute at each end smooth, Racem. clust. bract. Cor. cylind. Cal. refl.
5512 Flowering branches oblong leaf. Lvs. lanc. acute at each end serrul. smooth, Rac. sess. corym. obl. bract.
Cor. cylind. contracted at mouth

5513 Lvs. sessile cuneate-lanc. serrul. veiny pubes. Clust. sess. Cor. ov. much contracted at mouth, Style exsert.

5514 Branches angular green, Leaves sess. ovate lanc. mucronate, Fasc. clustered term. sessile, Cor. ovate

5515 Flowers racemose, Leaves crenulate ovate smooth

5516 Leaves ovate obl. acute serrate flat shining, Racemes terminal erect, Cor. prismatical

5517 Creeping very smooth, Leaves stalked oval shining, Clusters axill. sessile few-flowered, Cor. glob. camp.

5518 Spread. Lvs. obl. lanc. acute at each end serr. rigid smooth, Racem. term. corymb. Fl. nodd. Cor. open camp.

5519 Dwarf, Leaves obovate emarginate serrulate shining above dotted beneath, Cor. cylind. camp.

5520 Stem creeping hispid, Leaves roundish oval acute bristly at edge

5521 Erect much branched, Leaves evergreen obl. lanc. acute at each end rigid, Cor. open camp. deeply 5-toothed

5522 Leaves very small sessile oval mucron. beneath hairy dotted, Clusters term. and lat. Cor. obl. ovate

5523 Dwarf, Leaves obovate crenate toothed smooth, Filam. gland. Stigma cap. Cor. short ovate

5524 Leaves ovate stalked, Umbels capitate axillary sessile

Spikes panicle terminal, Leaves ovate acute

5526 Flowers sessile three on the stem, Leaves lanceolate deciduous

5527 Flowers sessile axillary, Leaves lanceol. Branches simple

5528 Flowers sessile lateral aggregate at the base scaly, Leaves obovate nerved silky

5529 Flowers sessile lateral aggregate, Leaves lanceolate obtuse downy beneath

5530 Racemes axillary 5-flowered, Leaves lanceolate smooth

5531 Pedunc. lateral 2-flowered, Leaves lanceol. ovate

5532 Racemes compound erect, Flowers terminal clustered, Leaves oblong

5533 Racemes term. panicle, Leaves linear lanceolate cuspidate

5534 Head terminal sessile many-flowered, Leaves scattered obl. lanceol. smooth

5535 Flowers fascicled term. sessile, Leaves lanceol. naked mucronate

5536 Flowers term. subsessile, Leaves opp. obl. lanceol. obtuse narrowed at base glabrous

5537 Flowers twin terminal sessile, Leaves elliptic lanceol. smooth

5538 Flowers fascicled terminal, Leaves obovate obtuse above very smooth beneath villous



and Miscellaneous Particulars.

908. *Memeçylon*. The Greek name of the fruit of the *Arbutus*. The shrub now so called has a certain degree of resemblance to the *Arbutus*. Young cuttings plunged in sand in heat and covered with a hand-glass will root freely.

909. *Lagetta*. This plant in Jamaica is called *Lagetto*. Ripened cuttings will root in sand under a hand-glass.

910. *Daphne*. The Greek name of the Laurel. This is a genus of diminutive shrubs, mostly evergreens of great beauty and fragrance in the flower, and with a peculiar velvet texture in the leaf. It is mentioned by Linnaeus as a characteristic of the genus, that the terminating buds of the shoots produce leaves, and the lateral ones flowers. This affords a hint to the cultivator to be sparing of his knife.

D. Mezereum (*Mâdzaryoûn* is the Persian name according to Richardson), *Laureole gentille*, Fr., *Kellerhals*, Ger., and *Laureola femina*, Ital., is an old inhabitant of the shrubbery, and deservedly much admired for its precocity and fragrance. It thrives well in loamy soil, and will grow in the shade and even drip of other trees. It is a native of all parts of Europe from Lapland to Sicily, but was first received from Elbing before it was observed to be a native. The roots of *Mezereum* acquire a very large size in proportion to the branches, and have more the character of the fusiform or ramose roots of a herbaceous, than of a ligneous vegetable. They are remarkably hot and acrid, and have long and in most countries been a popular topical

911. DIR'CA. W.	LEATHER-WOOD.				<i>Thymelææ.</i>	Sp. 1.							
5539 palustris W.	marsh	ec	6	mr.ap	Y	Virginia	1750.	S	s.l	Bot. reg.	292		
912. GNI'DIA. W.	GNIDIA.					<i>Thymelææ.</i>	Sp. 8—13.						
5540 pini'fólia W.	Pine-leaved	pr	1	my.jn	Pa.Y	C. G. H.	1768.	C	s.p	Bot. reg.	19		
5541 imberbís H. K.	smooth-scaled	pr	1½	ap.au	Pa.Y	C. G. H.	1792.	C	s.p	Bot. mag.	1463		
5542 simplex W.	Flax-leaved	el	1	my.jn	Pa.Y	C. G. H.	1786.	C	s.p	Bot. mag.	812		
5543 capitáta W.	purple-twigged	cu	1	jn.jl	Pa.Y	C. G. H.	1783.	C	s.p				
5544 oppositifólia H. K.	opposite-leaved	pr	1	my.jl	Pa.Y	C. G. H.	1783.	C	s.p	Bot. reg.	2		
5545 sericea H. K.	silky	pr	1½	my.jl	Pa.Y	C. G. H.	1783.	C	s.p	Bot. rep.	225		
5546 denudáta Lindl.	shaven	pr	1	my.jl	Pa.Y	C. G. H.	1820.	C	s.p	Bot. reg.	757		
5547 lævigáta Thunb.	polished	pr	1	my.jl	Pa.Y	C. G. H.	1822.	C	s.p				
913. STELLE'RA. W.	STELLERA.					<i>Thymelææ.</i>	Sp. 1—3.						
5548 Passerina W.	Flax-leaved	cu	1	jl.au	W	S. Europe	1759.	C	s.p	Jac. ic. 1. t.	68		
914. PASSERI'NA. L.	SPARROW-WORT.					<i>Thymelææ.</i>	Sp. 8—19.						
5549 filifórmis W.	filiform	cu	1	jn.au	W	C. G. H.	1752.	C	s.p	Wen. ob. t.2.f.	15		
5550 hirsúta W.	shaggy	cu	1½	jn.s	W	S. Europe	1759.	C	p.l	Bot. mag.	1949		
5551 tenuiflóra W. en.	slender-flower.	cu	½	jn.s	W	C. G. H.	...	C	s.p				
5552 capitáta W.	headed	cu	1	jn.o	W	C. G. H.	1789.	C	s.p	Wen. ob. t.2.f.	17		
5553 uniflóra W.	one-flowered	cu	1	ap.my	W	C. G. H.	1759.	C	s.p	Wen. ob. t.2.f.	18		
5554 grandiflóra W.	great-flowered	cu	1	my.jn	W	C. G. H.	1789.	C	s.p	Bot. mag.	292		
5555 spicáta W.	spiked	cu	1	my.jn	W	C. G. H.	1787.	C	p.l	Bot. cab.	311		
5556 láxa W.	lax	cu	¾	jn.jl	W	C. G. H.	1804.	C	p.l	Bot. cab.	755		
915. LACHNÆ'A. W.	LACHNÆA.					<i>Thymelææ.</i>	Sp. 5—28.						
5557 conglomeráta W.	clustered	or	2	jn.jl	W	C. G. H.	1773.	S	r.m				
5558 eriocéphala W.	woolly-headed	or	2	jn.jl	W	C. G. H.	1793.	C	p.l	Bot. mag.	1295		
5559 purpúrea H. K.	purple-flowered	or	2	jn.jl	W	C. G. H.	1800.	C	p.l	Bot. mag.	1594		
5560 glaucósa H. K.	glaucous	or	2	my.jl	W	C. G. H.	1800.	C	p.l	Bot. mag.	1658		
5561 buxifólia Lam.	green-box-leav.	or	2	my.jl	W	C. G. H.	1800.	C	p.l	Bot. mag.	1657		
916. COMBRETUM. W.	COMBRETUM.					<i>Combretacææ.</i>	Sp. 2—20.						
5562 purpúreum W.	purple	or	15	jn.d	S	Madagasc.	1818.	C	r.m	Bot. mag.	2102		
5563 comósum Hort.	comose	or	20	...	Pu	S. Leone	1821.	C	r.m				

DIGYNIA.

917. GALE'NIA. W.	GALENIA.					<i>Chenopodææ.</i>	Sp. 1—5.						
5564 africána W.	African	cu	2	jn.au	W	C. G. H.	1752.	C	p.l	Lam. ill. t.	314		
918. APHANAN'THE. L.	APHANANTHE.					<i>Amaranthacææ.</i>	Sp. 1.						
5565 celosioídes Lk.	Cock's-comb	cu	1½	jl	W.g	Brazil	1813.	C	p.l				
919. WEINMAN'NIA. L.	WEINMANNIA.					<i>Saxifragææ.</i>	Sp. 1—12.						
5566 pinnáta L.	pinnate	or	6	my.jn	W	Jamaica	1815.	C	r.m				
920. MEHRIN'GIA. W.	MEHRINGIA.					<i>Caryophyllææ.</i>	Sp. 1—3.						
5567 muscósá W.	mossy	Δ w	½	jn.jl	L.Pu	S. Europe	1775.		s.l	Sch. ha. 1. t.	108		



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application for the toothach. The whole plant is extremely acrid, especially when fresh, and if retained in the mouth excites great heat and inflammation, particularly of the throat and fauces. The berries when swallowed prove a powerful poison, not only to man, but to many quadrupers. Both the bark and the berries of Mezereon in different forms have been long used externally in cases of obstinate ulcers and ill-conditioned sores. In France the bark is used as an application to the skin, which, under certain management, produces a serous discharge without blistering, and is thus rendered useful in chronic cases of a local nature, answering the purpose of what is called a perpetual blister, while it occasions less pain and inconvenience. In our own country the Mezereon has been principally employed in syphilitic cases. The branches make a good yellow dye.

D. Laureola is valuable in the shrubbery as thriving under the shade and drip of other trees, and never growing to an unsightly size and figure, and in the nursery as affording stocks for the more rare species. The roots and other parts of the plant possess similar qualities to those of the Mezereon.

911. *Dérca*. From *diexa*, a fountain. A plant which grows in watery places. *Bois de Plomb*, Fr. This shrub grows in hilly swamps in North America: it is in all its parts remarkably tough, and the twigs are in consequence used for rods, and the bark for ropes, baskets, &c. Layers are generally two years in rooting; cuttings do not succeed, and it does not ripen seeds here. Snails, Sweet observes, are particularly fond of this plant.

912. *Gnidia*. One of the names given by the ancients to the *Daphne*. These plants "thrive well in a sandy peat soil, with their pots well drained with broken potsherds: care must be taken not to over water them, or to let them flag for want of water, as their roots are very tender and are easily killed; the tenderer kinds are *G. oppositifolia*, and *G. piniifolia*. (*Bot. Cult.* p. 198.)

5539 The only species. Flowers appearing before the leaves

5540 Leaves scattered 3-cornered, Flowers in umbellate heads, Scales four bearded

5541 Leaves scattered 3-quetrous linear acute; floral lin. lanc. shorter than heads, Scales eight beardless

5542 Leaves all linear acute, Flowers terminal sessile, Scales four and cor. smooth

5543 Leaves scattered lanc. smooth, Flowers capitate surrounded by bractes, Peduncle naked

5544 Leaves opp. lanceolate tomentose, Flowers terminal, Scales 4

5545 Leaves opp. ovate tomentose, Flowers terminal, Scales 8

5546 Leaves ovate oblong imbricated hairy with naked nerves

5547 Leaves opp. ovate smooth, Fl. terminal subcapitate

5548 Leaves linear, Flowers axillary sessile 4-cleft

5549 Leaves lin. convex imbricated in 4 rows, Branches downy

5550 Leaves fleshy smooth outside, Stems downy

5551 Leaves linear smooth, Fl. sessile in terminal filiform silky heads

5552 Leaves linear smooth, Heads stalked downy

5553 Leaves lin. opposite, Flowers term. solitary, Branches smooth

5554 Quite smooth, Leaves oblong acute concave rugose outside, Fl. term. sessile solitary

5555 Leaves ovate villous, Flowers lateral solitary

5556 Leaves ovate scattered, Flowers capitate, Branches lax cernuous

5557 Heads clustered, Leaves loose

5558 Heads solitary woolly, Flowers imbricated in four rows

5559 Leaves opp. imbricated 4 ways, Heads smooth

5560 Leaves scattered elliptical ovate, Heads woolly

5561 Leaves oval sessile very smooth, Fl. capitate woolly

5562 Leaves opposite ovate acute, Racemes one-sided bracteate, Bractes shorter than peduncle, Fl. decandrous

5563 Leaves opp. oblong hairy, Racemes numerous terminal one-sided

DIGYNIA.

5564 Erect shrubby, Leaves linear fleshy

5565 Flowers loosely spiked very minute, Bractes lanceolate membranous

5566 Leaves pinnate, Leaflets obovate crenate smooth

5567 Leaves linear connate, Sepals flat the length of the stem-joints lanceol. acute



and Miscellaneous Particulars.

913. *Stellera*. So named by Gmelin, in memory of Georg. Wilh. Steller, adjunct of the academy at Petersburg, who collected plants in Kamtschatka, and died in Siberia, in 1746. An inconspicuous plant resembling the next genus and requiring the same culture.

914. *Passerina*. From *passer*, a sparrow. Its seed has an appendage at the end like the beak of a sparrow. Young cuttings root freely under a bell-glass in sand.

915. *Lachnæa*. Derived from *λαχνη*, wool, on account of the woolly heads of flowers.

916. *Combretum*. A name employed by Pliny. The plant of the ancients could have no relation to the plant now called by this name, which is a genus of splendid climbing shrubs, with beautiful branches of flowers which are often crimson or purple, and sometimes white. A number of species are found at Sierra Leone. They are all stove plants.

917. *Galenia*. So named by Linnæus from the famous physician Claudius Galenus, born at Pergamus, 133 years before the Christian æra. A coarse-looking shrub, with the leaves obscurely papillose or bladdery, and the stem round.

918. *Aphananthe*. A name contrived from *α*, privative, *φανος*, to be remarkable, and *ανθος*, a flower: that is to say, a plant which is not remarkable for the beauty of its flowers. A curious little Brazilian weed.

919. *Weinmannia*. In honor of John William Weinmann, a German botanist, who published in 4 vols. folio, his *Phytanthoza Iconographica*, about the middle of the last century. Handsome shrubs, with pinnated leaves.

920. *Mehringia*. So named by Linnæus, from Paul Henry Gerard Moehring, a physician, author of *Hortus Proprius*, 1736. A little inconspicuous weed-like plant. It suits very well for rock-work, or to be grown in small pots.

TRIGYNIA.

921. POLY/GONUM. W. PERSICARIA.		<i>Polygonæa.</i>		<i>Sp. 36—60.</i>					
5568 amphibium L.	amphibious	△ w	1 jn.au	Pk	Britain	dit.	D s.l	Eng. bot. 436	
5569 ocreatum L.	spear-leaved	△ pr	2 jn.s	W.G	Siberia	1780.	D s.l	Gmel. sib. 3. t. 8	
5570 virginianum L.	Virginian	△ w	3 au.s	W	N. Amer.	1640.	D s.l	Fa. th. 857. f. 6	
5571 lapathifolium H. K.	pale-flowered	○ w	1 jn.s	G	England	dungh.	S s.l	Eng. bot. 1382	
5572 Hydropiper L.	Water Pepper	○ w	1 jl.s	R	Britain	wat. pl.	S s.l	Eng. bot. 989	
5573 tinctorium Loureiro	dyer's	△ dy	2 jl.au	Rk	China	1776.	C s.l		
5574 minus W.	small	○ w	½ au.s	Pk	England	wat.co.	S s.l	Eng. bot. 1043	
5575 Persicaria L.	spotted	○ w	2 jl.au	Pk	Britain	dit.	S s.l	Eng. bot. 756	
5576 incanum Schmidt	hoary	○ w	2 jl.au	W	Germany	1804.	S s.l	Pet. h. br. t. 3.f.8	
5577 barbatum L.	bearded	△ cu	2 jn	W	China	1819.	S s.l		
5578 orientale L.	common	○ or	6 jl.o	R	E. Indies	1707.	S co	Bot. mag. 213	
β album	white-flowered	○ or	4 jl.o	W.G	E. Indies	1781.	S co		
5579 frutescens W.	shrubby	○ or	2 jl.au	Pk	Siberia	1770.	I s.l	Bot. reg. 254	
5580 aviculare L.	Knot-grass	○ w	3 ap.o	G	Britain	rubble.	S co	Eng. bot. 1252	
5581 arenarium Bieb.	sand	△ w	1 my.au	Pu	Hungary	1807.	S co	Pl. rar. hu. t. 67	
5582 elegans Tenore.	elegant	△ pr	2 ap.au	W.G	Naples	1824.	D co		
5583 erectum L.	upright	○ w	1 jl.au	P.R	N. Amer.	1792.	D s.l		
5584 chinense W.	Chinese	○ dy	6 jl.au	W.G	China	1795.	S s.l	Bur. in. t. 30. f. 3	
5585 sagittatum W.	arrow-leaved	○ cu	6 jl.au	W.G	N. Amer.	1759.	S s.l	Lin. hor. cl. t. 12	
5586 arifolium W.	Arum-leaved	○ cu	6 my.o	W.G	N. Amer.	1816.	S s.l	Pl. am. t. 398. f.3	
5587 Convolvulus L.	common-climb.	○ w	3 my.s	W.G	Britain	corn.f.	S s.l	Eng. bot. 941	
5588 dumetorum L.	bush	○ un	12 my.s	W	S. Europe	1803.	S co	Flor. dan. t. 756	
5589 scandens L.	American-clim.	△ un	12 jl.s	Pk	N. Amer.	1749.	D co	Pl. al. t. 177. f. 7	
5590 littorale Lk.	sea-shore	△ un	1 jn	W.G	S. Europe	...	S co		
5591 Bellar'di All.	Bellardi's	△ un	1 jn.jl	W.G	S. Europe	...	S co		
5592 acetosum Bieb.	sour	○ un	½ d	W.G	Crimea	1820.	S co		
5593 crispulum B. M.	upright	△ pr	1½ jl.au	W.pk	Siberia	1800.	C s.l	Bot. mag. 1065	
5594 Bistorta L.	Snake's-weed	△ m	1½ my.s	Pk	Britain	me. pa.	D co	Eng. bot. 509	
5595 viviparum L.	Alpine-Bistort	△ pr	½ my.s	W.G	Britain	al. pas.	D s.l	Eng. bot. 669	
5596 divaricatum L.	divaricating	△ un	2 jl.au	W.G	Siberia	1759.	D co	Gm. si. 3.t.11.f.1	
5597 undulatum L.	wave-leaved	△ un	3 jn.jl	W.G	Siberia	1789.	D s.l	Gmel. sib. 3. t.10	
5598 aciculatum W. en.	narrow-leaved	△ un	2 jn.jl	W.G	Siberia	1816.	D s.l		
5599 salignum W. en.	Willow-like	△ un	4 my.au	W.G	Siberia	1816.	D s.l		
5600 tataricum L.	Tartarian	○ un	2 jl.au	W.pk	Siberia	1759.	S s.l	Gm. si. 3.t.13. f.1	
5601 emarginatum Roth.	notch-seeded	○ cu	2 jl.au	Pk	China	1796.	S s.l		
5602 Fagopyrum L.	Buck-Wheat	△ ag	2 jl.au	Pk	England	corn.f.	S s.l	Eng. bot. 1044	
5603 alpinum Ill.	alpine	△ un	1 my.au	W	Swit'zerl.	1816.	D s.l	Al. ped. t. 68. f.1	
922. COCCOLO'BA. W.	SEASIDE-GRAPE.	<i>Polygonæa.</i>		<i>Sp. 8—20.</i>					
5604 uvifera W.	round-leaved	□ fr	60	...	W.G	W. Indies	1690.	C r.m	Jac. amer. t. 73



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921. *Polygonum*. From πολύς, many, and γωνία, knee, many joints. These are nearly all common weeds of temperate climates. P. Bistorta, being one of the strongest vegetable astringents, might well be applied to the purpose of tanning leather, if it could be procured in sufficient quantity. The young shoots were formerly eaten in herb-puddings in the north of England, where the plant is known by the name of Easter Giant, and about Manchester they are substituted for greens under the name of Patience Dock. (Curtis, Withering.) The root was formerly considered to be alexipharmic and sudorific.

P. viviparum is so named on account of the flowers frequently changing into vegetable bulbs. The roots have the same qualities as those of P. Bistorta, and are eaten in Sweden and Lapland, Siberia and Tartary.

P. amphibium is one of the most difficult weeds to eradicate from recovered alluvial lands, and has no equal in this respect unless Equisetum. The roots, which in the water are properly stems, are found to a great depth in such soils; and though by fallowing or otherwise stirring the surface, the leaves may be prevented from showing themselves for several years; yet if the field be allowed to lie a year in grass, the surface will be found abounding with Polygonum. Many tracts in Scotland which have been recovered from rivers and estuaries for an unknown series of years still abound with this plant, and as under such circumstances it never advances so far as to flower and seed, the individuals must be the same which formerly were suspended in the water. As an aquatic, it has a gay, showy appearance, when in flower.

P. Hydropiper is a powerful diuretic, and will dye woollen cloth of a yellow color.

P. tinctorium, and also chinense and aviculare, are cultivated in China for dyeing cloth of a beautiful blue or green.

TRIGYNIA.

- § 1. *Flowers pentandrous.*

- 5568 Half digyn. Spike ovate, Stipules lacerate, Leaves oblong or lanceolate
 5569 Flowers trigynous, Leaves lanceolate
 5570 Flowers half digynous, Cor. 4-cleft unequal, Leaves ovate

§ 2. *Flowers hexandrous.*

- 5571 Flowers digynous, Stipules unarmed, Pedunc. rough, Seeds depressed on each side
 5572 Flowers half digynous, Leaves lanc. wavy not spotted, Spikes filiform nodding
 5573 Flowers trigynous, Spikes twiggy, Stipules smooth truncate ciliated, Leaves ovate acute smooth
 5574 Flowers nearly monogynous, Leaves lin. lanceol. flat, Spikes filiform erect, Stem rooting at base
 5575 Flowers half digynous, Spikes ovate-oblong erect, Pedunc. smooth, Stipules ciliated
 5576 Flowers digynous, Spikes oblong, Leaves obl. lanceolate pubescent beneath
 5577 Flowers trigynous, Spikes twiggy, Stipules truncate ciliated, Leaves oblong acute smoothish

§ 3. *Flowers heptandrous.*

- 5578 Flowers digynous, Leaves ovate, Stem erect, Stipules hairy hypocateriform

§ 4. *Flowers octandrous.** *Stem twining.*

- 5579 Leaves lanceolate narrowed each way, Stipule lanceol. shorter than the joint. — TRAGOPYRUM. *Bieb.*
 5580 Flowers axill. Leaves ellipt. lanceol. rough at edge, Nerves of stipules remote
 5581 Flowers trigynous, Spikes term. leafless, Leaves lanc. lin. Stems angular declinate herbaceous
 5582 Flowers large axillary, Spike compact, Stem stout sheathed
 5583 Flowers trigynous axillary, Leaves oval, Stem erect herbaceous
 5584 Flowers trigynous, Peduncles rough, Leaves ovate stalked, Bracts cordate sessile
 5585 Leaves sagittate, Stem prickly
 5586 Leaves hastate, Stem prickly
 5587 Leaves cordate sagittate, Stem angular, Segm. of cal. obtusely keeled
 5588 Leaves cordate, Stem smooth, Leaves keeled winged
 5589 Leaves cordate, Raceme simple axillary, Stem smooth
 5590 Stem procumbent, Leaves oblong acute veiny fleshy, Stipules ciliated much shorter than the joints
 5591 Flowers axill. trigynous, Leaves ellipt. lanceol. Sheaths ciliated
 5592 Flowers trigynous axillary, Leaves lanceolate fleshy veinless, Stipules 2-parted

* *Stem not twining.*

- 5593 Leaves stalked obovate mucronulate smooth with a crisp revolute edge
 5594 Stem simple one-spiked, Leaves ovate wavy running down the stalk
 5595 Stem simple one-spiked, Leaves revolute lanceolate at edge
 5596 Flowers trigynous racemose, Leaves lanceolate smooth, Stem divaricating spreading smooth
 5597 Flowers trigynous paniced, Leaves lanceolate wavy rough above pubescent beneath
 5598 Flowers trigynous racemose-paniced, Leaves linear lanceolate smooth
 5599 Flowers trigynous racemose-paniced, Leaves linear lanceolate smooth acuminate ciliated at edge
 5600 Leaves cordate sagittate, Stem unarmed, Seeds toothed
 5601 Leaves cordate sagittate, Stem unarmed, Seeds truncate at end emarginate winged
 5602 Leaves cordate sagittate, Stem unarmed, Angles of seeds equal
 5603 Flowers trigynous racemose-paniced, Leaves ovate lanc. smooth ciliated at edge

- 5604 Leaves cordate roundish shining

and *Miscellaneous Particulars.*

P. orientale is a well known annual, showy, and fit for shrubberies. The seeds were first sent to Europe by Tournefort, who saw it growing in the garden of the monks of the three churches near Mount Ararat. They cultivate this plant there, not only for the beauty of the flowers, but for its medicinal qualities, which are the same with those attributed to our common species. (*Mill. Fig.*) The seeds are farinaceous.

P. aviculare is so named from the gratefulness of its seeds to small birds; the English name, knot-grass, from the knottiness of the stem, and because it is eaten by cattle; many such plants having obtained the name of grass, though they bear no similitude to real grasses. Hogs eat it with great avidity, and hence it is known in many countries by the name of hogweed. All other domestic quadrupeds are said to eat it. The seeds are useful for every purpose in which those of buckwheat are employed, but they are much smaller.

P. Fagopyrum, (*Fagus*, beech, and *πυρος*, corn, its grain is like the mast of beech,) properly beechwheat, *Bled noir* or *Sarrazin*, Fr. Buckwheat is considered a native of Asia and not of Europe, though sometimes found in a seemingly wild state. It will not, however, bear the frosts of our springs or the severity of winter. In China and other countries of the East, it is cultivated as a bread corn. The flower is also used in cookery and bread-making in various parts of Europe, to make cakes and crumpets in England, and as rice or gruel in Germany and Poland. The seed is said to be excellent for horses and poultry, the flowers for bees, and the plant green for soiling cows, cattle, sheep or swine. As an agricultural plant it is valuable, as standing only a short time on the ground; but it produces little straw for manure.

922. *Coccoloba*. From *κοκκος*, fruit, and *λαβος*, a lobe; the fruit has three lobes. *C. uvifera* is a common tree in most of the sugar colonies, generally near the sea. It is remarkable for its large leaves, and when of

5605 latifolia Lam.	broad-leaved	☉	□	or	20	...	W.G	S. Amer.	1812.	C	r.m	La. il. t. 316. f. 4
5606 pubescens W.	downy	☉	◻	tm	70	...	W.G	W. Indies	1690.	C	r.m	Pl. phy. 222. f. 8
5607 excoriata W.	oval-leaved	☉	◻	tm	80	...	W.G	W. Indies	1733.	C	r.m	Pl. ic. t. 146. f. 1
5608 punctata W.	spear-leaved	☉	◻	or	15	...	W.G	W. Indies	1733.	C	r.m	Jac. ac. 114.t.77
5609 barbadosensis W.	Barbadoes	☉	◻	tm	60	...	W.G	Barbadoes	1790.	C	r.m	Jac. obs. 1. t. 8
5610 diversifolia Jacq.	various-leaved	☉	◻	or	20	au	W.G	St. Dom.	1818.	C	r.m	Hook. ex. t. 102
5611 laurifolia Jacq.	laurel-leaved	☉	◻	or	20	au	W.G	Caraccas	1822.	C	r.m	Jac. sch. 3. t. 267
923. PAULLINIA. W.	PAULLINIA.								Sp. 6—39.			
5612 pinnata W.	winged-leaved	☉	◻	or	15	...	W.G	W. Indies	1752.	C	r.m	Jac.ob. 3.t.62.f.12
5613 curassavica W.	shining-leaved	☉	◻	or	18	...	W.G	S. Amer.	1739.	C	r.m	Jac. ob. 3.t.61.f.8
5614 barbadosensis W.	Barbadoes	☉	◻	or	16	...	W.G	W. Indies	1786.	C	s.p	Jac. ob. 3.t.62.f.9
5615 polyphylla W.	Supple-Jack	☉	◻	or	20	...	W.G	W. Indies	1739.	R	s.p	Jac.ob.3.t.61.f.10
5616 caribae'a Jac.	Caribbean	☉	◻	or	10	...	W.G	W. Indies	...	C	s.p	Jac. ob. 3. t. 62. f. 7
5617 meliæfolia Juss.	Beadtrees-ld.	☉	◻	or	12	...	W.G	Brazil	1819.	C	s.p	Hook. ex. f. 110
924. SERIANA. W.	SERIANA.								Sp. 2—21.			
5618 sinuata W.	sinuate-leaved	☉	◻	or	15	...	W.G	S. Amer.	...	C	co	Jac. ob. 3.t.61.f.2
5619 caracasana W.	tooth-leaved	☉	◻	or	15	...	W.G	Caraccas	1816.	C	co	Jac. sch. 1. t. 99
925. CARDIOSPERMUM. W.	HEART-SEED.								Sp. 3—12.			
5620 Halicacabum W.	smooth-leaved	☉	◻	cu	4	jl	W.G	India	1594.	S	co	Bot. mag. 1049
5621 Corindum W.	Parsley-leaved	☉	◻	cu	4	jl.au	W.G	Brazil	1750.	S	co	
5622 pubescens Lag.	downy	☉	◻	cu	6	jn	S	N. Spain	1823.	S	co	
926. SAPINDUS. W.	SOAP-BERRY.								Sp. 6—18.			
5623 Saponaria W.	coromon	☉	◻	ec	20	...	W.G	W. Indies	1697.	S	p.l	Cm. hort. t. 94
5624 marginatus W. en.	edged	☉	◻	or	...	...	W.G	Carolina	...	S	p.l	
5625 rigidus W.	Ash-leaved	☉	◻	or	25	jl.s	W.G	America	1759.	S	p.l	Pl. alm. t.217. f.7
5626 longifolius Vahl.	long-leaved	☉	◻	or	16	...	W.G	E. Indies	1820.	S	co	
5627 emarginatus Vahl.	emarginated	☉	◻	or	12	...	W.G	E. Indies	1822.	S	r.m	
5628 rubiginosus Roab.	rusty	☉	◻	or	15	...	W.G	E. Indies	1821.	S	p.l	

TETRAGYNIA.

927. VERA. W.	VEREA.								Sempervivæ.	Sp. 3—8.		
5629 laciniata P. S.	cut-leaved	☉	◻	or	2	jl.au	Y	E. Indies	1781.	Ls	s.l	Plant. grass. 100
5630 crenata W.	Ver'e's	☉	◻	or	2	jl.s	Y	S. Leone	1793.	Ls	s.l	Bot. mag. 1436
5631 acutiflora Hav.	white-flowered	☉	◻	or	2	jl.s	W	E. Indies?	1806.	Ls	s.l	Bot. rep. 560
928. BRYOPHYLLUM. Sal.	BRYOPHYLLUM.								Sempervivæ.	Sp. 1.		
5632 calycinum Sal.	large-cupped	☉	◻	cu	2	ap.jl	G.Pu	E. Indies	1800.	Ls	s.l	Par. lond. 3
929. PARIS. W.	PARIS.								Asphodeteæ?	Sp. 1—2.		
5633 quadriflora W.	Herb	☉	◻	cu	2	my.jn	G	Britain	woods.	D	p.l	Eng. bot. 7
930. ADOXA. W.	MOSCHATEL.								Saxifrageæ.	Sp. 1.		
5634 Moschatellina W.	tuberous	☉	◻	cu	2	mr.my	G.W	Britain	woods.	D	s.p	Eng. bot. 453
931. ELA'TINE. W.	WATER-WORT.								Caryophyllææ.	Sp. 1—4.		
5635 Hydropter W.	small	☉	◻	cu	2	au	G	England mar.la.	S	s.l		Eng. bot. 955



History, Use, Propagation, Culture,

a considerable size, its wood is valued for cabinet work. The berries are of the size of grapes, reddish brown or purplish without, with a thin pulp, rather astringent, and a large stone within. All the species grow freely in light loamy soil; and ripened cuttings, taken off at the joint, and placed under a hand-glass, in a pot of sand, will root freely: one cutting under a glass is sufficient, as the leaves must not be shortened. (Bot. Cult. 41.)

923. *Paulinia*. So named by Linnæus, from Simon Paulli, professor of botany at Copenhagen; author of *Botanicum Quadrupartitum*, 1640, and *Flora Danica*, 1648. *P. polyphylla* affords a well known walking-stick. In the woods of Jamaica it rises with a slender, woody, tough, flexible stalk, and ascends among the bushes to a considerable height. When the wood is ripe it is cut down, barked, and used as riding or walking sticks.

All the species succeed well in a light loamy soil; and large sized cuttings root in sand under a hand-glass.

924. *Seriana*. Named by Schumacher, after one Paul Serjeant. Cuttings root in sand under a hand-glass.

925. *Cardiospermum*. From *καρδια*, a heart, and *σπερμα*, seed, in allusion to its round seeds, which are marked with a spot like a heart. The plant is remarkable for its inflated membranous capsule, from which it is sometimes called balloon vine.

926. *Sapindus*. A syncope of *sapo-indicus*, Indian soap. Its fruit is covered with a pulp, which is used in America for washing linen. *S. Saponaria* bears a berry as large as a cherry, inclosing a nut of a shining black when ripe. These nuts were formerly brought to England for buttons to waistcoats; some were tipped with silver, and others with different metals; they were very durable, as they do not wear, and seldom broke. The skin or pulp which surrounds the nut is saponaceous, and is used in America to wash linen; but it is very apt to burn and destroy it, if often used, being of a very acrid nature.

The whole plant, especially the seed-vessel, being pounded and steeped in ponds, rivulets, or creeks, is ob-

- 5605 Leaves entire very broad contracted at base
 5606 Leaves orbicular pubescent
 5607 Leaves oblong-ovate acute cordate at base, Racemes pendulous
 5608 Leaves lanceolate ovate
 5609 Leaves cordate ovate wavy
 5610 Leaves of the branchlets ovate, of the branches ovate cordate
 5611 Leaves oblong obtuse at each end coriaceous flat

- 5612 Caps. pyriform, Leaves in 2 pairs with an odd one, Leaflets ovate lanceolate sessile crenate
 5613 Valves of caps. half orbicordate, Leaves 2 ternate, Leaflets oval crenate, Footstalk edged
 5614 Valves of caps. half ovate villous, Leaves 2 ternate, Leaflets oval entire and serrated coriaceous
 5615 Valves of caps. obovate, Leaves supradecomposed, Leaflets ovate cuneate crenate at end
 5616 Leaves biternate, Leaflets oval toothletted at end, Branches prickly
 5617 Caps. pyriform 3-winged at end, Leaves in 3 pairs with an odd one, Leaflets subsessile pubescent beneath

- 5618 Leaves ternate, Leaflets ovate lanceol. toothed sinuated, Wings of fruit dilated behind
 5619 Leaves biternate, Leaflets oblong remotely toothed quite smooth, Wings of fruit rounded behind

- 5620 Stem stalks and leaves smooth, Leaves biternately cut, Segm. stalked cut-toothed
 5621 Leaves beneath downy biternately cut, Segments stalked cut obtuse
 5622 All over pubescent, Capsules obtuse

- 5623 Rachis of leaves winged, Leaflets entire lanceol. of 3-4 pairs : the terminal with long points
 5624 Rachis of leaves winged unarmed, Leaflets lanceolate of 6 pairs
 5625 Rachis not winged, Leaflets ovate oblong smooth of 3 pairs
 5626 Rachis not winged, Leaflets lanceolate smooth of 5 pairs : one terminal
 5627 Rachis not winged, Leaflets oblong emarginate villous beneath
 5628 Rachis not winged, Leaflets oblong lanceolate acute villous beneath of 3-5 pairs

TETRAGYNIA.

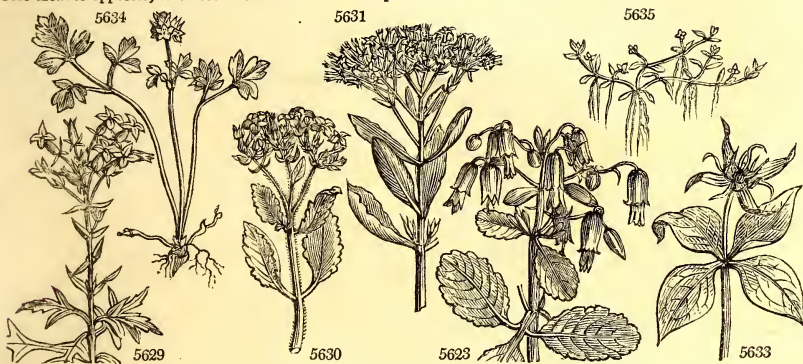
- 5629 Leaves 3-parted toothed : the floral linear entire
 5630 Leaves obovate doubly crenate
 5631 Leaves broad lanceolate opposite crenate thick, Segm. of cor. acute

- 5632 Leaves oval crenate, Flowers long pendulous cylindrical

- 5633 All the parts of the plant green and in fours

- 5634 The only species

- 5635 Leaves opposite, Flowers alternate stalked tetrapetalous



and Miscellaneous Particulars.

served to intoxicate and kill the fish. Loureiro celebrates the berries, slightly bruised and steeped in water, as a very excellent soap; and remarks that it is only required to use them with prudence, all abstersgents being in some degree corrosive.

927. *Verea*. So named after the late James Vere, Esq., a gentleman of fortune, who patronized gardening, and had once a fine collection of living plants. The species thrive best in sandy loam, and should be plunged in the bark pit to make them flower. The leaves placed on a pot of mould, or on the tan, will shoot out young plants from the notches of the margin. (*Bot. Cult.* 33.)

928. *Bryophyllum*. From *βρυο*, to grow, and *φυλλον*, a leaf. If the leaves are laid upon damp earth their notches push forth roots, whence proceed young plants. This plant requires very little water, and the pot to be well drained : it flowers best plunged in a tan heat; rich loamy soil suits it best.

929. *Paris*. According to some authors, this word is derived from *par*, equal; in allusion to the regularity of the parts of the plant. Few plants are more readily distinguished than this, by the proportion and regularity of all the parts.

The regular number is four, or some aliquot part or multiple of that number. There are, however, sometimes only three leaves, and they are even said to vary from one to seven. The calyx also has sometimes three leaves. The leaves and berries are said to partake of the properties of opium; and the juice of the latter to be useful in inflammations of the eyes. Linnæus says, the root will vomit as well as ipecacuanha, given in a double quantity. It is a suspicious plant, which has nevertheless been used in medicine in a great variety of ways.

930. *Adoxa*. From *α*, privative, and *δοξα*, glory — inglorious. This plant is minute, and by no means beautiful, and grows in obscure places.

931. *Elatine*. From *ελατην*, a fir, in Greek. Its fine leaves have been compared to those of a fir-tree.

932. HALO'RAGIS. <i>W.</i>	HALORAGIS.			<i>Haloragææ. Sp. 1-5.</i>				
5636 Cercódia <i>W.</i>	whorl-flowered	□	cu	2	ap.s	G.R	New Zeal.	1772. C s.p Jac. ic. 1. t. 69
933. FORSKOH'LEA.	FORSKOHLEA.					<i>Urticææ. Sp. 3-5.</i>		
5637 tenacissima <i>W.</i>	clammy	○	cu	1½	jl.au	G	Egypt	1767. S lt.l Jac. vind. 1. t. 48
5638 cándida <i>W.</i>	rough	∇	cu	1½	jn.jl	W.G	C. G. H.	1774. C lt.l
5639 angustifólia <i>W.</i>	narrow-leaved	○	cu	2	jl.au	G.w	Teneriffé	1779. S lt.l M. c. g. p. 24. t. 2



History, Use, Propagation, Culture,

932. *Haloragis.* From *ἅλς, αλος*, the sea, and *ραξ*, the berry of a bunch of grapes. This plant grows on the sea shore, and its fruit is globular like a berry.

933. *Forsköhlea.* In memory of Peter Forskühl, a Swede, born in 1732; he was professor at Copenhagen;

5636 Leaves serrate, Flowers whorled

5637 Pilose hispid, Leaves elliptical unarmed, Sepals oblong lanceolate acute

5638 Rough, Leaves elliptical wavy unarmed, Sepals ovate obtuse

5639 Strigose, Leaves lanceolate with spiny teeth, Sepals lanceolate subulate




and *Miscellaneous Particulars.*

travelled at the expence of the king of Denmark into Egypt and Arabia, and died in the latter country of the plague in 1763. Inelegant plants, with the aspect of a nettle.













CLASS IX. — ENNEANDRIA. 9 STAMENS.

ONE of the smallest of the Linnean classes ; containing, however, three important genera ; the Laurel, famous for the valuable spices it produces, and for the beautiful foliage of its insipid species ; the Cashew nut, well known at the tables of the great or luxurious ; and the Rhubarb, one of the most valuable of medicines. The class itself is extremely unnatural, and the assemblage of genera most incongruous.

Order 1. MONOGYNIA.  9 Stamens. 1 Style.

934. *Laurus*. Cal. 4-6-parted. Nect. 3 glands, with 2 bristles surrounding the ovary. Anthers opening transversely. Valves hinged to the upper side.

MONOGYNIA.

934. LAU'RUS. <i>W.</i>	LAUREL.			<i>Laurinae</i> . Sp. 18—68.				
5640 Cinnamómum <i>W.</i>	Cinnamon		m 20	in.s G.Y	Ceylon	1763.	L s.p	Bot. rep. 596
5641 Cássia <i>W.</i>	Bastard-Cinn.		m 50	mys. W	E. Indies	1768.	C s.p	Bot. mag. 1636
5643 Malabátrum <i>P. S.</i>	tall		or 30	... G.Y	E. Indies	1805.	C s.p	Rhe. mal. 5. t. 53
5643 cámphora <i>W.</i>	Camphire-tree		m 20	mr.jn G.W	Japan	1727.	C s.p	Jac. col. 4. t. 3. f. 2
5644 chloróxylon <i>W.</i>	Cogwood-tree		trn 60	... G.W	Jamaica	1778.	C s.p	Bro. jam. t. 7. f. 1
5645 aggregáta <i>Sims.</i>	glaucous		or 3	ja.f G.Y	China	1806.	L s.p	Bot. mag. 2497
5646 nóbilis <i>W.</i>	Sweet-Bay		or 15	ap.my Y.w	Italy	1561.	C s.l	Zorn. ic. 32
	wave-leaved		or 4	ap.my Y.w	.....	...	C s.l	
	willow-leaved		or 6	ap.my Y.w	.....	...	C s.l	
5647 Cutilában <i>L.</i>	Culilaban		or 20	... G.Y	E. Indies	1823.	C s.l	Rumph. 2. t. 14



History, Use, Propagation, Culture,

934. *Laurus*. From the Celtic *blaur* (the *b* is dropped in pronunciation, *laur*), green. The laurel is perpetually green. This genus contains several important spice or drug-bearing trees, besides the poetical laurel and a fruit tree.

L. Cinnamomum (*qu.* China Amomum) has a smooth ash-colored bark, a short erect trunk, and wide spreading branches, which form an elegant head. The leaves are of a bright green above, pale beneath, and white veined ; the flowers are in panicles, have no shew, and are inodorous, or perhaps somewhat fetid ; the fruit is the size of a middling olive, soft, insipid, and of a deep blue ; it encloses a nut, the kernel of which germinates soon after it falls, and therefore cannot easily be transported to a distance. The timber is white, and not very solid ; the root is thick and branching, and exudes abundance of camphor. The inner bark forms the cinnamon of commerce. There are many varieties, and probably some of them species, especially in the island of Ceylon, but only four are said to be barked. Besides Ceylon, the tree grows plentifully in Malabar, Cochin China, Sumatra, and the Eastern islands. It has been cultivated in the Brazils, the Mauritius, India, Jamaica, and other places. The soil in which it thrives best is nearly pure quartz sand. That of the cinnamon garden near Colombo in Ceylon, was found by Dr. Davy to consist of 98-5 of silicious sand, and of 1-0 only of vegetable matter in 100 parts. "The garden is nearly on a level with the lake of Colombo ; its situation is sheltered ; the climate is remarkably damp ; showers are frequent, and the temperature is high and uncommonly equable." (*Davy's Ceylon*, p. 33.)

The trees that grow in the valleys, in a white sandy soil, are fit to be barked when four or five years old, but those in a wet soil or in shady places, require to be seven or eight years of age. The bark is good for nothing if the tree be older than eighteen years. The tree was formerly propagated by a species of pigeon that ate the fruit and voided the seed ; but since Falck, one of the Dutch governors, about the middle of the eighteenth century, raised it from berries sown in his garden, it has been regularly cultivated.

The barking commences early in May, and continues until late in October. Branches of three years old are selected, and topped off with a pruning knife or bill hook. To remove the bark a longitudinal incision is made through it on both sides of the shoot, so that it can be gradually loosened and taken off entire, forming hollow cylinders. The bark in this state, tied up in bundles, is allowed to remain for twenty-four hours, by which a fermentation is produced that facilitates the separation of the epidermis, which, with the green pulpy matter under it, is carefully scraped off. The bark now soon dries, contracts, and assumes the quilled form, after which the smaller pieces are put within the larger. The cinnamon, when dry, is tied up in bundles of 30 lbs. weight, and carried to the Government store-house, where the quality is determined by inspection of the bundles. It was formerly chewed for this purpose ; and the surgeons who used to be thus employed, had their

935. *Anacardium*. Cal. 5-parted. Petals 5, reflexed. Anthers 9, and one filament barren. Nut reniform, upon a fleshy receptacle.

936. *Cassipha*. Cal. 6-parted. Nect. 3 truncate glands surrounding the ovary. Inner filaments glanduliferous. Drupe 1-seeded.

937. *Eriogonum*. Cal. campanulate, 6-cleft. Nut 1, 3-cornered, covered by the calyx.

Order 2. TRIGYNIA.  9 Stamens. 3 Styles.

938. *Rheum*. Cor. 6-cleft, persistent. Nut 1, 3-cornered.

Order 3. HEXAGYNIA.  9 Stamens. 6 Styles.

939. *Butomus*. Sepals 6. Caps. 6, many-seeded.

MONOGYNIA.

5640 Leaves 3-nerved ovate-oblong, Nerves vanishing towards the end

5641 Leaves triple-nerved lanceolate

5642 Leaves opp. very long acute at each end triple-nerved veiny across

5643 Leaves triple-nerved lanceolate ovate

5644 Leaves 3-nerved ovate coriaceous, Nerves reaching the end

5645 Leaves ovate acuminate 3-nerved glaucous beneath, Flowers axillary numerous

5646 Leaves lanceolate veiny perennial, Flowers 4-fid dioicous

5647 Leaves triple-nerved opposite



and Miscellaneous Particulars.

mouths so excoriated, as to be unable to continue the process longer than two days together: but tasting is now seldom had recourse to.

Cinnamon bark is astringent, cordial, and tonic. But the principal use of cinnamon is to cover the nauseous state of other remedies. (*Thomson's London Dispensatory*, 354.)

An oil is procured from the leaves and roots of cinnamon; the former is called the oil of cloves, and the latter the oil of camphor: both are powerfully stimulant, and used in cramps of the stomach, flatulent colic, hiccup, toothach, and nervous languor.

According to Sweet *L. Cinnamomum* is the hardest plant of the genus to cultivate in our stoves. "I have scarcely," he says, "ever seen it do well any where but at Messrs. Loddiges," who generally keep their stoves warmer than other gardeners usually do; and the cinnamon likes a warm atmosphere, and very little water in winter. It grows best in a mixture of sandy loam and peat, the pots being well drained with small potsherds. Ripened cuttings soon take root in a pot of sand, plunged under a hand-glass, in a good moist heat. (*Bot. Cult.* 74.)

The plant has regularly flowered and ripened seeds in the hothouse of the Bishop of Winchester for several years past.

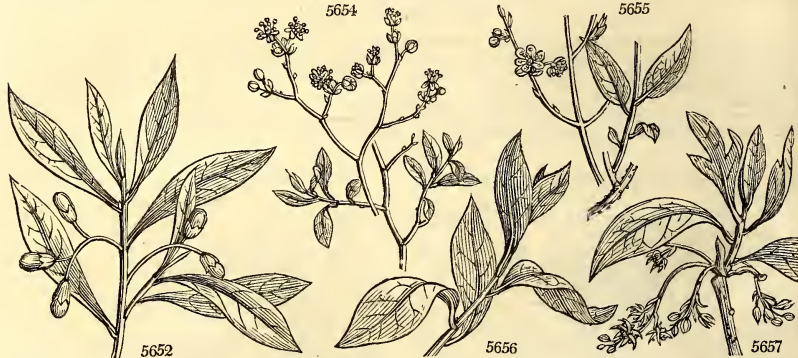
L. Cassia is also decorticated like the cinnamon, but it is considered of inferior value, on account of containing a greater proportion of mucilage. What are called Cassia buds, are not obtained from this tree, but are the hexangular fleshy receptacles of the seed of the *L. Cinnamomum*. Cassia bark and buds are used in the same manner as cinnamon bark: the tree also affords an oil of similar use. In our stoves, the cassia grows more readily than the cinnamon; and the same kind of soil suits it; and cuttings root freely treated in the same manner. (*Bot. Cult.* 74.)

L. Camphora, an alteration of the Arabic name, *káfoûr*, is nearly allied to the cinnamon tree. The roots, wood, and leaves of this tree have a very strong odor of camphor; and from the roots and smaller branches it is obtained by distillation. They are cut into chips, which are suspended in a net within a kind of still or iron pot, the bottom of which is covered with water, and an earthen head fitted to it; heat is then applied, and the steam of the boiling water, penetrating the contents of the net, elevates the camphor into the capital, where it concretes on straws, with which this part of the apparatus is lined. Camphor is stimulant, narcotic, and diaphoretic, but its stimulant powers are very transitory, and followed by sedative effects. In moderate doses it operates as a cordial, increasing the heat of the body, and exhilarating, besides softening, and rendering fuller the pulse, and promoting diaphoresis; in large doses it allays irritation and spasm, abates pain, and induces sleep. But in immoderate doses camphor produces vomiting, vertigo, delirium, convulsions, and other

5648 <i>indica W.</i>	Royal-bay	☉	tm	20	mr.o	G.y	Madeira	1665.	C 1p	Pl. alm. t. 304 f.1
5649 <i>foetens W.</i>	Madeira, or Til.	☉	tm	20	mr.o	G.y	Madeira	1760.	C 1p	
5650 <i>canariensis W. en.</i>	Canary	☉	or	10	...	G.y	Canaries	1815.	C 1p	
5651 <i>Pérsea W.</i>	Alligator Pear	☉	fr	30	...	G.y	W. Indies	1739.	C 1p	Pl. alm. t. 267. f.1
5652 <i>Borbônia W.</i>	brd.-Ivd.-Carol.	☉	or	15	ap.my	Y.g	N. Amer.	1739.	C 1p	Cat. car. 1. t. 63
5653 <i>carolinensis P. S.</i>	Red-Bay	☉	tm	15	ap.my	Y.g	N. Amer.	1806.	L 1p	
5654 <i>geniculata Ph.</i>	flexuose	☉	or	6	ap.my	Y	N. Amer.	1759.	L 1p	Bot. mag. 1471
5655 <i>Dióspyrus Ph.</i>	twiggy	☉	or	6	ap.my	G.y	N. Amer.	1810.	L 1p	Bot. mag. 1470
5656 <i>Benzóin W.</i>	Benjamin-tree	☉	m	8	ap.my	Y.g	N. Amer.	1683.	S p.s.1	Com. hort. 1. t. 97
5657 <i>Sassafras W.</i>	Sassafras-tree	☉	m	50	my.jn	G.y	N. Amer.	1633.	S p.s.1	Cat. car. 1. t. 55
935. ANACARDIUM.	W. CASHEW-NUT.						Terebintaceae.	Sp. 1. ?		
5658 <i>occidentale W.</i>	common	☉	fr	12	...	R	India	1699.	C r.m	Cat. car. 3. t. 9
936. CASSYTHA.	CASSYTHA.						Laurineae.	Sp. 1-2.		
5659 <i>filiformis W.</i>	filiform	☉	cu	3	ap.au	W	E. Indies	1796.	C s.p	Pl. al. t. 172. f. 2
937. ERIOGONUM.	ERIOGONUM.						Polygonaceae.	Sp. 2-3.		
5660 <i>tomentosum Ph.</i>	woolly	☉	cu	2	my.jn	Y	Carolina	1811.	S 1p	Mich. am. t. 24
5661 <i>sericeum Ph.</i>	silky	☉	cu	1	jl	Y	Missouri	1811.	S 1p	

TRIGYNIA.

938. RHEUM.	RHUBARB.						Polygonaceae.	Sp. 7-10.		
5662 <i>Rhaponticum W.</i>	common	☉	cul	4	my.jn	W.g	Asia	1573.	R co	Sabb. hort. 1. t. 34
5663 <i>undulatum W.</i>	Bucks	☉	cul	4	my.jn	W.g	China	1734.	R co	Aman. ac. 3. t. 4



History, Use, Propagation, Culture,

deleterious effects. The greater part of the camphor brought to Europe is obtained in Sumatra from the *Dryobalanops Camphora*. This tree is cut and split, and the camphor which is found concentered in the heart of it is picked out and washed in a ley of soap. Zea describes a variety of camphor which is proctured in South America from a tree, the botanical characters of which are not yet known, but which is termed *caratta* by the natives. The camphor exudes from the bark in the form of tears. (*Thomson's London Dispensatory*, 356.)

L. Chloroxylon has its specific from the color of the wood, *χλωρον*, green, and *ξύλον*, wood; it is esteemed one of the best timber trees in Jamaica, and used on all occasions where strength and durability are required: being both hard and tough, it answers better than any other wood for the cogs of sugar mills.

L. nobilis, the *Laurier*, Fr., *Lorbeerbaum*, Ger., *Alloro*, Ital., *Laurel*, Span., the *Laurus* of the Romans, and *Daphne* of the Greeks, was designated *nobilis*. by Linnæus, because it was consecrated to priests, sacrifices, and heroes in the ages of antiquity, and has been celebrated accordingly. To the poet and sculptor it still affords emblems for victorious heroes; and it is also used in cookery and medicine. In the south of Italy it grows to a sufficient height to be considered a tree; but is so prolific in suckers and low shoots as always to have the character of a shrub. It forms a dense and yet broken and picturesque mass of a very fine deep green, inclining to olive, and is abundantly covered with berries, which are dark purple or black, when ripe. Oil is obtained from the latter by boiling water. Both the leaves and the berries have a sweet fragrant odour, and an aromatic, astringent taste; and the oil, which is of a yellowish green color, has a stronger but similar odor and taste. Water distilled from the leaves shews traces of prussic acid; and it is probably on this component that their medicinal and poisonous property depend. Leaves, berries, and oil are narcotic and carminative. (*Thomson's London Dispensatory*, 360.)

L. *indica* grows in the Canary Isles and Virginia. The wood is of a yellow color, not heavy, good for building, but better still for furniture: it is called *Vignatico* in the island of Madeira, and is probably what is imported into England under the name of Madeira mahogany. It is hardly to be distinguished from mahogany, except that it is somewhat less brown. (*Hawkesw. Voy. ii. p. 5.*)

L. *Persea* (*Persea* is a name under which Theophrastus describes an Egyptian tree not now known,) has a trunk as large as our common apple tree; the bark is smooth, and of an ash color; the branches are very succulent and soft, beset with pretty large oblong smooth leaves, like those of laurel, of a deep green color. The flowers are, for the most part, produced towards the extremities of the branches. The fruit is the size of one of our biggest pears. The pulp of the fruit is covered with a tough skinny coat, and contains a large rugged seed, which is wrapped up in one or two thin membranous covers. This fruit is held in great esteem in the West Indies; the pulp is of a pretty firm consistence, and has a delicate rich flavor; it gains upon the palate of most persons, and becomes soon agreeable even to those who cannot like it at first; but it is so rich and mild, that most people make use of some spice or pungent substance to give it a poignancy; and, for this purpose, some make use of wine, some of sugar, some of lime-juice, but most of pepper; and salt. This fruit seems equally agreeable to the horse, the cow, the dog, and the cat, as well as to all sorts of birds; when plentiful, it makes a great part of the delicacies of the negroes. (*Broune.*)

L. *Borbonia* was regarded by Plumier as a genus distinct from *Laurus*, and he applied what is now its specific name, in memory of Gaston Bourbon, son of Henry IV. and uncle of Louis XIV. It is a very common tree in swamps in Carolina, and affords a fine grained wood excellent for cabinets; some of the best resembles watered satin.

L. *Sassafras* (*Sassafras* is an alteration of the Spanish word *Salsafraz*, which signifies *Saxifrage*, the virtues of which are attributed by the Spanish Americans to this plant,) has the flowers often imperfect as to the male and female organs, which, before observation was so accurate and scientific as at present, led to the conclusion

- 5648 Leaves veiny lanceolate perennial flat, Branches scarred, Flowers racemose
 5649 Leaves veiny elliptical acute perennial, Axils of veins villous beneath, Racemes panicle
 5650 Leaves veiny oblong acute at each end perennial shining, Pedunc. axill. 3-4-flowered
 5651 Leaves ovate coriaceous transversely veiny perennial, Flowers corymbose
 5652 Leaves lanceolate perennial, Calyx of fruit berried
 5653 Leaves oval lanc. perenn. glaucous beneath, Berries globose
 5654 Branches divaricating flexuose, Leaves oval obtuse smooth at the base beneath bearded, Anth. 4-celled
 5655 Twiggy naked-flowering, Leaves decid. oblong beneath veiny downy, Flowers clustered, Buds villous
 5656 Leaves nerveless ovate acute at each end entire annual
 5657 Leaves entire and 3-lobed

5658 The only species

5659 Branches filiform lax

5660 Leaves sessile cauline 3-4 cuneate obovate smooth above

5661 Leaves radical stalked lanc. oblong villous above

TRIGYNIA.

- 5662 Leaves obtuse smooth, Veins beneath hairy, Leafst. furrowed above rounded at edge
 5663 Leaves villous wavy, Leafst. flat above with an acute edge



and Miscellaneous Particulars.

that one plant bore only males and the other only hermaphrodites; it is now found the alleged males are only imperfect hermaphrodites. The wood, root, and bark have a fragrant odor, and a sweetish aromatic taste: their sensible qualities and virtues depend on an essential oil, which can be obtained separate by distilling the chips or the bark with water: it is a stimulating diaphoretic and diuretic, and has been employed in cases of scurvy, chronic rheumatism, gout, and in cutaneous affections; but its effects are very uncertain; and even the diaphoresis which it is supposed to occasion may rather be ascribed to the gualaic, and other more powerful medicines, with which it is generally combined. (*Thomson's London Dispensatory*, 361.)

The species are well divided into several genera, such as *Laurus*, *Tetranthera*, *Cinnamomum*, and others: but as this division has not been applied to the old species of *Laurus* generally, it has not been practicable to adopt it here.

935. *Anacardium*. From *ανα*, in composition, like, and *καρδια*, heart, in allusion to the form of the nut. This is an elegant tree, bearing panicle racemes of sweet-smelling flowers, succeeded by an edible fruit of the pome kind, of a yellow or red color. This fruit or apple has an agreeable sub-acid flavor, with some degree of astringency. The juice expressed and fermented yields a pleasant wine; and distilled, a spirit is drawn from it, far exceeding arrack or rum, making an admirable punch, and powerfully promoting urine. The dried and broken kernels are occasionally imported for mixing with old Madeira wine, the flavor of which they improve prodigiously. Some planters in the West Indies roast the ripe fruit, or slice one or two into a bowl of punch, to give it a pleasant flavor. The astringency of the juice has recommended it as a very signal remedy in dropsical habits.

The nut protrudes from one end of the apple. (*Long*.) It is of the size and shape of a hare's kidney, but is much larger at the end next the fruit than at the other. The outer shell is of an ash color, and very smooth, under this is another which covers the kernel; between these there is a thick inflammable oil, which is very caustic; this will raise blisters on the skin, and has often been very troublesome to those who have incautiously put the nuts into their mouths to break the shell. This oil has been used with great success in eating off ring-worms, cancerous ulcers, and corns; but it ought to be applied with caution. The kernel when fresh, has a most delicious taste, and abounds with a sweet milky juice. It is an ingredient in puddings, &c. When older it is generally roasted; and in this state is not so proper for costive habits. Ground with cacao, it makes an excellent chocolate. When kept too long it becomes shrivelled, and loses its flavor and best qualities. The thick oil of the shell tinges linen of a rusty iron-color, which can hardly be got out; and if any wood be smeared with the oil, it prevents the wood from decaying.

From the body of the tree is procured, by tapping or incision, a milky juice, which will stain linen of a deep black, that cannot be washed out again.

This tree also annually transudes from five to ten or twelve pounds weight of a fine semi-transparent gum, similar to gum arabic, and not inferior to it in virtue or quality, except that it has a slight astringency, which, perhaps, renders it in some respects more valuable. (*Long's Jam*, iii. 725, &c.)

As a stove-plant it grows in light loam or rich mould, and ripe cuttings with their leaves, planted in a pot of sand, and plunged under a hand-glass, will strike root.

936. *Cassytha*. The Greek name of the *Cuscuta*, which this plant much resembles in habit and characters of analogy. Its affinity, however, is very curious; from a minute analysis of its constituent parts it has been decided by the most learned botanists to be referable to *Laurinae*.

937. *Eriogonum*. From *εριον*, wool, and *γονυ*, a knee. The stem of this plant is very woolly at the joints. The species thrive best in pots, and are principally to be increased by seeds.

938. *Rheum*. This name was ingeniously supposed by Linnæus to have been derived from *ρεω*, to flow, because the root causes a discharge of bile. It, nevertheless, was formed from *Rha*, the ancient name of the Volga.

5664 palmátum <i>W.</i>	officinal	木	△	m	5	ap.my	W.g	Bucharia	1763.	R	co	Lin. fasc. 7. t. 4
5665 compáctum <i>W.</i>	thick-leaved	木	△	m	3	my.jn	W.g	Tartary	1758.	R	co	Mill. ic. 2. t. 218
5666 tatáricum <i>W.</i>	Tartarian	木	△	m	3	my.jn	W.g	Tartary	1793.	R	co	
5667 Ribes <i>W.</i>	warted-leaved	木	△	cul	2	my.jn	W.g	Levant	1724.	R	co	An. mus. 2. t. 49
5668 híbridum <i>W.</i>	bastard	木	△	cul	5	my.jn	W.g	Asia	1778.	R	co	Mur. co. got. t. 1

HEXAGYNIA.

939. BU'TOMUS. <i>W.</i>	FLOWERING-RUSH.	<i>Butomea.</i>	Sp. 1—2.									
5669 umbellátus <i>W.</i>	umbelled	≡	△	cl	2	ju.jl	Pk	Britain	dit.	D	r.1	Eng. bot. 651



History, Use, Propagation, Culture,

Ammianus Marcellinus, lib. xii., says, "the *Rha* is a river, on the border of which grows a root, which bears its name, and is much renowned in medicine." The construction of the specific names confirms this; *Rha* ponticum, *Rha* barbarum, whence the name *Rhubarb* was obtained.

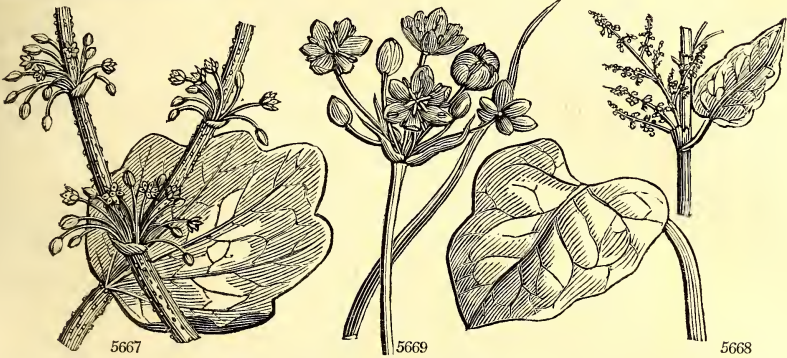
R. Rhaponticum was thought to be the true rhubarb of druggists, till Dr. Hope of Edinburgh described the *R. palmatum*, some seeds of which he had received from Russia, as of the genuine species. It is not, however, finally settled, whether these species or the *R. compactum* yield the foreign roots, nor does it appear of much consequence, as these three species agree so nearly in their medical properties, that any of them may be used with equal certainty of success. All the rhubarb of commerce, known under the names Turkey or Russian, and East Indian or Chinese, grows on the declivities of the chain of mountains in Tartary which stretches from the Chinese town Sini to the lake Kokonor near Thibet. The soil is light and sandy; and the Bucharians assert that the best grows in the shade on the southern side of the mountains. Rhubarb, however, is also cultivated in China, in the province of Chen-See, where it is called *Hai-houng*. In Tartary, the roots are taken up twice a-year, in spring and in autumn, and after being cleansed and decorticated, and the smaller branches cut off, the body of the root is divided transversely into pieces of a moderate size, which are placed on tables, and turned three or four times a-day, during five or six days. A hole is then bored through each piece, by which it is hung up to dry, exposed to the air and wind, but sheltered from the sun. In about two months, the roots have lost seven parts in eight of their weight, and are fit for the market. In China, the roots are not dug up till winter; and the cultivators, after cleaning, scraping off the bark, and cutting them, dry the slices by frequently turning them on stone slabs heated by a fire underneath; after which, the drying is completed by hanging them up in the air exposed to the greatest heat of the sun. (*Thomson's London Dispensatory*, 471.)

Rhubarb has been cultivated in different parts of Britain with a view to drying the root for medical purposes with the most perfect success; but such is the prejudice in favor of the foreign article, that sufficient de-

- 5664 Leaves palm. acute roughish, Leafst. above obscurely furrowed rounded at edge
 5665 Leaves somewhat lobed very obtuse shining finely toothletted smooth
 5666 Leaves cordate ovate entire flat smooth, Leafst. half-round angular, Panicle furrowed
 5667 Leaves very obtuse somewhat warty, Veins beneath spinulose, Leafst. flat above rounded at edge
 5668 Leaves smooth above somewhat lobed acute, Recess of base contracted

HEXAGYNIA.

5669 Flowers in handsome terminal umbels



and *Miscellaneous Particulars.*

mand was not produced to encourage the cultivator. The only point in which British culture was rather deficient was in the drying, but that a little experience would soon have overcome.

R. *Rhaponticum* and hybridum, indeed any of the species, are or may be cultivated for the petioles of the leaves in a green state, to be used in tarts and pies, as a substitute or along with gooseberries. All that is required is a dry soil well enriched and trenched two, or better, three feet deep. The plants the year after planting may have half their leaves slipped off for the cook, as soon as they arrive at full growth. Keeping the plants from flowering will obviously strengthen the leaves.

Tart rhubarb may be forced either by taking up the roots and planting them in pots, or by covering them with dung where they grow in the open garden, as is done with sea-kale. It may also be blanched, as is done with that vegetable. (See *Encyc. of Gard. art. Rheum.*)

R. *Ribes* is so called from a rob made from its stalks, and called *Rybe's of Serapias*.

It is thought that all the supposed species are reducible to *Rhaponticum*, *undulatum*, *palmatum*, and *ribes*. It is certainly very difficult to distinguish the others.

939. *Butomus*. From *βους*, an ox, and *τιμνω*, to cut; the sharp leaves of the plant cut and cause to bleed the mouths of cattle feeding upon it.

This is the only plant of the class *Enneandria* that grows wild in Britain. It is an elegant aquatic. "The water-Gladiole, or grassie-Rush," says Gerard, "is of all others the fairest and most pleasant to behold, and serveth very well for the decking and trimming up of houses, because of the beautie and braverie thereof."

The corolla varies in different shades of red, or purple mixed with white, and is sometimes entirely white. The stem at bottom and the peduncles at top are often tinged with red. The number three is evidently predominant in the fructification; the corolla being doubly tripetalous, the stamens thrice three, the pistils six, the capsules six, in a hexagon form, the involucre three-leaved,



CLASS X. — DECANDRIA. 10 STAMENS.

This is the last of the Linnean classes in which the stamens are distinct, and bear any determined relation to the other parts of the flower. It is composed of portions of a considerable number of natural orders, of which the most important is Leguminosæ, with which the class usually is made to commence. These are of two kinds: those which are papilionaceous, and those which have a regular expanded flower. The former are remarkable in their kind for bearing distinct stamens combined with a papilionaceous corolla; the greater part are natives of New Holland or the Cape of Good Hope, a very few of the Northern Hemisphere; and all of them ornamental plants. Of those with regular flowers the most beautiful genus is the *Bauhinia*, which, in the latitudes of the tropics, constitutes the most formidable obstacle to the passage of human beings through the woods, which are interlaced in every direction by the climbing or leaning stems of these and other plants commonly called *Lianes*; the most extensive genus is *Cassia*, the species of which are little esteemed as objects of ornament, but of material importance in medicine; the famous *Senna* of the shops being the produce of at least three species. The *Hæmatoxylon* and *Swietenia*, the one producing Logwood, the other Mahogany, are included in this class, as are the important *Quassia* drug, and the beautiful tribes of *Kalmias*, *Rhododendrons*, and *Andromedas*.

The second and succeeding orders are chiefly occupied by the most important of the genera of the natural order of Caryophyllæ, the whole of which have lately been remodelled and arranged, under the direction of Decandolle, by M. Seringe, an ingenious Swiss botanist. Of this order the most extensive genus is *Silene*, and the most beautiful *Dianthus*, out of which the fine carnations, pinks, and picotees of the florist have been obtained.

Order 1. MONOGYNIA.  10 Stamens. 1 Style.

§ 1. Leguminosæ. Flowers papilionaceous.

940. *Edwardsia*. Cal. 5-toothed. Pod 4-winged, many-seeded.
 941. *Sophora*. Cal. 5-toothed. Pod necklace-shaped, not winged, many-seeded.
 942. *Ormosia*. Cal. 5-cleft, 2-lipped. Stigmas 2, approximate, obtuse: one on one side. Pod compressed, woody, 1-3-seeded.
 943. *Anagyris*. Cal. 5-toothed, 2-lipped. Keel of 2 petals, which are larger than the wings, which are longer than the standard. Pod compressed, many-seeded.
 944. *Thermopsis*. Cal. oblong $\frac{3}{4}$ -5-cleft, 2-lipped, convex behind. Petals of equal length. Standard reflexed at edges. Keel obtuse. Stamens persistent. Pod compressed, linear, many-seeded.
 945. *Virgilia*. Cal. 5-cleft. Petals of equal length; standard not reflexed at edges. Stigma beardless. Pod compressed, oblong, many-seeded.
 946. *Cyclopia*. Cal. 5-cleft, unequal, pushed inwards at base. Standard with longitudinal wrinkles: wings with a transverse plait. Stamens deciduous. Stigma bearded on one side. Pod compressed, many-seeded.
 947. *Baptisia*. Cal. half 4-5-cleft, 2-lipped. Petals of equal length. Standard reflexed at edges. Stamens deciduous. Pod ventricose, stalked, many-seeded.
 948. *Podalyria*. Cal. 5-cleft, unequal, pushed inwards at base. Standard larger than the rest. Stamens persistent, connate at base. Pod ventricose, many-seeded.
 949. *Chrozemia*. Cal. half 5-cleft, 2-lipped. Keel ventricose, shorter than wings. Style short, hooked. Stigma oblique, obtuse. Pod ventricose, many-seeded.
 950. *Podolobium*. Cal. 5-cleft, 2-lipped. Keel compressed, the length of the wings, which are equal to the expanded standard. Ovary many-seeded in a single row. Style ascending. Stigma simple. Pod stalked, linear, oblong, moderately ventricose, smooth inside.
 951. *Oxylobium*. Cal. deeply 5-cleft, rather 2-lipped. Keel compressed, the length of the wings, which are equal to the open standard. Style ascending. Stigma simple. Pod many-seeded, ventricose, ovate, acute.
 952. *Callistachys*. Cal. 2-lipped. Standard erect, keel and wings drooping. Style incurved. Stigma simple. Pod stalked, woody before ripening, many-celled.
 953. *Brachysema*. Cal. 5-cleft, but little unequal, with a ventricose tube. Standard shorter than the compressed keel, which is as long as the wings. Ovary with a stalk, surrounded at base by a little sheath. Style filiform, long. Pod many-seeded, ventricose.
 954. *Gompholobium*. Cal. 5-parted, nearly equal. Standard unfurled. Stigma simple. Pod many-seeded, nearly spherical, very obtuse, smooth.
 955. *Burtonia*. Cal. deeply 5-cleft. Cor. deciduous. Petals nearly equal. Ovary 2-seeded. Style subulate, dilated at base. Stigma blunt, beardless. Pod roundish, moderately inflated. No appendage to the seed.
 956. *Jacksonia*. Cal. 5-parted, nearly equal. Corolla and stamens deciduous. Ovary 2-seeded. Style subulate, filiform. Stigma simple. Pod moderately inflated, ovate or oblong, with valves downy inside. No appendage to the seed.
 957. *Viminaria*. Cal. 5-toothed, angular. Style capillary, a little longer than the 2-seeded ovary. Stigma simple. Pod valvate, ovate. No appendage to the seed.
 958. *Sphaerolobium*. Cal. 5-fid, 2-lipped. Style on one side at the end, with a membranous appendage, on the other beardless. Stigma terminal. Pod spherical.
 959. *Aotus*. Cal. 5-cleft, 2-lipped. Stamens deciduous. Ovary 2-seeded. Style filiform. Pod 2-valved. No appendage to the seed.
 960. *Dillwynia*. Cal. 5-cleft, 2-lipped, narrow at base. Petals and stamens deciduous, inserted into the middle of tube of calyx. Standard twice as broad as long, spreading, 2-lobed. Ovary 2-seeded. Style hooked. Stigma capitate. Pod inflated. Seeds with an appendage.
 961. *Eularia*. Cal. 2-lipped. Standard a little broader than long. Ovary 2-seeded. Style hooked. Stigma capitate. Pod moderately ventricose. Seed with an appendage. Leaves opposite.
 962. *Sclerothamnus*. Cal. 5-cleft, 2-lipped, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style ascending filiform. Stigma simple. Pod ventricose.
 963. *Gastrolobium*. Cal. 5-cleft, 2-lipped, without bractes. Petals of equal length. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod ventricose. Seeds with an appendage.
 964. *Euchilus*. Cal. deeply 5-cleft, 2-lipped, the upper lip very large, with 2 bractes at base. Keel as long as wings. Ovary 2-seeded, stalked. Style subulate, ascending. Stigma simple. Pod compressed. Appendage of the seed with the hind lobes entire.
 965. *Pultenæa*. Cal. 5-cleft with even-sized lips, 2-bracted. Ovary sessile, 2-seeded. Style subulate, ascending. Stigma simple. Appendage of the seed with the hind lobes cut.
 966. *Daviesia*. Cal. angular without bractes. Keel shorter than standard. Ovary stalked, 2-seeded. Style straight. Stigma simple. Pod compressed, angular, opening with elasticity. Appendage of seed entire behind.
 967. *Mirbelia*. Cal. 5-cleft, 2-lipped. Pod 2-celled, with each suture bent inwards.

968. *Cercis*. Cal. 5-toothed. Pod compressed with the seed-bearing suture winged. Seeds obovate, with a straight embryo.

969. *Schotia*. Cal. 5-cleft. Petals 5, inserted on the calyx, and approaching the papilionaceous form. Pod stalked.

§ 2. *Leguminosæ. Flowers nearly regular.*

970. *Bauhinia*. Cal. 5-cleft, deciduous. Petals spreading, oblong, clawed; and the upper one more distant; all inserted in the calyx.

971. *Azalia*. Cal. tubular, with a 4-cleft deciduous limb. Petals 4, with claws: the upper very large. The upper filaments sterile. Pod many-celled. Seed with an arillus at base.

972. *Hymenæa*. Cal. 5-parted. Petals 5, nearly equal. Pod filled with a powdery fæcula.

973. *Cynometra*. Cal. 4-leaved: the opposite leaves largest. Pod 1-seeded, fleshy.

974. *Cassia*. Cal. 5-leaved. Petals 5. The three upper anthers sterile: three lower beaked.

975. *Cathartocarpus*. Cal. 5-parted, deciduous. Cor. regular, of 5 petals. The lower filaments bowed. Pod long, round, woody, many-celled. Cells filled with pulp.

976. *Parkinsonia*. Cal. 5-cleft. Petals 5, ovate, the lowest reniform. Style O. Pod necklace-shaped.

977. *Poinciana*. Cal. 5-parted. Petals 5, clawed; the upper dissimilar. Stamens very long, all fertile. Pod plano-compressed.

978. *Cesalpinia*. Cal. 5-parted, with the lowest segment largest and vaulted. Petals 5. Stamens woolly at base, all fertile. Pod unarmed. Seeds compressed.

979. *Guilandina*. Cal. 5-cleft, the lowest segment largest. Petals inserted in the neck of the calyx, nearly equal. Pod prickly. Seeds stony.

980. *Hyperanthera*. Cal. 5-parted. Petals inserted in calyx, unequal. Pod 3-valved, torulose. Seeds winged.

981. *Hoffmannseggia*. Cal. 5-parted, persistent. Petals 5, clawed, spreading: the upper broader, glandular at base. Filaments glandular. Stigma clavate. Pod linear, compressed, many-seeded.

982. *Adenanthera*. Cal. 5-toothed. Petals 5. Anthers with a globose gland at their extremity. Pod membranous. Seeds lentiform.

983. *Cadia*. Cal. 5-cleft. Petals 5, equal, obcordate. Pod many-seeded.

984. *Prosopis*. Cal. hemispherical, 4-toothed. Pod many-seeded.

985. *Hæmatozyton*. Cal. 5-parted. Petals 5. Caps. lanceolate, 1-celled, 2-valved; valves navicular.

986. *Copaifera*. Cal. O. Petals 4. Pod 1-seeded.

§ 3. *Ovary superior. Stamens united in a tube. Flowers complete.*

987. *Trichilia*. Cal. 4-5-toothed. Petals 4-5, ovate or oblong. Stamens sometimes nearly distinct. Caps. 3-celled, 3-valved, with one or two seeded cells. Seeds with a berried arillus.

988. *Melia*. Cal. 5-toothed. Petals 5. Drupe with a five-celled nut.

989. *Quivisia*. Cal. urceolate, 4-5-toothed. Petals 4-5, short, silky outside. Stamens with a short tube. Stigma capitate. Caps. coriaceous, 4-5-celled, opening at the end into 4-5-valves.

990. *Suaïtenia*. Cal. 5-cleft. Petals 5. Caps. 5-celled, woody, opening at base. Seeds imbricated, winged.

991. *Ekebergia*. Cal. 4-parted. Petals 4. Nect. a ring surrounding the ovary. Berry 5-seeded.

992. *Heynea*. Cal. 5-toothed. Petals 5. Style 1. Ovary 2-celled. Caps. 2-valved, 1-celled, 1-seeded. Seed with an arillus not winged.

§ 4. *Ovary superior. Stamens separate. Flowers complete.*

993. *Guaiacum*. Cal. 5-parted, unequal. Petals 5, equal. Caps. angular, 2-5-celled.

994. *Zygophyllum*. Cal. 5-leaved. Petals 5. Nect. 10-leaved, covering the ovary and bearing the stamens. Caps. 5-celled.

995. *Fagonia*. Cal. 5-leaved. Petals 5, cordate. Caps. 5-celled, 10-valved; with 1-seeded cells.

996. *Trébutus*. Cal. 5-parted. Petals 5, spreading. Style O. Caps. 5, gibbous, spiny, many-seeded.

997. *Dictamnus*. Cal. 5-leaved, deciduous. Petals 5, clawed, unequal. Filam. declinate, with glandular dots. Caps. 5, united.

998. *Ruta*. Cal. 5-parted. Petals concave. Recept. surrounded by 10 honey-spots. Caps. lobed.

999. *Crowea*. Cal. 5-parted. Petals 5, sessile. Stamens flat, subulate, connected by entangled hairs. Anthers united lengthwise to the filaments on their inner side. Style from the base of the ovary. Caps. 5, united. Seeds with an arillus.

1000. *Codon*. Cal. 10-parted. Cor. campanulate, 10-cleft. Caps. many-seeded.

1001. *Gomphia*. Petals 5. Filaments scarcely any. Anthers long, pyramidal, erect, opening at end by a double pore.

1002. *Quassia*. Cal. 5-leaved. Petals 5. Nect. 5-leaved. Drupes 5, distant, 2-valved, 1-seeded, inserted on a fleshy receptacle.

1003. *Limonia*. Parts of the flower 4 or 5. Stamens free, twice as numerous as petals, or sometimes as many only. Fruit berried, pulpy, 4-5-celled, with 1-celled seeds.

1004. *Glycosmis*. Parts of the flower 5. Stamens with flat subulate filaments, and elliptical anthers. Style short, cylindrical. Ovary 5-celled. Fruit fleshy, 1-2-celled, 1-2-seeded. Coat of the seed membranous.

1005. *Murraya*. Parts of the flower 5. Cor. campanulate. Stamens with linear subulate stamens, and roundish anthers. Fruit fleshy, berried, 1-2-celled, 1-2-seeded. Coat of the seed thick, woolly.

1006. *Cookia*. Parts of the flower 5. Petals navicular, villous. Stamens with linear distinct filaments, and roundish anthers. Fruit berried, globose, 1-5-celled, with one-seeded cells.

1007. *Gærtnera*. Cal. 5-parted. Petals 5 torn. Filaments slightly cohering at base: one longer than the rest. Samara 1-seeded, with four unequal wings.

1008. *Monotropa*. Cal. like a corolla, gibbous at the base. Capsule 5-celled, many-seeded.

1009. *Dionæa*. Cal. 5-leaved. Petals 5. Capsule 1-celled, gibbous, many-seeded.

1010. *Garuga*. Cal. campanulate, 5-cleft, bearing the stamens. Petals equal. Stigma 5-lobed. Drupe with 2-5 1-seeded nuts.

1011. *Kalmia*. Cal. 5-parted. Cor. hypocrateriform, with a limb having 5 horns beneath. Caps. 5-celled.

1012. *Ledum*. Cal. 5-cleft. Cor. flat, 5-parted. Caps. 5-celled, bursting at base.

1013. *Rhodora*. Cal. 5-toothed. Petals 3. Stamens declinate. Caps. 5-celled.

1014. *Rhododendron*. Cal. 5-parted. Cor. somewhat funnel-shaped. Stamens declinate. Caps. 5-celled.

1015. *Epigæa*. Outer calyx 3-leaved, inner 5-parted. Cor. salver-shaped. Caps. 5-celled.

1016. *Andromeda*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice. Caps. 5-celled: valves contrary to the dissepiment.

1017. *Enkianthus*. Cal. small, persistent. Cor. campanulate, with a 5-cleft limb. Nectaries 5, at base of corolla. Anthers 2-horned. Capsule 1.

1018. *Gualtheria*. Outer calyx 2-leaved: inner 5-cleft, ovate. Nect. with 10 points. Caps. 5-celled, clothed with an inner berried calyx.

1019. *Arbutus*. Cal. 5-parted. Cor. ovate, with a 5-cleft orifice; pellucid at base. Berry 5-celled.

1020. *Clethra*. Cal. 5-parted. Petals 5. Stigma 3-fid. Caps. 3-celled, 3-valved.

1021. *Mylocaryum*. Cal. 5-toothed. Petals 5. Stigma capitate, 3-cornered, sessile. Caps. 3 or 4-winged, 3-celled.

1022. *Pyrola*. Cal. 5-parted. Petals 5. Capsule 5-celled, opening at the angles.

1023. *Chimaphila*. Cal. 5-parted. Petals 5. Stigma sessile, thick, orbicular, sunk in the ovary. Anthers beaked, opening by a 2-valved cleft. Caps. 5-celled, opening at the angles.

1024. *Incarpus*. Cal. bifid. Cor. funnel-shaped. Stamens in a double row. Drupe 1-seeded.
 1025. *Styraz*. Cal. inferior. Cor. funnel-shaped. Drupe 2-seeded.

§ 5. *Ovary inferior. Flowers complete.*

1026. *Jussiaea*. Cal. 4-5-parted. Petals 4-5. Caps. 4-5-celled, oblong, opening at the angles. Seeds numerous, minute.
 1027. *Getonia*. Cal. 5-leaved, persistent. Filaments alternately broader, 5 in the orifice of the calyx. Seed coated, oblong, crowned by the calyx.
 1028. *Quisqualis*. Petals 5, inserted on a filiform calyx.
 1029. *Melastoma*. Cal. 5-cleft, campanulate. Petals 5, inserted in calyx. Berry 5-celled, surrounded by calyx.
 1030. *Petaloma*. Petals 5, between the segments of the calyx. Berry 1-celled.
 1031. *Acisanthera*. Cal. ventricose, 5-cleft. Petals 5. Anthers sagittate, versatile. Caps. crowned, 2-celled, many-seeded.

§ 6. *Flowers incomplete, or apetalous.*

1032. *Dais*. Involucre 4-leaved. Cor. 4-5-cleft. Berry 1-seeded.
 1033. *Bucida*. Cal. 5-toothed, superior. Berry 1-seeded.
 1034. *Samyda*. Cal. 5-parted, colored. Nect. campanulate, stamen-bearing. Caps. berried inside, 4-valved, 1 celled. Seeds nidulant.

Order 2. DIGYNIA.  10 Stamens. 2 Styles.

1035. *Royena*. Cal. urceolate. Cor. 1-petalous, with a revolute limb. Caps. 1-celled, 4-valved.
 1036. *Trianthena*. Cal. mucronate under the end. Cor. O. Stam. 5-10. Ovary blunt. Caps. cut round.
 1037. *Scleranthus*. Cal. 1-leaved. Cor. O. Seeds 2, included in calyx.
 1038. *Cunonia*. Petals 5. Sepals 5. Capsule 2-celled, acute.
 1039. *Hydrangea*. Cal. superior, 5-toothed. Petals 5. Caps. 2-celled, 2-beaked, opening by a hole between the beaks.
 1040. *Chrysosplenium*. Cal. 4-5-cleft, colored. Cor. O. Caps. 2-beaked, 1-celled, many-seeded.
 1041. *Saxifraga*. Cal. 5-parted. Petals 5. Caps. 2-beaked, 1-celled, many-seeded.
 1042. *Tiarella*. Cal. 5-parted. Petals 5, inserted in the calyx, entire. Caps. 1-celled, 2-valved: one valve largest.
 1043. *Mitella*. Cal. 5-cleft. Petals 5, inserted in calyx, pinnatifid. Caps. 1-celled. 2-valved; with equal valves.
 1044. *Gypsophila*. Cal. 1-leaved, campanulate, angular. Petals 5, ovate, sessile. Caps. globose, 1-celled.
 1045. *Saponaria*. Cal. 1-leaved, naked. Petals 5, clawed. Caps. 1-celled, oblong.
 1046. *Dianthus*. Cal. cylindrical, 1-leaved, with scales at the base. Petals 5, clawed. Capsule cylindrical, 1-celled.

MONOGYNIA.

- | | | | | | | | |
|---|---|----|----|-----------------------------|------|-----------|----------------------------------|
| 940. EDWARDSIA. <i>Sal.</i> EDWARDSIA. | | | | <i>Leguminosæ.</i> Sp. 3. | | | |
| 5670 grandiflora <i>Sal.</i> large-flowered | 𠄎 | or | 12 | my,jn | Y, 4 | N. Zeal. | 1772. C s.p. Bot. mag. 167 |
| 5671 chrysophylla <i>Sal.</i> golden-leaved | 𠄎 | or | 12 | my,jn | Y | N. Zeal. | ... C s.p. Bot. reg. 738 |
| 5672 microphylla <i>Sal.</i> small-leaved | 𠄎 | or | 6 | my,jn | Y | N. Zeal. | 1772. C s.p. Bot. mag. 1442 |
| 941. SOPHORA. <i>H. K.</i> SOPHORA. | | | | <i>Leguminosæ.</i> Sp. 4 | | | |
| 5673 tomentosa <i>W.</i> downy | 𠄎 | or | 12 | ... | W | India | 1690. C p.l. Trew. ehret. t.59 |
| 5674 japonica <i>W.</i> Japanese | 𠄎 | tm | 40 | aus. | W | Japan | 1753. S s.l. Bot. rep. 585 |
| 5675 alopecuroides <i>W.</i> Fox-tail | 𠄎 | or | 4 | jl.au | B | Levant | 1731. D r.l. Fall. astr. t. 87 |
| 5676 flavescens <i>W.</i> Siberian | 𠄎 | or | 2 | my,jl | Y | Siberia | 1785. D r.l. |
| 942. ORMO'SIA. <i>Jacks.</i> ORMO'SIA. | | | | <i>Leguminosæ.</i> Sp. 1-4. | | | |
| 5677 dasycarpa <i>Jacks.</i> smooth-leaved | 𠄎 | or | 10 | jn,jl | B | W. Indies | 1793. C lt.l. Lin. tran.10. t.26 |



History, Use, Propagation, Culture

940. *Edwardsia*. Named after the late Mr. Sydenham Edwards, a celebrated botanical draughtsman. The reputation of the Botanical Magazine has arisen almost wholly from the skill he displayed in the management of the figures of that work. These plants are hardy enough to survive through our winters out of doors, when they are not very severe: but are best protected under a frame, or planted in a conservatory: they generally ripen seeds, by which, or by young cuttings planted under a bell-glass in sand, they may be readily increased. (*Bot. Cult.* 183.)

Order 3. TRIGYNIA.



10 Stamens. 3 Styles.

- 1047. *Cucubalus*. Cal. 1-leaved, inflated. Petals 5, clawed. Berry superior, 1-celled, many-seeded.
- 1048. *Silene*. Cal. 1-leaved, ventricose. Petals 5, clawed. Caps. $\frac{1}{2}$ -3-celled, opening at end, many-seeded.
- 1049. *Stellaria*. Cal. 5-leaved, spreading. Petals 5, 2-parted. Caps. 1-celled, many-seeded.
- 1050. *Arenaria*. Cal. 5-leaved, spreading. Petals 5, entire. Caps. 1-celled, many-seeded.
- 1051. *Cherleria*. Cal. 5-leaved. Nectaries 5, bifid, petal-like. Every other anther sterile. Caps. 3-valved, 3-celled, 3-seeded.
- 1052. *Brunnichia*. Cal. ventricose, 5-cleft. Cor. O. Caps. 3-cornered, 1-celled, 1-seeded.
- 1053. *Garidella*. Cal. 5-leaved, petaloid. Nect. 5, two-lipped, bifid. Caps. 3, united, many-seeded.
- 1054. *Malpighia*. Sepals 5, with two honey pores at base. Petals 5, roundish, clawed. Filaments cohering at base. Drupe 1-celled, with 3 one-celled nuts.
- 1055. *Banisteria*. Cal. 5-parted, with two honey pores outside at the base. Petals roundish, clawed. Filaments cohering at base. Samaræ 3, 1-seeded, with a single wing at end.
- 1056. *Hiræa*. Cal. without glands. Petals 5, with claws. Samaræ 3, surrounded by two opposite wings.

Order 4. PENTAGYNIA.



10 Stamens. 5 Styles.

- 1057. *Cnestis*. Petals 5. Capsules 5, one-seeded.
- 1058. *Averrhoa*. Sepals 5. Petals 5, spreading upwards. Stamens inserted in a nectariferous ring: every other shorter. Apple 5-cornered, 5-celled.
- 1059. *Spondias*. Cal. 5-toothed. Petals 5. Drupe with a 5-celled nut.
- 1060. *Cotyledon*. Cal. 5-cleft. Cor. 1-petalous. Five honey scales at the base of ovary. Caps. 5.
- 1061. *Sedum*. Cal. 5-cleft. Petals 5. Five honey scales at base of ovary. Caps. 5.
- 1062. *Penthorum*. Cal. 5-cleft. Petals O. to 5. Caps. 5-pointed, 5-celled.
- 1063. *Grietum*. Cal. 5-cleft. Petals 5. Filaments persistent. Pericarps 5, one-seeded.
- 1064. *Biophyton*. Sepals 5. Petals 5. Stamens all distinct; the five outer shortest. Styles 5, emarginate at end. Capsule ovate, round, somewhat 5-cornered.
- 1065. *Oxalis*. Sepals 5, distinct or united at base. Petals 5. Stamens united at base, the five outer shortest. Styles 5, pencil-shaped, or capitate at end. Capsule oblong or cylindrical.
- 1066. *Agrostemma*. Cal. 1-leaved, coriaceous. Pet. 5-clawed. Limb obtuse, undivided. Caps. 1-celled.
- 1067. *Lychnis*. Cal. 1-leaved, oblong, smooth. Petals 5-clawed, with a nearly 2-fid limb. Caps. 5-celled.
- 1068. *Cerastium*. Sepals 5. Petals bifid. Capsule 1-celled, opening at end.
- 1069. *Larbræa*. Cal. 5-cleft, urceolate at base. Petals 5, biparted, perigynous. Styles 5. Ovary 1-celled, many-seeded. Capsule 6-valved at end.
- 1070. *Spergula*. Sepals 5. Petals 5, entire. Capsule ovate, 1-celled, 5-valved.

Order 5. DECAGYNIA.



10 Stamens. 10 Styles.

- 1071. *Phytolacca*. Sepals 5. Berry superior, 10-celled, 10-seeded.

MONOGYNIA.

- 5670 Leaflets 13-19 lanceolate oblong
- 5671 Leaflets 8-10 lines long obovate, Pubescence yellowish brown
- 5672 Leaflets 25-41 obovate

- 5673 A tree, Leaflets roundish or oval very obtuse at each end as well as the calyx downy
- 5674 A tree, Leaflets oblong ovate acute and pods smooth
- 5675 Herbaceous, Leaflets oblong when full-grown silky above
- 5676 Herbaceous, Leaflets ovate-oblong smoothish

- 5677 Leaflets 9-11 acuminate smooth on each side, Pods downy



and Miscellaneous Particulars.

941. *Sophora*. An alteration of the Arabic name *Sophera*. This genus has been much altered from what it formerly was. It now consists chiefly of fine trees, some of which are hardy.

942. *Ormosia*. From *ορμος*, a necklace, for making which the handsome seeds, red with a black-eye, of the species are well adapted. The kind cultivated in England is exceedingly rare.

943. ANAGY'RIS. <i>W.</i>	BEAN-TREFOIL.				<i>Leguminosae. Sp. 3.</i>							
5678 foetida <i>W.</i>	stinking	☉	or	9	ap.my	Y	Spain	1570.	C	p.l	Bot. cab. 740	
5679 latifolia <i>W. en.</i>	broad-leaved	☉	or	10	ap.my	Y	Teneriffe	1815.	C	p.l		
5680 indica <i>Wall.</i>	Nepal	☉	or	8	jl	Y	Nepal	1821.	S	p.l	Hook ex. fl. 131	
	<i>Baptisia nepalensis</i> Hook.											
944. THERMOP'SIS. <i>R. Br.</i>	THERMOPSIS.				<i>Leguminosae. Sp. 1—3.</i>							
5681 lanceolata <i>R. Br.</i>	sharp-leaved	☉	Δ	pr	1	jn.jl	Y	Siberia	1776.	D	lt.l	Bot. mag. 1389
	<i>Podalyria lupinoides</i> <i>W.</i>											
945. VIRGILIA. <i>Lam.</i>	VIRGILIA.				<i>Leguminosae. Sp. 4—7.</i>							
5682 lutea <i>Ph.</i>	yellow-flower'd	☉	Δ	or	15	jn.jl	Y	N. Amer.	1812.	C	p.l	Mich. arb. c. ic.
5683 aurea <i>H. K.</i>	great-flowered	☉	or	6	jl	Y	Abyssinia	1777.	C	p.l	L'H.st. no.1.t.75	
5684 intrusa <i>H. K.</i>	small-flowered	☉	or			my.au	Y.w	C. G. H.	1790.	C	p.l	
5685 capensis <i>H. K.</i>	vetch-leaved	☉	or	2	jl.au	W	C. G. H.	1767.	C	p.l	Bot. mag. 1590	
946. CYCLOPIA. <i>R. Br.</i>	CYCLOPIA.				<i>Leguminosae. Sp. 1—2.</i>							
5686 genistoides <i>H. K.</i>	Genista-leaved			or	2	jl.au	Y	C. G. H.	1787.	C	p.l	Bot. mag. 1259
947. BAPTISIA. <i>R. Br.</i>	BAPTISIA.				<i>Leguminosae. Sp. 5—7.</i>							
5687 perfoliata <i>H. K.</i>	perfoliate	☉	Δ	pr	3	au	Y	Carolina	1732.	D	c	D.elt. t.102. f.122
5688 villosa <i>Ph.</i>	villous	☉	Δ	or	2	jn.jl	Y	N. Amer.	1811.	D	c	
5689 australis <i>H. K.</i>	blue-flowered	☉	Δ	or	4	jn.jl	B	N. Amer.	1758.	D	c	Bot. mag. 509
5690 alba <i>H. K.</i>	white-flowered	☉	Δ	or	2	jn.jl	W	N. Amer.	1724.	D	c	Bot. mag. 1177
5691 tinctoria <i>H. K.</i>	dyer's	☉	Δ	or	1½	jl.au	Y	N. Amer.	1759.	D	c	Bot. mag. 1099
948. PODALYRIA. <i>R. Br.</i>	PODALYRIA.				<i>Leguminosae. Sp. 10—13.</i>							
5692 myrtillifolia <i>W.</i>	Myrtle-leaved	☉	or	6	ap.jl	Pu	C. G. H.	1795.	C	p.l		
5693 sericea <i>H. K.</i>	silky	☉	or	6	ja.o	Pu	C. G. H.	1778.	C	p.l	Bot. mag. 1923	
5694 cuneifolia <i>V.</i>	wedge-leaved	☉	or	6	my.au	W	C. G. H.	1804.	C	p.l	Vent. cels. t. 99	
5695 biflora <i>W.</i>	two-flowered	☉	or	6	f.jn	Pu	C. G. H.	1789.	C	p.l	Bot. mag. 753	
5696 calyptrata <i>H. K.</i>	one-flowered	☉	or	6	ap.jl	Pu	C. G. H.	1792.	C	p.l		
5697 styractifolia <i>B. M.</i>	Storax-leaved	☉	or	6	my.jl	Pk	C. G. H.	...	C	p.l	Bot. mag. 1580	
5698 buxifolia <i>W.</i>	Box-leaved	☉	or	2	my.jl	B	C. G. H.	1790.	C	p.l	Bot. reg. 869	
5699 oleaefolia <i>P. L.</i>	Olive-leaved	☉	or			my	Pu	C. G. H.	1804.	C	p.l	Par. lond. 114
5700 hirsuta <i>H. K.</i>	hairy	☉	or	2	jl.au	B	C. G. H.	1774.	C	p.l		
5701 cordata <i>H. K.</i>	heart-leaved	☉	or	2	my.jl	B	C. G. H.	1794.	C	p.l		
949. CHOROZEMIA. <i>Lab.</i>	CHOROZEMIA.				<i>Leguminosae. Sp. 3.</i>							
5702 ilicifolia <i>H. K.</i>	Holly-leaved	☉	or	3	mr.o	Y	N. Holl.	1803.	S	s.p	Lab. voy. i. t. 21	
5703 nana <i>H. K.</i>	dwarf	☉	or	3	mr.o	Y	N. Holl.	1803.	S	s.p	Bot. mag. 1032	
5704 rhombea <i>H. K.</i>	few-flowered	☉	or	2	ap.jn	Y	N. Holl.	1803.	S	s.p		
950. PODOLOBIUM. <i>H. K.</i>	PODOLOBIUM.				<i>Leguminosae. Sp. 1—2.</i>							
5705 trilobatum <i>H. K.</i>	common	☉	or	2	ap.jl	Y	N. S. W.	1791.	S	s.p	Bot. mag. 1477	
951. OXYLOBIUM. <i>H. K.</i>	OXYLOBIUM.				<i>Leguminosae. Sp. 3—5.</i>							
5706 arboriscens <i>H. K.</i>	tall	☉	or	6	ap.jn	Y	V. Di. L.	1805.	S	s.p	Bot. reg. 392	
5707 ellipticum <i>H. K.</i>	oval-leaved	☉	or	3	mys	Y	V. Di. L.	1805.	S	s.p	Lab. n. ho. i. t. 135	
5708 cordifolium <i>H. K.</i>	heart-leaved	☉	or	3	ap.s	Y	N. S. W.	1807.	S	s.p	Bot. rep. 492	
952. CALLISTA'CHYS. <i>Vent.</i>	CALLISTA'CHYS.				<i>Leguminosae. Sp. 2—3.</i>							
5709 lanceolata <i>V.</i>	spear-leaved	☉	or	3	jn.au	Y	N. Holl.	1815.	S	s.p	Bot. reg. 216	
5710 ovata <i>B. M.</i>	oval-leaved	☉	or	3	jn.au	Y	N. Holl.	1815.	S	s.p	Bot. mag. 1925	
953. BRACHYSEMA. <i>H. K.</i>	BRACHYSEMA.				<i>Leguminosae. Sp. 2.</i>							
5711 latifolium <i>H. K.</i>	broad-leaved	☉	or	3	ap.jl	Cr	N. Holl.	1803.	C	s.p	Bot. reg. 118	
5712 undulatum <i>Ker.</i>	wavy-leaved	☉	cu	3	mr.ap	G	N. S. W.	1820.	C	s.p	Bot. reg. 642	



History, Use, Propagation, Culture,

943. *Anagyris*. From *ana*, like, and *γυγος*, a circle. Its pod is curved inwards at its extremity. Small trees native of the South of Europe and North of Africa, and one doubtful species of Nepal. Young cuttings root in sand under a hand-glass.

944. *Thermopsis*. So named from the resemblance of the flower to that of a Lupine. This genus is cultivated with difficulty: it grows best in a light loamy soil, and may be increased by seed; dividing the root is liable to injure the plant, so that it is increased with difficulty by that means. (*Bot. Cult.* 427.)

945. *Virgilia*. A genus dedicated by Lamarck to the poet Virgil, whose *Georgics* contain many things interesting to botanists.

946. *Cyclopia*. Named by Ventenat, from *κύκλος*, a circle, and *πυς*, a foot, in allusion to the replicate circle which is found about the base of the pods.

947. *Baptisia*. So named from *βαπτισμα*, to dye, in allusion to the economical properties of some species. Herbaceous plants of easy cultivation, and as border flowers ornamental.

948. *Podalyria*. Podalyrus was a son of Æsculapius. Small Cape shrubs, with simple silky leaves and purple blossoms. The species may be grown in leaf mould and peat, or peat loam, and rooted by cuttings in sand, or raised from seeds.

949. *Chorozemia*. M. Labillardière originally discovered this plant upon the south-west coast of New

- 5678 Leaves lanceolate acute
 5679 Leaves elliptical obtuse
 5680 Leaves lanceolate shining silky beneath

5681 Leaflets oblong-lanceolate, Stipules lanceolate twice as long as stalk, Pedicels whorled

- 5682 Leaves pinnate, Leaflets with a short point smooth, Racemes long pendulous
 5683 Stamens persistent, Ovaries downy, Leaflets oval obtuse pointless
 5684 Stamens persistent, Ovaries smooth, Base of calyx pushed inwards, Leaflets oval obt. with a little point
 5685 Stam. decid. woolly at base, Ovaries downy, Keel acuminate, Leaflets lanceolate

5686 Leaflets subulate and sepals pointless, Bractes oblong ovate shorter than peduncle, Branchlets smooth

- 5687 Leaves perfoliate entire roundish
 5688 Stem and leaves very hairy, Leaflets oval obtuse, Raceme terminal spiked
 5689 Leaves ternate stalked, Leaflets cuneate lanceolate, Stipules longer than stalk lanceolate
 5690 Leaves ternate stalked, Leaf. ellipt. obl. Stipules deciduous subulate shorter than stalk, Ovaries smooth
 5691 Leaves ternate stalked, Leaf. roundish obovate, Stipules setaceous obsolete

- 5692 Leaves oblong obovate on both sides with the calyxes silky, Pedunc. one-fl. as long as leaves
 5693 Leaves oblong obovate on both sides with the calyxes silky, several times longer than the 1-fl. fl-stalk
 5694 Leaves cuneiform emarginate silky, Pedunc. shorter than leaf
 5695 Leaves oval silky on both sides shorter than 2-fl. peduncle, Cal. downy rough
 5696 Lvs. oval and obov. pubes. beneath netted : when full-grown not silky, Cal. vill. with a scariou ref. limb
 5697 Leaves ovate reticulate, Branches hairy angular striated, Peduncles as long as leaves
 5698 Leaves simple ovate downy, Fl. axillary, Peduncles longer than leaf
 5699 Leaves elliptical-lanceolate, Peduncles 1-fl. shorter than leaves, Calyx deeply split
 5700 Leaves villous stalked : upper ovate ; lower roundish, Cal. villous with segments as long as wings
 5701 Leaves cordate roundish subsessile very villous, Segments of villous calyx shorter than wings

- 5702 Leaves pinnatifid-toothed spiny oblong-lanceolate : with an entire point longer than the teeth
 5703 Leaves sinuate-toothed spiny oblong obtuse, Bractes below the end of stalk
 5704 Leaves entire flat mucronate : lower rhomboid orbicular ; the upper elliptical lanceolate

5705 Lvs. opp. spiny toothed 3-lobed with a transverse base, Lateral lobes much shorter than term. toothed one

- 5706 Leaves lin. lanc. Bractes adhering to top of the footstalk, Corymb. clust. Pods scarcely longer than cal.
 5707 Leaves oval. obl. Bractes deciduous below the end of footstalk, Corymb. clust. Pods twice as long as cal.
 5708 Leaves ovate cordate hairy, Umb. terminal sessile

- 5709 Leaves lanceolate acute
 5710 Leaves ternate obovate mucronate silky beneath

- 5711 Leaves ovate flat, Standard oblong obovate
 5712 Leaves elliptical wavy mucronate, Standard oblong cordate



and Miscellaneous Particulars.

Holland, at the foot of the mountains, in a loamy soil, near a spot where, after having been tantalized with finding many salt springs, his party had just met with an ample supply of fresh water. This welcome refreshment, of which he speaks feelingly in his book, seems to have suggested a name for this plant, which he had properly determined to constitute a new genus. He called it *Chorozeima*, evidently from *χορος*, a dance or joyous assembly, and *ζεμα*, a drink, in allusion to the circumstance just mentioned. (Smith.)

This genus ripens abundance of seeds, from which it may be readily increased, and also by young cuttings in sand under a bell-glass.

950. *Podolobium*. This and the succeeding names ending in *lobium*, refer in that part of their derivation to their pod ; this genus is called from *πυς ποδος*, a foot, the pod being on a stalk. The species may be treated as *Chorozeimia*.

951. *Oxylobium*. From *οξυς*, pointed, the pods being pointed. See *Podolobium*.

952. *Callistachys*. From *καλος*, beautiful, and *σχυς*, a spike, in reference to the fine spikes of yellow flowers. These are handsome conservatory shrubs, which grow rapidly and flower freely. They may be raised from seeds or cuttings in sand under a bell-glass.

953. *Brachysema*. From *βραχυς*, short, and *σημα*, a standard. The standard of the flower of the genus is very short. This is a handsome climber, increased by layers, cuttings in sand, or by seeds.

954. GOMPHOLOBIUM. H. K. GOMPHOLOBIUM.	Leguminosæ. Sp. 7—10.				
5713 latifolium H. K. broad-leaved	de	2	mr.s Y	N. S. W. 1803.	C s.p Ex. bot. 58
<i>G. fimbriatum</i> Sm.					
5714 grandiflorum Sm. large-flowered	de	2	mr.s Y	N. S. W. 1803.	C s.p Bot. reg. 484
5715 marginatum H. K. small-flowered	de	2	mr.s Y	N. Holl. 1803.	C s.p
5716 polymorphum H. K. variable	de	2	mr.au Y	N. Holl. 1803.	C s.p Bot. mag. 1533
5717 minus Sm. hairy-stalked	de	2	mr.au Y	N. S. W. 1812.	C s.p
5718 tomentosum H. K. tomentose	de	3	ap.jl Y	N. Holl. 1803.	C s.p Lab.n.ho.1.t.134
5719 venustum H. K. purple-flowered	de	3	ap.jl Pu	N. Holl. 1803.	C s.p
955. BURTONIA. H. K. BURTONIA.	Leguminosæ. Sp. 1—3.				
5720 scabra H. K. rough-leaved	pr		my.jl Y	N. Holl. 1803.	C s.l.p
956. JACKSONIA. H. K. JACKSONIA.	Leguminosæ. Sp. 2—4.				
5721 scoparia H. K. Broom-like	pr		ju.au Y	N. S. W. 1803.	C s.p Bot. cab. 427.
5722 spinosa H. K. spinous	pr		ap.s Y	N. Holl. 1803.	C s.p Lab.n.ho.1.t.136
957. VIMINARIA. H. K. RUSH-BROOM.	Leguminosæ. Sp. 2.				
5723 denudata H. K. leafless	cu	3	jn.s Y	N. Holl. 1789.	C s.p Bot. mag. 1190
5724 lateriflora Link. side-flowering	cu	3	jn.s Y	N. Holl. 1824.	C s.p
958. SPHEROLOBIUM. H. K. SPHEROLOBIUM.	Leguminosæ. Sp. 2—4.				
5725 vimineum H. K. yellow-flowered	or	2	my.au Y	N. Holl. 1802.	S s.p Bot. mag. 969
5726 medium H. K. red-flowered	or	3	jn.au R	N. Holl. 1803.	S s.p
959. AOTUS H. K. AOTUS.	Leguminosæ. Sp. 1—3.				
5727 villosa H. K. villous	or	2	ap.jn Y	N. Holl. 1790.	S s.p Bot. mag. 949
960. DILLWYNIA. H. K. DILLWYNIA.	Leguminosæ. Sp. 6—10.				
5728 floribanda H. K. close-flowered	or	2	ap.jl Y	N. S. W. 1794.	C s.l.p Ex. bot. t. 26
5729 ericifolia H. K. Heath-leaved	or	2	mr.jl Y	N. S. W. 1794.	C s.l.p Ex. bot. t. 25
5730 glaberrima H. K. smooth	or	2	mr.jl Y	N. S. W. 1800.	C s.l.p Bot. mag. 944
5731 parvifolia B. M. small-leaved	or	2	mr.jl Y	N. S. W. 1800.	C s.l.p Bot. mag. 1527
5732 cinerascens R. Br. grey	or	2	mr.jl Y	N. S. W. 1819.	C s.l.p Bot. mag. 2247
5733 juniperina Lodd. juniper-leaved	pr	2	ap.my Y	V. Di. L. 1818.	C s.l.p Bot. cab. 401
961. EUTAXIA. H. K. EUTAXIA.	Leguminosæ. Sp. 1—2.				
5734 myrtifolia H. K. Myrtle-leaved	pr	1½	mr.jn Y	N. Holl. 1803.	C s.l.p Bot. mag. 1274
962. SCLEROTHAMNUS. H. K. SCLEROTHAMNUS.	Leguminosæ. Sp. 1.				
5735 microphyllus H. K. small-leaved	pr	1	my.jn Y	N. Holl. 1803.	C s.l.p
963. GASTROLOBIUM. H. K. GASTROLOBIUM.	Leguminosæ. Sp. 1—3.				
5736 bilobum H. K. two-lobed	or	2	mr.my Y	N. Holl. 1803.	C s.l.p Bot. reg. 411
964. EUCHYLUS. H. K. EUCHYLUS.	Leguminosæ. Sp. 1.				
5737 obovatus H. K. heart-leaved	or	2	mr.jn Y	N. Holl. 1803.	C s.l.p Bot. cab. 60
965. PULTENÆA. H. K. PULTENÆA.	Leguminosæ. Sp. 13—19.				
5738 daphnoides H. K. Daphne-leaved	or	2	jn.jl Y	N. S. W. 1792.	C s.l.p Bot. mag. 1394
5739 obovata H. K. heart-leaved	or	2	my.jl Y	V. Di. L. 1808.	C s.l.p Bot. mag. 574
5740 scabra H. K. rough-leaved	or	1½	my.jl Y	N. S. W. 1803.	C s.l.p
5741 retusa H. K. blunt-leaved	or	1	ap.my Y	N. S. W. 1789.	C s.l.p Bot. reg. 378
5742 stricta B. M. upright	or	2	ap.jn Y	N. S. W. 1803.	C s.l.p Bot. mag. 1588
5743 linophylla H. K. Flax-leaved	or	2	my.jl Y	N. S. W. 1789.	C s.l.p Sch.s.han 3.t.18
5744 paleacea Sm. chaffy	or	1½	ap.jl Y	N. S. W. 1789.	C s.l.p Bot. cab. 291
5745 stipularis H. K. scaly	or	2	ap.jl Y	N. S. W. 1792.	C s.l.p Bot. mag. 435
5746 vestita H. K. awned	or	3	ap.jl Y	N. Holl. 1803.	C s.l.p
5747 villosa H. K. villous	or	2	ap.my Y	N. S. W. 1790.	C s.l.p Bot. mag. 967



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954. *Gompholobium*. The name of this genus alludes to the tumid shape of the legume, which swells from a narrow base upwards; according to the primary signification of *γυμφοειδης*, a word thence used to signify a club or wedge, or any thing formed upon a similar principle. Delicate plants, difficult to preserve, requiring a large proportion of sand in the peat, and moderate watering. Young cuttings root under a bell-glass in sand.

955. *Burtonia*. A genus defined in the Hortus Kewensis, without an explanation of the origin of the name. This plant, Sweet observes, requires more than ordinary treatment to keep it in good health; an equal mixture of very sandy loam and peat is the best soil for it, and the pots to be well drained with small potsherds, that the water may pass off freely, as nothing is more injurious to it than too much water. Young cuttings are not difficult to root, planted in sand under a bell-glass; it may also be raised from seeds, which are sometimes produced. (*Bot. Cult.* 156.)

956. *Jacksonia*. Named after Mr. Jackson, formerly librarian to Aylmer Bourke Lambert, and an excellent practical botanist, of whom too little is known. Young cuttings will root in sand under a bell-glass, or ripened ones under a hand-glass.

957. *Viminaria*. From *vimen*, a twig. The appearance of the species which have no leaves is that of a bundle of naked twigs.

- 5713 Leaves term. Leaf. lin. or obl. lin. an inch and more long, Stem erect, Keel fringed, Cal. in fruit reflexed
 5714 Leaves ternate linear mucronate straight, Branches angular smooth
 5715 Leaves ternate, Leaf. obovate edged flat, Stipules as long as leafstalk, Cor. length of calyx
 5716 Lvs. tern. and quinate, Leaf. linear recurved at edge, somewhat dilated at end, Stem procum. or twining
 5717 Leaves ternate linear smooth mucronate, Branches round hairy, Keel hairy
 5718 Leaves pinn. Leaf. subulate linear mucronate rough above, Cal. hairy shorter than pod, Keel silky ciliate
 5719 Leaves pinn. of many pairs, Leaf. subulate veiny revolute at edge and calyxes smooth, Cor. purple
- 5720 Leaves ternate, Cal. smooth, Style beyond the middle beardless
- 5721 Arborescent unarmed, Branches angular, Racemes terminal
 5722 Shrubby, Branches spiny 2-3-chotomous spreading angular, Bractes very short
- 5723 Segments of calyx straight ovate
 5724 Flowers racemose, Segments of calyx lanceolate reflexed
- 5725 Tube of cal. a little shorter than lips, Style included bowed from the base, Cor. yellow
 5726 Tube of cal. twice as short as the lips, Cor. red
- 5727 Cal. silky with appressed hairs, Pods stalked, Seeds dotted rugose, Leaves rough above
- 5728 Flowers axillary ternate, Leaves subulate mucronate
 5729 Corymbs terminal sessile, Leaves subul. rough with dots divaricate twisted, Branches pubescent
 5730 Corymbs terminal stalked, Leaves filiform erect smooth, Mucro weak recurved
 5731 Leaves short spreading decussate, Fl. capitate, Pedunc. with two bractes, Stigma capitate
 5732 Corymbs terminal sessile, Leaves filiform erect, with a weak short point, Branches silky
 5733 Leaves acrose horizontal, Branches weak, Heads 3-9-flowered
- 5734 Leaves lanceolate or lanceolate-obovate, Peduncles axillary twin, Appendages of wings very short
- 5735 The only species
- 5736 Lvs. beneath somew. silky retuse, Lobes round. longer than little point, Stalk of pod as long as tube of cal.
- 5737 The only species

- 5738 Heads terminal, Leaves obovate oblong flat quite smooth 3 times as long as broad, Point pungent
 5739 Heads term. Leaves cuneate orbord. retuse flat smooth scarcely twice as long as broad, Point pungent
 5740 Heads term. few-fl. Leaves cuneate truncate bristly pointed recurved at edge rough above villous beneath
 5741 Heads term. Leaves linear retuse blunt flat smooth, Bractes a little longer than cal.
 5742 Heads term. Leaves obovate mucronate smooth, Stem upright, Calyx and pods hairy
 5743 Bractes shorter than 6-8-fl. head, Lvs. lin. with a little point and recurv. edge, Stip. shorter than footstalk
 5744 Leaves linear mucronate revolute recurved at end, Stipules solitary 2-nerved with membr. torn sheaths
 5745 Heads many-fl. Bractes about as long as cal. Leaves flat linear acute, Stipules bifid flat imbricated
 5746 Fl. axill. Leaves linear lanceolate mucronate smooth, Stip. imbric. ciliated, Cal. and bractes bearded
 5747 Racemes leafy, Leaves linear oblong, above concave, beneath cal. and branchlets pilose



and Miscellaneous Particulars.

258. *Spherolobium*. From *σφαῖρα*, a sphere; the pods being nearly spherical. See Jacksonia.
 959. *Aotus*. From *α*, private, and *ωτα*, ears, in allusion to the want of the appendages to the calyx in this genus. In *Pultenaea*, to which it is most nearly allied, they are very distinct.
 960. *Dillwynia*. Named by Sir James Edward Smith, after Mr. Lewis Weston Dillwyn, whose labors upon *Convolv* and other parts of British botany are well known. These plants being liable to suffer from wet, the pots must be well drained with sherds and refuse peat siftings. Young cuttings root freely in sand under a bell-glass.
 961. *Eutaxia*. From *εὐταξία*, modesty, in allusion to the humble, modest appearance of the plant. Mr. Sweet directs to top the plants frequently when young, otherwise they are apt to run up naked and unsightly.
 962. *Sclerothamnus*. From *σκληρός*, hard, and *θαμνός*, a shrub. The species are rigid plants with stiff hard leaves.
 963. *Gastrolobium*. From *γάστρος*, the belly; or, in botanical composition, something inflated. The pods of the genus are much swollen.
 964. *Euchilus*. From *εὖ*, well, and *χίλος*, a lip; well lipped. The upper lip of the calyx is very large.
 965. *Pultenaea*. Named after William Pulteney, M. D., author of a view of the writings of Linnæus, and

5748 <i>flexilis</i> H. K.	shining-leaved	♂	□	or	1½	ap.jn	Y	N. S. W.	1801.	C	s.l.p	
5749 <i>tenuifolia</i> R. Br.	thin-leaved	♂	□	or	1½	ap.my	Y	N. S. W.	1817.	C	s.l.p Bot. mag. 2086	
5750 <i>biloba</i> R. Br.	two-lobed	♂	□	or	2	ap.my	Y	N. S. W.	1817.	C	s.l.p Bot. mag. 2091	
966. DAVIE'SIA. L. T.	DAVIESIA.							Leguminosæ.	Sp. 6-10.			
5751 <i>acicularis</i> Sm.	needle-leaved	♂	□	or	2	jn.jl	Y	N. S. W.	1804.	C	s.l.p	
5752 <i>ulicina</i> Sm.	furze-leaved	♂	□	or	3	ap.au	Y	N. S. W.	1792.	C	s.l.p Bot. cab. 44	
5753 <i>corymbosa</i> Sm.	glaucescous-leav'd	♂	□	or	2	my.au	Y	N. S. W.	1804.	C	s.l.p	
5754 <i>mimosoides</i> H. K.	green-leaved	♂	□	or	2	jn.au	Y	N. S. W.	1809.	C	s.l.p Bot. rep. 526	
	<i>D. glauca</i> Lodd.											
5755 <i>latifolia</i> H. K.	broad-leaved	♂	□	or	3	my.au	Y	N. S. W.	1805.	C	s.l.p Bot. mag. 1757	
5756 <i>alata</i> Sm.	winged	♂	□	or	3	my.au	Y	N. S. W.	1818.	C	s.l.p Bot. reg. 728	
967. MIRBELIA. L. T.	MIRBELIA.							Leguminosæ.	Sp. 2-4.			
5757 <i>reticulata</i> L. T.	reticulated	♂	□	or	3	my.au	B	N. S. W.	1792.	C	s.l.p Bot. mag. 1211	
5758 <i>dilatata</i> H. K.	lobed-leaved	♂	□	or	3	my.au	B	N. Holl.	1803.	C	s.l.p	
968. CER' CIS. W.	JUDAS-TREE.							Leguminosæ.	Sp. 2.			
5759 <i>Siliquastrum</i> W.	European	♀	□	or	20	my.jn	Pu	S. Europe	1596.	L	co Bot. mag. 1138	
5760 <i>canadensis</i> W.	American	♀	□	or	18	my.jn	Gr	N. Amer.	1730.	L	co	
969. SCHOTIA. W.	SCHOTIA.							Leguminosæ.	Sp. 3-7.			
5761 <i>speciosa</i> H. K.	small-leaved	♂	□	or	5	jl.d	Cr	C. G. H.	1759.	C	l.p Bot. rep. 348	
5762 <i>tamarin'difolia</i> H.K.	Tamarind-leav.	♂	□	or	6	my.s	Cr	C. G. H.	1795.	C	l.p Bot. mag. 1153	
5763 <i>stipulata</i> H. K.	large-stipuled	♂	□	or	5	my.s	Cr	C. G. H.	1794.	C	l.p	
970. BAUHINIA. W.	MOUNTAIN-EBONY.							Leguminosæ.	Sp. 13-20.			
5764 <i>scandens</i> W.	small-lyd. clim.	♂	□	or	30	...	W.y	E. Indies	1799.	C	l.p Rhe. mal. 8. t.29	
5765 <i>racemosa</i> W.	great-leaved	♂	□	or	20	spl	...	E. Indies	1790.	C	l.t Vah. sym. 3. t.62	
5766 <i>aculeata</i> W.	prickly-stlkd.	♂	□	or	6	jn.au	W	W. Indies	1737.	C	l.t Plu. ic. t. 44. f. 1	
5767 <i>divaricata</i> W.	dwarf	♂	□	or	5	jn.s	W	W. Indies	1742.	C	l.t Hort. cliff. t. 15	
5768 <i>aurea</i> W.	long-eared	♂	□	or	15	jl	W	Jamaica	1756.	C	l.t Mill. ic. l. t. 61	
5769 <i>porrecta</i> W.	smooth-leaved	♂	□	or	15	jl	St	W. Indies	1737.	C	l.t Bot. mag. 1708	
5770 <i>parviflora</i> W.	small-flowered	♂	□	or	20	...	W	E. Indies	1808.	C	l.t	
5771 <i>variegata</i> W.	variegated	♂	□	or	20	jn.jl	St	E. Indies	1690.	C	l.t Rh. mal. l. t. 32	
5772 <i>candida</i> W.	white	♂	□	or	10	my.jn	W	E. Indies	1777.	C	l.t	
5773 <i>purpurea</i> W.	purple	♂	□	or	25	...	P	E. Indies	1778.	C	l.t Rh. mal. l. t. 33	
5774 <i>tomentosa</i> W.	tomentose	♂	□	or	12	...	Y.w	E. Indies	1808.	C	l.t Rh. mal. l. t. 35	
5775 <i>acuminata</i> W.	acute-leaved	♂	□	or	8	...	W	E. Indies	1808.	C	l.t Rh. mal. l. t. 34	
5776 <i>forcicata</i> Link.	pincer-leaved	♂	□	or	6	...	W	Brazil	1823.	C	l.t	
971. AFZELIA. Sm.	AFZELIA.							Leguminosæ.	Sp. 1.			
5777 <i>africana</i> Sm.	african	♂	□	or	tm	30	...	Cr	S. Leone	1821.	C	r.m
972. HYMENEA. W.	LOCUST-TREE.							Leguminosæ.	Sp. 2.			
5778 <i>Coubaril</i> W.	leathery-leaved	♂	□	or	20	...	Y.p	W. Indies	1688.	C	p.l La. ill. t. 330. f. 1	
5779 <i>verrucosa</i> W.	warted-podded	♂	□	or	20	Madagas.	1808.	C	p.l La. ill. t. 330. f. 2	



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of various other works of merit. These are small New Holland bushes, with numerous yellow flowers, frequently brown on the outside.

966. *Daviesia*. Named after the Rev. Hugh Davies, a Welsh botanist. Plants like furze. The species root best when the cuttings are somewhat ripened and planted in pots of sand, and covered with a hand-glass without bottom heat.

967. *Mirbelia*. In honor of Mr. Mirbel, a distinguished French physiological botanist, whose elucidations of the reticulated structure of vegetables make it proper to consecrate to his merits plants remarkable for their reticulation.

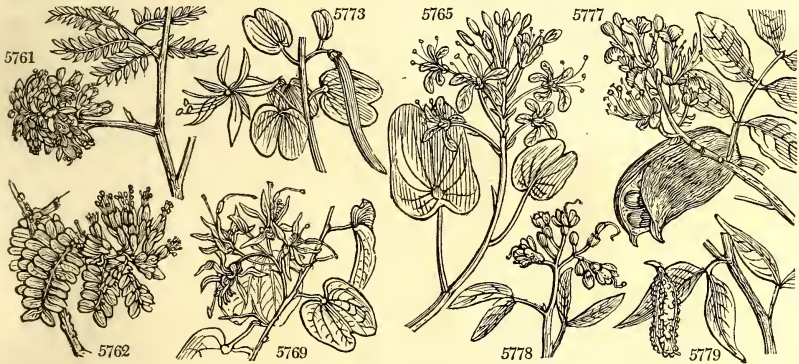
968. *Cercis*. *Kæziz* is a name of Theophrastus, supposed to have appertained to the tree now so called. *Gainier* or *Arbre de Judée*, Fr., *Arbold Amor*, Span. Handsome low trees, with singular leaves and fine shewy flowers. These having an agreeable poignancy, and being abundant on the branches, are frequently eaten in salads on the continent, and those of the *C. canadensis* are pickled by the French families in Canada. The wood of both species is finely veined with black and green, and takes a good polish; and the young branches of the Canadian species are said to dye wool of a fine nankeen color. They may be propagated either by layers or seeds: the latter make the best plants. Gerarde, in compliance with the popular notions of his time, says, "this is the tree whereon Judas did hang himself; and not upon the elder tree, as it is said."

969. *Schotia*. So named by Jacquin, in memory of Richard van der Schott, a Dutchman, gardener at Schoenbrunn, and his companion in his travels. This beautiful genus has lately been increased by Burchell, the African traveller. "They require," Sweet observes, "rather more warmth than a common greenhouse, to keep them in good health through the winter. The coldest part of the stove will suit them better; but they should not be plunged in the tan, as they want no bottom heat. A mixture of loam and peat is the best soil for them; and cuttings planted in sand, and plunged in mould (not in tan), under a hand-glass, will strike root." (*Bot. Cult.* 105.)

970. *Bauhinia*. So named by Plumier, in honor of the two famous botanists, John and Caspar Bauhin. The species consist of trees or shrubs, most of them climbing. The leaves are simple, but two-lobed or two-

- 5748 Very smooth, Fl. axill. Leaves oblong linear mucronate flat
 5749 Heads terminal 2-flowered, Fruit lateral, Leaves subulate linear hairy above concave
 5750 Heads terminal few-fl. Leaves wedge-shaped at the end dilated 2-lobed above rough beneath silky
- 5751 Leaves linear revolute pungent straight rough, Flowers axillary solitary
 5752 Branches spiny smooth spreading, Leaves lanceolate or linear, Pedunc. axill. 1-fl. Bractes 8 imbricated
 5753 Leaves linear oblong flat pointless, Pedunc. axill. twin corymbose many-fl. Calyx regular
 5754 Branches unarmed, Lvs. long-lanc. with a very short weak point, Corymbes axill. Upper lip of calyx retuse
- 5755 Branches unarmed, Leaves ellipt. or oval veiny attenuated at base, Racemes axillary many-fl.
 5756 Stem leafless winged, Umbels lateral, Calyx and bractes fringed
- 5757 Leaves lanceolate linear veiny, Ovaries 2-seeded
 5758 Leaves wedge-shaped at the end dilated-trifid
- 5759 Leaves orbicular cordate
 5760 Leaves cordate acuminate
- 5761 Leaves 7-10 pairs oval-lanceolate mucronate, Stipules subulate
 5762 Leaves 8-10 pairs oval obtuse mucronate or not, at the base in front a little swollen
 5763 Leaves 5 pairs oval acute mucronate, Stipules half-ovate falcate mucronate
- 5764 Stem tendril-bearing, Lobes of leaves attenuated
 5765 Stem tendril-bearing, Fl. triandr. on outside with stam. at base hairy, Lvs. downy beneath, Lobes rounded
 5766 Stem prickly
 5767 Leaves smooth, Lobes divaricate acute 2-nerved, Petals lanceolate
 5768 Leaves at the base nearly transverse, Lobes lanceolate porrect 3-nerved, Petals lanceolate
 5769 Leaves cordate, Lobes porrect acute 3-nerved, Petals lanceolate
 5770 Racemes axill. and term. nodding, Petals linear, Lobes of leaves rounded smooth
 5771 Cal. 1-leaved bursting, Petals sessile ovate, Lobes of leaves ovate obtuse
 5772 Leaves cordate downy beneath, Lobes ovate obtuse, Cal. narrowed upwards lengthened
 5773 Flowers triandrous, Lobes of leaves oval obtuse
 5774 Leaves cordate, Lobes half orbicular downy
 5775 Leaves ovate, Lobes acuminate half-ovate spreading
 5776 Stem prickly, Leaves cordate with porrect 4-nerved lobes
- 5777 Leaves alternate abruptly pinnated, Pod woody, Seeds black with a scarlet arillus

- 5778 Leaflets coriaceous veinless unequal at base, Flowers of panicle stalked
 5779 Leaves veiny unequal at base, Panicle wavy spreading, Pedunc. many-fl. Pods warted



and Miscellaneous Particulars.

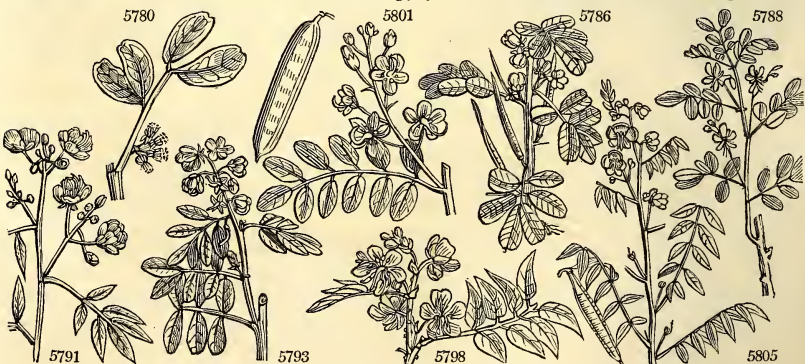
parted, which circumstance gave occasion, it is said, to Plumier to name this genus from the two brothers. They merit a place in the stove, where they are easily cultivated in light loamy soil, and cuttings taken off when the plants are in a growing state, not over ripened, nor yet quite succulent, with their leaves on, will do well in sand under bell-glasses in moist heat. The species rarely flower in this country. In their native woods they are great ornaments of the trees, among which they climb in every direction. The stem of *Bauhinia scandens*, which had twined around a smaller plant, is said to have been the origin of *Æsculapius*'s snake rod, which he brought from India.

971. *Azalia*. Named by Sir J. E. Smith, after Dr. Adam Afzelius, an amiable and excellent Swedish botanist, resident for many years, in the service of the African Company, at the colony of Sierra Leone, and now living at Upsal.

972. *Hymenæa*. A poetical application of this plant, the leaves of which grow in pairs, to Hymen, the god of marriage. *Courbaril* is a vernacular American name. This tree is abundant in the West Indies, where it grows to a large size, with a spreading head. It has stiff sub-pinnate leaves obliquely placed, and terminal spikes of flowers, which are succeeded by thick, fleshy, brown pods, shaped like those of the garden bean; they are six inches long, and two inches and a half broad, of a purplish brown color, and a ligneous consistence, with a large suture on both edges; they contain three or four roundish compressed seeds, divided by transverse partitions, and inclosed in a whitish substance of fine filaments, as sweet as honey. The Indians eat this substance with great avidity, though it is apt to purge when fresh gathered, but it loses this quality as it grows old.

Between the principal roots of the tree exudes a fine transparent resin, yellowish or red, which is collected in large lumps, is called gum Anime, and makes the finest varnish that is known, superior even to the Chinese lacca: for this latter use it is dissolved in the highest rectified spirits of wine. It burns readily, and with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons laboring with asthmas or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, useful in palsies, in cramps, and

973. CYNOMETRA. W. CYNOMETRA.		stem-flowering ♂ ☐ or 30		Leguminosæ.	Sp. 1—2.	E. Indies 1804.	C	s.l.p	Lam. ill. t. 331
5780	cauliflora W.			... Y.p	...	...	
974.	CAS'SIA. W.	CASSIA		Leguminosæ.	Sp. 56—149.				
5781	diphylla W.	☐	pr	3 my.jl	Y	W. Indies 1781.	C	lt.l	Ca. ic. 5. t. 600. f.1
5782	Ab'sus W.	☐	un	4 jn.jl	Y	India 1777.	C	lt.l	Burm. zeyl. t. 97
5783	viminea W.	☐	pr	3 ...	Y	W. Indies 1786.	C	co	
5784	bacillaris W.	☐	or	3 ...	Y	E. Indies 1782.	C	p.l	
5785	Tägera W.	☐	w	1½ jl	Y	E. Indies 1803.	C	co	
5786	Tora W.	☐	w	3 au	Y	E. Indies 1693.	C	r.m	Dill. elt. 63. f. 73
5787	bicapsularis W.	☐	or	4 my.jn	Y	W. Indies 1739.	C	s.p	Plu. ic. t. 76. f. 1
5788	sennoides W.	☐	or	3 jl.au	Y	E. Indies 1808.	C	s.p	Jac. ic. 1. t. 70
5789	acuminata W.	☐	or	8 ...	Y	Surinam 1820.	S	s.p	
5790	mollissima W. en.	☐	or	6 ...	Y	S. Amer. 1816.	S	s.p	
5791	corymbosa W.	☐	or	3 jl	Y	B. Ayres 1796.	C	s.p	Bot. mag. 633
5792	emarginata W.	☐	or	15 my.jn	Y	Jamaica 1759.	C	p.l	Sl. hi. 2. t. 180. f. 1.4
5793	obtusifolia H. K.	☐	w	2 jl.au	Y	Jamaica 1732.	C	p.l	Dil. el. t. 62. f. 72
5794	péndula W. en.	☐	or	3 jl.au	Y	S. Amer. 1820.	C	p.l	
5795	lævigata W. en.	☐	pr	3 my.au	Y	.....	C	co	
5796	sericea W.	☐	w	1½ my.au	Y	Jamaica 1731.	C	lt.l	
5797	dispar W. en.	☐	or	3 ...	Y	S. Amer. 1824.	C	s.p	
5798	occidentalis W.	☐	or	15 my.jn	Y	W. Indies 1759.	C	p.l	Bot. reg. 83
5799	pátula W.	☐	pr	2 au.s	Y	W. Indies 1778.	C	co	
5800	prostrata W. en.	☐	or	¾ my.au	Y	S. Amer. 1819.	C	lt.l	
5801	arboræscens W.	☐	un	3 jn.jl	Y	E. Indies 1800.	C	co	Rh. ma. 6. t. 9.10
5802	italica Lam.	☐	or	3 jn.jl	Y	E. Europe ...	C	p.l	Mo. h. 2. t. 24. f. 2
5803	Senna H. K.	☐	m	3 jl.au	Y	Egypt 1640.	S	lt.l	
5804	orientalis P. S.	☐	or	3 jl.au	Y	Levant ...	S	lt.l	Tabern. ic. 507
5805	ruscifolia W.	☐	or	2 my.jl	Y	Madeira 1816.	C	co	Jac. ic. 1. t. 71
5806	purpurea Roxb.	☐	or	4 jn.au	Y	E. Indies 1821.	C	lt.l	Bot. reg. 856
5807	ægyptiaca W. en.	☐	or	3 my	Y	Egypt 1822.	C	co	
5808	biflora W.	☐	or	6 ap.d	Y	W. Indies 1766.	C	p.l	Bot. mag. 810
5809	chinensis W.	☐	or	4 jn	Y	China 1807.	S	p.l	Jac. ic. 1. t. 73
5810	hirsuta H. K.	☐	w	4 jl	Y	America 1778.	C	s.p	
5811	coromandeliana W. en.	☐	or	4 jn	Y	E. Indies 1822.	C	co	
5812	lanceolata P. S.	☐	pr	3 jl	Y	W. Indies 1822.	C	co	
5813	bracteata W.	☐	or	6 ap.d	Y	W. Indies 1822.	C	co	
5814	tomentosa W.	☐	or	15 jls	Y	W. Indies 1822.	C	co	
5815	glandulosa W.	☐	pr	4 au.o	Y	W. Indies 1822.	C	co	
5816	grândis W.	☐	or	25 ...	Y	W. Indies 1822.	C	co	Brey. cent. t. 14
5817	planisiliqua P. S.	☐	pr	4 my.jl	Y	W. Indies 1822.	C	co	Plum. spec. t. 77
5818	robinoides W. en.	☐	or	10 jl	Y	S. Amer. 1823.	C	co	
5819	stipulacea W.	☐	or	3 ...	Y	Chili 1786.	C	lt.l	Feu. per. 3. t. 42
5820	cuspidata W. en.	☐	or	4 jn.au	Y	S. Amer. 1820.	C	co	
5821	marilandica W.	☐	or	4 au.o	Y	N. Amer. 1723.	C	s.p	Di. el. t. 260. f. 339
5822	alata W.	☐	or	12 ...	Y	W. Indies 1731.	C	p.l	Jac. ob. 2. t. 45. f. 2
5823	ligustrina W.	☐	or	6 jl	Y	Baham. Is. 1726.	C	p.l	Bot. reg. 109
5824	multiglandulosa W.	☐	pr	4 jn.au	Y	Teneriffe 1779.	C	s.p	Jac. ic. 1. t. 72
5825	frondosa W.	☐	or	3 mr.ap	Y	W. Indies 1769.	C	lt.l	Jac. ic. 1. t. 74
5826	Sôphera W.	☐	or	4 jls	Y	E. Indies 1658.	C	co	Rh. ma. 2. t. 52
5827	reticulata W. en.	☐	or	10 au.s	Y	S. Amer. 1771.	C	lt.l	Pl. alm. t. 314. f. 4
5828	auriculata W.	☐	or	4 ...	Y	E. Indies 1822.	C	co	Bot. mag. 107
5829	Chamæcrista W.	☐	pr	4 jr.s	Y	America 1699.	C	r.m	
5830	hirta W. en.	☐	or	3 jls	Y	S. Amer. 1820.	C	co	
5831	marginata W. en.	☐	or	3 my.jl	Y	Surinam 1823.	C	co	
5832	mimosoides W.	☐	pr	2 jn.s	Y	Surinam 1823.	C	co	
5833	microphylla W.	☐	pr	2 jn.s	Y	Ceylon 1806.	S	lt.l	
5834	nictitans W.	☐	pr	2 jn	Y	Santa Cr. 1810.	S	lt.l	
5835	capensis Th.	☐	or	2 jl	Y	N. Amer. 1800.	S	lt.l	Pl. alm. t. 314. f. 5
5836	procumbens W.	☐	w	1½ jn.jl	Y	C. G. H. 1816.	S	lt.l	Bot. cab. 511 ?
		☐	w	1½ jn.jl	Y	N. Amer. 1806.	S	lt.l	Com. pet. t. 11



History, Use, Propagation, Culture.

contractions of the sinews. The solution in spirits has been thought not inferior to Guaiacum in venereal cases. A decoction of the leaves expels flatulency, and gives ease in colicky pains, by gently opening the bowels; and the inward bark is an excellent vermifuge in substance or decoction.

The tree is excellent timber; but it must be very old before it is cut, otherwise the heart will be but small. It is in great request for wheel-work in the sugar-mills, particularly for cogs to the wheels, being extremely hard and tough: it is so heavy, that a foot cube weighs about a hundred pounds, and it will take a fine polish. It is much inhabited by wild honey bees. (Broune.)

Besides this locust-tree, there is the American tree of that name, Robinia Pseud-acacia, and the locust-tree of scripture, Ceratonia siliqua.

5780 Flowers growing upon the trunk

- 5781 Leaves 1 pair and calyxes smooth, Stipules cordate-lanceolate
 5782 Leaves 2 pairs obovate, Two subulate glands between the lower pair
 5783 Leaves 2 pairs ovate oblong acuminate, An obl. gland between the lower pair, Spines obsolete 3-toothed
 5784 Leaves 2 pairs ovate oblique, An obtuse gland between the lowest, Racemes axill. stalked
 5785 Leaves 3 pairs : with a gland on the footstalk, Stipules ciliate cordate acuminate
 5786 Leaves 3 pairs obovate : outer largest, A subulate gland between the lower pair
 5787 Leaves 3 pairs obovate smooth : the inner roundest with a globose gland between
 5788 Leaves 3 pairs, Leaflets obtuse elliptical, A gland between the lower leaves
 5789 Leaves 3 pairs, Leaflets ovate acuminate, A sessile gland between the leaflets
 5790 Leaves 3 pairs ovate acuminate with soft down on each side
 5791 Leaves 3 pairs lanceolate subfalcate smooth, A gland between the lowest, Corymbs stalked, Pods cylind.
 5792 Leaves about 4 pairs ovate, Flowers racemose irregular, Stem arborescent
 5793 Leaves 3 pairs obovate obtuse beneath very villous outer largest, A gland between lowest, Pods recurved
 5794 Leaves 3 or 4 pairs obovate the outer largest, A gland between the lower pairs, Pods pendulous rounded
 5795 Leaves 4 pairs ovate hairy with a subulate gland between the leaflets, Peduncles 4-flowered
 5796 Leaves 4 pairs obovate pubescent ciliated, A stalked gland between all, Pedunc. 4-fl. Pod jointed
 5797 Leaves 4 or 5 pairs oblong obtuse : the outer the largest with a gland between every pair
 5798 Leaves 5 pairs ovate lanceolate rough at edge : outer largest, A gland at foot of leafstalk
 5799 Leaves 5 pairs oblong acute smooth, A gland at base of footstalk, Branches smooth
 5800 Leaves 5 pairs elliptical smooth with an obl. gland between the lower, Stip. subul. falcate, Rac. axillary
 5801 Leaves 5 pairs elliptical smooth, An oblong gland between the lower, Racemes axillary
 5802 Leaves 5 pairs cordate obtuse, Stalks without glands
 5803 Leaves 6 pairs obovate smooth, Stalks without glands, Spikes racemose, Pods leafy compressed falcate
 5804 Leaves 5 pairs lanceolate equal, Gland above the base of the leafstalks
 5805 Leaves 6 pairs ovate lanceolate smooth with a gland at the base of the stalk, Pod compressed edged
 5806 Leaves 8-9 pairs ovate lanceol. hairy with a gland at base of stalk, Racemes many-fl. shorter than leaves
 5807 Leaves 6 pairs lanceolate acute the outer largest, A gland on leafstalk, Peduncles 2 flowered
 5808 Leaves 6 pairs obl. smooth : lower smaller with a subulate gland between the lowest, Stalks 2-flowered
 5809 Leaves 6 pairs ovate acute smooth, with a gland at the base of the stalk, Pod cylindrical hooked
 5810 Leaves 5-6 pairs ovate acuminate woolly : the outer largest
 5811 Leaves 6 or 8 pairs lanceolate acute smooth, with a gland on the leafstalk, Pod round smooth
 5812 Leaves 2 pairs obovate veiny, Stipules lanceolate appressed, Leaflets nearly equal
 5813 Leaves 10 pairs oblong obtuse without glands, Racemes long, Bractes ovate tumid imbricated
 5814 Leaves 6-8 pairs linear obliquely rounded at base above hairy, Panic. axillary, Pod villous
 5815 Leaves in many pairs with many glands, Stipules subulate
 5816 Leaves 2 pairs velvety without glands
 5817 Leaves 5 pairs ovate lanceolate smooth with a gland at the base of the leafstalk
 5818 Leaves 6-9 pairs lanceolate acuminate smooth, A gland on the leafstalk
 5819 Leaves 8 pairs ovate-lanceolate, A gland between the lower, Stipules ovate very large
 5820 Leaves 10 pairs ovate-lanceolate obtuse mucronate smooth, Stalk without gland
 5821 Leaves 8 pairs ovate-oblong equal, Gland at the base of the leafstalk
 5822 Leaves 8 pairs oval-oblong : the outer smaller, Leafstalks without glands, Stipules spreading
 5823 Leaves 7 pairs lanceolate : the outer smallest, A gland at base of leafstalk
 5824 Leaves 6 pairs oval-obl. obt. hairy : the outer largest, A subulate gland between each pair, Pods linear
 5825 Leaves 9 pairs oval-obl. smooth obt. A cylindrical gland between the lowest, Footst. with no gland at base
 5826 Leaves 10 pairs lanceolate with an oblong gland at the base
 5827 Leaves 10 pairs, Leaflets oblong rounded at each end beneath hoary, No gland on stalk, Pod compressed
 5828 Leaves 12 pairs obtuse mucronate, Glands many subulate, Stipules reniform bearded
 5829 Leaves many pairs, Gland of the footstalk stalked, Stipules ensiform
 5830 Branches hairy, Stipules lanceolate linear with elevated lines, Leaflets cuspidate
 5831 Leaves 15 pairs, Leaflets with a cartilaginous white edge and a subulate gland between every pair
 5832 Leaves many pairs linear with an obsolete gland at the base of the leafstalk, Stipules setaceous
 5833 Leaves many pairs linear mucronate with a gland between the lowest, Pedunc. solitary 1-fl.
 5834 Leaves many pairs, Flowers pentandrous, Stem erect
 5835 Leaves many pairs linear, Stem flexuose erect villous. The plant in Bot. Cab. is something else?
 5836 Leaves many pairs without glands, Stem procumbent



and Miscellaneous Particulars.

973. *Cynometra*. A name contrived to indicate the peculiar form of the pods of this genus, which grow from the old stems and branches of the tree. Large cuttings root best planted in sand, and plunged in heat under a hand-glass.

974. *Cassia*. According to Olaus Celsus, this name is to be traced to the Hebrew, *Ketziath*, rendered by *Kassian* in the Septuagint, and Latinized by *Cassia*. Cuttings of the species, which do not seed freely, root in pots of sand, in moist heat, and covered by a hand-glass.

Of the trivial names of different species of *Cassia*, that of *Absus* is the name under which it is described by Professor Alpinus, and is supposed to have arisen from a river of Palestine of that name. *Tagera* is a Malabar name, *Sophera*, an Egyptian name, and *Senna*, the Arabic name of the plant — *Senna*.

975. CATHARTOCARPUS. P. S. CATHARTOCARPUS.	Leguminosæ. Sp. 2—5.
5837 Fis'tula P. S. purging	♣ □ m 3 jn.jl Y E. Indies 1731. C 1p Rh. mal. 1. t. 22
5838 javânicus P. S. Java	♣ □ m 4 ... Pk E. Indies 1779. C 1p Co. hort. 1. t. 111
976. PARKINSONIA. W. PARKINSONIA.	Leguminosæ. Sp. 1.
5839 aculeata W. prickly	♣ □ or 12 ... Or W. Indies 1739. C 1p Jac. amer. t. 80
977. POINCIANA. H. K. POINCIANA.	Leguminosæ. Sp. 2.
5840 pulcherrima H. K. Flower-fence	♣ □ or 10 jn.s R.v.g E. Indies 1691. S r.m Bot. mag. 995
5841 elata H. K. smooth	♣ □ or 15 ... Y E. Indies 1778. S r.m
978. CÆSALPINIA. H. K. BRASILETTO.	Leguminosæ. Sp. 9—18.
5842 bijuga W. broad-leaved	♣ □ ec 15 ... Y Jamaica 1770. S p.l SLh.2.t. 181.f.2,3
5843 brasiliensis W. smooth	♣ □ ec 20 ... Or Jamaica 1739. S p.l
5844 Sap'pan W. narrow-leaved	♣ □ ec 20 ... Y E. Indies 1773. S p.l Roxb. cor.1. t. 16
5845 Crista Ssu. oval-leaved	♣ □ ec 15 ... W.Y Jamaica ... S p.l Plu. gen. t. 68
5846 mimosoides W. Mimosa-leaved	♣ □ pr 6 ... Y E. Indies 1806. S p.l Rh. mal. 6. t. 8
5847 Nûga H. K. acute-leaved	♣ □ ec 10 ... Y E. Indies 1801. S p.l Rum. am. 5. t. 50
5848 cassioides W. en. Senna-like	♣ □ or 6 ... S. Amer. 1821. S p.l
5849 mucronata W. en. mucronate	♣ □ or 6 ... Brazil 1823. S p.l
5850 punctata W. en. dotted	♣ □ or 6 ... Brazil 1820. S p.l
979. GUILANDINA. H. K. NICKER-TREE.	Leguminosæ. Sp. 1—7.
5851 Bônduc H. K. oval-leaved	♣ □ or 12 ... Y India 1640. C s.p Lam. ill. t. 336
980. HYPERANTHERA. W. HORSE-RADISH-TREE.	Leguminosæ. Sp. 1—2.
5852 Moringa W. smooth	♣ □ or 10 ... E. Indies 1759. C p.l Jac. ic. 3. t. 461
981. HOFFMANSEGGIA. Cav. HOFFMANSEGGIA.	Leguminosæ. Sp. 1—2.
5853 falcata Cav. sickle-leaved	♣ □ cu 2 jl.au ... Chili 1806. C s.lp Cav. ic. t. 392
982. ADENANTHERA. W. ADENANTHERA.	Leguminosæ. Sp. 2—5.
5854 Pavonia W. yellow-flowered	♣ □ or 5 my.au Y E. Indies 1759. C s.lp
5855 falcata W. woolly-leaved	♣ □ or 5 ... Y E. Indies 1812. C s.lp Ru. amb. 3. t. 11
983. CA'DIA. W. CADIA.	Leguminosæ. Sp. 1.
5856 purporea W. purple	♣ □ cu 6 ja.jl W.pu Arabia 1775. C lt.1 Pic. h.p. 9. c. ic.
984. PROSOPIS. Rox. PROSOPIS.	Leguminosæ. Sp. 1.
5857 spicigera L. eatable-podded	♣ □ ec 20 ... W.g E. Indies 1812. C r.m Roxb. cor.1. t. 63
985. HÆMATOXYLON. W. LOGWOOD.	Leguminosæ. Sp. 1.
5858 campechianum W. common	♣ □ dy 20 ... Y S. Amer. 1724. C r.m Cat. car. 2. t. 66
986. COPAIFERA. W. BALSAM OF CAPEVI.	Leguminosæ. Sp. 1.
5859 officinalis W. official	♣ □ m 20 ... S. Amer. 1774. C s.l Jac. amer. t. 86



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975. *Cathartocarpus*. From *καθάρω*, to purge, and *καρπος*, fruit; the fruit of the species being a strong cathartic. The species may be treated as Cassia.

976. *Parkinsonia*. So named by Plumier, in memory of John Parkinson, apothecary, of London, author of *Paradisus Terestris*, 1629, and *Theatrum Botanicum*, 1640. It is a handsome low tree, not unlike the Laburnum, and planted in the West Indies near houses, as the latter is in this country.

977. *Poinciana*. So named by Tournefort, in memory of De Poinci, governor of the Antilles, placed by Linnaeus among the promoters of botany.

P. pulcherrima is a low spiny tree, with an odor, when the leaves are bruised, like savin. It is a native of both Indies, and in Barbadoes is planted in hedges, whence the name of flower-fence, or Spanish carnations, which it is there called. In our stoves they require a strong heat to make them flower well. They are readily increased either by cuttings or seeds.

978. *Cæsalia*. So named by Plumier, in honor of Andreas Casalpini, chief physician to Pope Clement VIII., and the father of systematic arrangement in plants, in his now very scarce work, entitled, *De Plantis*, libri sedecim, Flor. 1583. He died at Rome in 1602. The wood of all the genus may be used in dyeing. In our stoves the plants are thorny, and, therefore, not being much liked, are seldom suffered to grow large enough to flower freely.

C. sappan is a prickly tree, with the heart of the wood red, heavy, and very hard: it dyes a beautiful red, which, however, is said not to stand. It is very durable in sea-water, and exported abundantly by the Chinese for treants in ship-building, and as a dye.

C. brasiliensis afford the Brazil wood used in dyeing, and extensively imported to England from the West Indies. The timber of the last species is elastic, tough, and durable, and takes a fine polish; it is of a beautiful orange-color, full of resin, and yields a fine full tincture by infusion. The best Brazil wood is said to be produced by *Cæsalia* *echinata*. Cuttings, Sweet observes, will not root freely, but will sometimes succeed if taken off in a growing state, but not too young, and plunged in a pot of sand, under a hand-glass, in moist heat. (*Bot. Cult.* 32.)

979. *Guilandina*. Named after Melchior Guilandin, a Prussian traveller in Africa, and demonstrator of Botany at Padua. He died in 1590. The species are all fine trees, with large compound leaves.

980. *Hyperanthera*. From *ὑπερ*, upon, and *ανθηρα*, an anther. The five barren stamens of this

5837 Leaves 5 pairs
5838 Leaves 12 pairs

5839 The only species

5840 Prickly, Calyxes unequal smooth

5841 Unarmed, Calyxes equal downy

5842 Prickly, Leaves doubly in 2 pairs, Leaflets obcordate and calyxes smooth, Stam. as long as corolla
5843 Unarmed, Leaflets ovate-oblong, Rachis pubescent, Cal. downy, Stamens shorter than corolla
5844 Prickly, Leaf. obl. oval uneq. sided obt. and cal. smooth, Stamens longer than cor. Upper petal very small
5845 Prickly, Leaflets oval, Racemes simple, Petals ovate shorter than the smooth calyx
5846 Prickly, Leaflets oblong obtuse, Stamens shorter than cor. Pods woolly
5847 First petiole prickly beneath, Leaflets acute and cal. smooth, Pods 1-2-seeded
5848 Stipules spiny, Leaflets oblong retuse, Leafstalks hairy
5849 Prickly, Leaflets oblong obtuse mucronate smooth
5850 Unarmed, Leaflets unevenly bipinnate, Leaflets elliptical obtuse mucronate dotted

5851 The only species

5852 Flowers half decandrous, Leaves about bipinnate, Lower leaflets ternate, Pods 3-cornered

5853 Stem decumbent, Leaves bipinnate ovate glaucous

5854 Leaves decomposed smooth on each side

5855 Leaves decomposed downy beneath

5856 The only species

5857 The only species. Branches spiny, Leaves alternate conjugate

5858 The only species. Leaves abruptly pinnated, Leaflets obcordate

5859 The only species



and Miscellaneous Particulars.

genus are surmounted by the five fertile ones. (Vahl.) Cuttings root best under a hand-glass in sand.

981. *Hoffmanseggia*. Named by Cavanilles, after John Charles Hoffmansegg, whom he calls a distinguished naturalist. It may be with some propriety be employed to commemorate the merits of the present distinguished Count Hoffmansegg. Cuttings, somewhat ripened, root under a hand-glass in sand.

982. *Adenanthaera*. From *adon*, a gland, and *anthera*, an anther. The essential character of the genus is to have each anther tipped with a gland. Large cuttings, with the leaves not shortened, root best in a pot of sand plunged in heat under a hand-glass. (*Bot. Cult.* 13.)

983. *Cadia*. Contrived by Forskahl, from the Arabic name of the plant, — *qadhy*.

984. *Prosopis*. One of the names under which Dioscorides described the Arctium Lappa. The present plant has no sort of resemblance to that of the ancients. It is a leguminous plant, and the pods are eaten as a condiment in India.

985. *Hæmatorylon*. From *hæma*, blood, and *ylon*, wood, in allusion to the color of an infusion of its wood. The logwood of commerce. This is a crooked stemmed low tree, with pinnate leaves, originally from the Bay of Campeachy; the inner bark and wood red, the latter dark and very hard. It makes an excellent fence, the smaller shoots are cut for hoops, and the stems for exportation for dyeing. The gum is a gentle substriking. In our stoves it grows well in loam and leaf-mould, kept rather moist, and cuttings root in sand under a hand-glass in heat.

986. *Copaifera*. This tree is so called from bearing the drug Copaiiba, which is the name given to the tree itself by the people of Brazil. *Beauve de Copahu*, Fr., *Kopaiba Balsam*, Ger., *Balsamo dei Coppaiiba*, Ital. This is a lofty elegant tree, with a handsome branching head, the extreme branches flexuose at the axils, the bark ash-colored, and the leaves pinnate. It grows abundantly in the woods of Tolu, near Carthage, and of Quito, in Brazil. The copaiiba balsam of the shops is procured by wounding or boring these trees to the pith, near the base of the trunk, when it flows abundantly, in the form of a clear colorless liquid, which is thickened, and acquires a yellowish color by age. The operation is performed two or three times in the same year; and from the older trees the best balsam is obtained.

Copaiiba balsam is stimulant, diuretic, and gently purgative. It has been recommended in pulmonary complaints, and it certainly affords considerable relief in hæmorrhoidal affections. (*Thompson's London Dispensatory*, 265.) It may be increased by ripened cuttings in sand under cover.

987. TRICHILIA. <i>W.</i>	TRICHILIA.				<i>Meliaceæ.</i>	<i>Sp. 2—18.</i>					
5860 glåbra <i>W.</i>	smooth	■	or	10	jn.jl	W	W. Indies	1794.	C	lp	J.amert.t.175.f.38
5861 odoråta <i>B. R.</i>	sweet-scented	■	or	10	jn.jl	W	W. Indies	1801.	C	lp	Bot. rep. 637
988. MELIA. <i>W.</i>	BEAD-TREE.						<i>Meliaceæ.</i>	<i>Sp. 3—7.</i>			
5862 Azedaråch <i>W.</i>	common	■	or	40	jn.au	B	Syria	1656.	S	s.l	Bot. mag. 1066
5863 sempervirens <i>W.</i>	evergreen	■	or	40	jn.au	B	Jamaica	1656.	C	s.l	Bot. reg. 643
5864 Azadiråchta <i>W.</i>	Ash-leaved	■	or	60	jn.au	W	E. Indies	1759.	C	s.l	Cav. dis. 7. t. 308
989. QUIVISIA. <i>Cav.</i>	QUIVISIA.						<i>Meliaceæ.</i>	<i>Sp. 1—4.</i>			
5865 heterophylla <i>Cav.</i>	various-leaved	■	cu		...	W	Is. France	1822.	C	p.l	Cav. diss. t. 213
990. SWIETE'NIA. <i>W.</i>	MAHOGANY-TREE.						<i>Meliaceæ.</i>	<i>Sp. 2—3.</i>			
5866 Mahågoni <i>W.</i>	common	■	tm	80	...	R	W. Indies	1734.	C	p.l	Cav. dis. 7. t. 209
5867 febrifuga <i>W.</i>	Febrifuge	■	m	60	...	R	E. Indies	1796.	C	p.l	Rox. cor. 1 t. 17
991. EKEBER'GIA. <i>W.</i>	EKEBERGIA.						<i>Meliaceæ.</i>	<i>Sp. 1.</i>			
5868 capensis <i>W.</i>	Cape	■	or	20	jl.au	W	C. G. H.	1789.	C	p.l	Lam. ill. t. 358
992. HEY'NEA. <i>Rox.</i>	HEYNEA.						<i>Meliaceæ.</i>	<i>Sp. 1.</i>			
5869 tråjuga <i>Roxb.</i>	Walnut-like	■	or	20	s	W	Nepal	1812.	C	lp	Bot. mag. 1738
993. GUAI'ACUM. <i>W.</i>	LIGNUM-VITE-TREE.						<i>Rutaceæ.</i>	<i>Sp. 1—4.</i>			
5870 officinale <i>W.</i>	official	■	m	40	jl.s	B	W. Indies	1694.	C	lp	Lam. ill. t. 342
994. ZYGOPHYLLUM. <i>W.</i>	BEAN-CAPER.						<i>Zygophyllæ.</i>	<i>Sp. 8—19.</i>			
5871 cordifolium <i>W.</i>	heart-leaved	■	cu	6	o	O	C. G. H.	1774.	C	lp	
5872 Fabågo <i>W.</i>	common	■	cu	4	jl.s	O.w	Syria	1506.	C	lp	Lam.ill.t.345.f.1
5873 fætidum <i>W.</i>	fætid	■	pr	4	jn.au	O.y	C. G. H.	1790.	C	lp	Bot. mag. 372
	<i>inslave B. M.</i>										
5874 maculatåm <i>W.</i>	spotted-flower.	■	pr	4	o.n	Y	C. G. H.	1782.	C	lp	
5875 ålbåm <i>W.</i>	white	■	or	2	o.n	W	Canaries	1779.	C	lp	Linn. dec. 1. t. 6



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987. *Trichilia*. From *τριχίλα*, ternary, nearly all the parts of the plant, the leaves, the stigmas, the cells of capsule, the seeds, being produced by threes. *T. glabra* is a tall branching tree, with an unpleasant fetid smell. The species are rarely seen in collections, and seldom, when cultivated, flower.

988. *Melia*. *Μελίαια* was the Greek name of the manna ash, from *μέλι*, honey. This tree has been thought to resemble the ash in its foliage.

M. azedarach (*azadaracht*, Arab.) grows to a large tree in the south of Spain and Italy, producing long loose bunches of blue flowers, succeeded by pale yellow berries, about the size of a cherry. These berries consist of a pulp, which is poisonous in a high degree, and mixed with grease, will kill dogs, enclosing a nut which is bored and strung as beads by the Catholics.

M. sempervirens is considered by some as only a variety of the Azedarach.

989. *Quivisia*. The tree is called *Bos de Quivi* in the Isle of France.

990. *Swietenia*. So named by Jacquin, in honor of the illustrious Gerard L. B. Von Swieten, archiater to Maria Teresa, Empress of Germany, who at his persuasion founded the botanic garden at Vienna.

S. mahagoni. The mahogany tree is a lofty branching tree, with a wide handsome head, the flower of *Melia*, and the fruit of *Cedrela*, about the size of a turkey's egg. It grows in the warmest parts of America, as in Cuba, Jamaica, Hispaniola, &c. The trees on the Bahama islands are not so large, but are more curiously veined, and are known in Europe as Madeira wood. They generally grow on the solid rock, where there seems to be no earth for their nourishment. Mahogany, like other timber, varies in durability, firmness of grain, and other circumstances, with the soil on which it is grown. The best is furnished from the rocky soils of St. Domingo and the Bahama islands.

S. febrifuga is a lofty tree, in general appearance like the Mahogany. The wood is of a dull red color, remarkably hard and heavy; it is reckoned by the natives the most durable wood they know, and on that account is used for all the wood-work in their temples; it is also very serviceable for various other purposes. The bark is internally of a light red color: a decoction of it dyes brown of various shades, according as the cloth has been prepared. Its taste is a bitter and astringent united, and very strong, particularly the bitter; at the same time not any way nauseous or otherwise disagreeable. In India it is used for the cure of intermittents with considerable advantage, and has also been found efficacious in most of the diseases in which the cinchona bark proves serviceable. (*Thompson's London Dispensatory*, 533.)

991. *Ekebergia*. Charles Gustavus Ekeberg was a Danish naturalist, who travelled in Asia from 1770 to 1771. Cuttings to succeed must have their leaves entire, and be planted in sand and covered.

992. *Heynea*. Named after Dr. Benjamin Heyne, a learned German botanist and physician, who travelled many years in India, where he formed a large collection of dried plants.

993. *Guaiacum*. From *guaica*, the name given to the tree by the natives of Guiana. *Gtjuac*, Fr., *Gujakgummi*, Ger., *Gujaco*, Ital. This tree rises forty feet high, and is four or five feet in circumference, with many divided knotted branches, greyish bark, and abruptly pinnate leaves. It has blue flowers, which are succeeded by compressed berries of a roundish form. The tree takes many years to arrive at its full growth. The roots run far into the ground perpendicularly, contrary to the usual growth of timber trees in the West Indies, which generally shoot the largest prongs of their roots in a horizontal direction, and are commonly observed to run very near the surface. The bark is thick and smooth, the wood of a dark olive color, and cross grained, the strata running obliquely into one another, in form of an X. It is a valuable timber where

5860 Leaves pinnated smooth, Outer leaflets largest

5861 Leaflets lanceolate undulate, Flowers with 4 petals

5862 Leaves bipinnate, Leaflets smooth somewhat quinate

5863 Leaves bipinnate, Leaves cut rugose shining about 9, Petiole rounded at base

5864 Leaves pinnate

5865 Leaves alternate oval and obovate entire sinuate-toothed or pinnatifid, Pedicels twin axillary 1-flowered

5866 Leaves pinnate in four pairs, Leaflets ovate-lanceolate equal at base, Panicles axillary

5867 Leaves pinnate in four pairs, Leaflets elliptical roundish emarginate unequal at base, Panicle terminal

5868 The only species, Leaves pinnated with an odd one, Panicles axillary

5869 Leaves pinnated with an odd one in 3 pairs, Pan. axill. on long stalks

5870 Leaflets of 2 or 3 pairs obtuse, Capsules 2-celled

5871 Leaves simple opposite sessile roundish

5872 Leaves conjugate stalked, Leaflets obovate, Peduncles erect, Calyx smooth

5873 Leaves conjugate stalked, Leaflets obovate, Flower nodding, Calyx pubescent

5874 Leaves conjugate stalked, Leaflets linear-lanceolate

5875 Leaves conjugate stalked, Leaflets clavate fleshy with a cobweb surface



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strength and duration is required, and weight no object. It takes a fine polish, turns well, and is much used for ship blocks. It is one of the most valuable trees of the West Indies; since the timber, the bark, fruit, leaves, and blossom, are all applicable to some useful purpose. The wood yields by incision the peculiar substance called Guaiacum, erroneously termed a gum, of great importance in medicine.

All the parts of this tree possess medicinal qualities; but the wood and the peculiar substance afforded by it are the only parts used: the virtues of the wood depend altogether on the peculiar matter it contains. This is spontaneously exuded from the tree, and is called native gum: it concretes in tears, which are semi-pellucid, and very pure; but the greater part of it is obtained by making incisions into the trunk, or, as it is termed, jaggings the tree. This operation is performed in May; and the juice which flows copiously, is concentered by the sun. It is also obtained by sawing the wood into billets, and boring a hole longitudinally through them; so that, when one end of a billet is laid on a fire, the guaiac melting runs through the hole from the opposite end, and is collected in a calabash. Boiling the chips or raspings in salt and water also separates the guaiac, which, as it rises to the surface, may be collected by skimming.

Both the wood and the guaiac are stimulant, diaphoretic, diuretic, and purgative. The wood was introduced into Europe by the Spaniards as a remedy for lues venerea in 1508, and gained much celebrity from curing Van Hutten; but it had long before been used for the same purpose by the natives of St. Domingo. It obtained so much reputation, that the exhibition of mercury was discontinued for a considerable length of time, and even in the eighteenth century its specific powers over this disease were maintained by Boerhaave; but frequent disappointments and more correct observations have shown that it possesses no powers of eradicating the venereal virus; and that it is useful only after a successful mercurial course, for repairing the strength and vigor of the system, "and where a thickened state of the ligament, or of the periosteum, remains, or where there are foul indolent ulcers;" (*Pearson's Observations*, &c. p. 10.) or in suspending the progress of some of the secondary symptoms for a short time, as ulcers of the tonsils, eruptions, and nodes. The decoction of the wood has been found more useful in cutaneous diseases, scrofulous affections of the membranes and ligaments, and in ozena. The guaiac itself is an efficacious remedy in chronic rheumatism and arthritic affections, as well as those diseases for which the decoction of the wood is usually given; and in every respect it may be regarded as the active ingredient of the wood. Its sensible effects are a grateful sense of warmth in the stomach, dryness of the mouth and thirst, with a copious flow of sweat, if the body be kept externally warm, or if the guaiac be united with opium and antimonials: but when the body is freely exposed, instead of producing diaphoresis, it augments considerably the secretion of urine. (*Thomson's London Dispensatory*, 318.)

Lignum vitæ in the stove grows freely in loam and peat. "Cuttings," Sweet observes, "are generally supposed to be difficult to root; but I find ripened cuttings, taken off at a joint, root readily, planted thin in a pot of sand, and plunged under a hand-glass in heat. When the cuttings are rooted, which will be easily perceived by their growing at the top, they should be potted off; when great care must be taken not to break off the young roots in taking the sand from them, as they are very small and easily broken. Pot them off in very small pots, and keep them under a close glass or a few days, till they have struck fresh root, when they must be exposed to the air by degrees." (*Bot. Cult.* 63.)

994. *Zygophyllum*. From ζυγος, a pair, and φυλλον, a leaf, all the leaves grow in pairs. *Morgsana*, which is the name of one species, is the Syrian name of the plant. These are plants of little ornament, generally with fleshy leaves, and flowers of a yellow or whitish yellow color.

5876 Morgsána W.	four-leaved	繖	□	cu	3	my.s	Y	C. G. H.	1732.	C	lp	Di.elt.t.116.f.141
5877 sessilifolium W	sessile-leaved	繖	□	cu	3	jl.au	Y	C. G. H.	1713.	C	lp	Bot. mag. 2184
5878 cocineum L.	scarlet	繖	□	or	3	...	S	Egypt	1823.	C	sp	Forsk. ic. t. 11
995. FAGONIA. W.	FAGONIA.											
5879 crética W.	Cretan	□	□	cu	1½	jn.au	Y	Candia	1739.	S	lt.1	Bot. mag. 241
5880 arábica W.	Arabian	繖	□	cu	2	jn.au	Y	Arabia	1759.	S	lt.1	
996. TRIBULUS. W.	CALTROPS.											
5881 máximus W.	great	□	□	pr	1½	jn.jl	Y	Jamaica	1728.	S	s.1	Jac. ic. 3. t. 462
5882 terrestris W.	small	□	□	cu	1	jn.jl	Y	S. Europe	1595.	S	co	Lam.ill. t.346.f.1
5883 cistoides W.	Cistus-like	♀	□	pr	1½	jl	Y	S. Amer.	1752.	C	lt.1	Bot. reg. 791
997. DICTAMNUS. W.	FRAXINELLA.											
5884 Fraxinella Link.	red	♀	Δ	or	3	my.jl	Pu	Germany	1596.	R	p.1	Jac. aust.5. t.428
5885 álbus L.	white	♀	Δ	or	3	my.jl	W	Germany	1596.	R	p.1	
993. RUTA. W.	RUE.											
5886 graveolens W.	common	♀	Δ	m	3	jn.s	G.v	S. Europe	1562.	C	co	Lam.ill. 345. t. 1
5887 montána W.	mountain	♀	Δ	un	2	au.s	G.v	S. Europe	1596.	C	co	Jac. ic. 1. t. 76
5888 chalapensis P. S.	brd.-lvd.-Afric.	♀	Δ	un	2	jn.s	G.v	Africa	1722.	C	r.m	
5889 angustifolia P. S.	narrow-leaved	♀	Δ	un	2	jn.s	G.v	Africa	1792.	C	r.m	Bot. mag. 2311
5890 pinnáta W.	winged-leaved	♀	Δ	un	2	mr.au	G.v	Canaries	1780.	C	r.m	
5891 pubescens W. en.	pubescent	♀	Δ	un	1½	my.au	G.v	Spain	1816.	C	co	
5892 limifolia L.	Flax-leaved	♀	Δ	un	1½	jn.s	G.v	Spain	1752.	C	r.m	Bot. rep. 565
5893 patavina L.	Paduan	♀	Δ	un	1½	jn.jl	G.v	Italy	1819.	C	r.m	Michel.gen. t.19
5894 macrophylla Sol.	large-leaved	♀	Δ	un	3	jl	G.v	Africa	1820.	C	r.m	Bot. mag. 2018
5895 albiflora Hook.	white-flowered	♀	Δ	pr	2	jl.au	W	Nepal	1823.	C	r.m	Hook. ex. fl. 79
999. CROWEA. Sm.	CROWEA.											
5896 saligna Sm.	Willow-leaved	繖	□	or	3	jl.d	Pu	N. S. W.	1790.	C	s.l.p	Bot. mag. 989
1000. CODON. W.	CODON.											
5897 Royéni W.	prickly	♀	□	cu	5	.....	S	C. G. H.	1801.	S	lt.1	Bot. rep. 325
1001. GOMPHIA. W.	BUTTON-FLOWER.											
5898 nitida W.	glossy-leaved	繖	□	el	4	...	Y	Jamaica	1803.	C	s.1	Ann. mus. t. 13
5899 obtusifolia Dec.	obtus-leaved	繖	□	el	3	...	Y	Jamaica	1803.	C	s.1	Ann. mus. t. 8
1002. QUASSIA. W.	QUASSIA.											
5900 amára W.	bitter	♂	□	m	20	jn.jl	R	Guiana	1790.	C	p.1	Bot. mag. 497
5901 Simarúba W.	winged-leaved	繖	□	or	6	...	R	W. Indies	1789.	C	p.1	Aub.gu.2.t.331.2



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995. *Fagonia*. So named by Tournefort, in honor of Mons. Fagon, archiater to Louis XIV, and a great patron of botany. Small prickly plants of no beauty.

996. *Tribulus*. From *treis*, three, and *βολος*, a point, in reference to the points of the capsules. *La Croix du Chevalier*, Fr. The term *Caltrops* is taken from the form of the fruit, which resembles the machines that were formerly cast in the way to obstruct an enemy's cavalry. It is composed of five nuts, united into a subglobular whorl armed with prickles.

T. terrestris is a native of most of the hot and temperate parts of the world: it is common about Kingston in Jamaica, where it is called Turkey blossom, and planted in gardens for the sake of its flowers, which have an agreeable smell. The fowls are observed to feed much on them, which is thought both to fatten them and heighten their flavor. In the south of Europe, it is a common weed in arable land, and is troublesome to cattle by the prickly fruit running into their feet. All the species are pretty, though seldom cultivated.

997. *Dictamnus*. An ancient name of what is now supposed to be the *Origanum Dictamnus*. *Fraxinella*, Fr., in allusion to the remarkable similarity which exists between the leaves of the plant and *Fraxinus*, the ash. The whole plant, especially when gently rubbed, emits an odor like that of lemon-peel, but when bruised it has something of a balsamic scent. This fine scent is strongest in the pedicels of the flowers, which are covered with glands of a rusty red color, exuding a viscid juice or resin, which exhales in vapor, and in a dark place may be seen to take fire. The root is used in medicine, and, it is said, with much success, as an opiate and drastic.

998. *Ruta*. This name is nearly the same in all languages. *Ρορυ*, in Greek; *Ruta*, in Latin; *rux*, in Runic; *rude*, *ruta*, or *rutu*, in Anglo-Saxon; *rutiza*, in Slavonic; in French and English, *rué*, &c. The root of the word is beyond the ingenuity of etymologists. *R. graveolens* was formerly in much repute as a medicinal plant, and also as emblematical of repentance and grace. In Shakspeare and other old authors, it is called herb of grace, as rosemary is called herb of remembrance. The leaves have a powerful unpleasant odor, and a hot, bitter, nauseous taste. In the recent state they will inflame and blister the skin; but much of this is dissipated in drying. Medicinally, rue is stimulant and antispasmodic, and is supposed to possess emmenagogue powers. It was in high estimation as early as the time of Hippocrates, who frequently ordered it in female complaints. In modern practice, it is chiefly used in hysteria and flatulent colic. (*Thomson's London Dispensatory*, 487.)

999. *Crowea*. So named by the president of the Linnean Society, after his friend James Crowe of Norwich, an excellent British botanist, whose collection of willows we believe still exists. This plant continues in flower the greater part of the year. An equal mixture of sandy loam and peat is the best soil for it, and care must be taken not to over water it, or it will look yellow and unhealthy. It likes an airy situation,

- 5876 Leaves conjugate stalked, Leaflets obovate, Stem shrubby
 5877 Leaves conjugate sessile, Leaflets lanceolate oval rough at edge, Stem shrubby
 5878 Leaves with double leaflets stalked, Leaflets cylindrical fleshy smooth, Petals acuminate

- 5879 Spiny, Leaflets lanceolate flat smooth
 5880 Spiny, Leaflets linear convex

- 5881 Leaflets in 4 pairs: the outer larger, Pericarps 10-seeded blunt
 5882 Leaflets in 6 pairs nearly equal, Seeds with four horns
 5883 Leaflets in 8 pairs nearly equal

- 5884 Leafstalk obscurely edged
 5885 Leafstalk scarcely edged at all

- 5886 Leaves supradecomposed, Leaflets oblong terminal obovate, Petals entire
 5887 Leaves supradecomposed, Leaflets all linear, Petals entire
 5888 Leaves supradecomposed oblong, Terminal leaflet obovate, Petals toothed
 5889 Leaves supradecomposed, Lobes oblong cuneate nearly equal, Bractes very small ovate, Petals ciliate
 5890 Leaves pinnate, Leaves lanceolate attenuate at base serrate crenate, Petals entire
 5891 Leaves mostly ternate lanceolate pubescent: lateral very short, Cal. and ovaries villous
 5892 Leaves simple lanceolate smooth, Filaments ciliated, Stem simple herbaceous
 5893 Leaves in middle ternate linear narrowed at the base entire, Calyxes villous
 5894 Leaves pinnatifid, Segments oblong somewhat stalked: the terminal very large, Petals ciliated
 5895 Leaves bipinnate with obovate retuse leaflets, Flowers 4-petalous 8-androus

- 5896 The only species

- 5897 The only species

- 5898 Leaves ovate-lanceolate acuminate serrated at end, Cal. as long as cor. Berries ovate
 5899 Leaves lanceolate entire very obtuse at end, Branches of panicle short angular

- 5900 Flowers hermaphrodite, Leaves pinnate with an odd one, Leaflets opposite sessile, Stalk jointed winged
 5901 Flowers monœcious, Leaves abruptly pinnated, Leaflets alternate stalked, Stalk naked



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and not to be crowded amongst other plants. Cuttings strike root freely in sand, under a bell-glass. (*Bot. Cult.* 173.)

1000. *Codon*. From *κωδων*, a bell. The corolla of this plant is globular, and formed like a bell in its upper part. A scarce Cape shrub, of which Thunberg speaks in terms of great delight upon finding a solitary individual growing by the side of a precipice in its native country.

1001. *Gomphia*. From *γούμφος*, a club; but the application is not obvious. These are most beautiful tropical bushes, with long spikes of brilliant yellow flowers, and neat serrated shining entire leaves.

1002. *Quassia*. So named by Linnæus, in memory of Quassi, a negro slave of Surinam, who found and discovered to Rolander, a Swede, the wood of *Q. excelsa*, which he had employed with success as a secret remedy in the malignant endemic fevers of Surinam.

Q. amara is a lofty tree with strong branches, white light wood, their bark and leaves not unlike those of the common ash. The flowers are in terminal racemes, of a bright red. The root, wood, bark, and indeed all the parts of this tree are intensely bitter. Linnæus says that the wood of the root is a noble remedy, but that the wood of the small branches, which has since been substituted for it, is good for nothing. The wood of both is now thought to be less intensely bitter than the bark, which is at present regarded as the most powerful medicine. *Quassia* has no sensible odor; its taste is that of a pure bitter, more intense and durable than that of almost any other known substance; it imparts its virtues more completely to watery than spirituous menstrua, and its infusions are not blackened by the addition of martial vitriol. It is said that considerable quantities of this drug are used by the brewers instead of hops.

Q. Simaruba, or mountain damson, as it is called in Jamaica, is a tall tree with alternate branches, and a smooth grey bark, maculated with yellow spots. The leaves are pinnate; the flowers are male and female on the same axillary panicles, yellowish white; the fruit consists of five smooth, ovate, black, one-celled berries, on a common receptacle, and open spontaneously when ripe.

The official part of this tree is the bark of the root; it is inodorous, and has a bitter, but not disagreeable taste. The pieces are of a very fibrous texture, rough, scaly, warty, and of a full yellow color in the inside when fresh. Alcohol and water take up all its active matters by simple maceration, at a temperature of sixty degrees of Fahrenheit better than at a boiling heat; it is tonic, and has been employed with advantage in intermittent fever, obstinate diarrhœa, dysentery, and dyspeptic affections. (*Thomson's London Dispensatory*, 462.)

The different species of *quassia* flower freely in the stove; are of easy culture in loam and peat, and are increased by ripened cuttings taken off at a joint, and not deprived of their leaves, and planted in a pot of sand under a hand-glass.

1003. LIMONIA. W.	LIMONIA.				<i>Aurantiaceæ.</i>	Sp. 2—11.				
5902 monophylla W.	simple-leaved	♂ □ or	4	...	W	E. Indies	1777.	C	r.m	Rox. cor. 1. t. 83
5903 crenulata H. K.	crenulate	♂ □ or	4	...	W	E. Indies	1808.	C	r.m	Rox. cor. 1. t. 86
1004. GLYCOSMIS. Corr.	GLYCOSMIS.				<i>Aurantiaceæ.</i>	Sp. 3.				
5904 citrifolia Lindl.	various-leaved	♂ □ fr	6	ja.d	W	China	...	C	r.m	Bot. mag. 2416
	<i>Limonia parviflora</i> B. M.									
5905 pentaphylla Corr.	five-leaved	♂ □ or	20	jn,jl	W	E. Indies	1790.	C	r.m	Rox. cor. 1. t. 84
5906 arborea Corr.	tree	♂ □ or	20	my.au	W	E. Indies	1796.	C	r.m	Rox. cor. 1. t. 85
1005. MURRAYA W.	MURRAYA.				<i>Aurantiaceæ.</i>	Sp. 2.				
5907 exotica W.	Ash-leaved	♂ □ ft	8	aus	W	E. Indies	1771.	C	lt.l	Bot. reg. 434
5906 paniculata Wall.	panicled	♂ □ ft	8	jl	W	E. Indies	1823.	C	r.m	Hook. ex. fl. 134
1006. COOKIA W.	WAMPEE-TREE.				<i>Aurantiaceæ.</i>	Sp. 1—2.				
5909 punctata W.	Chinese	♂ □ fr	15	...	W	China	1795.	C	lt.l	Jac.schœ.1. t. 101
1007. GÆRTNERA W.	GÆRTNERA.				<i>Malpighiaceæ.</i>	Sp. 1—3.				
5910 racemosa W.	clustered	♂ □ or	15	mr.ap	W	E. Indies	1796.	C	p.l	Bot. rep. 600
1008. MONOTROPA W.	YELLOW BIRD'S-NEST.				<i>Monotropææ.</i>	Sp. 2—4.				
5911 uniflora Mich.	one-flowered	♂ △ cu	½	...	W	N. Amer.	1824.	S	s.p	Hook. ex. fl. 85
5912 Hypóphitys W.	common	♂ △ cu	½	jn,jl	W	Britain	woods.	S	s.p	Eng. bot. 89
1009. DIONEÆA W.	DIONEÆA.				<i>Droseraceæ.</i>	Sp. 1.				
5913 Muscipula W.	Venus's Flytrap	♂ △ cu	½	jl.au	W	Carolina	1768.	L	s.p	Bot. mag. 785
1010. GARUGA. Rox.	GARUGA.				<i>Terebintaceæ.</i>	Sp. 1.				
5914 pinnata H. K.	winged-leaved	♂ □ or	20	...	...	E. Indies	1808.	S	p.l	Rox. cor.3. t. 203
1011. KALMIA W.	KALMIA.				<i>Rhodoraceæ.</i>	Sp. 4—5.				
5915 latifolia W.	Calico-bush	♂ or	8	my,jl	R	N. Amer.	1734.	L	s.p	Bot. mag. 175
5916 angustifolia W.	Sheep-Laurel	♂ or	5	my,jl	R	N. Amer.	1736.	L	s.p	Bot. mag. 331
β rubra	red-flowered	♂ or	5	my,jl	R	N. Amer.	.....	L	s.p	Bot. cab. 502
5917 glauca W.	glaucous	♂ or	2	ap.my	Pu	N. Amer.	1767.	L	s.p	Bot. mag. 177
β rosmarinifolia Ph.	Rosemary-leav.	♂ or	2	ap.my	R	N. Amer.	1812.	L	s.p	...
5918 hirsuta W.	hairy	♂ or	1½	aus	R	N. Amer.	1786.	L	s.p	Bot. mag. 138



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1003. *Limonia*. The general denomination of the citron in Arabia is *lymonia*, whence limon and lemon, to which fruits this genus is nearly related. *L. monophylla* is a small thorny tree, with a berry the size of a small nutmeg, very like a lime, and called by the Hindoos wild lime. Ripened cuttings of the species root in sand, under a hand-glass plunged in a moist heat.

1004. *Glycosmis*. From *γλυκυσ*, sweet, and *σμη*, smell; all the parts of the plant, leaves, flowers, fruit, having an agreeable perfume. *G. pentaphylla* is an elegant fragrant shrub, very common in most uncultivated lands in Coromandel, but chiefly under large trees, where birds have dropped the seeds. It flowers all the year there. The whole plant, when drying in the shade, diffuses a pleasant permanent scent; the flowers are exquisitely fragrant; birds eat the berries greedily.

G. arborea has also very fragrant flowers.

G. citrifolia is a beautiful stove plant, not, indeed, remarkable for the shewiness of its flowers, but most valuable on account of its fruit, which is about the size of a hazel nut, very juicy and sweet, and produced in profusion in our stoves.

1005. *Murrraya*. So named by Koenig, in honor of John Andrew Murray, knight of the Swedish order of Vasa, professor of medicine and botany at Gottingen, and an editor of Linnæus's *Systema Vegetabilium*. The species are trees of the smallest size, with dotted pinnated leaves and fragrant white flowers, quite like those of an orange.

1006. *Cookia*. Named by Sonnerat in honor of our celebrated Captain Cook. The fruit is much esteemed in China, where it arrives at the size of a pigeon's egg, growing in bunches, and it is called Wampee. It grows well in light loam, and ripened cuttings with their leaves on root in sand in a moist heat.

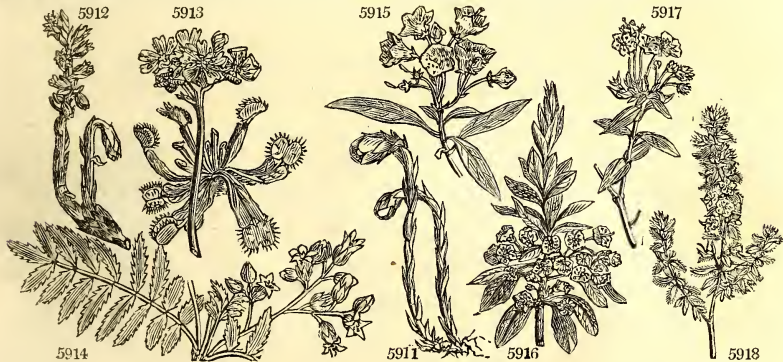
1007. *Gærtnera*. In memory of Joseph Gærtner, M. D. F. R. S. Acad. Imp. Petrop. Memb., author of a most excellent work on the fruits and seeds of plants, Stuttg. 1788. It is a large climbing woody shrub, cultivated all over the coast of Coromandel, on account of the beauty and fragrance of its flowers. In the stove it requires a good deal of room to flower freely. It is easily increased in sand under a hand-glass. The genus is now referred to the natural order of Malpighiaceæ, among which it is remarkable for its white flowers.

1008. *Monotropa*. From *μονος*, one, and *τροπον*, to turn; its flowers are all turned one way. It is parasitical and without leaves, of a pale uniform hue, having a simple scaly stem; allied in habit to *Orobanche*, to some of the *Orchis* tribe in its peculiarity of scent, which is like that of primrose, or beans in blossom. The root is fibrous, much branched, and somewhat creeping, growing among dead leaves or in half decaying vegetable mould. Sir J. E. Smith says, he could never find it truly parasitical. In Sweden, Linnæus informs us, it is given dry to sheep affected with a cough.

Its natural affinity, which is certainly to the heath, *Pyrola*, and similar plants, is very singular and unexpected.

- 5902 Leaves simple, Spines solitary
 5908 Leaves pinnate, Leaflets oblong lanceolate crenulate, Spines solitary
- 5904 Leaves simple and 3-leaved, Leaflets ovate-oblong acuminate, Peduncles axillary shorter than stalk
- 5905 Leaves pinnate in 2 pairs, Leaflets elliptical entire
 5906 Leaves pinnate in 2 pairs, Leaflets oblong obsolete serrate
- 5907 Leaflets ovate, Peduncles many-fl. corymbose
 5908 Leaflets ovate-acuminate, Pedunc. axill. and solitary
- 5909 Leaves ovate-lanceolate acuminate nearly equal at base
- 5910 Leaves pinnated, Leaflets ovate-lanceolate
- 5911 Large cernuous, Scales close together
 5912 Flowers smooth lateral octandrous
- 5913 The only species
- 5914 The only species

- 5915 Leaves ovate-elliptical ternate and scattered, Corymbs terminal
 5916 Leaves oblong, Corymbs axillary, Bractes linear-lanceolate, Pedunc. and calyx downy with glands
- 5917 Leaves opposite oblong polished beneath glaucous revolute at edge, Branches 2-edged
 β Leaves linear more revolute green beneath
- 5918 Leaves alternate and opposite ovate-lanceolate and branches hairy, Pedunc. axill. 1-flowered



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1009. *Dionæa*. One of the names of Venus. It is a singular plant in respect of its leaves, which are of an anomalous form, and have a singular motion by which they catch insects, whence the specific name, *muscipula*, a fly-trap. The root is scaly, almost like a bulb, and not prolific in fibres. The leaves have the petiole winged as in the orange; the extreme part, or proper leaf, is the part that operates as a trap. Linnæus affirms, that when the entrapped insect ceases to struggle and is quiet, the leaf opens and permits it to escape. This does not agree with Ellis's account, for he affirms that the lobes never open again, so long as the animal continues there. He thinks it probable, that a sweet liquor discharged by the red glands tempts the insect to its destruction. He adds, that if a straw or a pin be introduced between the lobes, they will grasp it as fast as if it were an insect. The flowers grow in a corymb resembling an umbel. It is rather difficult to preserve. Sweet finds it "thrive best when planted in a pot of Sphagnum with a little mould at the bottom of the pot, and placed in a pan of water." Shepherd, of the Liverpool botanic garden, finds that leaves of *Dionæa* so placed will root and form new plants. In all cases it is necessary that an abundance of fresh cool air should be supplied to the plants.

1010. *Garuga*. *Garugo* is the Telinga name of the plant, which is rare in our stoves, although not of recent introduction.

1011. *Kalmia*. So named by Linnæus in honor of Peter Kalm, professor at Abo in Sweden, author of *Travels in America*. The species are beautiful peat earth shrubs, deserving a place in every American ground. *K. latifolia* is a native of Carolina and other parts of North America, of Pennsylvania, New York, &c. but only in particular places; on rocks, hanging over rivulets, and on the sides of barren hills on the most sterile soil. The noxious qualities of this elegant shrub lessen that esteem which its beauty claims; for though deer feed on its green leaves with impunity, yet when cattle and sheep, by severe winters deprived of better feed, eat the leaves, many die annually. Its blossoms in May, and continues in flower a great part of the summer. (*Catesby*.) The flesh of the American partridge is said to be poisonous in the winter from its feeding upon the buds of this plant. But Wilson denies this statement. The Indians use a decoction of the leaves for purposes of self-destruction. A few drops of the tincture poured upon the body of a large and vigorous rattle-snake, killed the reptile in a short time. An ointment made of the powdered leaves has been used with much success in *tænia capitis*, and some other cutaneous affections. (See *Bigelow's Medical Botany*.)

The wood, being very hard, is very useful in smaller works. The Indians are said to make small dishes, spoons, and other domestic utensils out of the roots: these are large, of a soft texture, and easily wrought when green; but when dry become hard and smooth. (*Curtis*.)

K. angustifolia is also reputed poisonous to sheep and cattle.

1012. LE'DUM. <i>W.</i>	LABRADOR- EA.			<i>Rhodoracæ.</i>	<i>Sp. 3.</i>				
5919 palústre <i>W.</i>	marsh	II.	or	2	ap.my W	Europe	1762.	L s.p Bot. cab. 560	
<i>decumbens</i>	dwarf	II.	or	3	ap.my W	Huds. Bay	1762.	L s.p	
5920 latifólium <i>W.</i>	broad-leaved	II.	or	½	ap.my W	N. Amer.	1763.	L s.p Bot. cab. 584	
5921 buxifólium <i>W.</i>	box-leaved	II.	or	½	ap.my W	N. Amer.	1736.	L s.p Bot. reg. 531	
<i>Anmyrsine buxifolia</i> Ph.									
1013. RHO'DORA. <i>W.</i>	RHODORA Canadian	II.	or	3	ap.my Pu	N. Amer.	1767.	L pl Bot. mag. 474	
1014. RHODODEN'DRON. <i>W.</i>	RHODODENDRON.					<i>Rhodoracæ.</i>	<i>Sp. 15—23.</i>		
5923 ferrugineum <i>W.</i>	rusty-leaved	II.	or	1½	my.jl S	Switzerl.	1752.	L s.p Bot. cab. 65	
5924 hirsútium <i>W.</i>	hairy-leaved	II.	or	1½	my.jl S	Switzerl.	1656.	L s.p Bot. mag. 1853	
5925 daúricum <i>W.</i>	Daurian	II.	or	3	mr.d Pu	Siberia	1780.	L s.p Bot. mag. 636	
<i>atrovirens</i>	dark-leaved	II.	or	3	fap Pu	Siberia	...	L s.p Bot. reg. 194	
5926 camtcháticum <i>W.</i>	Kamtchatka	II.	or	2	... Pu	Kamtsch.	1802.	L s.p Pall. ross.1. t. 33	
5927 chamæcístus <i>W.</i>	Thyme-leaved	II.	or	1	my.jn Pa.pu	Austria	1786.	C s.p Bot. mag. 488	
5928 caucásicum <i>W.</i>	Caucasian	II.	or	1	au Pu	Caucasus	1803.	L s.p Bot. mag. 1145	
5929 chrysanthum <i>W.</i>	yellow	II.	or	½	jn.jl Y	Siberia	1786.	L s.p Par. lond. 80	
5930 punctátum <i>W.</i>	dotted-leaved	II.	or	4	jn.au Pk	N. Amer.	1786.	L s.p Bot. reg. 36	
<i>máior</i>	large dotted-ld.	II.	or	6	jn.au Pk	N. Amer.	1786.	L s.p Bot. reg. 37	
5931 máximum <i>W.</i>	large	II.	spl	20	jn.au Pk	N. Amer.	1736.	L s.p Bot. mag. 951	
<i>álbum</i> Ph.	white	II.	or	20	jn.au W	N. Amer.	1811.	L s.p	
<i>purpúreum</i> Ph.	tree	II.	spl	25	jn.au Pu	N. Amer.	...	L s.p	
5932 catawbíense <i>Ph.</i>	Catawba	II.	or	4	jn.au Pu	N. Amer.	1809.	L s.p Bot. mag. 1671	
5933 pónticum <i>W.</i>	common	II.	spl	12	my.in Pu	Gibraltar	1763.	L s.p Bot. mag. 650	
<i>obtusum</i>	obtus.	II.	spl	12	my.jn Pu	Gibraltar	1763.	L s.p Dend. brit. 162	
<i>myrtifólium</i>	myrtle-leaved	II.	spl	12	my.jn Pu	Gibraltar	1763.	L s.p Bot. cab. 968	
5934 arbóreum <i>Sm.</i>	tree	II.	spl	20	... Pu	Nepal	1820.	L s.p Ex. bot. t. 6	
5935 azaloides <i>Hort.</i>	Thompson's hy.	II.	spl	3	jn.au Pk	.....	...	L s.p Bot. rep. 379
5936 híbridum <i>B. Reg.</i>	Herbert's hybr.	II.	spl	3	jn.au Pk	.....	...	L s.p Bot. reg. 195
1015. EPIGÆ'A. <i>W.</i>	EPIGÆA.					<i>Rhodoracæ.</i>	<i>Sp. 1.</i>		
5937 repens <i>W.</i>	creeping	II.	pr	½	jl.au W	N. Amer.	1736.	L s.p Bot. reg. 201	
1016. ANDRO'MEDA. <i>W.</i>	ANDROMEDA.					<i>Ericæe.</i>	<i>Sp. 26—39.</i>		
5938 hypnoídes <i>W.</i>	Moss-like	II.	pr	½	jn.jl Pk	Lapland	1798.	Fl. dan. 10	
5939 mariána <i>W.</i>	Maryland	II.	or	2	jn.jl W	N. Amer.	1736.	L s.p Pl. m. t. 448. f. 6	
<i>ovalis</i>	oval-leaved	II.	or	2	jn.jl W	N. Amer.	1736.	L s.p Bot. mag. 1579	
<i>oblonga</i>	oblong-leaved	II.	or	2	jn.jl W	N. Amer.	1736.	L s.p	
5940 ferrugínea <i>Ph.</i>	rusty-leaved	II.	or	3	jn.jl W	N. Amer.	1784.	L s.p Vent. malm. 80	
5941 rigida <i>Ph.</i>	rigid	II.	or	20	ap.my W	N. Amer.	1774.	L s.p	
5942 jamaicénsis <i>W.</i>	Jamaica	II.	or	6	... W	Jamaica	1793.	L s.p	
5943 speciósa <i>Ph.</i>	large-flowered	II.	or	3	jn.s W	Carolina	1800.	L s.p	
<i>nitida</i>	smooth-leaved	II.	or	3	jn.s W	Carolina	1800.	L s.p Bot. mag. 970	
<i>pulverulénta</i>	meaty-leaved	II.	or	3	jn.s W	Carolina	1800.	L s.p Bot. mag. 607	



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1012. *Ledum*. Λένδων was the name applied by the ancients to the plant producing the substance called Ladanium, and now known by the name of *Cistus Ledum*. In foliage the *Ledum* of modern botanists agrees with the plant of the ancients. Pretty American plants, very commonly cultivated for the beauty of their flowers.

1013. *Rhodora*. A name of the same meaning as *Rhododendron*. It is well known in shrubberies as remarkable for its purple flowers appearing on the naked shoots before the leaves come out.

1014. *Rhododendron*. From *ρόδον*, a rose, and *δένδρον*, a tree, because the flowers resemble in color bunches of roses. Some of the species form beautiful and even splendid ornaments to the shrubbery or American ground; and all of them are interesting and deserving of culture.

R. ferrugineum and *hirsutum* abound on the high mountains of Switzerland, Austria, Savoy, Piedmont, Dauphiné, and terminate ligneous vegetation as we ascend, and furnish the shepherds with their only fuel. The grouse are said to eat them; and the white hares sometimes gnaw the bark in hard weather; but animals do not seem to feed on them, except from want of other food; and they are suspected of being in a small degree poisonous. The galls of some small insect are frequent on them.

R. dauricum is almost peculiar to the subalpine tracts of eastern Asia; it appears first at the mouth of the river Jenisea, and beyond that, especially from the river Uda, in the pine woods, it begins to be common; but about Baikal it is most abundant, and extends through the deserts of the Mongols to China and Tibet: at the Lena it becomes more rare, and beyond that it is much lower, with a more slender flower and narrower leaves. (*Pallas*.)

R. camtschaticum is an elegant evergreen under shrub; it grows abundantly in the peninsula of Kamtschatka and Behring's island in muddy places on the mountains.

R. caucasicum is a native of the higher rocks of Caucasus, near the perpetual ice, in the highest range of shrubby vegetation, with *Myrtillus* and *Vitis idæa*.

R. chrysanthum is a beautiful evergreen, resembling *R. dauricum*, and like it is a native of the alpine regions of Siberia, where it is a noted remedy for rheumatism. It is cultivated in this country with the

5919 Leaves linear revolute at edge beneath downy

5920 Leaves oblong revolute at edge beneath downy, Flowers about pentandrous

5921 Leaves ovate oblong flat smooth

5922 The only species

5923 Leaves smooth leprous beneath, Corolla funnel-shaped

5924 Leaves elliptical acute ciliated dotted beneath, Corolla funnel-shaped

5925 Leaves smooth dotted naked, Corolla rotate

5926 Leaves ciliate nerved, Corollas rotate, Calyxes leafy

5927 Leaves elliptical acute glandular ciliated naked, Cor. rotate, Petals obtuse

5928 Leaves scabrous rusty with down beneath, Umb. terminal, Cor. rotate, Petals roundish

5929 Leaves oblong scabrous beneath discolored smooth, Umbels terminal, Cor. rotate, Pet. obovate irregular

5930 Leaves oblong smooth beneath dotted with resin, Umbels terminal, Cor. funnel-formed

5931 Leaves oblong glabrous discolored beneath, Umb. terminal, Cor. rotate, Petals roundish

♂ Leaves cuneate-lanceolate flat

♀ Leaves larger oblong-elliptical flattish

5932 Leaves short oval rounded at each end smooth discolored beneath, Sepals elong. obl. Cor. campanulate

5933 Leaves oblong smooth : of the same color on both sides, Corymbs terminal, Cor. campan. rotate

5934 Leaves lanceolate acute silvery beneath, Flowers clustered campanulate, Calyxes woolly

5935 Leaves thin rugose lanceolate smooth subdeciduous

5936 Leaves oval coriaceous glaucous beneath

5937 Leaves cordate ovate entire, Cor. cylindrical

5938 Leaves imbricated subulate smooth, Pedunc. solitary terminal, Cor. globose-campanulate

5939 Pedunc. aggregate on the branches, Cor. ovate cylindrical, Leaves oblong-ovate entire deciduous

5940 Pedunc. aggregate axillary, Cor. globose, Leaves ellipt. entire beneath mealy scaly

5941 Arborescent, Lvs. coriaceous cuneate-lanc. acute entire with downy scales beneath, Fl.-stalks scurfy rusty

5942 Pedunc. aggregate, Cor. ovate transparent, Lvs. altern. broad lanc. obtuse entire cinereous beneath

5943 Pedunc. aggregate, Cor. globose campanulate, Leaves oval subserrate shining



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greatest difficulty. The leaves have an austere, astringent, bitterish taste, and are stimulant, narcotic, and diaphoretic. When taken, they first increase the arterial action and the heat of the body, producing diaphoresis; and these effects, according to Dr. Home's observations, are followed by a proportional diminution of excitement, the pulse in one case having been reduced thirty-eight beats. It has not been much used in this country. (*Thomson's London Dispensatory*, 477.)

R. maximum grows on rocks and in barren soils, where it continues flowering great part of the year, and is very ornamental.

R. ponticum grows in wet places in beech and alder coppices, on rocky mountains, but not on high alps.

Rhododendrons are commonly propagated by layers, but some sorts produce seeds, and seeds of others are obtained from America. The seeds "should be sown early in spring, in flat pans or pots of peat soil, and very thinly covered: they may then be set in a close frame, or at the front of a hothouse, till they come up, watering them slightly when dry; as soon as they are high enough to be laid hold of, they must be pricked out in other pots, which should be placed in a shady situation; they may stand in a frame a few days till they have taken fresh root, but they must not remain long, or it will spoil them. The small kinds may be propagated freely by cuttings, taken off in the young wood, and planted in sand, under a bell-glass." (*Bot. Cult.* 815.)

1015. *Epigaea*. From $\epsilon\pi\iota$, upon, and $\gamma\eta$, the earth. The stem grows flat upon the ground, and throws out roots all the length of its branches. A very pretty little American plant with delicate white flowers.

1016. *Andromeda*. Named in allusion to the virgin Andromeda, who, like this plant, was confined in a marsh, and surrounded by monsters of the waters. For an ingenious explanation of this application, see Linnæus's *Flora Laponica*. The species are neat little plants, and some of them considerable shrubs and trees. They all require peat earth, and a moist situation; for those of them which do not grow naturally in bogs are mostly inhabitants of alpine regions, where the air is always more moist than on plains.

A. hypnoides has the appearance of a moss, spreads over great tracts of ground in the Lapland alps, and adorns them with its beautiful red flowers. The *Andromeda* is generally increased by layers, but may be also raised from seeds. "These must be very thinly covered, as they are small, and would rot if covered deep:

5944	<i>polifolia</i> W.	marsh	or	1	my.s	Pk	.....	...	L	s.p	
	α <i>latifolia</i>	broad-leaved	or	1	my.s	Pk	N. Amer.	...	L	s.p	
	β <i>media</i>	Wild Rosemary	or	1	my.s	W	Britain	tur.bo.	L	s.p	Eng. bot. 713
	γ <i>angustifolia</i>	narrow-leaved	or	1	my.s	Pk	N. Amer.	...	L	s.p	P. ro. 2. t. 70. f. 13
	δ <i>A. glaucophylla</i> Lk.										
	ε <i>subulata</i>	awl-leaved	or	1	my.s	Pk	.....	...	L	s.p	
5945	<i>japonica</i> W.	Japan	or	3	...	W	Japan	1805.	L	s.p	Th. jap. t. 22
5946	<i>paniculata</i> Ph.	panicked	or	3	my.jn	W	N. Amer.	1748.	L	s.p	Dend. brit. 37
5947	<i>calicifolia</i> Wats.	willow-leaved	or	4	jn	W	N. Amer.	...	L	s.p	Dend. brit. 38
5948	<i>spicata</i> Wats.	spiked	or	2	jn	W	N. Amer.	...	L	s.p	Dend. brit. 36
5949	<i>multiflora</i> Wats.	many-flowered	or	3	jl	W	N. Amer.	1824.	L	s.p	Dend. brit. 128
5950	<i>crispa</i> Link.	curled	or	3	...	W	N. Amer.	1806.	L	s.p	
5951	<i>frondosa</i> Ph.	bristly-flowered	or	3	my.jn	W	N. Amer.	1752.	S	s.p	Bot. mag. 905
5952	<i>arbores</i> W.	Sorrel-tree	or	40	jl.s	W	N. Amer.	1736.	S	s.p	
5953	<i>racemosa</i> W.	branching	or	3	jl	W	N. Amer.	1736.	S	s.p	
5954	<i>Catesbyi</i> W.	Catesby's	or	2	jn.jl	W	N. Amer.	1793.	Sk	s.p	Bot. mag. 1955
	α <i>sphulosa</i> Psh.										
5955	<i>axillaris</i> W.	axil-flowering	or	1	my.au	W	N. Amer.	1765.	Sk	s.p	
	β <i>longifolia</i>	long-leaved	or	1	my.au	W	N. Amer.	...	Sk	s.p	Bot. mag. 2357
5956	<i>coriacea</i> W.	thick-leaved	or	2	jn.au	Pk	N. Amer.	1765.	L	s.p	Bot. mag. 1095
	α <i>nitida</i> Psh.										
	β <i>rubra</i> Lodd.	red-flowered	or	3	jn.au	R	N. Amer.	...			Bot. cab. 672
5957	<i>acuminata</i> W.	acute-leaved	or	3	au	W	N. Amer.	1765.	L	s.p	Ex. bot. 2. t. 89
	α <i>lucida</i> Jacq.	Pipe or stem-w.									
	β <i>populifolia</i> Lam.										
	γ <i>reticulata</i> Walt.										
	δ <i>laurina</i> Mich.										
5958	<i>floribunda</i> Ph.	many-flowered	or	3	my.jn	W	N. Amer.	1812.	L	s.p	Bot. mag. 1566
5959	<i>caliculata</i> Ph.	Box-leaved	or	14	f.ap	W	N. Amer.	1748.	L	s.p	P. ro. 2. t. 72. f. 1
	α <i>ventricosa</i>	globe-flowered	or	14	f.ap	W	Russia	1748.	L	s.p	Bot. mag. 1286
	β <i>latifolia</i>	broad-leaved	or	14	f.ap	W	Newfoun.	1748.	L	s.p	Bot. cab. 530
	γ <i>nana</i>	dwarf	or	3	f.ap	W	.....	...	L	s.p	Bot. cab. 862
5960	<i>angustifolia</i> Ph.	narrow-leaved	or	3	f.ap	W	N. Amer.	1748.	L	s.p	
1017.	ENKIANTHUS.	<i>B. M. ENKIANTHUS.</i>					<i>Ericace. Sp. 1?</i>				
5961	<i>quinqueflora</i> B. M.	Canton	or	3	fs	Pk	China	1812.	C	s.l.p	Bot. mag. 1649
1018.	GAULTHERIA.	<i>W. GAULTHERIA.</i>					<i>Ericace. Sp. 1-3.</i>				
5962	<i>procumbens</i> W.	trailing	or	1	jl.s	W	N. Amer.	1762.	Sk	s.p	Bot. rep. 116
1019.	ARBUTUS.	<i>W. STRAWBERRY-TREE.</i>					<i>Ericace. Sp. 8-15.</i>				
5963	<i>Unedo</i> W.	common	or	10	s.d	W	Ireland	ir. ro.	S	co	Eng. bot. 2377
	β <i>rubra</i>	red-flowered	or	10	s.d	Pk	.....	...	L	co	
	γ <i>plena</i>	double-flowered	or	5	s.d	W.G	.....	...	L	co	
	δ <i>integrifolia</i>	entire-leaved	or	6	s.d	Pk	.....	...	L	co	Bot. mag. 2319
5964	<i>canariensis</i> Lam.	long-leaved	or	8	my.jn	W.G	Canaries	1796.	L	co	Bot. mag. 1577
5965	<i>Andrachne</i> W.	oriental	or	6	mr.ap	W.G	Levant	1724.	G	p.l	Bot. reg. 113
5966	<i>alpina</i> W.	black-berried	or	1	ap.my	W.G	Scotland	sc. mo.	Sk	s.p	Eng. bot. 2030
5967	<i>Uva-ursi</i> W.	Bear-berry	or	1	ap.jn	F	Britain	al.hea.	L	s.p	Eng. bot. 714
5968	<i>phillyræfolia</i> P. S.	Phyllirea-leav.	or	1	...	...	Peru	1812.	C	s.p	
5969	<i>Andrachnoides</i> Link.	hybrid	or	8	f.my	W.G	C	s.p	Bot. reg. 619
	α <i>hybrida</i> B. R.										
5970	<i>serratifolia</i> Nois.	serrate	or	6	f.mr	W.G	L	s.p	Bot. cab. 580



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when about an inch high they should be planted out thinly in other pots, where they will grow strong, and, when large enough, may be planted in the open ground. Spring is the best time to plant them out as the frost and worms are apt to throw them out of the ground in winter, if planted out in autumn. (*Bot. Cult.* 278.)

1017. *Enkianthus*. From *εγζως*, a pregnant woman, a name given to the plant by Loureiro, because the great colored buds appear as if pregnant with the flowers which afterwards appear. This beautiful genus, as Sweet observes, has generally been considered difficult to propagate: the difficulty is now removed, as ripened cuttings root readily planted in pots of sand, and placed under a hand-glass, without bottom heat. The best soil for it is an equal mixture of sandy loam and peat, and care must be taken not to overwater it when not in a growing state: when it gets pretty large it is one of the most ornamental plants for the greenhouse or conservatory. (*Bot. Cult.* 186.) There are several species confounded under the common name *Enkianthus quinqueflora*.

1018. *Gaultheria*. Named after one Gauthier, a French physician at Quebec. A small evergreen plant, cultivated in the American border for the sake of its ornamental bright scarlet berries. The species may be increased by dividing at the root, by suckers, layers, or from seeds.

1019. *Arbutus*. An ancient name of this plant, said to be traceable to the Celtic *ar boise*, austere bush, in allusion to the roughness of the fruit. In like manner *Unedo* is said by Pliny to have been so called from *unum edo*, I eat one, because, being found disagreeable, no one could eat a second. *L'Arbusier*, Fr., *Landbeere*,

- 5944 Pedunc. aggregate, Cor. ovate, Leaves alternate lanceolate revolute
 α Leaves oblong
 β Leaves lanceolate
 γ Leaves linear-lanceolate
 δ Leaves subulate
- 5945 Racemes 1-sided paniced terminal, Leaves lanceolate obovate acute serrulate at end
 5946 Racemes terminal paniced, Cor. roundish, Leaves ovate entire
 5947 Raceme compound, Leaves lanceolate subserrulate hairy shining
 5948 Spikes terminal 1-sided, Leaves membranous smooth oval-lanceolate serrulate acute
 5949 Raceme compound terminal crowded, Leaves narrow lanceolate rough at edge pilose beneath
 5950 Leaves lanceolate wavy beneath rusty scaly, Cor. campan. finally of 5 petals, Anthers awned
 5951 Hispid with pubescence, Leaves obov. lanc. acute serrul. Cor. globose hispid, Anthers awned
 5952 Panicles terminal, Cor. pubescent, Leaves elliptical acuminate toothletted
 5953 Racemes term. simple bracted, Cor. cylindrical, Leaves obl.-lanceolate serrated
 5954 Racemes terminal and axillary 1-sided, Cor. ventricose tubular, Leaves oblong lanc. finely serrated
- 5955 Racemes axillary simple, Cor. oblong, Leaves ovate acute serrulate
 5956 Racemes axillary simple, Leaves ovate entire shining, Branchlets 3-cornered
- 5957 Racemes axillary simple, Leaves ovate lanceolate acuminate serrate
- 5958 Quite smooth, Leaves obl. ovate acute finely serrulate, Racemes axillary and terminal clustered
 5959 Peduncles solitary axillary 1-sided Bractes 2, Leaves oval scaly dotted obsolete serrated
 α Cor. ventricose, Leaves obl. lanceolate
 β Cor. obl. cylindrical, Leaves oblong oval obtuse
 γ Very dwarf
- 5960 Pedunc. solitary axillary, Bractes 2, Leaves narrow oblong lanceolate, Corolla oblong oval
- 5961 The only species
- 5962 Leaves oblong obovate mucronate toothed crowded, Stem procumbent
- 5963 Stem arborescent, Leaves oblong lanceolate, Panicles smooth nodding, Berries many-seeded
- 5964 Leaves oblong-lanceolate serrated, Panicles vertical hispid glutinous
 5965 Stem arborescent, Leaves ovate entire or serrated, Pan. pubescent erect, Berries many-seeded
 5966 Stems procumbent, Leaves rugose serrated
 5967 Stems procumbent, Leaves entire
 5968 Stem much branched, Leaves lanceolate acuminate acutely serrate, Flowers axillary
 5969 Bark deciduous, Ovary smooth. The same as next?
- 5970 Leaves lanceolate serrated very thin a little wavy



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Ger., and *Arbuto*, Ital. This genus includes one of the most elegant of hardy shrubs, the *A. unedo*. This evergreen is peculiarly beautiful in October and November, covered at once with blossoms and ripe fruits. It is a native of the south of Europe, and is found also near Killarney in Ireland, where it has probably been brought from Spain or Italy at an early period by the priests. It grows there on limestone rocks, in greater luxuriance than it is often to be met with in the woods of Italy: in both countries the fruit is eaten; and in Spain both a sugar and spirit is extracted from it.

A. uva ursi, *La Busserole*, Fr., *Barrenbeere*, Ger., and *Uva d'orzo*, Ital., is abundant in many parts of the continent, especially the alpine regions. It dyes an ash color; tans leather; the berries are food for grouse and other game, and the leaves are used in medicine. The fresh leaves are inodorous, and have a slightly bitter astringent taste, leaving a sweet sensation in the mouth. When properly dried and powdered, they acquire an odour similar to that of hyson tea; but the taste remains the same, the degree of bitterness only being increased. (*Thomson's London Dispensatory*, 163.)

It is used sometimes in calculous complaints and ulcerations of the urinary organs.

The dwarf species of this genus and those of *Rhododendron* and *Andromeda*, are very fit plants for rock work. *A. alpina* thrives best in peat kept moist and shaded. All the species may be increased by seeds, or by budding and marching on each other: the dwarf kinds root readily by layers.

The *Uva ursi* has been brought into notice in modern times as an efficient remedy in nephritic and even in calculous cases. European practitioners have doubted its powers, but it has found many supporters of respect.

1020. CLETHR ^A . <i>W.</i>	CLETHRA.				<i>Ericac.</i> Sp. 6—8.				
5971 alnifolia <i>Ph.</i>	Alder	♂	or	4 au.o	W	N. Amer.	1731.	L s.p	Lam. ill. t. 369
5972 tomentosa <i>Ph.</i>	woolly-leaved	♂	or	4 au.o	W	N. Amer.	1731.	L s.p	Dend. brit. 39
5973 scabra <i>Ph.</i>	rough-leaved	♂	or	4 au.o	W	Georgia	1806.	L s.p	
5974 paniculata <i>W.</i>	panicked	♂	or	4 au.o	W	N. Amer.	1770.	L s.p	
5975 acuminata <i>Ph.</i>	acute-leaved	♂	or	4 au.o	W	Carolina	1806.	L s.p	
5976 arborea <i>W.</i>	tree	♂	or	8 au.o	W	Madeira	1784.	C p.l	Bot. mag. 1057
β minor	dwarf	♂	or	2 au.o	W	Madeira	...	C p.l	
1021. MYLOCA'RYUM. <i>W. en.</i>	BUCKWHEAT-TREE.					<i>Ericac.</i> Sp. 1.			
5977 ligustrinum <i>Ph.</i>	Privet-like	♂	or	8 mj.jn	W	Georgia	...	L p.l	Bot. mag. 1625
1022. PY'ROLA. <i>W.</i>	WINTER-GREEN.					<i>Ericac.</i> Sp. 6—10.			
5978 rotundifolia <i>W.</i>	round-leaved	♀	△	cu	♂	jn.jl	W	Britain	woods. C s.p
5979 media <i>E. B.</i>	intermediate	♀	△	cu	♂	jn.jl	W	England	woods. C s.p
5980 minor <i>W.</i>	lesser	♀	△	cu	♂	jn.jl	R	Britain	moi. w. C s.p
5981 secunda <i>W.</i>	serrated	♀	△	cu	♂	jn.jl	W	Britain	moi. w. C s.p
5982 rosea <i>E. B.</i>	rose-colored	♀	△	cu	♂	jl.au	Pk	England	woods. C s.p
5983 uniflora <i>W.</i>	single-flowered	♀	△	cu	♂	jn.jl	W	Britain	al. wo. C s.p
1023. CHIMA'PHILA. <i>Ph.</i>	CHIMAPHILA.					<i>Ericac.</i> Sp. 2.			
5984 maculata <i>Ph.</i>	spotted-leaved	♀	△	pr	♂	jn	W	N. Amer.	1752. Sk s.p
5985 corymbosa <i>Ph.</i>	corymb-flower.	♀	△	pr	♂	jn	Pk	N. Amer.	1752. Sk s.p
	<i>Pýrola umbellata</i> B. M.								
1024. INOCAR'PUS. <i>W.</i>	OTAHEITE-CHESTNUT.					<i>Sapotec.</i> Sp. 1.			
5986 edulis <i>W.</i>	eatable	♂	□	fr	20	...	W	South S. Is.	1793. C lp
1025. STY'RAX. <i>W.</i>	STORAX.					<i>Ebenac.</i> Sp. 4—5.			
5987 officinale <i>W.</i>	official	♂	or	12 jl	W	Italy	1597.	L s.l	Bot. rep. 631
5988 grandifolium <i>W.</i>	great-leaved	♂	or	6 jl	W	N. Amer.	1765.	L s.l	Dend. brit. 129
5989 pulverulentum <i>Ph.</i>	powdery	♂	or	4 jn.jl	W	N. Amer.	1794.	L s.l	Dend. brit. 41
5990 laevigatum <i>W.</i>	smooth	♂	or	4 jl.au	W	N. Amer.	1765.	L s.l	Dend. brit. 40
	<i>S. glabrum</i> Cav.								
1026. JUSSIE'A. <i>W.</i>	JUSSIEA.					<i>Onagrari.</i> Sp. 5—34.			
5991 grandiflora <i>W.</i>	great-flowered	♂	△	or	1½ jl	Y	Carolina	1812.	C s.p
5992 suffruticosa <i>W.</i>	tall	♂	△	or	1½ au.s	Y	India	1808.	C s.p
5993 octoviflvis <i>P. S.</i>	spear-leaved	♂	△	or	2 jl.s	Y	S. Amer.	...	C s.p
5994 erecta <i>W.</i>	upright	♂	△	or	3 jl.s	Y	N. Amer.	1739.	C s.p
5995 scabra <i>W. en.</i>	rough	♂	△	or	4 jl.s	Y	S. Amer.	1816.	C s.p
1027. GETO'NIA. <i>Roxb.</i>	GETONIA.					<i>Combretac.</i> Sp. 1—2.			
5996 floribunda <i>Roxb.</i>	many-flowered	♂	□	or	6	...	Ap	E. Indies	1815. C lp



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tability in North America. The late professor Barton found the plant of much service in his own case of nephritic paroxysms alternating with gout in the feet. It has also been recommended as a remedy in pulmonary complaints. (See *Bigelow's Med. Botany.*)

1020. *Clethra*. Κληθρα was the name given by the Greeks to the Alder, to which, in its leaves, this bears some resemblance. Pretty upright North American plants, with white flowers. One species is a native of Madeira.

1021. *Mylocaryum*. From μύλον, a mill, and κάρων, a kernel or stone; the four wings of the nut may be easily likened to the four sails of a small mill. A North American plant, with the habit of *Andromeda*, or rather of *Clethra*.

1022. *Pyrola*. A diminution of *Pyrus*, to which, in the leaves, this is thought to be similar. A genus of elegant little plants, mostly evergreens. They grow naturally in the shade, and in rocky or very poor soils; in the garden on sand or gravel shaded; and they are increased by seeds or young cuttings, planted under a hand-glass. All the species are powerfully astringent and tonic, and one or more of the American sorts is said to constitute the chief ingredient in the scorbutic draughts of Whitlaw.

P. uniflora, Sir J. E. Smith says is one of the most curious and elegant of British flowers.

1023. *Chimaphila*. From χίμα, winter, and φίλω, to love; a sort of translation of the English name winter-green. The species may be treated as *Pyrola*, which they much resemble.

1024. *Inocarpus*. From ἰνος, fibre, and καρπος, fruit. The envelope of the nut is composed of tough interwoven fibres. It is a lofty tree, with alternate subcordate leaves, and flowers in racemes succeeded by by nuts called *Ratta* in Otahete. The kernel of these, which is kidney-shaped, and about an inch in diameter, is catch roasted by the inhabitants of the Society and Friendly Isles, the New Hebrides, New Guinea, the Molucca isles, &c. It is sweetish, but less pleasant than the chestnut, harder and less farinaceous. The bark is astringent, and is used in the dysentery. In New Guinea they smear the heads of their arrows with the expressed resinous juice. (*Forst. Escul.*)

1025. *Styrax*. A name altered by the Latins from the Arabic *asthirak*. Pliny says, that the Arabs in his time used the resin to flavor the perfumes of which they are so fond. *S. officinale* is a low tree with slender branches, ovate leaves, flowers in racemes from the sides of the branches, succeeded by ovate globular juice. It less drupes, containing one or two angular nuts. From this tree storax is obtained in Asiatic Turkey. It issues from incisions made in the bark; and as it was formerly the custom to collect and export it in reeds, it was named *Styrax calamita*. It has a fragrant odour, and a pleasant subacidulous, slightly pungent, and

- 5971 Leaves obovate serrate beneath pubescent, Raceme simple bracted
 5972 Leaves cuneate obovate acute upwards finely serrated beneath white with down
 5973 Leaves broad cuneate obovate acute coarsely serrated rough on each side
 5974 Leaves lanceolate obovate serrated smooth, Panicle narrow bracted
 5975 Leaves oval acuminate smooth on each side glaucous beneath, Racemes white with down
 5976 Leaves oblong acuminate serrated smooth, Racemes paniced, Peduncles hairy

5977 Leaves cuneate lanceolate acute, Racemes spiked terminal

- 5978 Stamens ascending, Style declinate, Raceme many-flowered
 5979 Stamens straight, Style declinate long, Peduncle twisted, Raceme many-flowered
 5980 Stamens and styles straight, Flowers racemose spreading
 5981 Raceme 1-sided
 5982 Stamens and styles straight, Flowers racemose closed, Petals rounded obtuse, Peduncle straight
 5983 Peduncle 1-flowered

5984 Peduncles 2-flowered
 5985 Peduncles umbelled

5986 The only species

- 5987 Leaves ovate beneath villous, Racemes simple shorter than the leaf
 5988 Leaves obovate villous beneath, Lower peduncles axillary solitary 1-flowered
 5989 Leaves subsessile oval or obovate beneath powdery, Fl. axill. and term. in threes on short stalks
 5990 Leaves oblong smooth on each side, Peduncles axillary 1-flowered solitary or twin

- 5991 Root creeping, Stems erect with peduncles and calyxes villous, Lower leaves spatulate upper lanceolate
 5992 Erect villous, Flowers tetrapetalous octandrous stalked
 5993 Erect, Flowers tetrapetalous octandrous stalked, Caps. many-valved, Leaves lanceolate
 5994 Erect smooth, Flowers tetrapetalous octandrous sessile
 5995 Flowers tetrapetalous octandrous, Stem erect angul. hairy, Leaves oblong hairy

5996 Leaves opposite ovate, Flowers paniced, Bractes lanceolate



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aromatic taste; is stimulant, and in some degree expectorant. It was formerly much prescribed in asthma, catarrh, phthisis, and menstrual obstructions; but it is now scarcely ever employed, except as an adjunct on account of its fragrance.

Benzoin is obtained from the *S. Benzoin*, by wounding the bark near the origin of the lower branches. The tree is never wounded under six years of age; and cannot sustain these annual incisions above twelve years. (*Thomson's London Dispensatory*, 525.)

As shrubs this genus affords some plants that may be considered pretty and desirable, on account of their small size and free flowering. They grow best in sandy loam, are commonly propagated by layers, and may also be increased by seeds, which they occasionally ripen.

1026. *Jussiaea*. An obscure and most uninteresting genus of plants, selected, not very happily, to commemorate the family of the Jussieu, which has for more than a century and a half been at the head of botanical science. Antoine de Jussieu, born in 1686, and died in 1758, was professor of botany at the Jardin du Roi, and member of the academy of sciences. He published various papers upon exotic plants, and a discourse upon the progress of botany. He also edited the works of Barrelier. Bernard de Jussieu, his brother, born in 1698, died in 1777, was professor at the same garden, and member of the same academy. He also was author of various papers upon plants, a second edition of Tournefort's History of the Plants growing near Paris, and an arrangement of the plants growing in the garden of Trianon, which was published by his nephew. Joseph de Jussieu, a third brother, born in 1704, and died 1779. He was sent to South America by Louis XV., and remained there for six and thirty years. He made many discoveries, and brought home many new plants. Lastly, Antoine Laurent de Jussieu, their nephew, born in 1748, and still living, as demonstrator of botany at the Jardin du Roi, member of the Institute and of every learned body in Europe. He brought, in his *Genera Plantarum*, published in 1789, to a degree of extraordinary perfection, that system, the outlines of which had been traced by the hand of Tournefort, and partially filled up by his uncle Bernard. That system has now superseded, among men of science, all others, and if as yet inapplicable to merely popular purposes, can never be dispensed with in all philosophical investigations.

1027. *Getonia*. A Malabar plant, the meaning of whose name has not been explained. Cuttings root freely in sand, under a hand-glass, and plunged in heat.

1028. <i>QUISQUA/LIS. W.</i>	<i>QUISQUALIS.</i>			<i>Combretacea.</i>	<i>Sp. 1—4.</i>								
5997 <i>indica W.</i>	Indian	♂	<input type="checkbox"/>	or	20	my.au	O.R	E. Indies	1815.	C	l.p	Bot. mag.	2033
5998 <i>pubescens Burm.</i>	pubescent	♂	<input type="checkbox"/>	or	20	...	O.R	E. Indies	1815.	C	l.p	Bur. ind. t.	35.f.2
1029. <i>MELAS/TOMA. W.</i>	<i>MELASTOMA.</i>							<i>Melastomaceae.</i>	<i>Sp. 23—196.</i>				
5999 <i>aspera W.</i>	rough	♂	<input type="checkbox"/>	or	6	au.n	P	E. Indies	1815.	C	l.p	Bur. zeyl. t.	72
6000 <i>velutina W.</i>	velvety-leaved	♂	<input type="checkbox"/>	or	8	jl.o	Pu	W. Indies	1815.	C	l.p		
6001 <i>trinervia W.</i>	three-nerved	♂	<input type="checkbox"/>	or	8	jl	Pu	Jamaica	1793.	C	s.p		
6002 <i>octandra W.</i>	octandrous	♂	<input type="checkbox"/>	or	3	...	W	Ceylon	1815.	C	l.p		
6003 <i>tetrandra W.</i>	tetrandrous	♂	<input type="checkbox"/>	or	2	...	...	Jamaica	1815.	C	s.p		
6004 <i>hirta W.</i>	hairy	♂	<input type="checkbox"/>	or	6	s.d	Pu	Jamaica	1740.	C	l.p	Pl. al. t.	264. f. 1
6005 <i>Acinodendron W.</i>	oval-leaved	♂	<input type="checkbox"/>	or	6	...	Pu	Jamaica	1804.	C	l.p	Plu. ic. t.	142. f. 2
6006 <i>cymosa W.</i>	cyme-flowered	♂	<input type="checkbox"/>	or	2	ap.au	Pu	S. Amer.	1792.	C	s.p	Sert. han. t.	8
6007 <i>rubra W.</i>	red	♂	<input type="checkbox"/>	or	6	my.jn	Pu	Guiana	1793.	C	s.p	Au. gui. l. t.	161
6008 <i>purpurea W.</i>	purple	♂	<input type="checkbox"/>	or	8	...	Pu	Guiana	1804.	C	l.p	Au. gui. l. t.	154
6009 <i>grassa W.</i>	large-leaved	♂	<input type="checkbox"/>	or	12	...	...	S. Amer.	...	C	l.p		
6010 <i>malabáthrica W.</i>	bristly	♂	<input type="checkbox"/>	or	6	jn.au	Pu	E. Indies	1793.	C	s.p	Bot. mag.	529
6011 <i>corymbosa H. K.</i>	corymb-flower.	♂	<input type="checkbox"/>	or	2	mr.o	Pk	S. Leone	1792.	C	s.p	Bot. mag.	904
6012 <i>costata H. K.</i>	ribless	♂	<input type="checkbox"/>	or	4	my.jn	Pu	Jamaica	1793.	C	s.p		
6013 <i>Tamoná Aubl.</i>	Fothergill's	♂	<input type="checkbox"/>	or	20	...	Pu	S. Amer.	1815.	C	s.p	Au. gui. l. t.	175
	<i>Fothergillia Hort.</i>												
6014 <i>álbicans Swz.</i>	white-leaved	♂	<input type="checkbox"/>	or	6	...	Pu	Jamaica	1815.	C	s.p		
6015 <i>laevigata W.</i>	smooth	♂	<input type="checkbox"/>	or	6	...	W.G	S. Amer.	1815.	C	s.p	Bot. reg.	663
6016 <i>discolor W.</i>	two-colored	♂	<input type="checkbox"/>	or	15	...	Pu	W. Indies	1793.	C	s.p	Plu. ic. t.	42. f. 1
6017 <i>nepalensis Lodd.</i>	Nepal	♂	<input type="checkbox"/>	or	2	au	Pu	Nepal	1820.	C	l.p	Bot. cab.	707
6018 <i>hermolláa Don.</i>	Brazil	♂	<input type="checkbox"/>	or	6	ja.d	Pu	Brazil	1819.	C	p.l	Bot. reg.	644
6019 <i>granulosa Lam.</i>	Commerson's	♂	<input type="checkbox"/>	or	10	au.s	Pu	Brazil	1819.	C	p.l	Bot. reg.	671
6020 <i>osbeckioides Sims.</i>	osbeckia-like	♂	<input type="checkbox"/>	or	2	s.o	Pu	Mauritius	1817.	C	p.l	Bot. mag.	2235
6021 <i>sanguinea Sims.</i>	bloody	♂	<input type="checkbox"/>	or	6	s.o	Pk	China	1818.	C	p.l	Bot. mag.	2241
1030. <i>PETALO/MA. W.</i>	<i>PETALOMA.</i>							<i>Melastomaceae.</i>	<i>Sp. 1—2.</i>				
6022 <i>myrtilloides Swz.</i>	Bilberry-like	♂	<input type="checkbox"/>	or	10	...	W.V	W. Indies	1823.	C	p.l	Sl. hist. t.	187.f.3
1031. <i>ACISANTHERA.</i>	<i>J. ACISANTHERA.</i>							<i>Salicariæ.</i>	<i>Sp. 1.</i>				
6023 <i>quadrata P. S.</i>	four-sided	♂	<input type="checkbox"/>	or	3	...	...	Jamaica	1804.	C	p.l	Br. jam. t.	22. f.1
1032. <i>DA/IS. W.</i>	<i>DAIS.</i>							<i>Thymelææ.</i>	<i>Sp. 1—7.</i>				
6024 <i>cotinifolia W.</i>	Cotinus-leaved	♂	<input type="checkbox"/>	or	10	jn.jl	W.G	C. G. H.	1776.	R	s.l	Bot. mag.	147
1033. <i>BUCI/DA. W.</i>	<i>OLIVE-BARK-TREE.</i>							<i>Santalacææ.</i>	<i>Sp. 1—2.</i>				
6025 <i>Búceras W.</i>	Jamaica	♂	<input type="checkbox"/>	or	25	au.s	Y.W	Jamaica	1793.	C	l.p	Lam. ill. t.	356
1034. <i>SAMY/DA. W.</i>	<i>SAMYDA.</i>							<i>Samydeæ.</i>	<i>Sp. 4—12.</i>				
6026 <i>nitida W.</i>	glossy	♂	<input type="checkbox"/>	or	7	...	W.G	W. Indies	1793.	C	l.p	Br. jam. t.	23. f.3
6027 <i>pubescens W.</i>	pubescent	♂	<input type="checkbox"/>	or	4	my.au	...	W. Indies	1793.	C	l.p	Jac. amer.	132
6028 <i>serrulata W.</i>	Elm-leaved	♂	<input type="checkbox"/>	or	3	jl	W	W. Indies	1793.	C	s.p	Ja. co. 2. t.	17. f.1
6029 <i>rosea H. K.</i>	rose-colored	♂	<input type="checkbox"/>	or	4	jn.jl	Pk	W. Indies	1793.	C	s.p	Bot. mag.	550

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1035. <i>ROYE/NA. W.</i>	<i>ROYENA.</i>							<i>Ebenacææ.</i>	<i>Sp. 9—15.</i>				
6030 <i>lúcida W.</i>	shining-leaved	♂	<input type="checkbox"/>	or	4	my.jn	W	C. G. H.	1690.	C	p.l	La. ill. t.	370. f. 1
6031 <i>villósa W.</i>	heart-leaved	♂	<input type="checkbox"/>	or	6	jn.jl	W	C. G. H.	1774.	C	p.l		
6032 <i>pállens W.</i>	pale	♂	<input type="checkbox"/>	or	4	jn.jl	W	C. G. H.	1789.	C	p.l		
6033 <i>glábra W.</i>	Myrtle-leaved	♂	<input type="checkbox"/>	or	4	s	W	C. G. H.	1731.	C	l.p	Com. hor. l. t.	65
6034 <i>pubescens W. en.</i>	pubescent	♂	<input type="checkbox"/>	or	4	jl.au	W.G	C. G. H.	1752.	C	l.p	Bot. reg.	500
6035 <i>hirsúta W. en.</i>	hairy-leaved	♂	<input type="checkbox"/>	or	7	jl.au	W	C. G. H.	1752.	C	p.l	La. ill. t.	370. f. 2
6036 <i>angustifolia W.</i>	Willow-leaved	♂	<input type="checkbox"/>	or	4	jn.jl	W	C. G. H.	1789.	C	p.l		
6037 <i>ambigua Vent.</i>	obovate-leaved	♂	<input type="checkbox"/>	or	6	jn.jl	W	C. G. H.	1815.	C	p.l	Vent. mal. t.	17
6038 <i>polyandra W.</i>	oval-leaved	♂	<input type="checkbox"/>	or	6	...	W	C. G. H.	1774.	C	p.l		



History, Use, Propagation, Culture,

1028. *Quisqualis.* A Latin word, expressive of uncertainty. It was given by Rumphius to a tree of Amboyna, because it was subject to variation. It is a fine climbing genus of easy culture. The best soil for the species is a mixture of loam and peat; and cuttings root freely in sand, under a hand-glass. (*Bot. Cult.* 100.)

1029. *Melastoma.* From *μῆλας*, black, and *στομα*, mouth. Many of the species produce black berries similar to gooseberries, and which stain the mouth black. This is a very numerous genus of shrubs and low trees; the species display great unity of character, and may be considered ornamental. They require but little water in winter, and are easily increased in sand, plunged in a moist heat.

1030. *Petaloma.* From *πέταλον*, a petal, and *λωμα*, an edge. Flowers of which the petals are inserted on the edge of the calyx. A small plant with the leaves, but not flowers, of *Melastoma*.

1031. *Acisanthera.* From *ακίς*, a point, the anthers being pointed. Plants with the habit of *Melastoma*.

5997 Leaves ovate

5998 Leaves subcordate pubescent

5999 Leaves ovate-lanc. entire 3-nerved rough, Fl. terminal subcorymbose

6000 Leaves 3-nerved entire sessile ovate acute villous silky, Racemes brachiata, Stems square

6001 Leaves 3-nerved without a marginal one entire smooth on each side thin, Racemes term. Fls. sessile

6002 Leaves entire 3-nerved ovate-lanc. smooth, Margin and nerves hispid beneath, Fl. terminal

6003 Leaves entire 3-nerved oblong emarginate at base, Raceme erect term. Fl. tetrandrous

6004 Leaves toothletted 5-nerved ovate-lanceolate, Stem hispid

6005 Leaves ovate acuminate toothletted 5-nerved, Cymes axillary

6006 Leaves cordate acumin. 5-nerved serrulate pubescent, Cymes terminal, Sepals roundish, Stamens 5 sterile

6007 Leaves cordate subcrenate beneath rusty with down, Flowers axillary and lateral solitary sessile

6008 Leaves ovate lanceolate acuminate 5-nerved pilose somewhat toothletted, Branches bifid, Panic. term.

6009 Leaves entire 5-nerved subcordate scabrous, Cor. little hairy outside

6010 Leaves 7-nerved ovate lanceolate ovate rough

6011 Leaves 3-nerved without ribs ovate-lanceol. acuminate toothletted, Corymbs term. trichotomous powdery

6012 Leaves 3-nerved obl. lanceol. acute entire hoary beneath, Pedunc. umbelled, Bractes double

6013 Leaves 5-nerved entire ovate acute smooth above beneath hoary, Flowers clustered sessile

6014 Leaves entire 5-nerved ovate-oblong smoothish acuminate smooth at edge

6015 Leaves 5-nerved nearly entire oblong acuminate smooth beneath yellowish, Racemes cymose

6016 Leaves lanceolate ciliated 3-nerved obtuse at base, Stems square, Flowers terminal solitary

6017 Leaves lanceolate ciliated 3-nerved obtuse at base, Stems square, Flowers terminal solitary

6018 Leaves cordate oval entire stalked beneath woolly, Petals obovate, Petals bowed at base

6019 Branches winged, Leaves oval-lanceol. with a long point, Petals obovate pointed, Filam. woolly above

6020 Leaves oblong elliptical 3-nerved ciliated, Calyx setose at end

6021 Stamens 12, Leaves ovate-lanceolate 5-nerved, Stems and globose ovaries very hispid

6022 Peduncles solitary 1-flowered

6023 Leaves 3-nerved ovate crenate opposite

6024 Leaves obovate obtuse, Flowers 5-cleft decandrous

6025 Spikes elongated, Leaves wedge-shaped smooth

6026 Flowers octandrous, Leaves cordate smooth

6027 Flowers dodecandrous, Leaves ovate downy beneath

6028 Flowers 12-androus, Leaves ovate oblong serrulate

6029 Flowers 12-androus clustered, Leaves oblong obtuse serrated pubescent on each side

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6030 Leaves ovate roughish

6031 Leaves cordate oblong downy beneath

6032 Leaves oblong obovate obtuse smooth

6033 Leaves lanceolate smooth

6034 Leaves obovate lanceolate pubescent

6035 Leaves oblong lanceolate very villous

6036 Leaves lanceolate acute hairy beneath

6037 Leaves obovate villous coriaceous, Fl. stalked polyandrous polygynous

6038 Leaves elliptical, Flowers polyandrous polygynous



and Miscellaneous Particulars.

1032. *Dais*. A name of unknown application. The plant resembles in its leaves the *Rhus cotinus*, whence its specific name. It may be increased by cuttings of the roots placed in a warm situation.

1033. *Bucida*. From *βυς*, an ox. The form of the fruit when ripe resembles the horn of such an animal. This tree grows in Jamaica in low swampy lands near the coast; it is remarkable for its slender crooked branches, and the tufted disposition of the leaves: it grows to a considerable size, is reckoned an excellent timber tree, and the bark is greatly esteemed by the tanners.

Well ripened cuttings root in sand, plunged in heat, and covered.

1034. *Samyda*. *Σαμυδα* is the Greek name of the birch, to which this genus may be likened in its leaves. The species are rather tardy in growth, but not difficult to root in sand under a hand-glass.

1035. *Royena*. So named by Linnæus, in honor of Adrian Van Royen, who with his son David were successively professors of botany at Leyden. It consists of shrubs of little beauty, which are increased by ripened cuttings in sand under a hand-glass. They are chiefly natives of the Cape of Good Hope.

1036. TRIANTHEMA. <i>W.</i> TRIANTHEMA. <i>Portulacææ.</i> <i>Sp. 2-12.</i>														
6039 monogyna <i>W.</i>	Purslane-leav.	☒ w	2	jl.au	G	Jamaica	1710.	S	co	Plant. grass. 109				
6040 decandra <i>W.</i>	trailing	☒ w	1½	jl.au	G	India	1762.	S	co	Bur. in. t. 31. f. 3				
1037. SCLERANTHUS. <i>W.</i> KNAWEL.														
6041 annuus <i>W.</i>	annual	○ w	½	jl.au	G	Britain	sa. fi.	S	co	Eng. bot. 351				
6042 perennis <i>W.</i>	perennial	△ w	½	au.s	G	Britain	sa. hea.	D	co	Eng. bot. 352				
1038. CUNONIA. <i>W.</i>	CUNONIA.													
6043 capensis <i>W.</i>	Cape	♀ L	20	au	W	C. G. H.	1816.	C	co	Bot. reg. 828				
1039. HYDRANGEA. <i>W.</i> HYDRANGEA.														
6044 arborescens <i>W.</i>	shrubby	♂ or	6	jl.au	W.G	Virginia	1736.	L	p.l	Bot. mag. 437				
6045 cordata <i>Ph.</i>	heart-leaved	♂ or	8	jl.au	W.G	Carolina	1806.	L	p.l	Dend. brit. 42				
6046 nivea <i>Ph.</i>	white-leaved	♂ or	5	jl.au	W.G	Carolina	1785.	L	p.l	Dend. brit. 43				
6047 quercifolia <i>W.</i>	Oak-leaved	♂ or	4	jn.s	W.G	Florida	1803.	C	p.l	Bot. mag. 975				
6048 hortensis <i>W.</i>	changeable	♂ or	3	ap.s	Pk	China	1788.	C	p.l	Bot. mag. 438				
1040. CHRYSOSPLENIUM. <i>W.</i> GOLDEN SAXIFRAGE.														
6049 alternifolium <i>W.</i>	alternate-leav.	♂ cu	¼	ap.my	Y	Britain	w.sh.p.	D	m.l	Eng. bot. 54				
6050 oppositifolium <i>W.</i>	opposite-leaved	♂ cu	¼	ap.my	Y	Britain	w.sh.p.	D	m.l	Eng. bot. 490				
1041. SAXIFRAGA. <i>W.</i> SAXIFRAGE.														
6051 ligulata <i>Wall.</i>	ligulate	♀ L	or	1	ap.jn	W	Nepal	1821.	D	p.l	Bot. cab. 747			
6052 crassifolia <i>W.</i>	thick-leaved	♀ △ or	1	mr.my	P	Siberia	1765.	D	s.l	Bot. mag. 196				
6053 cordifolia <i>M. n.</i>	heart-leaved	♀ △ or	1	mr.my	P	Siberia	1779.	D	s.l					
6054 Cotyledon <i>W.</i>	pyramidal	♀ △ or	2	my.jl	W.G	Al. of Eur.	1596.	D	s.l	FL dan. 241				
6055 recta <i>P. S.</i>	straight-leaved	♀ △ or	1	my.jl	W.G	Al. of Eur.	...	D	s.l	Pl ph. t. 221. f. 1				
6056 Aizoon <i>P. S.</i>	large-margined	♀ △ or	1	my.jl	W.G	Al. of Eur.	1731.	D	s.l	Jac. aus. 5. t. 438				
6057 intacta <i>W. en.</i>	small-margined	♀ △ or	1	my.jl	W.G	Tyrol	...	D	s.l	Hort. ber. 2. t. 75				
6058 mutata <i>W. en.</i>	Saffron-colored	♀ △ or	2	jn.jl	L.Y	Switzerl.	1779.	D	s.l	Bot. mag. 351				
6059 pennsylvanica <i>W.</i>	Pennsylvanian	♀ △ or	2	my.jn	G.V	N. Amer.	1732.	D	s.l	Di. el.t. 253. f. 328				
6060 hieracifolia <i>W.</i>	Hawkweed-lvd.	♀ △ or	2	my.jn	W.G	Hungary	1789.	D	s.l	Pl. rar. h. 1. t. 18				
6061 crösa <i>Ph.</i>	jagged-leaved	♀ △ or	1	my.jn	Y.G	N. Amer.	1812.	D	s.l					
6062 punctata <i>W.</i>	dotted-flowered	♀ △ or	1	my.jn	W	Siberia	1699.	D	s.l	Mo. h. 3. t. 9.f.17				
6063 umbrösa <i>W.</i>	London-pride	♀ △ or	1	ap.jn	F	Britain	mound.	D	s.l	Eng. bot. 663				
6064 hirsuta <i>W.</i>	hirsute	♀ △ or	1	my.jn	F	Ireland	ir.mou.	D	s.l	Eng. bot. 2322				
6065 Géum <i>W.</i>	kidney-leaved	♀ △ or	1	jn.jl	W	Ireland	ir.mou.	D	s.l	Eng. bot. 1561				
6066 cuneifolia <i>W.</i>	wedge-leaved	♀ △ or	½	my.jn	W.G	Switzerl.	1768.	D	s.l	Pl. rar. h. 1. t. 44				
6067 leucanthemifolia <i>Ph.</i>	Stock-leaved	♀ △ or	or	jn	W	N. Amer.	1812.	D	s.l					
6068 sarmentosa <i>W.</i>	Chinese	♀ △ or	2	jn.jl	W.R	China	1771.	D	s.l	Bot. mag. 92				
6069 cuscutiformis <i>Lodd.</i>	Dodder-like	♀ △ pr	or	jn.jl	W	China	1815.	D	s.l	Bot. cab. 186				
6070 virginienis <i>Ph.</i>	Virginian	♀ △ or	½	my.jl	W	N. Amer.	1790.	D	s.l	Bot. mag. 1664				
6071 congesta <i>Sweet</i>	close-flowered	♀ △ or	or	my.jl	W	N. Amer.	1812.	D	s.l					
6071 congesta <i>Sweet</i>	close-flowered	♀ △ or	or	my.jl	W	N. Amer.	1812.	D	s.l					



History, Use, Propagation, Culture.

1036. *Trianthema*. From *τρίεις*, three, and *άνθος*, flower; the flowers growing by threes in the axillæ of the leaves. The species are weeds in their native countries, and of little interest here.

1037. *Scleranthus*. From *σκληρος*, hard, and *άνθος*, a flower; when in seed the envelopes of the flower appear very much indurated. *S. annuus* is common throughout Europe and Siberia on a sandy soil. It flowers about the middle of summer, and sows its seeds very abundantly in autumn, which produce a crop of young plants that generally survive the winter, or, if destroyed, are replaced by another crop arising from those seeds that happen not to vegetate till spring. (*Eng. Bot.*) The Swedes and Germans receive the vapour arising from a decoction of it into their mouths, to cure the tooth-ache. (*Withering*.)

S. perennis in several parts of Europe has its roots attacked by the insect *Coccus Polonicus*, *Lin.* which yields a fine crimson dye, and is said likewise to live on *S. annuus* and some *Potentilla*. Sir J. Smith has "never been able to find this insect on these plants in England." (*Flora Brit. ii.* 283.)

These two species are occasionally found in abundance upon barren heathy wastes.

1038. *Cunonia*. In memory of John Christian Cuno, of Amsterdam, who described his own garden in Dutch verse in 1750. This is a handsome tree, with fine shining green foliage, contrasted by numerous dense elongated branches of small milk-white flowers, and twigs of a red color; having the habit of a tropical rather than of a Cape plant. Its colonial name is *Rood Elze* (red alder), although the tree has not in any point of view the least resemblance to the alder of Europe.

1039. *Hydrangea*. From *ήδωσ*, water, and *αγγειον*, a vessel. The common garden species, *H. hortensis*, is quite a marsh plant, and to be managed well should have a very copious supply of water in summer. A large plant will consume ten or twelve gallons daily, in warm weather.

H. quercifolia is an elegant plant when in leaf; but as it is barely within the limits of ligneous plants, it dies down to the ground on the approach of frost. *H. hortensis* is much valued on account of the great profusion of its very elegant flowers, which are monstrous in the same manner as the *Viburnum opulus*. It has never

6039 Flowers pentandrous monogynous
6040 Flowers about decandrous digynous

6041 Calyx of fruit spreading
6042 Calyx of fruit closed

6043 The only certain species

6044 Cymes naked, Leaves oblong ovate acuminate toothed smooth
6045 Cymes radiate, Leaves cordate toothed
6046 Leaves ovate acuminate toothed beneath white with down, Serratures mucronate

6047 Cymes radiate, Leaves oblong sinuate-lobed toothed
6048 Cymes radiate, Leaves elliptical narrowed at each end toothed smooth

6049 Leaves alternate
6050 Leaves opposite roundish hairy, Stems decumbent

6051 Leaves orbiculate or oval stalked pimpled ciliate cordate at base, Petals round, Sepals mucronate
6052 Leaves oval retuse obsolete serrated stalked, Stem naked, Panicle bearded
6053 Leaves cordate orbicular serrated stalked, Panicle headed
6054 Leaves radical ligulate with cartilaginous teeth, Stem panicled leafy, Cal. hairy with glands
6055 Radical leaves rosed straight glaucous supine crenate, Panicle simple
6056 Leaves radical lingulate with cartilag. teeth, Stem simple racemose leafy, Cal. smooth
6057 Radical leaves aggreg. lanc. obov. with cartilaginous teeth, Stem leafy clammy, Calyxes glandular
6058 Leaves rad. lingulate with a cartilaginous repand edge, Stem racemose leafy, Cal. with gland. hairs
6059 Leaves obl. lanc. hairy toothletted, Stem naked, Peduncles alternate in corymbose heads
6060 Leaves obl. lanc. smooth repand toothed, Stem naked, Peduncles 1-flowered aggregate
6061 Smoothish, Leaves oblong-lanc. acute eroded, Stem naked, Panicle oblong
6062 Leaves roundish toothed with long stalks, Stem naked
6063 Leaves obovate retuse with cartilaginous crenæ, Stem naked panicled
6064 Leaves cordate oval retuse with cartilaginous crenæ, Stem naked panicled
6065 Leaves reniform toothed, Stem naked panicled
6066 Leaves cuneiform very obtuse repand, Stem naked panicled
6067 Very hairy, Lvs. elongate spatulate acutely toothed, Stems divaricate dichotomous, Panic. capillary lax
6068 Leaves roundish toothed hairy, Runners creeping, Two petals long
6069 Leaves rhomboid toothed variegated hairy, Runners very weak, Petals nearly equal
6070 Leaves cuneate obovate somewhat toothed shorter than stalk, Stem panicled
6071 Leaves roundish cuneate crenate in front, Stem naked simple, Flowers clustered racemose



and Miscellaneous Particulars.

been found in a wild state, but is extensively cultivated in the gardens of China and Japan, from whence it was introduced to Kew by Sir Joseph Banks. The flowers are almost always barren; they are naturally of a rose color, but under certain circumstances of culture they become blue. The yellow loam of Hampstead Heath and some other places, and some sorts of peat earth are found to produce this effect; but the cause is not yet ascertained. Dr. Daalen, of Antwerp, finds that turf-ashes, and, still more effectually, those of the Norway spruce, the wood generally used as fuel by him, applied to the roots of Hydrangea, produced the blue color of the petals. (*Neil's Hort. Journ.* 122.) According to Busch, of Petersburg, "the hydrangea will be turned blue by watering the young plant, the summer before, with alum water. Our grey colored earth, under the black moor-earth, has the same effect, being combined with aluminous salt." (*Hort. Trans.* vol. iv. 568.) Sweet recommends a bed of peat, and says, the longer it remains there the bluer will be the flowers.

The hydrangea, to flower freely, must not be allowed more than three or four strong shoots from the same root; it must have abundance of pot room, and plenty of water when in flower. It is a good plan to shift the plants twice or oftener during the early part of the season. If plunged and turned out of the pot into an open border in the end of May, they will flower vigorously, and will even stand the winter around and south of London, and flower yearly, and if well protected in winter very freely and strongly. The flowers are produced from the extremities of the shoots of the current year.

1040. *Chrysosplenium*. From χρυσός, gold, and σπλήν, the spleen; a figurative name applied to this plant, with reference to its medicinal qualities. It is said to be a powerful cathartic. In the Vosges the plants are used copiously as a salad, under the name of *Cresson de Roche*.

1041. *Saxifraga Saxum-frango*, to break the stone; a name contrived in reference to supposed medicinal qualities which are now forgotten.

An elegant genus of alpine plants, which have long been favorites in gardens. Many of the species are

6072	<i>nivális W.</i>	clustered-Alp.	Δ	or	¼	jn.jl	W	Britain	sc. alp.	D	s.l	Eng. bot. 440
6073	<i>stelláris W.</i>	starry	Δ	or	¼	jn.jl	W	Britain	al. riv.	D	s.l	Eng. bot. 167
6074	<i>bryoides W.</i>	thrd.-moss-like	Δ	or	¼	jn.jl	W	Switzerl.	1752.	D	s.l	Jac. m. 2. t. 5. f. 1
6075	<i>cæ'sia W.</i>	gray	Δ	or	¼	my.jn	W	Switzerl.	1752.	D	s.l	Bot. cab. 421
6076	<i>androsæca W.</i>	Androsace-lvd.	Δ	or	¼	my.jn	W	Austria	1792.	D	s.l	Jac. aus. 4. t. 389
6077	<i>oppositifolia W.</i>	opposite-leaved	Δ	or	¼	mr.ap	Pu	Britain	al. roc.	D	s.l	Eng. bot. 9
6078	<i>áspera W.</i>	rough	Δ	or	¼	au	W	Switzerl.	1752.	D	s.l	Jac. aus. 5. t. 31
6079	<i>Hirculus W.</i>	yellow-marsh	Δ	or	¼	au	Y	England	tu. bo.	D	s.l	Eng. bot. 1009
6080	<i>Aizoides Haw.</i>	smaller-mount.	Δ	or	¼	jl.au	Y	Britain	al. riv.	D	s.l	
6081	<i>autumnális Haw.</i>	larger-mount.	Δ	or	¼	jl.au	Y.r	Britain	...	D	s.l	Eng. bot. 39
6082	<i>rotundifolia W.</i>	round-leaved	Δ	or	1	my.jn	W	Austria	1596.	D	s.l	Bot. mag. 424
6083	<i>granuláta W.</i>	grain-rooted	Δ	or	1	my	W	Britain	me. pa.	D	s.l	Eng. bot. 500
	<i>β pléna</i>	double-flowered	Δ	or	1	ap.jl	W	.....	...	D	s.l	
6084	<i>cérnua W.</i>	drooping	Δ	or	¼	jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 664
6085	<i>rivuláris W.</i>	Alpine-brook	Δ	or	¼	jn.jl	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2275
6086	<i>hederácea W.</i>	Ivy-leaved	Δ	or	¼	jl	W	Levant	1752.	S	s.l	
6087	<i>pentadáctyla Lap.</i>	five-fingered	Δ	or	¼	my.jn	W	Pyrenees	1815.	D	s.l	Lapey. fl. t. 40
6088	<i>geranioides W.</i>	Crane's-bill-lvd.	Δ	or	¼	ap.my	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 43
6089	<i>pedatifida L. T.</i>	pedatifid	Δ	or	¼	my.jn	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2278
6090	<i>ceratophýlla H. K.</i>	shining-calyxed	Δ	or	¼	my.jn	W	Spain	1804.	D	s.l	Bot. mag. 1651
6091	<i>ajugifolia W.</i>	Bugle-leaved	Δ	or	1	jn.jl	W	Pyrenees	1770.	D	s.l	Lapey. fl. t. 31
6092	<i>platypétala L. T.</i>	broad-petalled	Δ	or	1	jn	W	Scotland	al. roc.	D	s.l	Eng. bot. 2276
6093	<i>sibírica W.</i>	Siberian	Δ	or	1	my.jn	W	Siberia	1802.	D	s.l	
6094	<i>tridactýlites W.</i>	Rue-leaved	Δ	or	½	ap.my	W	Britain	walls.	S	s.l	Eng. bot. 501
6095	<i>petræ'a W.</i>	rock	Δ	or	¼	ap.my	W	Norway	1752.	D	s.l	Fl. dan. 68
6096	<i>ascéndens W.</i>	ascending	Δ	or	¼	my	W	Pyrenees	1752.	D	s.l	Jac. ic. 1. t. 81
6097	<i>Sternbergii W. cn.</i>	large-flowered	Δ	or	1	my	W	Germany	...	D	s.l	
6098	<i>hírta E. B.</i>	hairy	Δ	or	1	jn	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2291
6099	<i>palmatá E. B.</i>	palmate	Δ	or	¼	my.jn	W	Wales	wal. p.	D	s.l	Eng. bot. 455
6100	<i>elongélla L. T.</i>	long-stalked	Δ	or	1	ap.my	W	Scotland	sc. alp.	D	s.l	Eng. bot. 2277
6101	<i>hypnoides W.</i>	mossy	Δ	or	¼	ap.jn	W	Britain	al. roc.	D	s.l	Eng. bot. 454
6102	<i>moscháta W.</i>	musky	Δ	or	¼	my.jn	L.Y	Pyrenees	...	D	s.l	Lapey. fl. t. 37, 38
6103	<i>pygmæ'a Haw. moscháta E. B.</i>	pigmy	Δ	or	¼	my.jn	W.y	Scotland	sc. alp.	D	s.l	Eng. bot. 2314
6104	<i>cæspitósa W.</i>	tufted	Δ	or	¼	my.jn	Cr	Wales	w. alp.	D	s.l	Eng. bot. 794
6105	<i>grenlándica H. K.</i>	Greenland	Δ	or	¼	jl	W	Pyrenees	1732.	D	s.l	Lapey. fl. t. 19
6106	<i>muscoides W.</i>	Moss-like	Δ	or	¼	my.jn	W.y	Pyrenees	...	D	s.l	Lapey. fl. t. 34
1042.	TIARELLA W.	TIARELLA.						Saxifrageæ.	Sp. 3—10.			
6107	<i>cordifolia Ph.</i>	heart-leaved	Δ	or	¼	ap.my	W	N. Amer.	1731.	D	sp	Bot. mag. 1589
6108	<i>Menziesii Ph.</i>	leaf-stemmed	Δ	or	1	ap.my	W	N. Amer.	1812.	D	sp	
6109	<i>bitemáta Vent.</i>	bitemate	Δ	or	2	my.jn	W	Carolina	1812.	D	sp	Vent. malm. 54
1043.	MITELLA W.	MITELLA.						Saxifrageæ.	Sp. 5—10.			
6110	<i>diphýlla W.</i>	two-leaved	Δ	pr	¼	ap.my	W	N. Amer.	1731.	D	p.l	Bot. reg. 166
6111	<i>cordifolia Ph.</i>	heart-leaved	Δ	pr	¼	ap.my	W	N. Amer.	1812.	D	p.l	La. ill. t. 373. f. 3
6112	<i>núda W.</i>	Kidney-leaved	Δ	pr	¼	jn.au	W	N. Amer.	1758.	D	p.l	La. ill. t. 373. f. 2
1044.	GYP SOPHILA W.	GYP SOPHILA.						Caryophyllææ.	Sp. 16—36.			
6113	<i>Struthium L.</i>	fleshy-leaved	Δ	or	2	jl.au	W	Spain	1729.	D	p.l	Bar. ic. t. 119
6114	<i>fastigiáta L.</i>	one-rowed	Δ	or	1½	jn.jl	W	Germany	1759.	D	p.l	G. sib. 4. t. 61. f. 1
6115	<i>arenária W. & K.</i>	sand	Δ	or	1½	jl.au	W	Hungary	1801.	D	p.l	Pl. rar. h. t. 41
6116	<i>viscósá Murr.</i>	clammy	Δ	or	1½	jn.jl	W	Levant	1773.	S	p.l	Mur. co. g. t. 3
6117	<i>altíssima L.</i>	upright	Δ	or	1½	jl.au	St	Siberia	1759.	D	p.l	Gm. sib. 4. t. 60
6118	<i>perfoliáta L.</i>	perfoliate	Δ	or	2	jl.au	F	Spain	1732.	D	p.l	Dill. elt. t. 276
6119	<i>acutifolia Fisch.</i>	acute-leaved	Δ	or	3	jl.au	W.g	Siberia	1820.	D	co	
6120	<i>paniculáta L.</i>	panicled	Δ	or	4	jn.jl	W	Siberia	1759.	D	p.l	Jac. au. 5. t. ap. 1
6121	<i>gláucia Bieb.</i>	glaucous	Δ	or	1½	jl.s	W	Caucasus	1822.	D	co	
6122	<i>élegans Bieb.</i>	elegant	Δ	or	2	jn.s	W.pk	Crimea	1823.	S	co	Sch. mon. t. 21



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quite easy to cultivate, and although naturally mountaineers, not incapable of breathing the more impure air of towns and vallies. The greater part known are delicate and difficult to rear: they are regardless of cold, but suffer from mild and humid weather during the winter months. Most of the species are perennial, with either fibrous or granular roots, and a few are annual. Of the latter one species, *S. tridactylites*, is common upon very old walls in England, flowering in the beginning of the spring. The parts of fructification are extremely variable in this genus, and have given rise to the construction of many supposed genera, the constituents of which have the recommendation of agreeing with one another pretty well in habit. The limits, however, of these genera are too obscure, and the gradations by which they are united so obvious, that they have not yet been adopted by men of science generally. Without interfering with that question, the old mode of considering Saxifrage has been here adhered to, as being the most popular and the best under-

- 6072 Leaves obovate crenate subsessile, Stem naked, Flowers headed
 6073 Leaves serrate, Stem naked branched, Petals acuminate
 6074 Leaves lanc. mucronate with a cartilaginous ciliated edge, Stem naked few-fl. Cal. obtuse
 6075 Leaves linear perforated dotted aggregate recurved, Stem many-fl.
 6076 Leaves lanc. obtuse hairy, Stem naked 2-flowered
 6077 Leaves ovate opposite imbricated: the upper ciliated
 6078 Cauline leaves lanc. alternate ciliated, Stems procumbent
 6079 Cauline leaves lanc. alternate naked unarmed, Stem erect
 6080 Cauline leaves lin. subul. scattered naked unarmed, Stem decumbent
 6081 Cauline leaves linear alternate ciliated: radical aggregate
 6082 Cauline leaves reniform toothed stalked, Stem panicled
 6083 Cauline leaves reniform lobed, Stem branched, Root granular
 6084 Cauline leaves palmate stalked, Stem very simple 1-fl. bulbiferous
 6085 Cauline leaves palmate: the upper floral ovate, Stem simple about 2-flowered
 6086 Cauline leaves ovate lobed, Stem filiform weak
 6087 Leaves cuneiform 3-parted with trifid linear segments, Stem simple ascending, Petals lanceolate
 6088 Radical leaves reniform 5-lobed many-cleft, Cauline linear, Stem nearly naked branched
 6089 Rad. lvs. reniform pedatifid 7-lobed, Caul. palmate and lin. Stem nearly naked branched, Pet. lin. obov.
 6090 Smooth, Radical leaves 3-lobed, Lobes many-cut; lateral segments falcate, Stem panicled, Cal. colored
 6091 Radic. leaves palm. 5-parted, Cauline linear undivided, Stems ascending many-fl.
 6092 Leaves hairy trifid or 5-fid bearded, Runners procumbent, Stem leafy, Petals obovate rounded
 6093 Leaves reniform palm. hairy, Stem and flower-stalks filiform
 6094 Caul. leaves wedge-shaped trifid alternate, Stem erect branched
 6095 Leaves wedge-shaped, Radic. entire and 3-toothed, Cauline 5-toothed; upper trifid, Pedunc. about 3-fl.
 6096 Leaves palmate 3-parted, Segments subtrifid, Stem branched ascending
 6097 Leaves cuneiform palmate 5-fid ciliated longer than the linear petiole, Runners very short tufted
 6098 Leaves hairy 3 or 5-parted, Lobes elliptical acute, Runners ascending, Petals obovate 3-nerved
 6099 Leaves hairy palmate 5-cleft and trifid, Stem leafy panicled, Petals roundish
 6100 Leaves ciliated cuneate trifid nearly 5-cleft, Pedunc. solitary elongate 1-fl.
 6101 Cauline leaves lin. entire and trifid, Runners procumbent, Stem erect nearly naked
 6102 Radic. leaves aggregate entire and trifid acute linear, Stem viscid nearly racemose, Petals length of cal.
 6103 Radic. leaves aggregate membranous lin. lanceolate entire or trifid, Stem nearly naked about 2-fl.
 6104 Radic. leaves aggr. linear obtuse trifid cut, Stem erect many-fl. Petals twice as long as cal.
 6105 Leaves imbric. cuneate-palmate ciliated, Petals round, Styles spreading, Stigmas flat woolly
 6106 Radical leaves aggregate entire and trifid oblong obtuse, Stem filiform about 2-fl. Pet. as long as calyx
 6107 Leaves cordate acutely lobed toothed, Scape racemose
 6108 Leaves ovate cordate acute shortly lobed toothed, Raceme filiform spiked
 6109 Leaves biternate

- 6110 Leaves cordate about 3-lobed toothed, Scape 2-leaved
 6111 Leaves orbiculate reniform doubly crenate lucid, Scape setaceous lucid
 6112 Leaves reniform repand ciliated, Scape naked

1. *Calyxes not scaly.*

- 6113 Flowers clustered, Stems simple roughish, Leaves linear fleshy
 6114 Flowers corymbose, Stem ascending, Leaves lanc. lin. obsoletely 3-cornered obt. 1-sided, Stam. exerted
 6115 Flowers corymbose, Petals rarely submarginate, Leaves linear fleshy smooth flat
 6116 Flowers corymbose, Branches divaricating, Leaves ovate lanc. smooth at the base cordate amplexicaul.
 6117 Branches spreading, Flowers panicled small, Pan. much branched, Fl.-stalks viscid
 6118 Flowers panicled, Panic. much branched polished, Leaves ovate lanc. half stem-clasping
 6119 Fl. trichotomous panicled, Pedunc. villous viscid, Petals emarginate twice as long as calyx
 6120 Fl. panicled very minute dioecious, Peduncles smooth filiform divaricating, Leaves lin. lanc. rough
 6121 Fl. panicled, Panic. divaricating, Branches few-flowered pubescent viscid, Leaves lin. lanc. obtuse
 6122 Fl. dichotomous, Panic. smooth, Pet. emarg. twice as long as cal. Leaves lanceolate fleshy

*and Miscellaneous Particulars.*

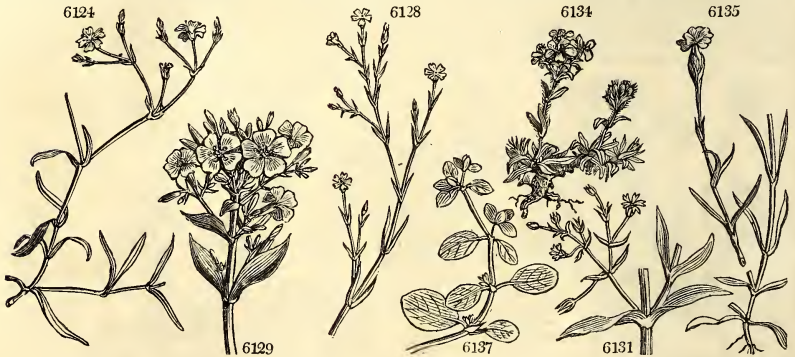
stood. The species are subject to great variation in appearance, and to much diversity of opinion among those who profess to be best acquainted with them. A middle course has here been taken, by which the doubtful kinds have been omitted, and those which are recognized, if not defined, satisfactorily, are alone admitted.

1042. *Tiarella*. From *tiara*, a particular kind of head-dress, a mitre, in allusion to the form of its capsule. Pretty little North American herbaceous plants, related to saxifrage, and easily cultivated in pots of light sandy peat and loam.

1043. *Mitella*. A diminutive of *mitra*, a mitre; so named for the same reason as the last genus, which it altogether resembles in habit and constitution.

1044. *Gypsophila*. From *γυψος*, chalk, and *φίλιον*, to love; most of the species delight in chalky districts.

6123	Stevéni Fisch.	Steven's	☿	△	or	2	jl.au	W	Iberia	1822.	D	co	
6124	répens L.	creeping	☿	△	or	2	jl.s	St	Siberia	1774.	D	p.l	Bot. mag. 1448
6125	dúbia W.	doubtful	☿	△	or	1	my.s	W	.....	1815.	D	p.l	
6126	prostráta L.	trailing	☿	△	or	1	jl.s	W	Siberia	1759.	D	p.l	Bot. mag. 1281
6127	murális L.	wall	☿	△	or	2	jn.o	F	Germany	1739.	D	s.l	La. ill. t. 375. f. 1
6128	Saxifraga L. β rigida Dec.	small rigid	☿	△	or	1/2	jl.au	Pk	Germany	1774.	D	p.l	Ex. bot. 2. t. 90
			☿	△	or	1/2	jn.au	Pk	France	1769.	D	s.l	
1045.	SAPONARIA. W.	SOAPWORT.							<i>Caryophyllae.</i>	<i>Sp. 6—17.</i>			
6129	officínalis W.	common	☿	△	or	2	jl.o	Pk	England	hed.	D	co	Eng. bot. 1060
	β plena	double-flower.	☿	△	or	2	jl.o	Pk	.....	...	D	co	
6130	vaccária W.	perfoliate	☿	△	or	2	jl.au	Pk	Germany	1596.	S	s.l	
6131	pórrigenis W.	hairy	☿	△	or	1	jl.au	Pk	Levant	1680.	S	s.l	J. vind. 2. t. 109
6132	ocymoides W.	Basil-leaved	☿	△	or	1	my.jl	R	France	1768.	R	s.p	Bot. mag. 154
6133	orientális W.	small-annual	☿	△	or	1	jn.au	Pk	Levant	1732.	R	s.p	Di. el. t. 167. f. 204
6134	lútea W.	yellow	☿	△	or	2	jn.au	Y	Switzerl.	1804.	R	s.p	Smith spic. t. 5
1046.	DIANTHUS. W.	PINK.							<i>Caryophyllae.</i>	<i>Sp. 60—113.</i>			
6135	próflifer L.	proliferous	○	pr		2	jl.au	Pk	England	gra.pa.	S	p.l	Eng. bot. 956
6136	dimínutus L.	small-flowered	○	pr		1/2	jl	Pk	S. Europe	1771.	S	p.l	
6137	arméria L.	Deptford	○	or		1	jl.s	R	England	gra.pa.	S	p.l	Eng. bot. 317
6138	pseud-armeria Bieb.	false Deptford	☿	△	or	1	jl.au	Pu	Crimea	1830.	C	p.l	Bot. mag. 2288
6139	discolor Sims.	two-colored	☿	△	or	1	jn.s	Pu	Caucasus	1803.	C	s.l	Bot. mag. 1162
6140	barbátus L.	Sweet-William	☿	△	or	1 1/2	jn.jl	Pk	Germany	1573.	C	r.m	Bot. mag. 207
6141	latifólius W.	broad-leaved	☿	△	or	1 1/2	jl.s	Pk	.....	...	C	s.l	Sw. fl. gard. 2
6142	japónicus Thunb.	Japanese	☿	△	or	1	jn.o	Pk	China	1804.	C	p.l	Thunb. jap. t. 23
6143	cephalótes Scr.	headed	☿	△	or	1 1/2	jn.o	Pk	.....	1823.	C	p.l	
6144	capitátus Dec.	capitate	☿	△	or	1 1/2	jn.o	Pu	Caucasus	1822.	C	p.l	
6145	polymórphus Bieb. β diutinus Lk.	variable	☿	△	or	1	jn.o	Pu	Crimea	1822.	C	p.l	
6146	ferruginéus L.	rusty	☿	○	or	1 1/2	jl.s	Br	Italy	1756.	S	p.l	Mi. ic. 1. t. 81. f. 1
6147	Carthusianórum L.	Carthusian	☿	△	or	1 1/2	jl.au	R	Germany	1573.	C	s.l	Loes. pruss. t. 7
6148	atrórúbens All.	dark-red	☿	△	or	1	jl.s	Cr	Italy	1802.	C	s.l	Jac. ic. 3. t. 467
6149	arbóreus L.	tree	☿	△	or	1 1/2	jn.au	Pk	Greece	1820.	C	s.l	Bot. cab. 459
6150	fruticósus L.	fleshy-leaved	☿	△	or	1 1/2	jn.s	Pk	Greece	1815.	C	r.m	Tourn. it. 1. t. 9
6151	suffruticósus W.	shrubby	☿	△	or	1 1/2	jn.jl	Pk	Siberia	1804.	C	p.l	
6152	caroliníanus Walt.	Carolina	☿	△	or	1	jn.s	Pu	N. Amer.	1811.	C	r.m	
6153	áspér W.	rough-stalked	☿	△	or	2/3	jl.s	Pk	Switzerl.	1822.	C	s.l	
6154	collinus W. & K.	hill	☿	△	or	2/3	jl.s	W	Hungary	1800.	C	s.l	Par. lond. 62
6155	campéstris Bieb.	field	☿	△	or	1	jl.au	W,r	Tauria	1815.	C	s.l	Bot. mag. 1876
6156	nítidus W. & K.	shining	☿	△	or	1	jl.au	R	Carpath.	1822.	C	s.l	
6157	diffúsus Sibh.	diffuse	☿	△	or	1 1/2	jl.au	R	Cyprus	1820.	C	s.l	
6158	hir'tus Vill.	hairy	☿	△	or	1	jl.au	R	France	1821.	C	s.l	
6159	guttátus Bieb.	rough-leaved	☿	△	or	1	jl.s	R	Caucasus	1816.	C	s.l	
6160	versicolor Fisch.	changeable	☿	△	or	1 1/2	jl.s	R,y	Russia	1823.	C	s.l	
6161	praténsis Bieb.	meadow	☿	△	or	1	jl.s	W,y	Crimea	1820.	C	s.l	
6162	chinénsis L.	China	☿	○	or	1	jl.s	R	China	1713.	S	r.m	Bot. mag. 25



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Some of the species are fine border plants, but the greater part are of little beauty, and only grown in botanic gardens.

1045. *Saponaria*. In allusion to its mucilaginous sap, which is said to be fit for supplying the place of soap, *sapo*. *S. officinalis plena* is considered a border flower, but is inconvenient unless kept in pots, from its spreading very much by the roots, which are underground creepers, like those of couch. The leaves form a lather with soap, and take out spots of grease in the same manner. The whole plant is bitter, and was formerly used to cure the itch and the venereal disease.

1046. *Dianthus*. *Διος ωρθος*, the flower of God, or divine flower; so named on account of its pre-eminent beauty. Most of the species of this genus are highly valued, not only for the beauty of their flowers, but also as being evergreens; their foliage during winter being as abundant and vivid as in summer. The fragrance of some of the species is peculiarly grateful, and no plant in this respect surpasses the carnation. *D. barbatus* is an old inhabitant of the flower garden, and was much esteemed in Gerard's time "for its beauty to deck up the bosoms of the beautiful, and garlands and crowns for pleasure." The varieties are numerous, but as the plant has never been treated by florists as a leading flower, they have not been named or improved. A hybrid variety called the Mule, or Fairchild's Sweet-William, is supposed to have been produced from seeds of the

- 6123 Fl. panic. Stem diffuse, Leaves lin. lanc. grassy carinate cæsios
 - 6124 Stems panic. few-fl. Stam. shorter than emarginate petals, Leaves linear smooth
 - 6125 Petals obovate emarginate campan. Stamens shorter than corolla, Leaves linear somewhat fleshy
 - 6126 Stems panicled, Styles longer than emarginate petals, Leaves lin. lanc. smooth
 - 6127 Stem dichotomous panicled much branched, Fl. axill. solitary, Leaves lin. flat as long as fl.-stalks
2. *Calyces supported by 2-4 scarious scales.*
- 6128 Stems numerous erect stiff, Fl. panicled terminal, Leaves linear rigid

6129 Flowers fasciated panicled, Cal. rounded villous yellowish, Leaves ovate lanc. acute or not

- 6130 Fl. panicled, Cal. pyramid. 5-ang. smooth, Bractes membranous acute, Leaves ovate lanc. sessile
- 6131 Stem erect, Branches divaric. with clammy hairs, Fl. on long stalks axill. Leaves lanc. linear
- 6132 Stems erect branched, Fl. panic. and corymbose, Cal. slender glandular purple, Lvs. ovate lanc. 1-nerved
- 6133 Stem dichotomous, Branches divaricating, Fl. axill. Cal. hispid round, Leaves linear spatulate
- 6134 Tufted, Stems 2-leaved, Flowers headed with an involucre, Cal. woolly

§ 1. *Flowers capitate or corymbose, scssile or stalked.*
* *Bractes ovate, blunt.*

- 6135 Scales of calyx ovate pointless longer than tube, Leaves serrulate
 - 6136 Like the last, but the flowers nearly solitary
- ** *Bractes lanceolate, acute, Calyxes villous.*
- 6137 Flowers loosely bundled, Scales lanc. subul. as long as tube, Leaves subulate, Calyxes hairy
 - 6138 Flowers densely bundled, Scales ovate subul. as long as tube, Pet. beard. Lvs. subul. pub. rough upright
 - 6139 Fls. aggreg. Scales long. than cal. striat. rough, Lvs. lin. short. than joints rough, Stem simple rough upw.

*** *Bractes ovate or lanceolate, Calyxes smooth.*

- 6140 Flowers aggregate fasciated, Scales ovate subulate as long as tube, Leaves lanceolate
 - 6141 Flowers aggregate racemose corymbose, Scales ovate lanceolate finally longer than calyx, Lvs. obl. lanc.
 - 6142 Flowers aggregate fasciated, Scales acute ciliated twice as short as tube, Leaves ovate short
 - 6143 Fls. subsess. capitate, Scales imbric. mucron. at end spreading a little short, than tube, Lvs. long narrow
 - 6144 Glaucous, Fls. sess. capitate, Scales broad ovate with a long awn longer than head, Upper lvs. dilat. at base
 - 6145 Dark green, Flowers sessile capitate, Scales ovate very short pointless, Leaves narrow rough
- 2 Flowers panicled fastigate and solitary stalked
- 6146 Fl. aggreg. Involucres and scales scarious rufous oblong awned a little shorter than cal.
 - 6147 Fl. aggreg. sessile and stalked, Scales ovate awned shorter than tube, Leaves linear 3-nerved
 - 6148 Like the last, but flowers aggregate headed sessile 3-5
 - 6149 Flowers aggregate, Claws of petals very long, Scales mucronulate closely imbricated, Leaves subul. fleshy
 - 6150 Flowers aggregate, Claws of pet. as long as cal. Scales mucr. closely imbric. very short, Leaves lanc. obt.
 - 6151 Flowers aggregate, Scales ovate subulate thrice as short as tube, Leaves lin. lanc. narrowed at each end
 - 6152 Flowers aggregate on long stalks, Scales twice as short as tube

§ 2. *Flowers panicled or solitary.*
* *Petals toothed.*

- 6153 Flowers fasciated, Scales ovate lanceolate shorter than tube, Petals acutely toothed, Lvs. lin. lanc. rough
- 6154 Like the last, but the flowers more numerous, and the leaves linear lanc.
- 6155 Stem panicled somewhat hairy, Fl. sol. Scales ovate acute twice as long as cal. Leaves subul.
- 6156 Flowers fasciated twin, Scales awned as long as calyx, Petals crenate, Stem decumbent, Lvs. anc. obt.
- 6157 Flowers somewhat corymbose, Scales furrowed mucron. twice as short as tube, Stems diffuse smoothish
- 6158 Flowers nearly sol. Scales 6 ovate mucron. much shorter than cal. Pet. crenate, Lvs. subul. rough at edge
- 6159 Stem panicled smooth, Flowers solitary, Scales ovate awned as long as tube, Leaves subulate nerved
- 6160 Stem many-fl. smooth, Scales cuspid, spreading shorter than tube, Pet. downy at orifice, Lvs. lin. roughish
- 6161 Stem panicled, Fl. sol. Scales acuminate appressed, Petals acutely toothed, Leaves subul. lanc.
- 6162 Stem branched, Fl. sol. Scales linear leafy, Petals toothed, Leaves lin. lanc.



and Miscellaneous Particulars.

carnation impregnated by a Sweet-William. *D. caryophyllus* is considered the source whence have sprung the numerous varieties of the carnation, and some think those also of the pink. The pink, however, is more probably derived from some of the smaller growing species, as *plumarius*, *deltoides*, *armeria*, *carthusianorum*, &c.

The carnation is rarely found wild in England, but it may be gathered on the south side of the Swiss Alps. It seems to have been unknown to the ancients, at least in its cultivated state, not being mentioned by Pliny, or sung by any of the Roman poets. It has, however, been cultivated from time immemorial in Europe, and is in the highest favor for its beauty and rich spicy odour. It is the principal florist's flower of Germany and Italy, from which countries the British florists procure their best carnation seed, and also some esteemed varieties.

The varieties of carnation amounted to nearly 400 named sorts in the beginning of the eighteenth century, and the number has not since diminished. They are arranged in three classes; flukes, bizarres, and picotees. Flakes have two colors only, and their stripes large, going quite through the leaves; *bizarres*, Fr. (odd, irregular) are variegated in irregular spots and stripes, and with no less than three colours; *picotees*, Fr. (*piquettée*, pricked or spotted) have a white ground, spotted or pounced with scarlet, red, purple, or other colors. Of

6163 montanus <i>Bieb.</i>	two-colored	✓	△	or	$\frac{3}{4}$	jn.s	R	Caucasus	1803.	C	s.l	
6164 caryophyllus <i>L.</i>	Clove	✓	△	or	2	jn.au	F	England walls.		C	r.m	Eng. bot. 214
β flore pleno	Carnation	✓	△	or	2	jn.au	Cr	England	...	C	r.m	Bot. mag. 39
γ fruticosus	tree-Carnation	✓	△	or	3	jn.au	Cr	England	...	C	r.m	
δ imbricatus	wheat-ear	✓	△	or	1 $\frac{1}{2}$	jn.au	F	England	...	C	r.m	Bot. mag. 1662
6165 virgineus <i>Sims.</i>	virgin	✓	△	or	1	jn.jl	W	S. Europe	1732.	C	s.l	Bot. mag. 1740
<i>D. sylvestris</i> Jacq.												
6166 monadelphus <i>Vent.</i>	procumbent	✓	△	or	1	jn.jl	Pk	Levant	...	C	s.l	Vent. cels. t. 39
<i>D. procumbens</i> Pers.												
6167 sylvaticus <i>Hoppe</i>	wood	✓	△	or	1 $\frac{1}{2}$	jn.s	R	Ratisbon	1815.	S	p.l	
6168 pomeridianus <i>L.</i>	afternoon	✓	△	or	1	jn.jl	Y	Levant	1804.	C	s.l	Par. lond. 57
6169 leptopetalus <i>W.</i>	narrow-petalled	✓	△	or	1 $\frac{1}{2}$	jl	W	Caucasus	1814.	C	s.l	Bot. mag. 1739
6170 pungens <i>L.</i>	pungent	✓	△	or	1	au.o	Pk	Spain	1781.	C	s.l	
6171 deltoides <i>L.</i>	maiden	✓	△	or	$\frac{1}{2}$	jn.o	F	Britain	gra.pa.	C	s.l	Eng. bot. 61
6172 glaucus <i>L.</i>	glaucous-leaved	✓	△	or	$\frac{1}{2}$	jn.o	W	Britain	...	C	s.l	Di. el. t.298. f.348
6173 glaucus <i>Thunb.</i>	long-cupped	✓	△	or	1	au	F	C. G. H.	1817.	C	s.l	Bot. reg. 255
6174 rigidus <i>Bieb.</i>	rigid	✓	△	or	$\frac{1}{2}$	jn.o	R	Casp. Sea	1802.	C	s.l	
6175 clavatus <i>Spr.</i>	clavate	✓	△	or	1	jn.o	F	.....	...	C	s.l	
6176 suavis <i>W.</i>	sweet	✓	△	or	1	jn.o	F	.....	...	C	s.l	
6177 caesus <i>Sm.</i>	mountain	✓	△	or	$\frac{1}{2}$	jn.jl	F	Britain	rocks.	C	s.l	Eng. bot. 62
6178 alpinus <i>L.</i>	alpine	✓	△	or	$\frac{1}{2}$	jn.jl	R	Austria	1759.	C	s.l	Bot. mag. 1205
6179 Hornemannii <i>Ser.</i>	Hornemann's	✓	△	or	1	jn.jl	R	Italy	...	C	s.l	
6180 Sternbergii <i>Sibth.</i>	Sternberg's	✓	△	or	1 $\frac{1}{2}$	jn.jl	R	.....	...	C	s.l	
6181 petraeus <i>W. & K.</i>	rock	✓	△	or	$\frac{3}{4}$	jl.au	Pk	Hungary	1804.	C	s.l	Bot. mag. 1204
6182 gallicus <i>Pers.</i>	French	✓	△	or	$\frac{3}{4}$	jn.au	Pu	S. France	...	C	s.l	
6183 albus <i>H. K.</i>	Cape	✓	△	or	$\frac{3}{4}$	au	W	C. G. H.	1787.	C	p.l	
6184 plumarius <i>L.</i>	feathered	✓	△	or	$\frac{3}{4}$	jn.au	W.pu	Europe	1629.	C	s.l	
6185 hortensis <i>W.</i>	garden	✓	△	or	1	jl.au	St	Hungary	1805.	C	r.m	
6186 caucasicus <i>Sims.</i>	Caucasian	✓	△	or	1	jn.s	Pu	Caucasus	1803.	C	s.l	Bot. mag. 795
6187 fragrans <i>Bieb.</i>	fragrant	✓	△	or	1	jn	Pu	Austria	1804.	C	r.m	Bot. mag. 2067
6188 punctatus <i>Spr.</i>	dotted	✓	△	or	1	jn	PaLi	.....	...	C	r.m	Bot. cab. 896
6189 serotinus <i>W. & K.</i>	late-flowering	✓	△	or	1	jl.s	Pu	Hungary	1804.	C	s.l	Pl. rar. h. 2. t. 172
6190 arenarius <i>L.</i>	sand	✓	△	or	$\frac{1}{2}$	my	Pu	Europe	...	C	s.l	
6191 fimbriatus <i>Bieb.</i>	fringed	✓	△	or	1 $\frac{1}{2}$	jn.au	Li	Iberia	1815.	C	s.l	Bot. mag. 1069
<i>D. orientalis</i> Sims.												
6192 plumosus <i>Spr.</i>	feathered	✓	△	or	1 $\frac{1}{2}$	jl.s	W.Li	M. Bald.	...	C	s.l	
6193 monspessulanus <i>L.</i>	Montpelier	✓	△	or	1	jl.au	R	Montpel.	1764.	C	p.l	
6194 superbus <i>L.</i>	superb	✓	△	or	2	jl.s	W	Europe	1596.	C	s.l	Bot. mag. 1148

TRIGYNIA.

1047. CUCUBALUS. L.	CAMPION.						<i>Caryophylleæ.</i>	<i>Sp. 1.</i>				
6195 baccifer <i>H. K.</i>	berry-bearing	✓	△	w	1 $\frac{1}{2}$	jn.jl	W	England	hed. D	co	Eng. bot.	1577



History, Use, Propagation, Culture,

each class there are numerous varieties, arranged under the farther subdivisions of scarlet flake, pink flake, purple flake, yellow flake, &c. ; scarlet bizarre, crimson bizarre, &c. ; and purple picotee, yellow picotee, &c.

Picotees are rather smaller flowers than carnations, and are distinguished by the serrated margins of their petals ; the colors are principally yellow and white spotted, and the plants are considered harder than the other sorts. Whatever colors the flower may be possessed of, they should be perfectly distinct, and disposed in long regular stripes, broadest at the edge of the lamina, and gradually becoming narrower as they approach the unguis, or base of the petal, there terminating in a fine point. Each petal should have a due proportion of white, *i. e.* one half, or nearly so, which should be perfectly clear and free from spots. Bizarres, or such as contain two colors upon a white ground, are esteemed rather preferable to flakes, which have but one, especially when their colors are remarkably rich, and very regularly distributed. Scarlet, purple, and pink are the three colors most predominant in the carnation ; the two first are seldom to be met with in the same flower, but the two last are very frequently.

New varieties are procured from seeds, and thousands of seedlings are annually blown by florists and amateurs, sometimes without one being found worth keeping. Established or approved varieties are continued by layering and cuttings, or, as they are commonly called, pipings. The soil in which the carnation thrives best is a rich loam rather sandy than otherwise ; the climate should be free from extremes of every kind, for which reason they are commonly grown in pots, and protected by a frame during winter, and covered by an awning while in bloom. Carnations grow exceedingly well in beds of properly prepared soil, over which frames are placed in winter, and an awning of canvass or bunting when the plants are in blossom. Those who are curious in blowing their carnations have a great many nice and curious operations to perform when they come into flower. Such petals as are plain, or run from the proper colors of the variety, are extracted by a particular instrument ; the remaining petals are next arranged so as to form a convex imbricated surface ; the calyx being slit down or tied up as may be necessary to aid this end. Then the flowerstalks are neatly tied to sticks, and the flower supported in a pendant attitude by means of properly formed brass wires.

- 6163 Stem branch. upw. closely dichotom. Fl. sol. Bract. with a spread. leafy point, Lvs. lin. subul. 3-nerv. hairy
 6164 Stem branched, Fl. sol. Scales very short ovate, Petals very broad beardless, Lvs. lin. sub. channelled glauc.

6165 Stem branched or simple, Fl. sol. Scales very short 4 ovate, Pet. broad beardless toothed

6166 Stem dichotomous panicled many-fl. glaucous, Fl. sol. Scales 4 pungent spreading shorter than tube

6167 Fl. sol. subcorymb. Scales ov. lanc. short. than tube, Lvs. lin. lanc. obsol. 3-nerv. smooth, Pet. twice toothed
 6168 Fl. sol. Scales ovate acute very short, Petals emarginate or nearly entire

6169 Stem branched, Fl. sol. Scales ovate acute very short awned, Pet. lanc. narrow, Leaves subul. roughish

6170 Stem few-fl. Fl. sol. Scales very short mucron. spreading, Tube gibbous, Pet. entire, Lvs. caspitose subul.

6171 Stem decumb. branched, Fl. sol. Scales ovate lanc. acute twin, Upper leaves narr. acute: lower oblong obt.

6172 Like the last, but flowers white, Leaves and stem glaucous

6173 Stem branched, Fl. sol. Scales 6 lanc. appressed, Pet. smooth cuneate obovate, Lvs. lin. acum. channelled

6174 Stems tufted few-fl. Fl. sol. Scales ovate acute short, Leaves subul. spreading downy rough

6175 Stem 1-fl. Scales 2 ovate acute short spreading, Cal. contracted in middle, Lvs. lin. chann. roughish at edge

6176 Stem 1-fl. Scales 4 acute short, Petals bearded doubly serrated, Leaves lin. spreading

6177 Stems tufted about 1-fl. Scales roundish short, Pet. crenate downy, Leaves bluntish rough at edge

6178 Stem 1-fl. Outer scales as long as tube: inner much shorter, Pet. crenate, Leaves obl. obtuse

6179 Pedunc. bifid term. Scales lanc. cusp. erect short. than tube, Pet. cut, Lvs. lin. nerved serrul. rough at edge

6180 Stems about 2-fl. Scales 4 ovate acute twice as short as tube, Petals serrate downy, Leaves linear

6181 Stem about 1-fl. Scales obovate mucronate, Pet. beardless many-cut, Leaves subul. entire smooth nerved

** Petals fringed.

6182 Stems ascending about 1-fl. Scales short ovate, Pet. toothed many-cut, Leaves lin. ciliated

6183 Fl. sol. Scales 4 lanc. short, Petals emarginate at the end fringed toothed

6184 Glaucous, Stems 2-3-fl. Teeth blunt, Bractes ovate very short pointed, Leaves lin. rough at edge

6185 Like the last, but the petals bearded at their orifice

6186 Stem pan. few-fl. Fl. sol. Scales ovate acum. Petals equally cut crenate, Leaves glaucous rough at edge

6187 Stems 1-fl. Scales ovate lanceolate acuminate shorter than tube, Pet. beardless, Lvs. subul. rough at edge

6188 Stem branched few-fl. Scales 4 blunt short, Petals beardless dotted, Leaves glaucous linear flaccid

6189 Stems 1-fl. Scales ovate obtuse four times as short as calyxes, Pet. naked, Leaves subul. glauc. ciliated

6190 Stems 1-fl. Scales ovate obtuse, Leaves linear

6191 Stem half-shrubby branched at base 2-fl. Scales 6 lanc. shorter than cal. Leaves subul. rough

6192 Fl. scattered solitary, Scales lanc. lin. spreading a little shorter than tube, Leaves lin. nerved flaccid

6193 Stem panicled few-fl. Fl. sol. Scales subul. straight twice as short as tube, Petals digitate, Lvs. lin. serrul.

6194 Stem panic. many-fl. Fl. fastigiate, Scales short ov. mucron. Pet. beyond the middle pinn. many-cut hairy [at orifice

TRIGYNIA.

6195 Branches divaricating, Leaves ovate, Cal. campanulate, Pet. distant



and Miscellaneous Particulars.

Behind the petals a circle of card paper is sometimes fixed to keep them in position, and the pot in which the plant grows is placed on a particular description of saucer, by which it is surrounded by water, in order to prevent the approach of ground insects, and especially of the carwig. These and a number of other operations will be found described at length in Maddock's Florist's Directory, and in the Encyclopædia of Gardening. (Sec. 6406.)

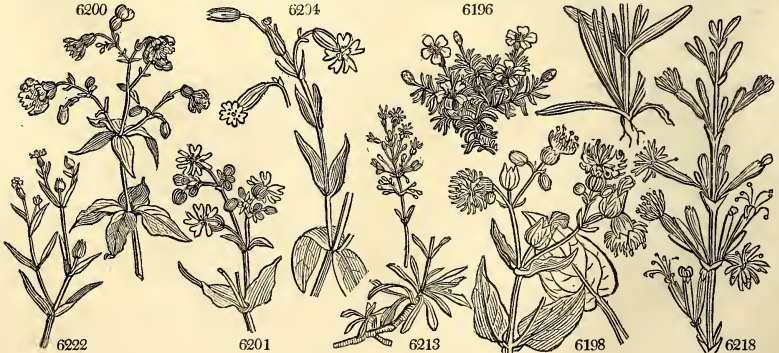
The pink, as a florist's flower, is of much less antiquity than the carnation: it is scarcely mentioned by Gerard, and Parkinson has given very few varieties. It was chiefly grown as a border flower till within the last fifty years, since which it has been greatly improved and many fine varieties originated. Being one of the hardest and least expensive of fine flowers, it is much cultivated by operative mechanics and manufacturers round large towns, and no where to such an extent as about Paisley, by the muslin weavers there.

The varieties of pink most cultivated are chiefly those called pheasant's eyes, which seem to have sprung from *D. plumarius*. Cob pinks are a large sort seemingly intermediate between pinks and picotee carnations; red early pinks are smaller plants than cobs, but larger than pheasant's eyes, and seem to have sprung from cobs and *D. armerius* or deltoides. The Paisley growers reckon above three hundred varieties of the pheasant's eyes. To garden pinks in general Wildenow gives the appellation of *D. hortensis*.

The propagation and culture of the pink is the same as that of the carnation, excepting that it is less frequently kept in pots or frames, but planted in beds of fresh loamy soil, and the small side shoots reduced in the autumn in order to throw more strength into those intended to produce flowers the following season. Some cover their pink bed with an awning. Not more than eight or ten flowers are ever allowed to expand on one plant, and these, if they shew a tendency to bursting at the calyx, are to be tied as in carnation culture.

1047. *Cucubalus*. A name signifying a bad subject; an evil weed. According to Miller, the berries of this plant are no less deadly than those of Nightshade.

1048. SILE'NE. L.		CATCHFLY.			<i>Caryophylleæ.</i>		<i>Sp. 107</i> —217.			Eng. bot. 1081
6196 acaulis L.		stemless	Δ	pr	1/2	jn.au	Pk	Britain	sc.alp.	D pl
6197 pumilio Sturm.		dwarf	Δ	pr	1/2	jn.au	Pu	Germany	1823.	D co
6198 fimbriata Sims.	fringed-flower.		Δ	pr	1 1/2	my.au	W	Caucasus	1803.	D s.l
6199 lácera Sims.	corn		Δ	pr	1 1/2	my.au	W	Caucasus	1818.	D co
6200 stellata H.K.	four-leaved		Δ	pr	1	jn.au	W	N. Amer.	1696.	D co
6201 inflata Sm.	inflated		Δ	cu	1	my.s	W	Britain	co. fi.	C co
6202 maritima W.	sea		Δ	cu	1	aus.s	W	Britain	sea.sh.	D s.l
6203 fabária H. K.	thick-leaved		Δ	cu	1	jn.au	W	Sicily	1731.	S co
6204 Béhen L.	bladder		Δ	w	2	jn.jl	W	Crete	1713.	S co
6205 indica Roxb.	Nepal		Δ	w	2	jn.jl	Pu	Nepal	1823.	C co
6206 viscaginoides Horn.	simple		Δ	cu	1	jn.jl	Pk	Dauria	1824.	D co
6207 procumbens Murr.	procumbent		Δ	cu	1	jn.jl	Pk	Siberia	1823.	D co
6208 rubélla L.	small-red		Δ	pr	1	my.jn	F	Portugal	1732.	S co
6209 apétala W.	petalless		Δ	cu	1	jn.jl	Ap	.....	1801.	S co
6210 spergulfólia Bieb.	surrey-like		Δ	pr	1	jn.jl	W	Armenia	1824.	D co
6211 Gypsóphila Desf.	little		Δ	pr	1	jn.jl	W	.....	1822.	D co
6212 carnósa Mönch.	fleshy		Δ	w	1	jn.jl	Pu	.....	1823.	S co
6213 Otites Pers.	Spanish		Δ	cu	2	jl.au	Y	England	gra so.	D co
6214 volgénsis Oth.	Volga		Δ	pr	1	jl.au	Pk	Volga	1824.	D co
6215 parviflora Pers.	small-flowered		Δ	pr	1	jl.au	Pk	Hungary	1796.	D co
6216 effusa Oth.	effuse		Δ	pr	1	jl.au	Pk	Volga	1823.	D co
6217 sibirica Pers.	Siberian		Δ	cu	1 1/2	jn.au	Pk	Siberia	1773.	D co
6218 multiflora Pers.	many-flowered		Δ	cu	1	jn.au	R	Hungary	1794.	S co
6219 tatárica Pers.	Hyssop-leaved		Δ	cu	2	jn.au	Pk	Russia	1769.	D co
6220 gigantéa L.	gigantic		Δ	pr	3	jn.jl	R	Africa	1738.	C s.l
6221 viscósa Pers.	clammy		Δ	or	2	jl	R	Levant	1739.	D co
6222 cónica L.	corn		Δ	w	1	jn.jl	Pu	England	san.fi.	S s.l
6223 conoidea L.	conoid		Δ	pr	1	jn.jl	Pu	S. Europe	1683.	S s.l
6224 undulata H. K.	wave-leaved		Δ	cu	1 1/2	au	R	C. G. H.	1775.	S p.l
6225 ánglica L.	English		Δ	w	1/2	jn.jl	W	Britain	san.fi.	S co
6226 lusitánica L.	Portugal		Δ	pr	1	jn.jl	Pk	Portugal	1732.	S co
6227 tridentata Desf.	three-toothed		Δ	pr	1/2	my.jn	Pk	Barbary	1823.	S s.l
6228 grállica L.	French		Δ	pr	1	my.jn	Pk	France	1683.	S s.l
6229 ocymoides Desf.	Basil-like		Δ	pr	1	mr.jn	Pu	.....	1823.	S co
6230 disticha W.	two-ranked		Δ	pr	1 1/2	jn.jl	R	.....	1817.	S co
6231 cerastoides L.	Cerastium-lvd.		Δ	cu	1	jl.au	W	S. Europe	1732.	S s.l
6232 quinquevulnera L.	variegated		Δ	cu	1	jn.au	Bd	England	san.fi.	S co
6233 nocturna L.	spiked		Δ	cu	2	jn.au	Br	S. Europe	1683.	S s.l
6234 refléxa L.	reflexed		Δ	cu	1	jl.au	Br	S. Europe	1726.	D co
6235 micropétala Dec.	small-petaled		Δ	cu	1	jn.jl	R	.....	1821.	S co
6236 micrántha Lk.	minute-flower'd		Δ	un	1	jn.jl	R	Portugal	1823.	S co
6237 canéscens Ten.	hoary		Δ	un	1	jn.jl	R	Naples	1822.	D co
6238 dichótoma Ehr.	dichotomous		Δ	cu	1 1/2	jn.jl	Pk	Hungary	1791.	S co
6239 nycétántha W.	various-leaved		Δ	cu	1	jn.au	Br	.....	1815.	S s.l
6240 bellidifólia Jacq.	Daisy-leaved		Δ	pr	1	jn.jl	Pk	.....	1794.	S s.l
6241 vespertina Retz.	evening		Δ	cu	2	jl.au	Br	Barbary	1796.	S co
6242 crassifólia L.	thick-leaved		Δ	cu	1	jl.au	Br	C. G. H.	1774.	R p.l
6243 grácilis Dec.	slender		Δ	pr	1	jl.au	W	.....	1823.	S co
6244 jeníseénsis W.	two-colored		Δ	pr	1	jn.jl	Pk	Siberia	1817.	D s.l
6245 ciliata Pourr.	ciliated		Δ	cu	1	jn.au	Pu	Crete	1804.	S s.l
6246 péndula L.	pendulous		Δ	or	1	my.jl	R	Sicily	1731.	S s.l
6247 quadridentata Dec.	four-toothed		Δ	pr	1/2	my.jl	W	Alps	1822.	D co
6248 pusilla W. & K.	dwarf		Δ	un	1	jn.jl	Pk	Hungary	1804.	D s.l
6249 alpéstris Jacq.	Austrian		Δ	un	1	my.jl	R	Austria	1774.	D s.l
6250 rupéstris L.	rock		Δ	un	1	my.jl	R	Switzerl.	1774.	D s.l



History, Use, Propagation, Culture,

1048. *Silene*. A poetical name, after the God Silenus, who is represented as always drunk and covered with slaver, as the species of this genus usually are with a viscid secretion. This is a large family of small plants, neither remarkable for use, beauty, or as bad weeds. *S. inflata*, the Cucubalus Behen L., may be used as a substitute for asparagus or green pease, the young shoots having the flavor of both. They ought to be gathered

- § 1. *Tufted, Stems scarcely any, Calyx somewhat inflated, Peduncles 1-flowered.*
 6196 Smooth, Stems dense, Leaves lin. lanc. Flowers dioecious, Calyx campanulate
 6197 Stems less dense, Leaves lin. spatulate pubescent, Cal. inflated hairy
- § 2. *Cauliscent, Flowers solitary or panicked, Calyx bladderly inflated.*
 6198 Pubescent, Leaves large ovate-lanc. Fl. in large panicles, Cal. much inflated, Petals fringed
 6199 Hispid, Leaves ovate-lanc. on long stalks wavy, Cal. much inflated, Pet. lacerated crowned
 6200 Stems erect branched pubescent, Leaves 4 whorled lanc. with long points smooth, Fl. pan. Cal. bladderly
 6201 Stems branched, Fl. pan. Cal. bladderly ovate, Pet. bifid naked, Styles very long
 6202 Like the last, but hairy with ovate lanc. leaves
 6203 Like the last, but creeping with smaller nearly spatulate leaves
 6204 Smooth branch. Lvs. lanc. : the lower stalk. Fl. pan. Cal. ovate veiny, Pet. with 2 very short lobes crowned
 6205 Pubescent, Stems very tall branch. Lvs. large lanc. Fl. pan. Cal. ov. netted, Pet. with a claw hairy at base
 6206 Smooth, Stem erect simple rather leafy, Lvs. lin. scarcely ciliat. Fl. in pan. spikes, Claws of pet. not ciliated
 6207 Smooth with very leafy branched procumbent stems, Leaves lanc. Fl. axill. opp. and terminal, Petals bifid
 6208 Nearly smooth, Stems little branched, Leaves obovate serrulate-ciliated, Fl. pan. Pet. obcordate crowned
 6209 Hoary, Stem erect branched, Leaves lanc. : the upper linear, Fl. few term. Petals O
 6210 Stems procumb. diffuse 2-3-chotomous branched, Lvs. small lin. Petals half-bifid with an obcord. crown
 6211 Nearly smooth, Stems wavy branched leafy, Leaves lin. lanceolate, Petals 2-lobed
 6212 Smooth, Stem erect, Leaves acute glaucous, Fl. solitary, Pet. lanceolate with a 2-lobed crown
- § 3. *Cauliscent, Flowers spiked in whorls.* [Fl. small dioecious]
 6213 Leaves erect, with a few branches, which are scarcely pubesc. or leafy, Lower lvs. numerous spatul. fleshy,
 6214 Stem pubesc. branched, Lower leaves large lanc. spatulate : upper lin. long, Fl. panicked with linear petals
 6215 Hoary, Stems assurgent nearly simple, Leaves spatulate lanc. Cal. spherical 10-striped
 6216 Stems erect nearly simple, Lvs. lin. : lower obt. Fl. very numerous and small, Cal. obov. clavate 10-striped
 6217 Half-shrubby smooth, Stems much branched. Lvs. lin. lanc. shortly ciliat. numerous, Cal. infl. clav. 10-striped
 6218 Stem simple, Lvs. lin. lanc. : lower broader stalk. Cal. clavate cylindr. 10-strip. Pet. 2-part. Stam. very long
 6219 Smooth, Stems erect simple very leafy, Lvs. lanc. small, Spike dense, Cal. clavate netted, Stam. very long
 6220 Velvety, Radical leaves cochleate smooth, Cal. tubular 10-striped, Pet. 2-fid, Stamens very long
 6221 Pubescent very viscid, Stem simple thick leafy, Leaves large lin. lanc. wavy, Fl. large nodding
- § 4. *Cauliscent, Calyx conoid, at the bottom retracted, with very long teeth.*
 6222 Pubescent, Leaves linear soft, Cal. short conical
 6223 Stems pubescent, Leaves lanc. lin. nearly smooth, Cal. long conical
 6224 Pubescent, Leaves lanceolate wavy : the lower stalked, Fl. large in loose dichotomous panicles
- § 5. *Cauliscent, Flowers spiked, axillary, not opposite, Calyx with 10 stripes.*
 * *Calyx cylindrical.*
 6225 Hairy, Stems branched, Leaves lanc. acute, Cal. ventricose with very long teeth, Petals small crowned
 6226 Very hairy, Stems much branched, Lower leaves obovate spat. : upper lanc. obtuse, Petals undivided
 6227 Stems branched, Leaves lin. lanc. Spike 1-sided, Cal. cylindrical with 10 ribs, Teeth long, Pet. 3-toothed
 6228 Hairy, Stems branched, Lower lvs. spatulate : upper lanc. obtuse, Cal. teeth short, Pet. obov. crowned
 6229 Hairy, Stems branched, Leaves spatulate, Spike 1-sided few-fl. Cal. very hairy, Pet. obovate crowned
 6230 Hairy, Stem much branched, Leaves lanc. cusp. Spikes twin dense, Pet. small bifid
 6231 Stems simple vill. Leaves pub. : lower spatul. ; upper lanc. Spike 2-ranked few-fl. Pet. obov. retuse crowned
 6232 Pubesc. Stems branch. Lvs. lanc. : lower obt. Spike 1-sid. Cal. vill. with short teeth, Pet. roundish crowned
 6233 Stem branch. hairy below, Lvs. pubesc. with a long fringe at base, Cal. cyl. nearly smooth ribbed and netted
 6234 Like the last, but flowers few distant, Petals smaller
 6235 Hairy, Stem branched leafy, Leaves lin. lanc. Flowers terminal, Cal. cylindr. Pet. bifid
 6236 Hairy, Fl. sessile 1-sided, Cal. cylindr. appressed, Petals small deeply emarginate
- ** *Calyx clavate.*
 6237 Hoary, Stems prostrate branched, Lvs. obovate spatulate ciliated at base, Fl. 1-sided erect, Pet. bifid
 6238 Stems branch. pubesc. Lvs. scabrous cil. at base : lower spatul. ; upper lanc. Fl. sess. nodding, Pet. 2-parted
 6239 Pubescent, Lvs. somewhat fleshy : lower spatulate ; upper lanceolate, Cal. long clavate, Petals 2-fid
 6240 Hairy, Stem erect slender branched, Lvs. lanc. Spikes twin 2-sided, Cal. cylindr. clavate, Pet. bifid
 6241 Pubesc. Stems branch. Lvs. spatul. obt. Spikes twin 1-sided, Cal. bladderly, Pet. 2-parted with ov. lobes
 6242 Velvety, Stem procumb. branch. leafy, Lvs. ov. spatul. fleshy, Bract. very small, Pet. with long claws embog.
 6243 Smth. Stem erect slender branch. Lvs. lin. scarcely ciliat. : low. ov. Fl. on long stks. Pet. 2-part. with lin. lobes
 6244 Smooth, Stems usually simple, Lvs. somewhat fleshy lin. lanc. Cal. ov. ventric. Pet. bifid with 4-lob. append.
 6245 Pubesc. Stems numerous prostrate very leafy at base, Lvs. lin. setaceous ciliated, Recesses of calyx deflexed
 6246 Pubescent branched supine, Leaves ovate lanc. Fl. axillary pendulous, Petals bifid crowned
- § 6. *Cauliscent, Stems upright, Peduncles filiform, Calyx campanulate or cylindrical.*
 6247 Tufted, Stems erect slender branched, Lvs. small linear very narrow, Fl. small, Petals short 4-toothed
 6248 Like the last, but the radical leaves broader, Peduncles long upright
 6249 Root branched, Stems simple leafy, Lvs. lanc. lin. obt. Fl. large panicked, Petals broad 4-cleft, Seed ciliated
 6250 Smooth, Stems erect branched, Leaves ovate lanc. Fl. panicked very small, Petals obcordate



and Miscellaneous Particulars.

when about two inches long, and the more they are blanched the better. Bryant (*Flora Dietetica*) says, its culture would well reward the gardener's trouble. *S. viscosa* is a popular border flower, especially the double variety.

S. quinquevulnera was formerly in culture as a border flower, but is now seldom used for that purpose :

6251 inapérta L.	unopen-flower.	○ un	2	jn.jl	Br	Madeira	1732.	S s.l	Di. el. t.315.f.407
6252 clandestina Jacq.	hidden-flower.	○ un	1	jn.jl	R	C. G. H.	1801.	S co	Jac. col. s. t. 3.f.3
6253 antirrhina L.	Snap-dragon	○ un	1	jn.jl	R	N. Amer.	1732.	S p.l	Di. el. t.313.f.403
6254 geminiflora W.	twin-flowered	○ cu	1	jn.jl	Pu	.....	1816.	S co	
6255 flavescens W. & K.	yellowish	△ y	1	jn.jl	Y	Hungary	1804.	D p.l	Pl. rar. h. 2.t.175
6256 limifolia W.	Flax-leaved	○ pr	1	jl.au	G.y	.....	1817.	S s.l	
6257 crética L.	Creten	○ pr	2	my.au	G.w	Candia	1732.	S s.l	D.e. t.314.f.404,5
6258 sedoides Jacq.	Sedum-like	○ pr	2	jl	G.w	Crete	1804.	S co	Jac. co. s. t.14.f.1
6259 saxifraga L.	Saxifrage	△ y	1	jn.au	F	France	1640.	D s.l	Bot. cab. 454
6260 petræa W. & K.	rock	△ y	2	jn.au	W	Hungary	1822.	D co	
6261 campánula Pers.	Bell-flowered	△ y	2	jn.au	G.w	Piedmont	1823.	D co	
6262 longipétala Vent.	long-petaled	○ pr	1	jn.au	G.w	Barbary	1822.	S co	
6263 nútans L.	Nottingham	△ y	2	jn.jl	W	Britain	cal. ro.	D co	Eng. bot. 465
6264 saxatilis Sims.	stone	△ y	2	jn.jl	W	Siberia	1800.	D s.l	Bot. mag. 689
6265 livida W.	livid	△ y	1	jn.jl	G	Carniola	1816.	D s.l	
6266 ténuis W.	green-	△ y	2	jl	G.w	Baical	1816.	D p.l	
6267 viridiflora L.	sleender-flowered	○ pr	2	jn.jl	G.w	Spain	1739.	S p.l	Herm. par. 199
6268 chlorántha W.	pale-flowered	△ y	1	jn.au	G.w	Germany	1732.	D s.l	Di. el. t.316.f.408
6269 cathólica Oth.	panicled	△ y	1	jl.s	G.w	Italy	1711.	D co	Jac. vind. 1. t. 50
6270 elegans Brot.	elegant	△ y	1	jl.s	W	Portugal	1819.	S co	
6271 répens Dec.	creeping	○ pr	1	jl.s	Pk	Siberia	1822.	D co	
6272 virginica L.	Virginian	○ or	1	my.au	Pu	N. Amer.	1783.	D p.l	Pl. alm. t.203. f.1
6273 stricta L.	upright	○ pr	1	jn.jl	Pu	Spain	1802.	S co	
6274 muscipula L.	Spanish	○ or	1	jl.au	R	Spain	1596.	S p.l	
6275 noctiflora L.	night-flowering	○ cu	2	jl	Pk	England	san. fi.	S s.l	
6276 ornáta H. K.	dark-colored	△ y	1	my.s	Pu	C. G. H.	1775.	S p.l	Bot. mag. 382
6277 ægyptiaca L.	Egyptian	○ cu	1	jl.au	Pk	Egypt	1800.	S s.l	
6278 sericea All.	silky	△ y	1	jn.au	Pk	S. Europe	1801.	S s.l	All. ped. t.79. f.3
6279 picta Pers.	painted	○ pr	1	jn.au	Pk	.....	1822.	S co	
6280 porténsis Bon.	Oporto	○ cu	1	jl.au	Pk	Portugal	1759.	S s.l	
6281 reticuláta Desf.	netted	○ cu	1	jl.au	Pk	Barbary	1804.	S p.l	Desf. atl. 1. t. 99
6282 pennsylvánica Mich.	Pennsylvanian	○ or	1	jn.jl	R	N. Amer.	1806.	D p.l	Bot. reg. 247
6283 vallisía L.	Woolly-leaved	△ y	1	jn.au	F	Switzerl.	1765.	D s.l	Bot. mus. t. 54
6284 fruticosa L.	shrubby	△ y	1	jn.jl	Pk	Sicily	1629.	C p.l	Com. hort. t. 33
6285 cas'pica Pers.	Caspian	△ y	1	jn.jl	Pk	Caucasus	1823.	D co	
6286 amœna L.	Tartarian	△ y	1	jl	W	Tartary	1779.	D p.l	
6287 supina Bieb.	trailing	△ y	1	jn.au	Pk	Caucasus	1804.	D s.l	Bot. mag. 1997
6288 paradóxa L.	Dover	△ y	1	jl	Pk	Europe	....	D p.l	Jac. vind. 3. t. 84
6289 chlorafolia Sm.	Armenian	△ y	1	aus	L.Y	Armenia	1796.	D p.l	Bot. mag. 807
6290 itálica Dec.	Italian	△ y	1	my.jn	W	Italy	1759.	S co	Jac. obs. 4. t. 79
6291 pátula Desf.	spreading	△ y	1	my.jn	Pk	Barbary	1823.	D co	
6292 polyphýlla L.	many-leaved	△ y	1	jn.jl	R	Germany	....	D p.l	Cl. hist. 1. t. 290
6293 nemorális W. & K.	grove	△ y	1	jn.jl	R	Hungary	1822.	S co	
6294 longiflora Ehr.	long-flowered	○ or	1	jl.s	L.Pu	Hungary	1793.	D p.l	Pl. rar. h. 1. t. 8
6295 bupleuroides L.	spear-leaved	○ or	2	jn.jl	W.pu	Persia	1801.	C p.l	Tourn. it. t. 154
6296 mollissima Pers.	velvet	○ cu	1	jl.s	Pk	Italy	1739.	D co	
6297 régia Sims.	splendid	△ y	1	my.au	Cr	N. Amer.	1811.	D p.l	Bot. mag. 1724
6298 ascéndens Lag.	ascending	○ cu	2	my.au	Pk	Spain	1822.	S co	
6299 cæpitosa Stev.	tufted	△ y	1	my.au	Pk	Caucasus	1824.	D co	
6300 atócion Murr.	orchis-flowered	△ y	1	my.jl	Pk	Levant	1781.	S s.l	Jac. vind. 3. t.32
6301 armería L.	Lobel's	○ or	1	jl.s	Pk	England	cor. fi.	S s.l	Eng. bot. 1398
β alba	white-flowered								
6302 compácta Fisch.	compact	○ or	1	jl.s	Pk	Caucasus	1823.	S co	
1049. STELLA'RIA. W.	STITCH-WORR.					Caryophyllæe.	Sp. 18—56.		
6303 nómorum W.	wood	△ w	1	ap.jn	W	Britain	moi.wo.	D co	Eng. bot. 92
6304 latifolia P. S.	broad-leaved	△ w	1	jn.au	W	Germany	1816.	D co	
6305 média E. B.	chickweed	○ w	1	ja.d	W	England	rubb.	S co	Eng. bot. 537
Alsine média W.									



History, Use, Propagation, Culture,

being very low and prolific in flowers, it is well adapted for sowing in pots. S. Armeria is one of the annual border flowers of the seed shops.

1049. *Stellaria*. The parts of the flower are stellate. The species are grassy-looking plants of the casiet.

- 6251 Smooth, Stems erect branched, Lvs. lanc. acute : lower obt. Petals not opening obovdate, Stam. usually 5
 6252 Pubesc. Stem erect much branched slender, Lower lvs. obl. obt. : upper lanc. narrow, Pet. short erect bifid
 6253 Nearly smooth, Stem erect branched somewhat leafy, Leaves lanc. acute ciliated, Fl. small paniced
 6254 Pubescent, Stems branched, Lower leaves ellipt. spatulate : upper lanc. Fl. term. twin, Petals bifid
 6255 Pubescent, Stems erect branch. straight, Low. lvs. lanc. spat. : up. linear, Fl. loosely paniced, Pet. 2-lobed
 6256 Stems branched, Leaves lin. spatulate, Fl. term. Cal. cylindr. clavate, Petals 2-fid
 6257 Smooth, Stems erect branched, Low. lvs. ov. stalked obt. : up. lin. acute, Fl. loosely panic. Cal. ov. clavate
 6258 Viscid pubesc. Stems erect much branched. Lvs. fleshy : low spatul. ; up. ov. Fl. small, Pet. obov. crowned
 6259 Tufted, Stems assurgent, Lvs. lin. acute, Peduncles very long, Cal. long clavate, Petals 2-parted crowned
 6260 Tufted shortly bristly, Stems assurgent, Leaves lin. with bristly teeth, Fl. small, Petals 2-fid crowned
 6261 Smth. Stems erect or assurg. somew. branch. leafy at base, Lvs. lanc. lin. acute : low spat. Pet. 2-part. naked

§ 7. *Cauliscent, Flowers paniced, rarely solitary, Pedicels opposite short, Calyx tubular.*

* *Flowers nodding, Calyx cylindrical.*

- 6262 Smooth viscid, Stems erect, Lvs. somewhat fleshy lin.-lanc. fringed with fine bristles, Pet. very long long crown
 6263 Pubesc. Stems leafy at base, Radical lvs. spatul. : upper lanc. lin. Pet. 2-parted reflexed with a long 2-part
 6264 Like the last, but stems less branched, and less leafy, Leaves linear, Petals often green
 6265 Like the last, but stems flexuose broken down. Petals white above beneath livid green
 6266 Smooth, Leaves lin. lanc. ciliated at base, Fl. pan. erect, Cal. ventricose cylindr. Petals 2-parted
 6267 Hairy soft, Stem branch. leafy, Lvs. large ov. acum. Fl. in large nodding panicles, Pet. with very long claws
 6268 Smooth, Stems erect simple scarcely leafy, Petals 2 parted with filiform lobes [crowned

** *Flowers erect, Calyx clavate.*

- 6269 Velvety glutinous upwards, Stem erect branched leafy, Fl. small loosely paniced, Stamens very long
 6270 Stem short about 2-flowered pubescent, Radic. leaves lanc. lin. acute, Cauline very short, Pet. bifid
 6271 Scarcely pubesc. Root long creeping, Stem erect almost simple, Lvs. lin. grassy acute, Fl. few erect panic.
 6272 Viscid pubesc. Stem procumb. assurgent branch. Fl. large panic. Cal. large clavate, Pet. broad bifid crowned
 6273 Scarcely pubesc. Stem upright branched, Lvs. lin. lanc. Fl. paniced erect, Cal. netted, Pet. small emarginate
 6274 Smoothish viscid, Stem erect, Alternate branches long, Cal. large clavate netted, Petals bifid
 6275 Visc. pubes. Stems erect branch. Lvs. large, Fl. large panic. : every other stripe of cal. veiny, Teeth very long
 6276 Pubes. Stems erect branch. Lvs. lanc. obt. Fl. panic. : every other stripe of cal. veiny, Pet. with broad tooth.
 6277 Subtomentose, Stems branch. Lvs. obov. stalked, Fl. term. erect, Pet. obov. 2-toothed at base [lobes
 6278 Silky, Stems branched, Lvs. with a long fringe at base, Fl. large term. Pet. 2-parted crowned
 6279 Stems much branch. scarcely pubesc. Lower lvs. obov. spatul. Lvs. lin. acute, Cal. clavate striped with red
 6280 Tufted smooth subviscid, Stems branched at base, Lvs. lin. Fl. panic. Cal. netted, Pet. bifid with lanc. lobes

*** *Flowers erect, Calyx long clavate.*

- 6281 Smooth viscid. Stems branch. Lvs. lanc. lin. Cal. very long. clav. nett. Pet. obov. with a tooth on each side
 6282 Viscid pubescent, Stems procumbent, Leaves lin. long, Cal. long tubular, Petals slightly emarg. crenate
 6283 Tufted viscid pubesc. Root woody, Stems low assurgent little branched, Cal. long nett. Petals bifid
 6284 Suffruticose, Stems suberect smooth branched at base, Cal. long cylindr. viscid-vilous, Petals 2-lobed
 6285 Scabrous, Stems bran. Fl. term. in the dichotomics, Cal. long cylin. Pet. 2-part. tooth. on each side at base
 6286 Pubescent, Root woody, Stems diffuse branched, Leaves soft numerous below, Petals half bifid
 6287 Tufted viscid pubescent, Stems woody supine branched, Lvs. lin. acute, Petals with narrow diverging lobes
 6288 Stems erect pub. Lvs. roughish scarcely ciliat. Fl. large pan. Pet. with broad obov. lobes & 2-part. append.
 6289 Very smooth glaucous, Stems branched, Leaves roundish acuminate, Fl. large, Cal. not striped
 6290 Pilose pubesc. Stems much branch. Lower lvs. ovate-spatul. : up. lin. Fl. in large panic. Pet. 2-lob. naked
 6291 Pubesc. viscid. Stems erect branch. Branch. spread. Low. lvs. ov. spatul. Cal. long narrow, Pet. $\frac{1}{2}$ bifid crowned
 6292 Pubescent, Stems assurgent much branched leafy, Leaves linear acute, Cal. clavate, Petals bifid
 6293 Stem simple pubescent, Leaves pubescent : lower large rounded stalked, Petals 2-parted crowned
 6294 Smooth, Stem twiggy, Leaves lin. lanc. radical very long, Cal. very long, Petals 2-parted crowned
 6295 Smooth clammy, Stem assurgent branch. Lvs. lin. lanc. acute : lower very long, Upper bractes with a broad
 6296 Silky, Stems erect branch. Lvs. wavy, Calyxes long clavate, Pet. 2-part. crowned [membranous margin
 6297 Viscid pubescent, Lvs. lanceol. Cal. long tubular, Petals lanceolate crowned, Stamens very long
 6298 Villous viscid, Lvs. lin. lanceol. obt. ciliated, Peduncle 1-fl. spreading in seed, Cal. circularly reflexed at base

§ 8. *Cauliscent, Flowers corymbose, Cal. clavate, 10-striped.*

- 6299 Tufted roughish, Root thick woody branch. Stems simple slender very leafy at base, Lvs. small lin. acute
 6300 Viscid, Stem much branch. pubesc. Lvs. round subciliated : the lower on long stalks, Fl. loosely corymb.

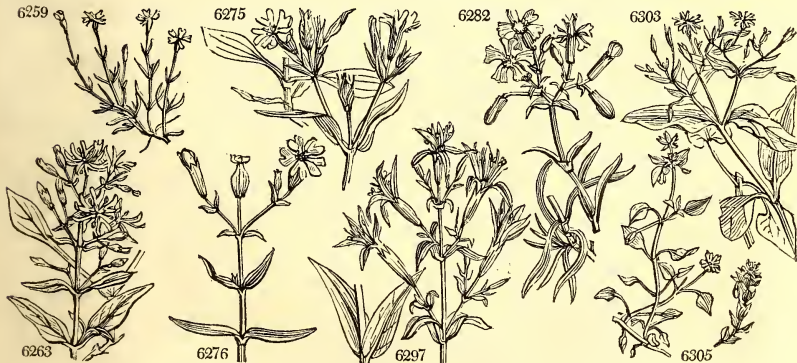
6301 Very smooth glaucous viscid, Leaves ovate-lanc. Fl. in paniced corymbs, Petals obovdate crowned

6302 Smooth, Stems erect branched, Upper leaves lanceolate : lower linear lanc. Umbel dense, Petals obovate

6303 Lower leaves cordate stalked : upper lanc. sessile, Petals twice as long as calyx

6304 Stems diffuse dichotomous rooting at base, Lower lvs. ovate stalked cord. : upper sess. Pet. shorter than cal.

6305 Stems procumbent with a lateral 1-sided hairy line, Leaves lanc. very tender, Fruit deflexed



and Miscellaneous Particulars.

culture. *S. media* is a well known weed, never found but on rich friable soils in a state of culture: the seeds and flower buds are a favorite food of finches and other small birds.

6306 dichotoma W.	forked	△	△	w	1 1/2	ja.d	W	Britain	clt. gr.	S	co	
6307 bulbosa Wulf.	bulbous	△	△	w	1	ja.d	W	Carinthia	1823.	S	co	Jacq. icon. t. 468
6308 viscida Bieb.	clammy	△	△	w	1	ja.d	W	Hungary	1820.	S	co	Wal. & Kit. t. 22
6309 Holosteia W.	greater	△	△	w	1	ap.jn	W	Britain	woods.	D	co	Eng. bot. 511
6310 Laxmanni Fisch.	Laxmann's	△	△	w	1	ap.jn	W	Siberia	1823.	S	co	
6311 graminea W.	lesser	△	△	w	1	ap.jn	W	Britain	hed. b.	D	co	Eng. bot. 803
6312 glauca H. K.	glaucous marsh	△	△	w	1	my.au	W	Britain	moi.m.	D	p.l	Eng. bot. 825
6313 crassifolia Ehr.	thick-leaved	△	△	w	1	my.au	W	Germany	...	D	co	
6314 uliginosa H. K.	bog	△	△	w	1	jn.jl	W	Britain	rivul.	S	co	Eng. bot. 1074
6315 cerastoides W.	Alpine	△	△	w	1 1/2	jn.jl	W	Scotland	sc. alp.	D	co	Eng. bot. 911
6316 Arenaria W.	sand	△	△	w	1	jn	W	Spain	1799.	S	co	
6317 scapigera W.	naked-stalked	△	△	w	1 1/2	jn.jl	W	Scotland	sc. rivu.	D	co	Eng. bot. 1269
6318 dahurica W.	daurian	△	△	w	1	jn.jl	W	Dahuria	1818.	S	co	
6319 muralis Link.	wall	△	△	w	1 1/2	jn.jl	W	Candia	1824.	S	co	
6320 longipes Hook.	long-stalked	△	△	w	1 1/2	jn.jl	W	N. Amer.	1820.	S	p.l	
1050. ARENARIA. W.	SANDWORT.							<i>Caryophyllæa. Sp. 45-140.</i>				
6321 segetalis Lam.	corn	○	○	w	1 1/2	jn.o	W	France	1805.	S	co	Vail. par. t. 3. f. 3
	<i>Alsine segetalis W.</i>											
6322 purpurea Pers.	purple	○	○	cu	1 1/2	jl	Pu	Spain	1823.	S	s.l	
6323 rubra L.	red	○	○	cu	1 1/2	jn.au	Pu	Britain	san.fi.	S	s.l	Eng. bot. 852
6324 marina Roth.	marine	△	△	cu	1 1/2	jn.jl	W	Britain	sea.co.	D	s.l	Eng. bot. 958
6325 media L.	downy	○	○	w	1 1/2	jl	W	France	1795.	S	co	
6326 canadensis Pers.	Canada	○	○	w	1 1/2	jn.jl	W	N. Amer.	1812.	S	p.l	
6327 graminifolia Schr.	grass-leaved	△	△	pr	1 1/2	jn.jl	W	Siberia	1815.	D	co	Sch. gott. t. 5
6328 longifolia Bieb.	long-leaved	△	△	pr	1 1/2	jn.jl	W	Siberia	1823.	D	co	Gmel. si. t. 63. f. 2
6329 rigida Bieb.	stiff	△	△	pr	1 1/2	jn.jl	W	Siberia	1823.	D	co	
6330 piniifolia Bieb.	pine-leaved	△	△	cu	1 1/2	jl.au	W	Caucasus	1823.	D	s.p	
6331 subulata Ser.	subulate	△	△	pr	1 1/2	jl.au	W	Caucasus	1822.	D	s.p	
6332 juniperina L.	Juniper-leaved	△	△	pr	1 1/2	jn.jl	W	Armenia	1800.	D	s.p	Sm. ined. 1. t. 35
6333 stricta Mich.	upright	△	△	pr	1 1/2	my.jn	W	N. Amer.	1812.	D	s.p	
6334 laricifolia L.	Larch-leaved	△	△	pr	1 1/2	au	W	Britain	...	D	s.p	Jac. aus. 3. t. 272
	<i>rostrata W. & K.</i>											
6335 striata Vill.	striated	△	△	pr	1 1/2	jn.au	W	Switzerl.	1683.	D	s.p	All. pe. 2. t. 26. f. 4
6336 Austriaca Jacq.	Austrian	△	△	pr	1 1/2	jn.s	W	Austria	1793.	D	s.p	Jac. aus. 3. t. 270
6337 triflora L.	three-flowered	△	△	pr	1 1/2	ap.jl	W	S. Europe	1816.	D	s.p	C. ic. 3. t. 249. f. 2
6338 grandiflora L.	great-flowered	△	△	pr	1 1/2	jn.s	W	Switzerl.	1783.	D	s.p	All. ped. 10. f. 1
6339 verna L.	vernal	△	△	pr	1 1/2	my.au	W	Britain	mount.	D	s.p	Eng. bot. 512
6340 Gerardi W.	Gerard's	△	△	pr	1 1/2	my.au	W	France	1822.	D	s.p	
6341 saxatilis L.	rock	△	△	pr	1 1/2	jl.au	W	Germany	1732.	D	s.p	Gm. si. 4. t. 63. f. 2
6342 pendula W. & K.	pendulous	△	△	pr	1 1/2	jn.jl	W	Hungary	1816.	D	co	Pl. rar. h. 2. t. 87
6343 tenuifolia L.	fine-leaved	△	△	pr	1 1/2	jn.jl	W	England	san.fi.	S	co	Eng. bot. 219
6344 mediterranea Lk.	Mediterranean	△	△	cu	1 1/2	jn.jl	W	Mediterr.	1823.	S	co	
6345 recurva All.	recurved	△	△	pr	1 1/2	jn.jl	W	Alps	1822.	D	co	Jac. col. t. 16
6346 setacea Thuill.	setaceous	△	△	w	1 1/2	jn.jl	W	France	...	S	co	
6347 fasciculata Gouan.	level-topped	△	△	w	1 1/2	jn	W	Scotland	sc. mo.	S	s.p	Eng. bot. 1744
6348 filifolia Forsk.	thread-leaved	△	△	cu	1 1/2	jn.jl	W	Arabia	...	D	s.p	Vah. sym. 1. t. 12
6349 mucronata Dec.	bristly	△	△	pr	1 1/2	jn	W	S. Europe	1777.	S	co	Hall. hist. 1. t. 17
	<i>Alsine mucronata W.</i>											
6350 polygonoides Jacq.	knotgrass-like	△	△	cu	1 1/2	jl.au	W	Switzerl.	1822.	S	co	Al. ped. t. 64. f. 4
6351 verticillata W.	whorled	△	△	pr	1 1/2	jl	W	Armenia	1823.	C	s.p	
6352 tetraquetra L.	square	△	△	pr	1 1/2	au	W	Pyrenees	1731.	D	s.p	All. p. 2. t. 89. f. 1
6353 lanceolata All.	lanceolate	△	△	pr	1 1/2	au	W	Switzerl.	1823.	D	s.l	Al. ped. t. 26. f. 5
6354 cherlerioides Vill.	cherleria-leaved	△	△	cu	1 1/2	jl.au	W	France	...	D	s.p	
6355 montana L.	mountain	△	△	pr	1 1/2	ap.jl	W	France	1800.	D	s.p	Bot. mag. 1118
6356 serpyllifolia L.	thyme-leaved	△	△	w	1 1/2	jn.jl	W	Britain	walls.	S	co	Eng. bot. 923
6357 pubescens Dec.	pubescent	△	△	pr	1 1/2	jl	W	.....	...	S	co	
6358 brevicaulis Stern.	short-stalked	△	△	pr	1 1/2	jn.jl	W	Alps	1823.	D	co	
6359 scabra Poir.	rough	△	△	pr	1 1/2	jn.jl	W	Alps	1822.	D	co	
6360 ciliata L.	fringed	△	△	pr	1 1/2	mr.au	W	Ireland	ir.mou.	S	s.p	Eng. bot. 1745
6361 multicaulis Jacq.	many-stalked	△	△	pr	1 1/2	jl.au	W	Europe	1794.	D	s.p	J. co. l. t. 17. f. 1
6362 trinervis L.	Plantain-leaved	△	△	w	1 1/2	my.jn	W	Britain	woods.	S	p	Eng. bot. 1483



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1050. *Arenaria*. From *arena*, sand, in which most of the species are found. They are of most difficult discrimination, and are chiefly diminutive weeds found almost exclusively on sandy soils. The flowers vary

- 6306 Hairy, Lvs. cord. ovate stem-clasping, Stem dichotomous, Fl. solitary, Sepals lanc. ac. longer than petals
 6307 Leaves ovate lanceol. nearly veinless, Pedunc. 1-fl. Sepals lanc. acute twice as short as petals
 6308 Villous viscid, Leaves lin. lanc. Stems dichotomous diffuse, Petals and capsule longer than calyx
 6309 Lvs. lanc. acum. serrulate roughish: the upper broader and shorter, Pedunc. filiform very long, Pet. 2-fid
 6310 Stem erect few-fl. Lvs. linear acute entire smoothish, Pedunc. filiform very long, Petals 2-parted
 6311 Leaves linear smooth at edge, Stems diffuse, Fl. paniced divaricating, Petals the length of calyx
 6312 Glaucous, Leaves lin. lanc. smooth at edge, Floral scarious, Petals twice as long as cal. Stem erect weak
 6313 Leaves ovate-lanceol. entire smooth thick, Sepals ovate-lanceol. much shorter than petals
 6314 Leaves ovate-obl. Pet. deeply divided shorter than calyx, Caps. ovate oblong longer than calyx
 6315 Leaves obl. pubescent, Pedunc. 1-fl. twin, Pet. larger than cal. Caps. obl. nearly twice as long as sepals
 6316 Leaves spatulate, Stem erect bifid viscid, Branches alternate, Petals emarginate
 6317 Leaves linear lanc. obtuse very dense, Pedunc. 1-fl. and umbelled, Pet. scarcely longer than calyx
 6318 Leaves lanc. entire sessile acute, Base and stem pubescent, Fl. axill. solitary
 6319 Glandular pubescent, Stem procumbent, Leaves ovate fleshy, Petals scarcely longer than calyx cut
 6320 Very smooth, Leaves linear-lanc. Pedunc. terminal dichotomous bracted, Pet. broad obovate 2-parted

§ 1. Caps. 3-valved, Leaves linear, with scarious stipules at base.

- 6321 Smooth, Stem erect, Leaves subulate 1-sided, Petals shorter than calyx

[calyx

- 6322 Hispid, Stem erect, Branches divaricating, Lvs. setaceous twice as short as joints, Pet. obt. shorter than
 6323 Stems prostrate hairy, Leaves filiform shorter than the joint, Sepals lanceolate obtuse scarious at edge
 6324 Like the last, but nearly smooth
 6325 Stems prostrate, Leaves half cylindrical fleshy as long as joints, Seeds with a membranous wing
 6326 Pilose subsispid, Leaves filiform longer than joint, Stamens 5, Seeds oboord. compressed, Caps. globose

§ 2. Leaves grassy, linear, lanceolate or rounded, without stipules, Caps. 3-valved.

* Leaves grassy.

- 6327 Stems erect simple. Lvs. subul. filiform rough, Panic. trichotomous pubescent lax, Calyxes very obtuse
 6328 Leaves subulate-filiform serrulate, Stems erect simple, Panicle trichotomous smooth compact
 6329 Leaves lin. setaceous ciliated rough, Stems erect rigid simple, Sepals acute scarcely longer than corolla
 6330 Stems ascending few-fl. pubescent, Lvs. setaceous rigid, Cauline straight, Sepals obtuse striated villous
 6331 Leaves setaceous rigid mucronate striated, Stems paniced few-fl. Sepals lanc. much shorter than corolla

** Leaves subulate or linear.

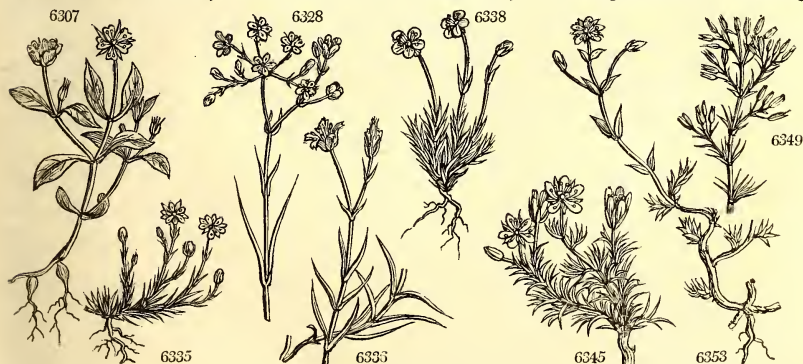
- 6332 Lvs. subulate rigid spiny: lower fascicled; upper distant, Stems erect firm, Pet. obov. twice as long as cal.
 6333 Erect smooth many-stemmed, Leaves subulate linear erect, Pan. few-fl. Petals conspicuously striated
 6334 Leaves subulate tooth-ciliated, Stems ascending 3-6-fl. roughish, Cal. cylindrical, Sepals 3-nerved hairy

- 6335 Like the last, but stems rigid few-fl. Leaves long straight, Pedunc. and calyx viscid hairy
 6336 Lvs. lin. subul. 3-nerved, Stem paniced, Pedunc. terminal very long twin downy, Pet. obt. emarginate
 6337 Like the last, but stems 2-4-fl. Leaves narrow recurved
 6338 Lvs. subulate broadish flat 3-nerved ciliated, Radical clustered, Stems 1-fl. Pedunc. very long pubescent
 6339 Tufted many-stemmed, Leaves subulate obtuse nerved, Stems paniced elongated
 6340 Erect branched, Leaves linear subulate 3-nerved, Pedunc. twin terminal 1-flowered
 6341 Leaves subulate, Stems paniced, Sepals ovate
 6342 Stems filiform rooting very long diffuse, Flowering branches erect few-fl. Lvs. lin. flat acute fascicled
 6343 Leaves subulate setaceous, Stem branched dichotomous, Sepals subulate striated much longer than petals
 6344 Stem much branched, Leaves lin. recurved, Sepals with a long point and membranous edge
 6345 Radical lvs. clustered recurved subul. 1-sided, Stems tufted simple 3-fl. Sepals and peduncles hairy gland.
 6346 Stem much branched, Fl. paniced fastigiate, Leaves setaceous fascicled 1-sided ciliated at base
 6347 Leaves subulate fascicled setaceous, Stems erect straight simple, Sepals acuminate with 2 lines
 6348 Leaves setaceous fascicled with 2 stripes, Stems suffruticose dichotomous, Pedunc. term. 1-2-flowered
 6349 Lvs. setaceous not ciliated at base, Stems tufted prostrate at base, Pedunc. longer than leaf, Sepals awned

- 6350 Procumbent, Leaves linear obt. Peduncles 2 or 3 1-flowered with 2 bractes at base, Sepals without nerves
 6351 Leaves subulate rigid spiny and flowers whorled, Pedunc. 4-fl. capitate

*** Leaves lanceolate, oval or rounded.

- 6352 Leaves ovate carinate recurved edged imbricated 4 ways, Stems straight downy, Sepals rigid acute keeled
 6353 Tufted villous, Branches ascending, Leaves lanceolate narrow acute rigid nerved
 6354 Like the last, but smaller, with creeping and tufted stems, and imbricated leaves
 6355 Pubescent, Leaves lanc. linear, Barren stems very long procumbent, Pedunc. terminal long 1-flowered
 6356 Leaves ovate acute sessile regular ciliated and smooth, Sepals lanceolate 3-nerved acute green opaque
 6357 Pubescent, Lvs. ovate acute stalked, Stems spreading branched elongated, Sepals acute shorter than cor.
 6358 Leaves oblong acute 3-nerved ciliated imbricated, Stem prostrate, Sepals lanceolate acuminate striped
 6359 Leaves lanc. acute spreading hard rough, Stem simple short, Sepals ovate acuminate striped
 6360 Leaves ovate and obovate blistered rugose more or less nerved and ciliated, Stems procumbent
 6361 Like the last, but leaves pulpy thick and sepals scarcely nerved
 6362 Stem slender branched, Lvs. ovate acute stalked ciliated nerved, Pedunc. long bent down after flowering



and Miscellaneous Particulars.

considerably in the number of their stamens, more generally falling short of than exceeding the regular number.

6363 baleárica L.	Majórca	♂ Δ pr	½ mr.au W	Majorca	1787.	D s.p	L. h. stír. t. 15
6364 peplóides L.	Sea-chickweed	♂ Δ pr	½ my.jl W	Britain	sea sh.	D s.p	Eng. bot. 189
6365 procumbens Vahl.	procumbent	♂ Δ pr	½ jl.au R	Egypt	1801.	D s.p	Vahl. sy. 2. t. 33
1051. CHERLERIA. W.	CHERLERIA.			<i>Caryophyllea.</i>	Sp. 1—2.		
6365 sedoides W.	dwarf	♂ Δ or	½ jl.au Y.w	Scotland	sc. alp.	D s.l	Eng. bot. 1213
1052. BRUNNICHA. W.	BRUNNICHA.			<i>Polygoneae.</i>	Sp. 1.		
6367 cirrhosa W.	Carolina	♂ Δ or	6 ... Pk	Carolina	1787.	C l.p	Gær. s. l. t. 45.f.2
1053. GARIDEL/LA. W.	GARIDELLA.			<i>Ranunculaceae.</i>	Sp. 1—2.		
6368 Nigellástrum W.	Nigella-leaved	○ or	1½ jn.jl B.g	France	1736.	S co	Bot. mag 1266
1054. MALPIGHIA. W.	BARBADOES CHERRY.			<i>Malpighiaceae.</i>	Sp. 18—70.		
6369 glabra W.	smooth-leaved	♂ fr	16 mr.jl R	W. Indies	1757.	C p.l	Bot. mag. 813
6370 punicifolia W.	Pomegran.-lvd.	♂ or	12 ... Pk	W. Indies	1690.	C p.l	Phum. ic. t. 166.f.2
6371 polystachia H. K.	many-spiked	♂ or	10 mr.my Y	W. Indies	1806.	C p.l	Bot. rep. 604
6372 média H. K.	intermediate	♂ or	10 mr.my Y	W. Indies	1790.	C p.l	
6373 glandulifera Jacq.	quadriglandular	♂ or	10 mr.my Y	W. Indies	1806.	C p.l	Jac. ic. 3. t. 469
6374 glandulosa W.	biglandular	♂ or	10 ... Y	W. Indies	1804.	C p.l	Ca. dis. 8. t. 239.f.2
6375 nitida W.	glossy-leaved	♂ or	6 mr.au Pk	W. Indies	1733.	C p.l	Ca. dis. 8. t. 239.f.1
6376 fucata B. Reg.	painted	♂ or	8 mr.au R	.....	1814.	C p.l	Bot. reg. 189
	<i>M. macrophylla</i> Desf.						
6377 urens W.	stinging	♂ fr	3 jl.o Pk	S. Amer.	1737.	C p.l	Bot. reg. 96
6378 angustifolia W.	narrow-leaved	♂ or	7 jl.au Pk	W. Indies	1737.	C p.l	Bot. cab. 321
6379 canescens W.	downy-leaved	♂ or	20 ...	W. Indies	1742.	C p.l	
6380 crassifolia W.	thick-leaved	♂ or	20 au Y	S. Amer.	1793.	C p.l	Aub. gu. 1. t. 182
6381 Mouréila Aubl.	yellow-spiked	♂ or	20 au Y	S. Amer.	1823.	C p.l	Aub. gu. 1. t. 183
6382 lúcida W.	wedge-leaved	♂ or	6 my.au Pk	W. Indies	1759.	C p.l	Bot. mag. 2462
6383 coriacea W.	leathery-leaved	♂ or	30 my.au Pk	Jamaica	1814.	C p.l	Slo. h. 2. t. 163.f.1
6384 volúbilis Sims.	twining	♂ or	10 au.s Y	W. Indies	1793.	C p.l	Bot. mag. 809
6385 aquifolium W.	Holly-leaved	♂ or	7 au.s Pk	S. Amer.	1759.	C p.l	C. di. 8. t. 236.f.2
6386 coccifera W.	Kermes'-Oak-lv.	♂ or	2 ... Pk	W. Indies	1733.	C p.l	Bot. reg. 538
1055. BANISTERIA. W.	BANISTERIA.			<i>Malpighiaceae.</i>	Sp. 9—60.		
6387 ciliata W.	ciliated	♂ or	10 ... Y	Brazil	1796.	C s.l	Cav. dis. 9. t. 254
6388 purpurea W.	purple	♂ or	10 ... Pu	W. Indies	1759.	C s.l	C. di. 9. t. 246.f.1
6389 chrysophylla W.	Star-apple-lvd.	♂ or	10 ... Y	Brazil	1793.	C r.m	Jac. sch. 1. t. 105
6390 laurifolia W.	Bay-leaved	♂ or	10 jl.au Y	Jamaica	1733.	C s.l	
6391 nitida W.	glossy	♂ or	10 ...	S. Amer.	1809.	C s.l	Cav. dis. t. 244
6392 sericea P. S.	silky	♂ or	10 ... Y	Brazil	1810.	C s.l	Cav. dis. 9. t. 258
6393 fulgens W.	shining-fruited	♂ or	6 ... Y	W. Indies	1759.	C r.m	
6394 heterophylla W.	various-leaved	♂ or	10 ... Y	S. Amer.	1812.	C s.l	Cav. dis. t. 253
6395 brachiata W.	cross-branched	♂ or	10 ... Y	W. Indies	1759.	C s.l	
1056. HIREA. W.	HIREA.			<i>Malpighiaceae.</i>	Sp. 1—19.		
6396 reclinata W.	reclined	♂ or	10 ... Y	W. Indies	...	C s.l	Jac. am. t. 176
1057. CNES'TIS. Lam.	CNES'TIS.			<i>Connaraceae.</i>	Sp. 1—9.		
6397 glabra Lam.	smooth	♂ or	10 ... W.g	Mauritius	1823.	C s.l	Lam. il. t. 387. 1

PENTAGYNIA.

1058. AVERRHO'A. W.	AVERRHOA.			<i>Terebinthaceae.</i>	Sp. 2—5.		
6398 Bilimbi W.	Bilimbi-tree	♂ fr	8 au.s R.v	E. Indies	1791.	C s.l	Cav. dis. 7. t. 219
6399 Carambóla W.	Carambola-tree	♂ fr	14 ... G.r	E. Indies	1793.	C s.l	Cav. dis. 7. t. 220



History, Use, Propagation, Culture,

1051. *Cherleria*. John Henry Cherler was an assistant of John Bauhin in preparing his *Historia Plantarum*. A little obscure weed.

1052. *Brunnicchia*. A catalogue of the books upon natural history was published by one Mr. F. Brunnicchia, a Danish naturalist, in 1793.

1053. *Garidella*. So named by Tournefort, in honor of Pierre Garidel, M. D., physician at Aix in Provence, author of *Histoire des Plantes qui naissent en Provence*, 1719, with many figures. A plant of little curiosity or beauty. Small inconspicuous plants of the easiest management.

1054. *Malpighia*. So named by Plumier in honor of Marcello Malpighi, professor of medicine at Bologna, author of *Anatomie Plantarum*, 1765 and 1769; a celebrated work, the best of its time on the structure of vegetables. The species are handsome evergreen trees and shrubs, some of them fruit-bearing and others climbers. *M. glabra* is grown for its fruit in the West Indies, and the fruit of *M. urens* is also eaten under the name of Barbadoes cherry, but that of both species is much inferior to European cherries. All the species have the under sides of their leaves covered with prickly bristles which when handled run into the fingers. Ripened cuttings root freely in sand under cover.

1055. *Banisteria*. So named by Dr. Houstoun, in memory of the Rev. John Banister, a curious botanist, who lost his life in search after plants in Virginia. The species are chiefly evergreen climbers and twiners; some of them, as *B. fulgens* and *chrysophylla*, have fine shewy foliage as well as beautiful flowers.

- 6363 Tufted creeping, Leaves ovate shining fleshy ciliated, Pedunc. long 1-fl. Flowers cernuous
 6364 Leaves ovate acute fleshy approximated, Fl. solitary on short stalks, Sepals obl. acute as long as cor.
 6365 All over pubescent, Leaves lin. lanceol. Stems prostrate much branched, Seeds very minute

6366 Leaves spreading

6367 Leaves cordate sagittate

6368 Petals sessile spreading, Stamens 10-12

6369 Leaves ovate entire smooth, Peduncles umbelled

6370 Leaves ovate entire smooth, Peduncles 1-flowered

6371 Leaves entire oblong acute smooth shining with 2 glands beneath at the base

6372 Leaves entire oblong lanceolate acute smooth with 2 glands at a distance from the base

6373 Leaves ovate nearly entire with hairs on both sides, Fl.-stalks with a truncate gland at top

6374 Leaves ovate elliptical acuminate entire smooth with 2 glands at base

6375 Leaves oblong acuminate entire smooth, Racemes axillary, Fl. monogynous

6376 Leaves elliptical shining hairy beneath, Fl. axillary corymbose

6377 Leaves obl. ovate with decumbent stiff bristles, Peduncles 1-fl. aggregate

6378 Leaves lin. lanceol. with decumbent bristles on each side, Peduncles umbelled

6379 Leaves obl. obtuse pubescent, Racemes axillary compound

6380 Leaves ovate entire obtuse downy beneath, Racemes terminal

6381 Leaves ovate downy beneath acute, Flowers yellow spiked

6382 Leaves obovate wedge-shaped entire veinless shining, Raceme terminal

6383 Leaves ovate acute entire smooth on each side, Racemes terminal spiked

6384 Leaves oval acuminate shining, Racemes corymbose terminal

6385 Leaves lanceol. toothed-spiny hispid beneath

6386 Leaves subovate toothed-spiny

6387 Leaves orbicular cordate ciliate toothletted smooth, Petioles with 2 glands

6388 Leaves roundish ovate obtuse smooth, Racemes axillary and terminal, Seeds erect

6389 Leaves ovate oblong acutish towards the end obsoletely ciliated beneath shining gold-colored

6390 Leaves ovate-oblong rigid, Racemes terminal

6391 Leaves ovate oblong entire beneath shining, Panicle terminal leafy

6392 Branches 2-edged, Leaves ovate downy beneath, Petioles with 2 glands

6393 Leaves subovate downy beneath, Racemes brachiate, Peduncles umbelled

6394 Leaves downy beneath orbicular cordate, Branches divaricating roundish, Petioles with 2 glands

6395 Leaves subovate, Branches brachiate, Seeds narrower inwards

6396 Leaves simple obovate obtuse pubescent above smooth beneath

6397 Leaves pinnated, Leaflets ovate stalked smooth on each side, Racemes fascicled

PENTAGYNIA.

6398 Leaves pinnated, Leaflets ovate-lanceolate, Fruit oblong with obtuse angles

6399 Leaflets ovate unequal acuminate, Fruit obl. acute-angled



and Miscellaneous Particulars.

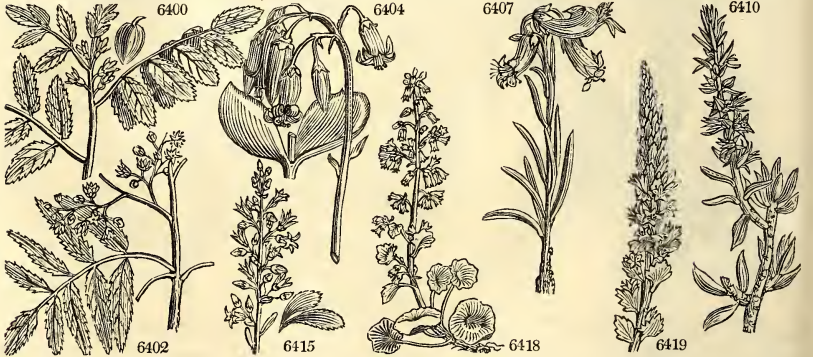
All of them root freely in ripened wood in sand under a hand-glass. In most respects they resemble the last genus.

1056. *Hirza*. Named after John Nicholas de la Hire, a French physician, who died in 1727. Plants with the appearance of *Banisteria*.

1057. *Cnestis*. From $\kappa\nu\eta\sigma\omega$, to scratch. The capsules, covered with hairs, excite a troublesome itching. Fine evergreen stove shrubs.

1058. *Averrhoa*. So named in honor of Ebn Elvelid Ebn Rushad, commonly called Averrhoes, of Corduba in Spain, a famous commentator on Aristotle and Avicenna. He also published *Calliget*, or the plants used in food, &c. He died at the beginning of the thirteenth century. The specific names are vernacular appellations. The species are evergreen trees, singular for the fruit growing frequently on the trunk itself, below the leaves: the flowers grow in racemes; the fruit is a five-celled pome. A. Bilimbi is a beautiful tree with a green fleshy oblong fruit the thickness of the finger, filled with a grateful acid juice; the substance and seeds not unlike those of cucumber. They make a syrup of the juice, and a conserve of the flowers, which are esteemed excellent in fevers and bilious disorders. A. carambola bears a fruit the size of a hen's egg, with a pulpy subacid juice, used ripe and also pickled green, and employed also in dying, and other economical purposes. The petioles and branches of this tree are said to have a peculiar sensitive quality, of which an account is given by Dr. Bruce in the *Philosophical Transactions*,

1059. SPONDIAS. W.		HOG PLUM.		<i>Torcintaceæ. Sp. 3-7.</i>									
6400	Mombin <i>W.</i>	flat-stemmed	yellow	pr 10	...	Y.g	W. Indies	1817.	C	s.p	Slo. his. 2. t. 219		
6401	Myrobalanus <i>W.</i>	yellow	Otaheite-apple	pr 30	...	Y.g	W. Indies	1739.	C	s.p	Mer. sur. t. 13		
6402	dolcis <i>W.</i>			pr 50	...	Y.g	Society Is.	1793.	C	s.p	Lam. ill. t. 384		
1060. COTYLE/DON. W.		NAVEL-WORT.		<i>Sempervivacæ. Sp. 17-20.</i>									
6403	orbiculata <i>Haw.</i>	round-leaved		cu 2	jl.au	R	C. G. H.	1789.	C	s.l			
6404	ovata <i>Haw.</i>	ovate-leaved		cu 2	jl.o	R	C. G. H.	1789.	C	s.l	Bot. mag. 321		
6405	papillaris <i>L.</i>	conical		cu 1	jl.au	R	C. G. H.	1822.	C	s.l	Bot. mag.		
6406	oblõnga <i>Haw.</i>	oblong-leaved		cu 2	jl.s	R	C. G. H.	1690.	C	s.l			
6407	curviflõra	curve-flowered		cu 1	jl.o	Or	C. G. H.	1818.	C	s.l	Bot. mag. 2044		
6408	ramosissima <i>Mill.</i>	many-branched		cu 2	...	...	C. G. H.	1768.	C	s.l	
6409	fascicularis <i>W.</i>	cluster-leaved		cu 1	jl.s	R	C. G. H.	1759.	C	s.l	Burm. afr. t. 18		
6410	coccinea <i>W.</i>	scarlet		cu 2	o	Sc	C. G. H.	1816.	C	s.l	Bot. cab. 832		
6411	decussata <i>Sims.</i>	cross-leaved		cu 1	jl.au	Sc	C. G. H.	1819.	C	s.l	Bot. mag. 2518		
6412	hemisphærica <i>W.</i>	thick-leaved		cu 1	jn.jl	...	C. G. H.	1731.	C	s.l	Plant. grass. 87		
6413	spûria <i>W.</i>	narrow-leaved		cu 1	jl.au	...	C. G. H.	1731.	C	s.l	Com. rar. t. 23		
6414	cæspitõsa <i>Haw.</i>	tongue-leaved		cu 1	jn.au	Y	California	1796.	C	s.l			
	<i>linguæformis</i> <i>H. K.</i>												
6415	serrata <i>W.</i>	notch-leaved		cu 1	jn.jl	Y	Siberia	1732.	C	s.l	Di. el. t. 95. f.112		
6416	hispanica <i>W.</i>	Spanish		pr 1	jn.jl	Y	Spain	1796.	C	s.l	Plant. grass. 122		
6417	Malacophyllum <i>W.</i>	annual		pr 1	jn.jl	P.v	Davuria	1815.	C	s.l	P.it. 3.ap.t.G. f.1		
6418	umbilicus <i>W.</i>	Penny-wort		pr 1	jn.jl	Y	Britain sh.roc.		C	s.l	Eng. bot. 325		
	β <i>Mucixõni</i> <i>Brot.</i>	Portuguese		pr 1	jn.jl	Y	Portugal	1823.	S	s.l			
6419	lutea <i>W.</i>	yellow		pr 1	jn.jl	Y	England mo.ro.		C	s.l	Eng. bot. 1522		
1061. SE'DUM. W.		STONE-CROP.		<i>Sempervivacæ. Sp. 41-60.</i>									
6420	verticillatum <i>W.</i>	whorl-leaved		or 1	jl.s	Pk	S. Europe	...	D	s.l	Am. ac.2.t.4.f.14		
	<i>S. triphyllum</i> <i>Haw.</i>												
6421	máximum <i>Haw.</i>	great-purple		or 2	jl.s	W	Spain	1794.	D	s.l			
6422	álbicans <i>Haw.</i>	great-white		or 2	jl.s	W	Europe	1791.	D	s.l			
6423	Telèphium <i>E. B.</i>	common Orpine		or 2	jl.s	Pu	Britain bor.fi.		D	s.l	Eng. bot. 1319		
6424	Telèphioides <i>Mich.</i>	Rhodiola-ldv.		or 1	jl.s	Pu	N. Amer.	1810.	D	s.l			
6425	Anacámperos <i>W.</i>	evergreen		or 1	jn.jl	Pu	France	1536.	D	s.l	Bot. mag. 118		
6426	divaricatũm <i>W.</i>	spreading		or 1	jn.jl	Pk	Madeira	1777.	R	s.l			
6427	Aizõon <i>W.</i>	yellow		or 1	jl.s	Y	Siberia	1757.	D	s.l	Plant. grass. 101		
6428	spûrium <i>W. en.</i>	fringed		or 1	jl.s	Pk	Caucasus	1816.	D	s.l	Bot. mag. 2370		
6429	oppositifõliũm <i>B.M.</i>	opposite-leaved		or 1	jl.s	W	Caucasus	...	D	s.l	Bot. mag. 1807		
6430	hybridũm <i>W.</i>	Germander-ldv.		or 1	my.jl	Pu	Siberia	1766.	D	s.l	Mur. c. go. 6. t. 5		
6431	populifõliũm <i>W.</i>	Poplar-leaved		or 1	jl.au	W	Siberia	1780.	D	s.l	Bot. mag. 211		
6432	ternatũm <i>Ph.</i>	Purslane-leaved		or 1	jn.jl	W	N. Amer.	1789.	D	s.l	Bot. reg. 142		
6433	stellatũm <i>W.</i>	starry		or 1	jn.jl	W	S. Europe	1640.	S	s.l	Cam. ho. 7. ic. 2		
6434	spathulatũm <i>W. en.</i>	spathulate		or 1	jn.jl	W	Hungary	1815.	S	s.l	Pl. ra. h. 2. t.104		
6435	Cepæa <i>W.</i>	panicked		or 1	jl.au	W	France	1640.	S	s.l			
6436	spinõsum <i>W. en.</i>	spiny		or 1	jn.jl	W	Siberia	1790.	D	s.l	Gm. sib. t. 67. f. 2		
	<i>Crassula spinõsa</i> <i>W.</i>												
6437	dasyphýllum <i>W.</i>	thick-leaved		pr 1	jn.jl	W	England walls.		D	s.l	Eng. bot. 656		
6438	reflexũm <i>E. B.</i>	reflex-leaved		pr 1	jn.jl	Y	Britain walls.		D	s.l	Eng. bot. 635		
6439	glaucũm <i>E. B.</i>	glaucous		pr 1	jn.au	Y	England bar.sa.		D	s.l	Eng. bot. 2477		
6440	collũm <i>W. en.</i>	hill		pr 1	jn.au	Y	.....	1815.	D	s.l	Plant. grass. 115	
6441	virẽscens <i>W. en.</i>	greenish-flower.		pr 1	jn.au	G.y	.....	1815.	D	s.l		
6442	septangulãre <i>Haw.</i>	seven-rowed		pr 1	jn.jl	Y	.....	1795.	D	s.l		
6443	virens <i>W.</i>	green		pr 1	jn.jl	Y	Portugal	1774.	D	s.l			
6444	rupẽstre <i>W.</i>	rock		pr 1	jn.jl	Y	England	1704.	D	s.l			
6445	Forsterianũm <i>H. K.</i>	Forster's		pr 1	jn.jl	Y	Wales	w. roc.	D	s.l	Eng. bot. 170		
6446	cæruleũm <i>Vahl.</i>	pale-blue		pr 1	jn.jl	P.b	Wales	1822.	D	s.l	Eng. bot. 1802		
6447	sempervivoides <i>Bieb.</i>	Semperviv. -like		pr 1	jn.jl	R	Iberia	1823.	D	s.l	Bot. mag. 2474		



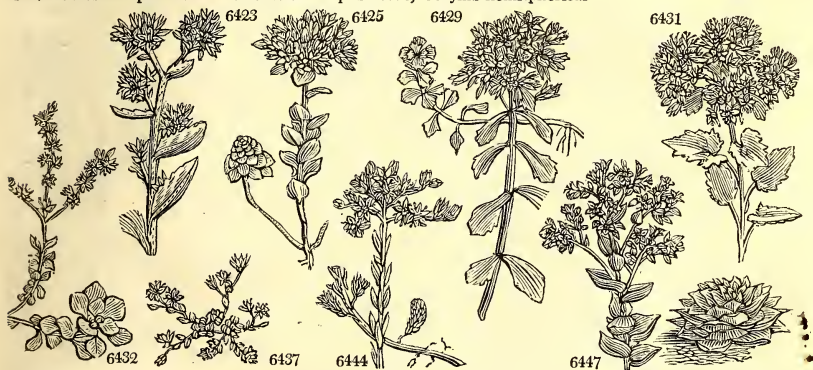
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Both species form handsome plants in our stoves ; they grow freely, and ripened cuttings root readily in sand under a hand glass.

1059. *Spondias*. One of the Greek names of the plum. The plants of this genus bear fruit like plums, which are also called hog plums in the West Indies. These are deciduous fruit-bearing trees, natives or cultivated in both Indies. *S. Mombin* (the South American name) flowers from the sides of the branches, and is known by its oblong or ovate fruit like a plum, having a luscious thin pulp covering a large fibrous stone. The skin is yellow, purple, or variegated; the pulp is yellow and thin, having a singular but not unpleasant taste, and a sweet smell. The seed scarcely ever ripens, but it is so easily increased by cuttings, that if a branch laden with young fruit be set in the ground, it will grow, and the fruit will soon come to maturity. In St. Domingo they make hedges of the boughs, which flower and bear fruit in a few months. It is also cultivated for the sake of the fruit, though it is not in much esteem in Jamaica.

The flowers of *S. Myrobalanus* (the *Myrobalanus* of Dioscorides) was an Egyptian or Arabian tree, which

- 6400 Common petiole compressed
 6401 Common petiole round, Leaves shining acuminate
 6402 Common petiole round with 6 pairs of leaflets which are serrated and ribbed
 6403 Leaves orbicular spatulate powdery obtuse with a point, Fl. paniced, Stem erect branched
 6404 Leaves ovate spatulate obtuse powdery with a point edged with red, Fl. paniced, Stem erect branched
 6405 Leaves opp. rounded ovate, Flowers corymbose
 6406 Leaves obl. spatulate obtuse smooth with a point, Fl. paniced, Stem erect branched
 6407 Leaves semicylindrical scattered, Fl. paniced nodding, Tube curved
 6408 Leaves ovate spatulate obtuse with a point powdery, Fl. paniced, Stem much branched divaricating
 6409 Leaves wedge-shaped fascicled, Stem thickened, Branches fleshy conical
 6410 Leaves obovate acute fleshy, Spike leafy terminal
 6411 Leaves crossing rounded mucronate glaucous, Fl. paniced pendulous
 6412 Leaves half orbicular scurfy dotted flat above, Fl. few small sessile
 6413 Leaves spatulate obtuse naked with a point
 6414 Leaves glaucous narrow tongue-shaped at the end obtuse mucronate, Fl. cymose, Stem leafy
 6415 Leaves oval crenate, Stem spiked
 6416 Leaves oblong nearly round, Flowers fascicled
 6417 Leaves lanceolate acute fleshy, Spike cylindrical terminal leafless
 6418 Leaves peltate crenate, Stem nearly simple, Fl. pendulous, Bractes entire
 6419 Leaves peltate crenate, Stem nearly simple, Flowers erect, Bractes toothed
 6420 Leaves whorled 4
 6421 Leaves amplexicaul. cordate ovate obtuse unequally and deeply serrated
 6422 Leaves amplexicaul. cordate oblong obtusely serrated whitish
 6423 Leaves flattish serrated, Corymb leafy, Stem erect
 6424 Leaves flat ovate acute at each end toothed, Flowers in corymbose fascicles
 6425 Leaves wedge-shaped narrowed at the base sessile, Stems decumbent, Fl. corymbose
 6426 Leaves wedge-shaped rhomboid emarginate stalked, Stems branched, Pan. term. divaricating
 6427 Leaves lanceolate serrated flat, Stem erect, Cyme sessile terminal
 6428 Leaves roundish obovate flat crenate at end with a cartilaginous mucronate edge
 6429 Leaves flat opposite spatulate toothed
 6430 Leaves wedge-shaped concave somewhat toothed aggregate, Branches creeping, Cyme terminal
 6431 Leaves flat cordate toothed stalked, Corymbs terminal
 6432 Leaves whorled obovate entire smooth, Cyme in three divisions
 6433 Leaves flattish angular, Fl. lateral sessile solitary
 6434 Stems branched, Leaves entire: lower spatulate, Stigmas acute
 6435 Leaves flat lanceolate, Stem branched, Flowers paniced, Petals acute awned
 6436 Radical leaves obovate with a long mucronate point, Stem simple, Spike term. long
 6437 Leaves opposite ovate obtuse fleshy, Stem weak, Fl. scattered
 6438 Leaves subulate scattered separate at base: the lower recurved
 6439 Leaves glaucous subulate scattered separate at base, Fl. cymose, Cal. lanceolate
 6440 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme recurved
 6441 Lvs. rounded subulate acute: those of the barren branches glaucous spreading, Branches of cyme compact
 6442 Leaves subulate in 7 rows glaucous very close distinct at base
 6443 Leaves subulate scattered separate at base, Fl. in cymes. Petals half as long as lanceolate calyx
 6444 Leaves subulate scattered separate at base glaucous, Fl. in cymes, Petals twice as long as calyx
 6445 Leaves subulate spreading in many rows close, Cal. short obtuse
 6446 Leaves oblong alternate obtuse separate at base, Cyme bifid smooth
 6447 Leaves flat spatulate ovate acute entire pubescent, Corymb hemispherical



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bore a perfumed fleshy fruit. Jacquin applied the name to this South American plant, which is nearly similar in properties) come out before the leaves make their appearance, and are succeeded by yellow plums the size of a pigeon's egg, which are eaten by children, and considered excellent food for hogs. It grows by large cuttings as freely as the other. *S. dulcis* is a handsome tree; the pulp of the fruit is firmer than that of the others, and tastes like a Reinette apple. It is cultivated in the Society and Friendly islands, especially in Otaheite; the fruit is of a gold color, hangs in little nodding bunches, and is esteemed both tasteful and wholesome: its flavor resembles that of the pine-apple.

1060. *Cotyledon*. From *κωτυλον*, a vessel or cup. Many of the species of this genus have cup-shaped leaves. The species are succulents of little beauty, and of the easiest culture in light earth and lime rubbish, or in sand and loam.

1061. *Sedum*. From *sedere*, to sit: these plants growing upon the bare rock, look as if sitting upon it. The species are low succulents, some of them pretty, others curious; but none of them remarkable in any way.

6448 altissimum P. S.	tall	∇ Δ or	jl.au	P.y	S. Europe	1769.	D s.l	Jac. vind. l. t.81
<i>Sempervivum sedtforme</i> W.								
6449 quadrifidum W.	four-cleft	∇ Δ or	$\frac{1}{2}$ jl	Y	N. Asia	1800.	D s.l	Pa. it. 3.a.t.P.f.1
6450 hispidum W.	Spanish	∇ Δ or	$\frac{3}{4}$ jn.jl	P.y	Spain	1732.	D s.l	Jac. au. 5. t. a.47
6451 album W.	white	∇ Δ pr	$\frac{1}{2}$ jn.jl	W	England rocks.		D s.l	Eng. bot. 1578
6452 acre W.	biting	∇ Δ pr	$\frac{1}{2}$ jn	Y	Britain walls.		D s.l	Eng. bot. 839
6453 sexangulare W.	inspid	∇ Δ pr	$\frac{1}{2}$ jn.jl	Y	England walls.		D s.l	Eng. bot. 1946
6454 anglicum W.	English	∇ Δ pr	$\frac{1}{2}$ jl.au	W	Britain rocks.		D s.l	Eng. bot. 171
6455 annuum W.	annual	∇ ○ pr	$\frac{1}{2}$ au	W	N. Europe	1739.	S s.l	
6456 villösium W.	hairy	∇ Δ pr	$\frac{1}{2}$ jn.jl	Pk	Britain m.al.p.		D s.l	Eng. bot. 394
6457 monregalense P. S.	clammy	∇ Δ pr	$\frac{1}{2}$ jn.jl	W	S. Europe	1816.	D s.l	Bot. cab. 464
6458 atratum W.	dark-annual	∇ ○ pr	$\frac{1}{2}$ au	Pu	Italy	1795.	S s.l	Jac. aus. 1. t. 8
6459 nudum W.	naked-branch.	∇ pr	$\frac{3}{4}$ jl.au	W	Madeira	1777.	R s.l	
1062. PENTHORUM. W.	PENTHORUM.	<i>Sempervivæ.</i> Sp. 1.						
6460 sedoides W.	American	∇ Δ cu	1 jl.au	G.y	Virginia	1768.	D s.l	Lam. ill. t. 390
1063. GRIELUM. W.	GRIELUM.	<i>Rosacæ.</i> Sp. 1.						
6461 tenuifolium W.	slender-leaved	∇ Δ un	2 ap.my	Y	Ç. G. H.	1790.	R p.l	Sw. ger. 2. t. 171
1064. BIOPHYTUM. D. C.	BIOPHYTUM.	<i>Oxalidæ.</i> Sp. 1—2.						
6462 sensitivum D. C.	sensitive	∇ pr	$\frac{1}{2}$ jl.s	Y	China	1823.	S s.l	Jac. ox. t. 78. f. 4
<i>Oxalis sensitiva</i> L.								
1065. OXALIS. W.	OXALIS.	<i>Oxalidæ.</i> Sp. 72—154.						
6463 Plumieri Jacq.	Plumier's	∇ ○ or	2 ja.d	Y	S. Amer.	1823.	C p.l	Bot. reg. 810
6464 perennans Haw.	perennial	∇ Δ or	2 my.s	Y	N. S. W.	...	O s.p	
6465 Dillénii Jacq.	annual	∇ pr	2 my.au	Y	America	1798.	S s.p	Dill. elt. t. 221
<i>β. flórida</i> Salisb.								
6466 stricta L.	five-flowering	∇ ○ pr	2 my.au	Y	America	1798.	S s.p	
6467 corniculata L.	upright	∇ Δ pr	$\frac{1}{2}$ jn.o	Y	N. Amer.	1658.	O s.p	Jac. ox. t. 4
6468 microphylla Poir.	procumbent	∇ Δ pr	$\frac{1}{2}$ my.o	Y	Britain sh. roc.	...	O s.p	Eng. bot. 1726
<i>rúbens</i> Haw.								
6469 répens Thunb.	creeping-stalk.	∇ Δ pr	1 mr.ap	Y	Ç. G. H.	1793.	O s.p	Jac. ox. t. 78. f.1
6470 rósea Jacq.	rosy	∇ Δ pr	$\frac{1}{2}$ mr.ap	R	Chili	1823.	O s.p	Bot. mag. 2415
6471 lateriflora Jacq.	lateral	∇ Δ pr	$\frac{1}{2}$ mr.ap	Pu	Ç. G. H.	1824.	O s.p	Jac. sch. t. 204
6472 macróstylis Jacq.	long-styled	∇ Δ or	$\frac{1}{2}$ o.n	Pu	Ç. G. H.	1793.	O s.p	Jac. ox. t. 9
6473 tubiflora Jacq.	tube-flowered	∇ Δ or	1 o.n	Pk	Ç. G. H.	1790.	O s.p	Jac. ox. t. 10
6474 secúnda Jacq.	side-flowering	∇ Δ or	$\frac{1}{2}$ o.n	Li	Ç. G. H.	1790.	O s.p	Jac. ox. t. 12
6475 hirta L.	hairy-stalked	∇ Δ or	$\frac{1}{2}$ o.n	Li	Ç. G. H.	1787.	O s.p	Jac. ox. t. 13
6476 multiflora Jacq.	many-flowered	∇ Δ or	$\frac{1}{2}$ f.mr	Li	Ç. G. H.	1789.	O s.p	Jac. ox. t. 15
6477 rubélla Jacq.	branching-red	∇ Δ or	$\frac{1}{2}$ s.n	Pk	Ç. G. H.	1791.	O s.p	Bot. mag. 1031
6478 rosácea Jacq.	rose-colored	∇ Δ pr	$\frac{1}{2}$ s.n	Pk	Ç. G. H.	1793.	O s.p	Bot. mag. 1698
6479 reptatrix Jacq.	creeping-rooted	∇ Δ pr	$\frac{1}{2}$ n.d	F	Ç. G. H.	1795.	O s.p	Jac. ox. t. 20
6480 incarnata L.	flesh-colored	∇ Δ pr	$\frac{1}{2}$ ap.jn	F	Ç. G. H.	1799.	O s.p	Jac. ox. t. 71
6481 sericea L.	silky	∇ Δ or	$\frac{1}{2}$ ap.my	Y	Ç. G. H.	1794.	O s.p	Jac. ox. t. 77. f. 1
6482 violácea L.	violet-colored	∇ Δ or	$\frac{1}{2}$ my.jn	L.Pu	N. Amer.	1772.	O s.p	Jac. ox. t. 80. f. 2
6483 caprina L.	Goat's-foot	∇ Δ or	$\frac{1}{2}$ mr.jn	F	Ç. G. H.	1757.	O s.p	Jac. ox. t. 76. f. 1
6484 cérnua Thunb.	drooping	∇ Δ or	$\frac{1}{2}$ f.my	Y	Ç. G. H.	1757.	O s.p	Jac. ox. t. 6
6485 compressa Jacq.	compressed	∇ Δ or	$\frac{1}{2}$ ja.d	Y	Ç. G. H.	1794.	O s.p	Jac. ox. t. 78. f. 3
6486 dentata Jacq.	toothed	∇ Δ or	$\frac{1}{2}$ n.d	F	Ç. G. H.	1793.	O s.p	Jac. ox. t. 7
6487 livida Jacq.	livid	∇ Δ or	$\frac{1}{2}$ o.n	F	Ç. G. H.	1793.	O s.p	Jac. ox. t. 8
6488 lobata Sims.	lobed	∇ Δ pr	$\frac{1}{2}$ o.n	Y	Ç. G. H.	1823.	O s.p	Bot. mag. 2386



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They seem destined by nature to clothe rocks and dry arid places, after a certain portion of vegetable soil has been generated by lichens and mosses.

Orpine is the French name of two or three species. *S. album* is said to have the same virtues as used to be attributed to the houseleek, *Sempervivum tectorum*: it is pickled by some in the manner of samphire. *S. acre* is considered antiscorbatic; its juice applied to the skin blisters it, taken inwardly it vomits, and applied externally to gangrenes promotes suppuration.

1062. *Penthorum*. From *πεντα*, five, in allusion to the five-marked angles of the capsules. Succulent North American plants of no beauty whatever.

1063. *Grielum*. A small uninteresting Cape plant, with yellow flowers and hoary leaves like southernwood. Derived from *γρίλιος*, old, in allusion to its hoary aspect.

1064. *Biophytum*. *Βίη φυτόν*, plant of life, in allusion to the lively irritable nature of the foliage. This genus, the *Oxalis sensitiva* of Jacquin, has been lately divided by M. De Candolle from *Oxalis*, chiefly on

6448 Petals 8, Leaves scattered: the lower rounded; upper depressed

6449 Leaves scattered rounded obtuse, Stem simple, Fl. in umbels with 4 petals

6450 Leaves linear rounded depressed scattered, Cyne open, Petals 4

6451 Leaves oblong obtuse roundish sessile spreading, Cyne branched

6452 Leaves subovate adnate-sessile gibbous nearly erect alternate, Cyne trifid

6453 Leaves subovate adnate-sessile gibbous nearly erect imbricated six ways

6454 Leaves subovate adnate-sessile gibbous alternate, Cyne branched bifid

6455 Stem erect solitary annual, Leaves ovate sessile gibbous alternate, Cyne recurved

6456 Leaves oblong flattish above and peduncles axillary about 1-fl. pubescent, Petals ovate obtuse

6457 Leaves whorled linear, Stem procumbent paniced, Peduncles villous viscid

6458 Stem erect, Flowers corymbose fastigiate

6459 Leaves scattered oblong-cylindrical obtuse, Stems shrubby much branched, Cymes terminal

6460 The only species

6461 Peduncles simple 1-fl. Leaves tripartite multifid linear downy

6462 Peduncles many-fl. at end

§ 1. *Peduncles many-flowered, Stems suffruticose, Cells of ovary usually 1 seeded.*
6463 Stem erect leafy, Umbel 4-fl. the length of leaves, Leaflets entire ovate obtuse

§ 2. *Cauliscent, Leaves palmate 3-foliolate, Leaflets all sessile, obovate.*
6464 Pedunc. 2-3-fl. somewhat longer than leaf-st. Lvs. 2-lobed obov. ciliated, Styles a little longer than inner
6465 Stem hairy, Umb. 5-6-fl. longer than leaves, Lvs. obovate, Styles longer than both stamens [stamens
β Stem decumbent, Peduncles 2 or 3-flowered

6466 Stem erect, Umbels 2-6-fl. about as long as leaves, Leaf. obov. Styles the length of inner stamens

6467 Stem rooting, Peduncles shorter than leafst. Leaf. obovate, Styles the length of inner stamens

6468 Smoothish, Pedunc. 2-fl. longer than leafst. Leaf. 2-lobed, Styles the length of inner stamens

6469 Stem rooting, Pedunc. 2-fl. the length of leafst. Leaflets obovate, Styles middling

6470 Stem erect, Pedunc. axill. four times as long as leaf at the end corymbose racemose, Leaf. obovate

6471 Stem naked at base, Pedunc. lateral umbell. at end, Leaf. cun. emarg. Styles shorter than outer stamens

§ 3. *Cauliscent, Leaves sessile, 3-leaved, villous, not glandular, Pedunc. axillary, 1-flowered.*

6472 Stem branch. Ped. much long. than lvs. Bractes next cal. Leaf. lin. emarg. Styles long. than inner stam.

6473 Ped. 4 times as long as lvs. Bractes appressed to cal. Leaf. lin. cun. obt. Styles shorter than outer stamens

6474 Stem declined, Branches 1-sided, Leaf. lin.-cuneiform, Peduncles scarcely longer than leaves

6475 Leaf. lin. cun. ret. Ped. much long. than lvs. Bractes remote from cal. Stam. with neither teeth nor glands

6476 Stem much branched, Leaf. lin. cuneate obt. Pedunc. much shorter than lvs. Bractes remote from cal.

6477 Leaf. lin. cuneate, Pedunc. much longer than leaves. Bractes remote from cal. Styles intermediate

6478 Leaf. obl. cuneiform, Pedunc. much longer than leaves, Bractes remote from cal. Styles intermediate

§ 4. *Cauliscent, sparingly leafy, Leaves stalked, 3-5-leaved, Pedunc. axill. 1-flowered.*

6479 Stem short, Leaves on long stalks, Leaf. 3 ovate-rounded, Styles very short

6480 Stem branched, Leaves stalked in fascicled whorls with 3 obovate leaflets, Styles very long

§ 5. *Stemless, Pedunc. 1-2 or many-flowered, Leaves radical, many-leaved, usually 3-leaved.*

6481 Leaf. 3 obovate silky, Umbel longer than leaves, Fl. nodding, Styles intermediate

6482 Leaf. 3 obovate smooth, Umb. 3-9. fl. Styles very short, Fl. nodding

6483 Leaf. 3 obovate 2-lobed smooth, Umb. 2-4-fl. Flowers erect, Styles very short

6484 Leaf. 3 obovate 2-lobed smooth subciliated, Umb. many-fl. Fl. drooping, Styles very short

6485 Petiole flattish, Leaf. 3 obovate pubescent, Umb. 2-fl. Sepals entire, Styles very long

6486 Leaf. 3 obovate smooth subciliated, Umb. 2-5-fl. Sepals 3-toothed at end, Styles very long

6487 Leaf. 3 obovate 2-parted beneath violet, Umbel 2-fl. Styles middling

6488 Smooth, Pedunc. 1-fl. longer than leaf, Leaflets obovate, Root tuberous

6465



and Miscellaneous Particulars.

account of its irritable pinnated foliage, and its stamens being distinct, and five of them only being perfect. It is a very pretty annual, and if well managed so as to acquire, as in China, a stem six or nine inches high, is quite a remarkable object. Cultivated in common earth, and propagated by seeds, which it produces in abundance.

1065. *Oxalis*. The *Oxalis* of the ancients, which was named from *ὄξύς*, sharp, or sour, was a very different plant from this, which is thought to have been the *Oxys* of Pliny. The name employed by Linnæus has, however, been adopted by his followers, although Clusius, Ray, Plumier, Tournefort, Haller, and others, called the genus *Oxys*.

This is a tribe of pretty little plants, of which most of the species flower freely, but all of them are without their leaves half the year. The root is commonly bulbous; in some species only thick and fleshy; in a few branched: the bulbs consist of fleshy scales, sometimes closely imbricate, sometimes loose and diverging. In a few the subterraneous stipe and the terminating fibre of the bulb produce little dog-toothed bulbs, in such

6489 monophylla L.	simple-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1774.	O	s.p	Jac. ox. t. 79. f3
6490 rostrata Jacq.	beaked	Y	Δ	pr	$\frac{1}{2}$	o.n	P.v	C. G. H.	1795.	O	s.p	Jac. ox. t. 74
6491 crispa Jacq.	curled	Y	Δ	pr	$\frac{1}{2}$	o.n	W	C. G. H.	1793.	O	s.p	Jac. ox. t. 23
6492 leporina Jacq.	hare's-eared	Y	Δ	pr	$\frac{1}{2}$	o.n	W	C. G. H.	1795.	O	s.p	Jac. ox. t. 25
6493 asinina Jacq.	ass's-eared	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1792.	O	s.p	Jac. ox. t. 24
6494 lanceifolia Jacq	spear-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1795.	O	s.p	Jac. ox. t. 26
6495 fabaeformis Jacq.	Bean-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1794.	O	s.p	Jac. ox. t. 27
6496 laburnifolia Jacq.	Laburnum-lvd.	Y	Δ	pr	$\frac{1}{2}$	s.o	Pu	C. G. H.	1793.	O	s.p	Jac. ox. t. 28
6497 sanguinea Jacq.	bloody-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1795.	O	s.p	Jac. ox. t. 29
6498 tricolor Jacq.	three-colored	Y	Δ	pr	$\frac{1}{2}$	o.d	W.R	C. G. H.	1794.	O	s.p	Jac. ox. t. 30
6499 ciliaris Jacq.	ciliate-leaved	Y	Δ	or	$\frac{1}{2}$	o.n	Pu	C. G. H.	1793.	O	s.p	Jac. ox. t. 47
6500 arcuata Jacq.	bowed	Y	Δ	or	$\frac{1}{2}$	o.n	V	C. G. H.	1795.	O	s.p	Jac. ox. t. 31
6501 flaccida Jacq.	flaccid	Y	Δ	or	$\frac{1}{2}$	o.n	W.R	C. G. H.	1812.	O	s.p	Jac. ox. t. 51
6502 ambigua Jacq.	ambiguous	Y	Δ	or	$\frac{1}{2}$	s.d	W	C. G. H.	1790.	O	s.p	Jac. ox. t. 43
6503 undulata Jacq.	wave-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	W	C. G. H.	1795.	O	s.p	Jac. ox. t. 44
6504 fuscata Jacq.	brown-spotted	Y	Δ	pr	$\frac{1}{2}$	my.jn	Y	C. G. H.	1795.	O	s.p	Jac. ox. t. 45
6505 sulphurea Jacq.	sulphur-color.	Y	Δ	pr	$\frac{1}{2}$	o.n	P.v	C. G. H.	1795.	O	s.p	Jac. ox. t. 63
6506 speciosa W.	specious	Y	Δ	pr	$\frac{1}{2}$	s.n	Pu	C. G. H.	1690.	O	s.p	Jac. ox. t. 60
6507 variabilis Jacq.	variable	Y	Δ	or	$\frac{1}{2}$	o.d	W.R	C. G. H.	1795.	O	s.p	Jac. ox. t. 52
β grandiflora Jacq.	great-flowered	Y	Δ	or	$\frac{1}{2}$	o.d	W	C. G. H.	1790.	O	s.p	Jac. ox. t. 54
γ Simsi D. C.	Sims's	Y	Δ	or	$\frac{1}{2}$	o.d	W	C. G. H.	1790.	O	s.p	Bot. mag. 1683
6508 purpurea W.	purple	Y	Δ	pr	$\frac{1}{2}$	o.n	Pu	C. G. H.	1812.	O	s.p	Jac. ox. t. 56
6509 convexula Jacq.	convex-leaved	Y	Δ	or	$\frac{1}{2}$	n.ja	Pk	C. G. H.	1789.	O	s.p	Jac. ox. t. 55
6510 marginata Jacq.	green-edged	Y	Δ	or	$\frac{1}{2}$	s.d	W	C. G. H.	1812.	O	co	Jac. ox. t. 68
6511 pinnatifida Jacq.	beautiful	Y	Δ	or	$\frac{1}{2}$	o.n	R	C. G. H.	1795.	O	co	Jac. ox. t. 69
6512 obtusa Jacq.	blunt-leaved	Y	Δ	or	$\frac{1}{2}$	o.n	R	C. G. H.	1812.	O	s.p	Jac. ox. t. 79. f1
6513 lanata L.	woolly-leaved	Y	Δ	or	$\frac{1}{2}$	o.n	R	C. G. H.	1791.	O	s.p	Jac. ox. t. 77. f2
6514 acetosella L.	common	Y	Δ	cul	$\frac{1}{2}$	ap.my	F	Britain	grov.	O	co	Eng. bot. 762
6515 americana Dec.	American	Y	Δ	pr	$\frac{1}{2}$	ap.my	N.	Amer.	1793.	O	co	Jac. ox. t. 19
6516 tenella Jacq.	slender	Y	Δ	or	$\frac{1}{2}$	ap.my	Li	C. G. H.	1793.	O	s.p	Jac. ox. t. 76. f2
6517 natans L.	floating	Y	Δ	or	$\frac{1}{2}$	s.d	W	C. G. H.	1795.	O	s.p	Jac. sch. 2. t.205
6518 filicaulis Jacq.	bilobed-leaved	Y	Δ	or	$\frac{1}{2}$	s.o	V	C. G. H.	1815.	O	s.p	Jac. ox. t. 79. f4
6519 bifida Thunb.	cloven-leaved	Y	Δ	or	$\frac{1}{2}$	s.o	V	C. G. H.	1791.	O	s.p	Jac. ox. t. 41
6520 cuneifolia Jacq.	wedge-shaped	Y	Δ	or	$\frac{1}{2}$	ap.my	W	C. G. H.	1793.	O	s.p	Jac. ox. t. 41
6521 linearis Jacq.	linear-shaped	Y	Δ	or	$\frac{1}{2}$	s.n	V	C. G. H.	1795.	O	s.p	Jac. ox. t. 32
6522 reclinata Jacq.	reclining	Y	Δ	or	$\frac{1}{2}$	s.n	Pk	C. G. H.	1795.	O	s.p	Jac. ox. t. 34
6523 glabra Thunb.	smooth	Y	Δ	or	$\frac{1}{2}$	my.jn	Pu	C. G. H.	1795.	O	s.p	Jac. ox. t. 76. f3
6524 versicolor L.	striped-flower.	Y	Δ	or	$\frac{1}{2}$	ja.mr	Cr	C. G. H.	1774.	O	s.p	Bot. mag. 155
6525 elongata Jacq.	elongated	Y	Δ	or	$\frac{1}{2}$	s.o	W	C. G. H.	1791.	O	s.p	Jac. ox. t. 37
6526 tenuifolia Jacq.	fine-leaved	Y	Δ	or	$\frac{1}{2}$	o.n	W.R	C. G. H.	1790.	O	s.p	Jac. ox. t. 38
6527 polyphylla Jacq.	many-leaved	Y	Δ	or	$\frac{1}{2}$	ja.s	Pa.pu	C. G. H.	1791.	O	s.p	Jac. ox. t. 39
6528 filifolia Jacq.	thread-leaved	Y	Δ	or	$\frac{1}{2}$	ja.s	Pk	C. G. H.	1822.	O	s.p	Jac. sch. t. 273
6529 pentaphylla Sims.	five-leaved	Y	Δ	pr	$\frac{1}{2}$	f.n	Pk	C. G. H.	1800.	O	s.p	Bot. mag. 1549
6530 lupinifolia Jacq.	Lupine-leaved	Y	Δ	pr	$\frac{1}{2}$	o.n	Y	C. G. H.	1791.	O	s.p	Jac. ox. t. 72
6531 flava L.	narrow-leaved	Y	Δ	pr	$\frac{1}{2}$	mr.ap	Y	C. G. H.	1775.	O	s.p	Bot. reg. 117
6532 pectinata Jacq.	pectinated	Y	Δ	pr	$\frac{1}{2}$	s.n	Y	C. G. H.	1790.	O	s.p	Jac. ox. t. 75
6533 flabellifolia Jacq.	fan-leaved	Y	Δ	pr	$\frac{1}{2}$	s.n	Y.R	C. G. H.	1789.	O	s.p	Jac. ox. t. 74
6534 tomentosa L.	downy-leaved	Y	Δ	pr	$\frac{1}{2}$	ap.my	W	C. G. H.	1791.	O	s.p	Jac. ox. t. 81



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abundance as to fill the whole pot to the very bottom, as in purpurea, cernua, reptatrix. Sometimes the bulb strikes very deep, as in tomentosa; the original bulb near the surface striking a radical fibre downright from its base, which puts out from its side a new bulb, producing the next year's plant, whilst the former perishes. Sometimes fusiform, thick and long fibres spring in a monstrous form from the bulbs, as in glandulosa and some others. Some of the species have a proper stem (*Caulis*), when it bears all the leaves and peduncles alternately, and not in a terminating umbel: this is either branched or quite simple, and that for the most part inconstantly. Others have a stipe; the leaves and flowers being aggregate together at the end of the stalk; this bears none or very few leaves along it, seldom many. In some species the stipe is always subterraneous, as in breviscapa, purpurea, &c.; in others it is always above ground, as in gracilis, versicolor, tenuifolia. Stipes are commonly quite simple; some, however, are branched, the branches terminating in umbels, as in incarnata and polyphylla. Hence the division of the species into caulescent and stipitate. The leaves are not, perhaps, truly sessile in any of the species; they are subsessile in a few, but in most are petioled. They are simple in three species, binate in four, digitate in six, in the rest ternate: almost all of them have an acid

§ 6. *Stemless, Leaves simple.*

- 6489 Leaves ellipt. obtuse, Scape 1-fl. Filam. smooth, Styles middling covered with glandular hairs
 6490 Leaves obovate retuse, Scape 1-fl. Styles very short, Filaments glandular

§ 7. *Stemless, Leaves 2 or 3-leaved, Stalks winged.*

- 6491 Leaf. 2 roundish obovate emarginate wavy at edge, Styles very long and filaments glandular
 6492 Leaf. 2 ellipt. emarg. with a cartilaginous toothletted edge, Filam. glandular
 6493 Leaf. 2 lanceolate with a cartilaginous toothletted edge, Filam. glandular
 6494 Leaf. 2-3 with a cartilaginous scabrous edge, Filam. smooth
 6495 Leaf. 3 obovate emarg. mucronate, Styles and filaments glandular

§ 8. *Stemless, Leaves stalked, 3-leaved, Stalks not winged.*

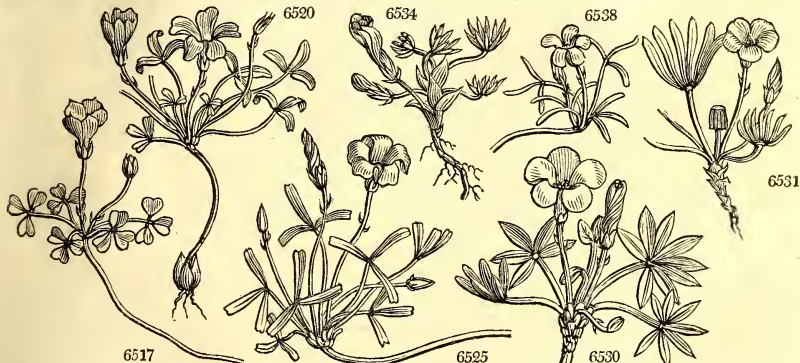
- 6496 Pubescent, Lateral leaflets obliquely oblong: middle lanceolate, Scapes higher than petioles
 6497 Pubescent, Leaf. obl. obt.: middle cuneate at base, Scapes length of petiole
 6498 Pubescent, Leaf. obl. obt.: middle subcuneate, Scapes longer than petiole
 6499 Pubesc. Leaf. obl. obt. subemarg. Pedunc. longer than petiole with 2 bracts immediately below the cal.
 6500 Pubescent, Leaf. obl. emarg. Pedunc. length of petiole with 2 bracts immediately below the cal.
 6501 Pubescent, Leaf. obl. retuse: middle cuneate, Peduncles twice as long as leaves with 2 bracts in middle
 6502 Subhirsute, Leaf. obov. obl. obt. Pedunc. equal to petiole with 2 bracts in their middle, Styles glandular
 6503 Subhirsute, Leaf. obov. obl. obt. Ped. longer than petioles with 2 bracts below their middle, Styles hairy
 6504 Pubesc. Leaf. obl. lateral ovate: midd. cuneate, Pedunc. twice as long as petiole with 2 bracts in mid.
 6505 Pubesc. Leaf. roundish, Pedunc. as long as pet. with 2 bracts at base, Calyx with clavate hairs at edges
 6506 Pub. Leaf. roundish, Ped. as long as pet. with 2 bracts below mid. Cal. with simple and glan. hairs mixed
 6507 Pub. Leaf. round.: mid. cun. at base, Ped. as long as lvs. or long. with 2 bracts below mid. Styles very short
 β Flowers large, Leaves red beneath
 γ Flowers large, Leaves green on both sides
 6508 Pubesc. Leaf. roundish, Scapes longer than leaf with 2 bracts below the middle
 6509 Smooth, Leaf. roundish dotted, Stipules dilated acuminate, Bracts alternate
 6510 Pub. Leaf. obcor. roundish, Scapes nearly twice as short as pet. with 2 bracts in mid. Styles intermediate
 6511 Pub. Leaf. obcor. roundish, Scapes thrice as short as petiole with 2 bracts in mid. Styles very long
 6512 Densely pubesc. Leaf. obcordate, Scape longer than leaves with 2 bracts above middle, Cal. obtuse
 6513 Woolly, Leaf. obcordate, Ca. acute
 6514 Root toothed creeping, Leaf. obcord. downy, Scape longer than leaves, Petals oval obtuse
 6515 Root toothed creeping, Leaf. obcord. downy, Scape longer than leaves, Pet. obl. unequally emarginate
 6516 Smoothish, Leaflets obcordate, Scape longer than the leaves, Styles very short
 6517 Leaflets obcordate smooth, Pedunc. the length of leaves, Styles very short
 6518 Leaf. obcord. 2-lobed, smooth, Pedunc. longer than leaf, Styles intermediate
 6519 Leaf. obcord. 2-lobed smooth, Pedunc. longer than leaf, Styles very long
 6520 Leaf. cuneate emarg. hairy, Pedunc. the length of petiole, Styles very short, Filam. glandular
 6521 Leaf. lin. emarg. downy, Pedunc. shorter than petiole with 2 bracts at summit, Styles very long
 6522 Leaflets linear subcuneate emarginate, Pedunc. as long as petiole, Style intermediate

§ 9. *Leaves 3 or 5-leaved, glandular at end.*

- 6523 Leaflets 3 linear cuneiform emarginate ciliated with many glands beneath
 6524 Leaflets 3 linear emarginate with 2 glands beneath, Styles and filaments glandular
 6525 Leaflets 3 linear emarginate with 2 calli at end, Styles very short
 6526 Leaflets 3 linear emarginate with many glands beneath, Styles very short, Inner filaments glandular
 6527 Leaflets 3 linear emarginate with 2 glands beneath, Styles intermediate and filaments glandular
 6528 Leaflets 3 linear entire at end and glandular, Styles very long and inner filaments glandular
 6529 Leaflets 5 linear at the end nearly entire with 2 callous glands, Styles intermediate

§ 10. *Leaves palmate or peltate, many-leaved, not glandular at end.*

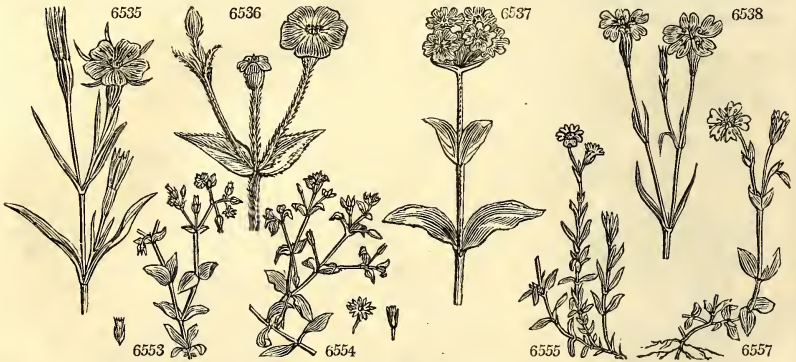
- 6530 Leaflets 7 lanceolate acutish smooth spotted at base, Petioles compressed, Styles very short
 6531 Leaflets 6-7 smooth linear channelled acute, Styles very short, Filam. glandular
 6532 Leaflets 7 smooth lin. lanc. obtuse, Cal. appressed, Styles very long and filaments glandular
 6533 Leaflets 7-9 smooth lin. emarg. Cal. reflexed at end, Styles intermediate
 6534 Leaflets 9-19 all over downy lanceolate cuneate emarginate

*and Miscellaneous Particulars.*

taste; whence their names of Oxalis or Oxy, wood Sorrel, &c. The partial stem bearing the flower is a peduncle in the caulescent, a scape in the stipitate species.

Many of the species ripen seeds, from which, or from offsets, they are readily propagated, and grown in light sandy soil: care being taken to give the pots little or no water when the plants are in a dormant state. An excellent work has been written on the genus by Jacquin, in which ninety-six species are described. All that were known in Europe at that time, were cultivated in the Imperial gardens of Schönbrunn with great success, under the immediate inspection of Jacquin, by whom the following directions are given for their management. They are best kept in pots which will hold a good many roots. The earth should be so light and sandy as never to become hard, but always to be soft enough not to resist the point of the finger when pressed upon it; when the flowering time is passed, the pots should be placed aside, where they require neither care nor water; but are well protected from mice. In the beginning of August they should be placed in the open air and moderately watered. About the end of that month, or a little later, the leaves should appear. About the middle of September, earlier or later, according to the weather, they should be placed in a very sunny, airy greenhouse,

1066. AGROSTEM' MA. W.	ROSE-CAMPION.				<i>Caryophyllea.</i>	<i>Sp. 4.</i>							
6535 Githago W.	Corn-cockle	○ w	3	ju.jl	Fu	Britain	cor. fi.	S	co	Eng. bot.	741		
β <i>nicaen'sis</i> W.	Italian	○ or	3	ju.jl	W	Italy	1794.	S	co				
6536 coronária W.	common	✓ Δ	or	3	ju.s	R	Italy	1596.	S	co	Bot. mag.	24	
β <i>alba</i>	white-flowered	✓ Δ	or	3	ju.s	W	.....	..	S	co			
γ <i>plena</i>	double-flowered	✓ Δ	or	1½	ju.s	R	.....	..	C	r.m			
6537 Flos-Jóvis	umbelled	✓ Δ	or	1½	jl	R	Germany	1726.	S	co	Bot. mag.	398	
6538 Caeli-rósa	smooth-leaved	○ or	1	jl.au	F	Levant	1713.	D	s.l	Bot. mag.	295		
1067. LYCH'NIS. W.	LYCHNIS.					<i>Caryophyllea.</i>	<i>Sp. 9—12.</i>						
6539 chalconíca W.	scarlet	✓ Δ	or	2	ju.jl	R	Russia	1596.	D	p.l	Bot. mag.	257	
β <i>alba</i>	white-flowered	✓ Δ	or	2	ju.jl	W	Russia	.....	C	p.l			
γ <i>plena</i>	double-flowered	✓ Δ	or	2	ju.jl	B	Russia	..	C	p.l			
6540 Flosécúli W.	Ragged-Robin	✓ Δ	or	1½	ju.s	Pk	Britain	m. me.	D	co	Eng. bot.	573	
6541 coronáta W.	Chinese	✓ Δ	or	1½	ju.s	R	China	1774.	C	p.l	Bot. mag.	223	
6542 fólgens Fisch.	splendid	✓ Δ	or	1½	ju.jl	Sc	Siberia	1822.	C	p.l	Bot. mag.	478	
6543 viscária W.	viscid	✓ Δ	or	1	my.ju	Pk	Britain	rocks.	D	co	Eng. bot.	788	
β <i>plena</i>	double												
6544 alpína W.	Alpine	✓ Δ	or	½	ap.my	Fk	Scotland	sc.roc.	D	p.l	Eng. bot.	2254	
6545 læ'ta W.	small	○ or		½	jl	F	Portugal	1778.	C	s.l			
6546 diúrna With.	red-flowered	✓ Δ	or	2	ju.jl	Pu	Britain	...	D	co	Eng. bot.	1579	
6547 vespertína With.	white-flowered	✓ Δ	or	2	ju.jl	W	Britain	wa.&f.	D	co	Eng. bot.	1580	
β <i>dióica</i> W. en.													
1068. CERASTIUM. W.	MOUSE-EAR CHICKWEED.					<i>Caryophyllea.</i>	<i>Sp. 18—69.</i>						
6548 perfoliátum W.	perfoliate	○ w	2	ju.jl	W	Greece	1725.	S	co	Di. cl. t.	217. f. 284		
6549 vulgátum W.	common	○ w	½	ap.ju	W	Britain	san. pl.	S	co	Eng. bot.	789		
6550 viscosum W.	narrow-leaved	✓ Δ	or	½	ap.s	W	Britain	pas.	D	co	Eng. bot.	790	
6551 diffusum P. S.	spreading	✓ Δ	w	½	ap.s	W	.....	..	D	co			
6552 brachypétalum P. S.	small-flowered	✓ Δ	w	½	ap.my	W	.....	..	D	co			
6553 semidecándrum W.	least	○ w	½	mr.ap	W	Britain	walls.	S	co	Eng. bot.	1630		
6554 tetrándrum H. K.	tetrandrous	○ w	½	my.ju	W	Scotland	san. sh.	S	co	Eng. bot.	166		
6555 arvénis W.	field	✓ Δ	w	½	my.au	W	Britain	cor. fi.	D	co	Eng. bot.	93	
6556 dichótomum W.	forked	✓ Δ	w	½	ju.jl	W	Spain	1725.	S	co			
6557 alpínium W.	Alpine	✓ Δ	w	½	ju.jl	W	Britain	w. alp.	D	co	Eng. bot.	472	
6558 ovátum W. en.	oval-leaved	✓ Δ	w	½	ju.jl	W	Carinthia	1816.	D	co			
6559 strictum W.	upright	✓ Δ	w	1	my.jl	W	Austria	1796.	D	co	Sc. car. t.	19. f. 1	
β <i>suffruticosum</i> W.	suffruticose	✓ Δ	w	1	my.jl	W	S. Europe	1793.	D	co			
6560 máximum W.	greatest	○ w	2	ju.jl	W	Siberia	1792.	S	co	Gm. si. 4. t.	62. f. 2		
6561 dahúricum Fisch.	glaucous	✓ Δ	w	1½	my.s	W	Siberia	1815.	D	co	Bot. mag.	1789	
amplicricáule B. M.													
6562 dióicum W.	Spanish	✓ Δ	w	½	ju.jl	W	Spain	1766.	D	co			
6563 latifólium W.	broad-leaved	✓ Δ	w	½	ju.jl	W	Britain	w. alp.	D	co	Eng. bot.	473	
6564 tomentósum W.	white	✓ Δ	w	½	ju.jl	W	S. Europe	1648.	D	co			
6565 mánticum W.	long-peduncled	○ w	½	ju.jl	W	Hungary	1801.	S	co	Pl. rar. h. t.	96		
1069. LARBRE' A. St. Hll.	LARBREA.					<i>Caryophyllea.</i>	<i>Sp. 1.</i>						
6566 aquática St. Hll.	water	✓ Δ	w	1	jl	W	Britain	wat. pl.	D	co	Eng. bot.	538	



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when they will flower well. Oxalis monophylla and rostrata will not, however, blossom unless placed in a very hot stove.

O. Acetosella, la petite oseille or suvella, Fr., is used as a salad plant, and is more delicate than the Rumex salads : its acid approaches nearly to that of the juice of lemons, or the acid of tartar, with which it also corresponds in its medical effects, being esteemed refrigerant, antiscorbutic, and diuretic. An infusion of the leaves, or a whey made by boiling the plant in milk, given in ardent fevers, is said to allay inordinate heat, and to quench thirst.

The expressed juice deperated, properly evaporated, and set in a cool place, affords a crystalline acid salt in considerable quantity, which may be used whenever vegetable acids are wanted. It is employed to take iron moulds and ink stains out of linen, and is sold under the name of essential salt of lemons. (Withering.) This salt when genuine, which it seldom is, consists of the vegetable alkali and a peculiar acid, and which, according to Bergman, seems more allied to the acid of sugar than that of tartar. What is sold for it in this country, appears sometimes to consist of C. Tart., with the addition of a small quantity of vitriolic acid. For taking out spots in linen, the stained part is dipped in water, sprinkled with a little of the salt powdered, then rubbed on a pewter plate, after which the spot is washed out with warm water. (Curtis, from Newm. Chem. by Lewis.) Twenty pounds of leaves fresh yield six pounds of juice, from which two ounces, two drachms, and one scruple of salt have been obtained. (Lewis.)

1066. Agrostemma. Άγροστέμμα, crown of the field. The beauty of the flowers of the common cockle weed well entitles it to such a distinction. The foreign species are very pretty annuals. A. Githago (git or gith) was the name of certain black and aromatic grains, supposed to have been of Nigella sativa, which were employed by the Romans in cookery. The seeds of the plant Githago are externally similar) is an ornamental weed, and along with corn poppy and blue bottle makes a fine appearance in the fields of the slovenly husbandman, where the soil is dry and gravelly.

- 6535 Hairy, Stem dichotomous, Flowers on long stalks, Leaves linear
³ A slight variety, with longer divisions to the calyx
- 6536 Downy, Stem dichotomous, Peduncles long 1-fl. Cal. campanulate ribbed
- 6537 Downy, Flowers in umbellate heads, Cal. cylindr. clavate ribbed
- 6538 Smooth, Stem dichotomous panicled erect, Flowers terminal solitary
- 6539 Smoothish, Flowers fascicled, Cal. cylindr. clavate ribbed, Petals 2-lobed
- 6540 Stems ascending smoothish, Fl. dichotomous fascicled, Cal. camp. 10-ribbed, Pet. torn with an appendage
- 6541 Smooth, Flowers terminal and axillary 1-3, Cal. rounded clavate ribbed, Petals torn
- 6542 Hairy, Fl. 2-3 fastigiate, Cal. rounded clavate woolly, Petals 4-cleft
- 6543 Stem viscid about the joints, Limb of petals nearly entire, Leaves linear spatulate
- 6544 Smooth, Stems tufted upright, Fl. in dense capitate umbels, Cal. camp. Petals bifid
- 6545 Fl. solitary, Cal. with ten keels, Petals bifid, linear-lanc. subciliated
- 6546 Fl. dichotomous panicled diceious, Petals $\frac{1}{2}$ -bifid, Lobes narrow diverg. Caps. round
- 6547 Fl. dichotomous panicled diceious, Petals $\frac{1}{2}$ -bifid, Lobes broad approximating, Caps. conical
- 6548 Smooth glaucous, Stem erect branched or simple, Leaves lanceolate connate obtuse
- 6549 Hairy pale green viscid, Leaves ovate, Petals length of calyx, Fl. longer than fl.-stalk
- 6550 Hairy viscid diffuse, Leaves lanceolate oblong
- 6551 Stem much branched villous, Leaves ovate-lanc. hispid, Flowers numerous in dichotomous panicles
- 6552 Leaves ovate, Flowers panicled, Cal. villous longer than petals, Caps. scarcely longer than sepals
- 6553 Hairy viscid, Flowers pentandrous, Petals emarginate
- 6554 Hairy subviscid, Flower 4-fid 4-androus, Pet. bifid shorter than calyx
- 6555 Leaves linear lanceolate obtuse ciliated at base, Pet. twice as long as calyx
- 6556 Glutinous hairy, Fl. solitary in the dichotomies, Sepals lanc. acute the length of petals, Leaves lanc.
- 6557 Leaves ellipt. naked or hairy, Pan. dichotomous few-fl. with bractes, Caps. oblong recurved
- 6558 Stems prostrate, Leaves ovate acute subciliated smooth, Flowers terminal subscorimbos
- 6559 Leaves sublinear acuminate smooth, Peduncles glandular, Pet. twice as large as calyx
³ Leaves very narrow and smooth
- 6560 Downy, Leaves lanc.-lin. acute, Flowers very large in dichotomous umbels, Pet. crenate and 2-lobed
- 6561 Leaves cordate ovate, Stem clasping, Peduncles in fruit very long deflexed
- 6562 Hairy viscid, Leaves lanceolate, Fl. diceious, Petals thrice as long as calyx
- 6563 Leaves elliptical scabrous, Pedunc. terminal simple subsolitary, Capsule ovate
- 6564 Leaves oblong spatulate hoary, Sepals hoary scarious at edge, Caps. cylindr. longer than calyx
- 6565 Very smooth, Leaves lanc. linear, Pedunc. very long, Caps. acute shorter than corolla

6566 This is the *Cerastium aquaticum* of English botany



and Miscellaneous Particulars.

A. coronaria and *flos-jovis* are shewy border flowers, the first generally increased by seeds, and the other by cuttings or division of the plant.

1067. *Lychnis*. From *λυχνος*, a lamp, in allusion to the cottony leaves of some species, which have been used as wicks to lamps. *L. chalcidonica*, *Croix de Malthe*, Fr. and Portug., *Croce de Cavaliere*, Ital., and *C. de Jerusalem*, Span., is an old and much esteemed border flower, the double varieties of which require some care in cultivation, to prevent their returning to the single state, and to propagate them by cuttings. *L. fulgens* and *coronata* are also very handsome species. "They do best in a light rich loamy soil, but they must be often taken up and divided, or they dwindle away; the best time of doing this is early in spring. *L. coronata* thrives and flowers abundantly if planted out in the open ground in spring; but it requires to be taken up in autumn and potted, or the severe frosts in winter will kill it, or injure it very much. All may be raised by cuttings planted under hand-glasses, or by seeds, which often ripen in abundance. (*Bot. Cult.* 389.)

L. viscaria and *foscuculi* are more hardy, and grow in common garden soil, and increase abundantly by division; they are both old inhabitants of the flower garden. *L. diurna* and *vespertina* are also border flowers in their double varieties.

1068. *Cerastium*. Derived from *κερας*, a horn, in allusion to the cornute form of the capsule of many species. Most of the annual species, and some of the others, are weeds; a few may be grown in pots or on rock-work, for both of which they seem well adapted. They are very prolific in seeds, and contribute materially to the support of small birds.

1069. *Larrea*. A genus founded by Aug. St. Hilaire, in the second volume of *Mémoires du Muséum*, upon the *Cerastium aquaticum* of Linnæus. He named it after the Abbé de Larbre, who at the age of 80, published a Flora of Auvergne.

1070. SPERGULA. W.	SPURREY.			<i>Caryophyllæ.</i>	<i>Sp. 5—14.</i>				
6567 arvensis W.	rough-seeded	○ w	$\frac{1}{2}$	jl.au	W	Britain	san. fi.	S	co Eng. bot. 1535
6568 pentandra W.	smooth-seeded	○ w	$\frac{1}{2}$	jn.jl	W	England	san. fi.	S	co Eng. bot. 1536
6569 nodosa W.	knotted	△ w	$\frac{1}{2}$	jl.au	W	Britain	san. he.	D	co Eng. bot. 694
6570 saginoides W.	smooth-awl-sh.	△ w	$\frac{1}{2}$	jn.au	W	Scotland	sc. alp.	D	co Eng. bot. 2105
6571 subulata W.	ciliated-awl-sh.	△ w	$\frac{1}{2}$	jn.jl	W	Britain	san. he.	D	co Eng. bot. 1082

DECAGYNIA

1071. PHYTOLAC'CA. W.	PHYTOLACCA.				<i>Chenopodææ.</i>	<i>Sp. 6.</i>			
6572 octandra W.	white-flowered	△ or	6	jl.n	W.G	Mexico	1732.	C	s.1 Di. el. t.239. f.308
6573 abyssinica W.	African	△ or	6	my.jn	W.G	Africa	1775.	R	s.1 Hoff. c. goet. t.2
6574 dodecandra W. en.	recurved-leaved	△ or	6	my.jn	R	.....	...	C	s.1
6575 decandra W.	Virginian Poke	△ cul	5	au.s	L Pu	Virginia	1615.	C	s.p Bot. mag. 931
6576 icosandra W.	red	△ or	3	jl.n	W	E. Indies	1758.	C	s.p Mill. ic. t. 207
6577 dioica W.	tree	△ or	8	...	W.G	S. Amer.	1768.	C	s.p L'her. st. no. t.70



History, Use, Propagation, Culture,

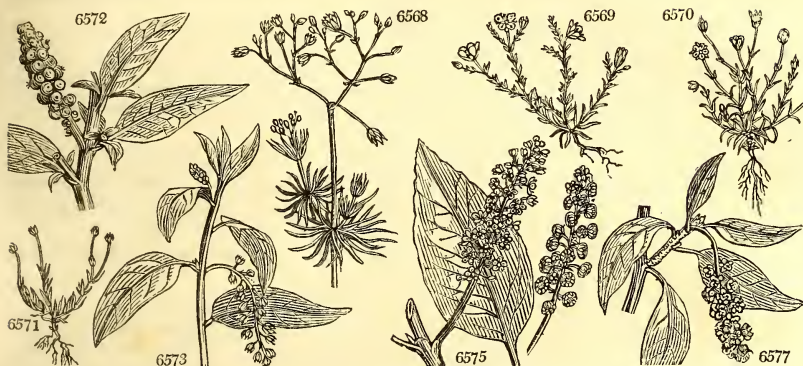
1070. *Spergula*. From *spargere*, to scatter, because it scatters its seeds abroad, to the great profit of the farmer in Holland, who obtains from it meadows affording the most delicious butter. *S. arvensis* is a common weed in sandy soils, in Scotland called yarr, and in Norfolk pickpurse. In the Netherlands and in Germany it is sown on corn stubbles, to supply a bite for sheep during winter. It may be sown and reaped in eight weeks, either in autumn or spring. It is said to enrich the milk of cows, so as to make it afford excellent butter; and the mutton fed on it is preferable to that fed on turnips. Hens eat spurry greedily, and it is supposed to make them lay a great number of eggs, whether in hay, or cut green, or pasture. Von Thær observes, it is the most nourishing, in proportion of its bulk, of all forage, and gives the best flavored milk and butter. It has been recommended to be cultivated in England; but it is not likely that such a plant can ever pay the expense of seed and labour in this country, even on the poorest soil; or at all events, as Professor Martyn observes, we have many better plants for such soils.

1071. *Phytolacca*. From *φυλλον*, a plant, and *lacca*, lac; that is to say, a plant whose fruit gives out a fine red color like lac. The English-American name Poke, applied to one species, is a corruption of Pocan, the name by which it was formerly known in Virginia. *P. decandra* has large ramose roots, shoots half an inch in diameter, and five or six feet high; the leaves five inches long, and two and a half inches broad, smooth and of a deep green. It grows vigorously in a good deep soil, and furnishes ample supplies of young shoots, which in America and the West Indies are boiled and eaten as spinach. (*Correa de Serra, in Hort. Trans. iv. 446.*)

- 6567 Leaves whorled, Pedunc. in fruit reflexed, Seeds reniform angular rough
 6568 Leaves whorled, Flowers pentandrous, Seeds depressed winged smooth
 6569 Leaves opposite subulate smooth: upper fascicled, Cal. not nerved
 6570 Leaves opposite subulate blunt naked, Pedunc. solitary very long smooth
 6571 Leaves opposite subulate awned ciliated, Pedunc. very long solitary hairy

DECAGYNIA.

- 6572 Flowers octandrous octogynous
 6573 Flowers decandrous pentagynous
 6574 Flowers dodecandrous octogynous, Leaves ovate obl. with a recurved point
 6575 Flowers decandrous decagynous
 6576 Flowers icosandrous decagynous
 6577 Flowers diceious



and Miscellaneous Particulars.

An ounce of the dried root, infused in a pint of wine, and given to the quantity of two spoonfuls, operates kindly as an emetic, and is preferable to most others, as it hardly alters the taste of the wine. In its medicinal properties, the *Phytolacca* approaches nearer to *Ipecacuanha* than to any other vegetable; but it is slower in its effects, and it remains longer in action, although it may be checked by an opiate. Sometimes its operation produces vertigo and stupor. The powder of the leaves possesses the same virtues as the root, but in a weaker degree. It is one of the plants which have had a temporary reputation for the cure of cancer, and some sensible men have been converts to its efficacy. The fermented berries give out a liquor which yields alcohol by distillation. From half a bushel of the berries, six pints of spirits were obtained, sufficiently strong to take fire and burn with readiness. Two ounces of this given to a dog occasioned nausea and drowsiness, with slight spasmodic motions, but no vomiting. Poultry are fond of the berries, but if eaten in large quantities, they give the flesh a disagreeable flavor. The juice stains paper and linen of a beautiful purple color, but it will not last long; if a method could be found of fixing the dye, it might be very useful. The vignerons in Portugal for many years used the juice of the berries of the elder-bush to give a deep color to the Port wines, to which it was thought to communicate a disagreeable taste when mixed in too great a quantity. Complaint of this practice having been made to government, orders were given that the stems of that plant should be cut down and destroyed before they produced berries: but they forgot to include the *Phytolacca* in the proscription, so that the berries of that plant supply the same purpose in a much worse manner.



CLASS XI. — DODECANDRIA. 12 STAMENS.

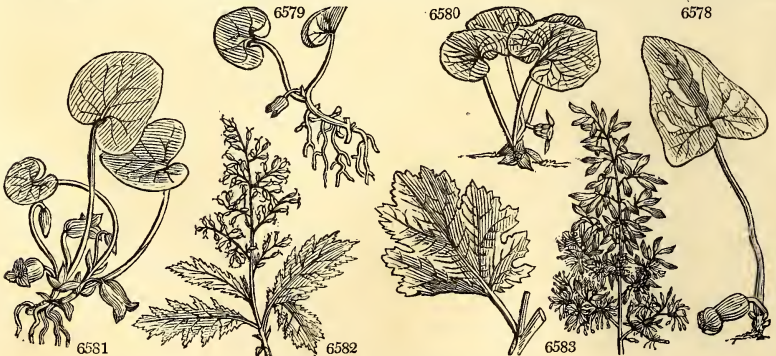
This is a small incongruous class, containing no extensive genus of importance except Euphorbia. Some botanists have been of opinion that it ought to be cancelled, but it is probable that Linnæus understood the application of his own principles as well as some of his more pretending followers, and it is certain that if the Linnean plan can be made to act successfully, its artificial arrangement must be rigorously observed. Euphorbia and Reseda, which are usually referred hither, should more properly be referred, the former to Monœcia, and the latter to Polygamia.

Order 1. MONOGYNIA.  12 Stamens. 1 Style.

- 1072. *Asarum*. Cal. 3-4-cleft, superior. Cor. O. Capsule coriaceous, crowned.
- 1073. *Bocconia*. Cal. 2-leaved. Cor. O. Style bifid. Caps. 2-valved, 1-seeded.
- 1074. *Bassia*. Sepals 4. Cor. 8-cleft, with an inflated tube. Stamens 16. Drupe 5-seeded.
- 1075. *Blakea*. Sepals 6, inferior, with a superior entire calyx. Petals 6. Caps. 6-celled, many seeded.
- 1076. *Bejaria*. Cal. 7-cleft. Petals 7. Stamens 14. Berry 7-celled, many-seeded.
- 1077. *Agathophyllum*. Petals 6. Calyx truncate. Drupe 1-seeded.
- 1078. *Rhizophora*. Cal. 4-parted. Cor. 4-parted. Stigmas 2. Seed 1 very long, fleshy at base.
- 1079. *Garcinia*. Sepals 4, inferior. Petals 4. Berry 8-seeded, crowned by the petate stigma.
- 1080. *Grangeria*. Cal. 5-cleft. Petals 5. Stamens 15. Drupe 3-cornered. Nut 3-cornered, bony, 1-seeded.
- 1081. *Halesia*. Cal. 4-toothed, superior. Cor. 4-cleft. Nut quadrangular, 2-seeded.
- 1082. *Decumaria*. Sepals 8-12, superior. Petals 8-12. Caps. 8-celled, many-seeded.
- 1083. *Eurya*. Cal. 5-leaved, with 2 bractes at base. Petals 5. Caps. 5-celled, many-seeded.
- 1084. *Aristolotia*. Sepals 5. Petals 5. Style trifid. Berry 3-celled. Seeds twin.
- 1085. *Canella*. Cal. 3-lobed. Petals 5. Anthers 16, united to an urceolate nectary. Berry 1-celled, 2-4-seeded.
- 1086. *Cratæva*. Petals 4. Cal. 4-cleft. Berry 1-celled, many-seeded.
- 1087. *Triumfetta*. Petals 5. Sepals 5. Capsule hispid, opening in four.
- 1088. *Peganum*. Petals 5. Sepals 5, or O. Capsules 5-celled, 3-valved, many-seeded.
- 1089. *Hudsonia*. Petals 5. Sepals 3, tubular. Stamens 15. Capsules 1-celled, 3-valved, 3-seeded.
- 1090. *Nitraria*. Petals 5, vaulted at end. Cal. 5-cleft. Stamens 15. Drupe 1-seeded.
- 1091. *Portulaca*. Petals 5. Cal. 2-fid. Capsule 1-celled, cut across.
- 1092. *Talinum*. Petals 5. Sepals 2. Capsule 3-6-valved, many-seeded. Leaves without stipules. Seeds not winged.
- 1093. *Anacampseros*. Like *Talinum*, but having stipules and winged seeds.
- 1094. *Lythrum*. Cal. 12-toothed, tubular, unequal at base. Petals 6, inserted in calyx. Caps. 2-celled, many-seeded.
- 1095. *Nesæa*. Like *Lythrum*, but calyx campanulate.
- 1096. *Heimia*. Cal. 12-toothed. Petals 6. Capsule 4-celled.

MONOGYNIA.

1072. A'SARUM. W.	ASARABACCA.	<i>Aristolotia</i> .	Sp. 4—5.		
6578 arifolium Mich.	arum-leaved	△ cu	3 jn	Br	N. Amer. 1823. D p.l
6579 europæum W.	common	△ m	3 my	P	England woods. D p.l
6580 canadense W.	Canadian	△ cu	3 ap.jl	Br	Canada 1713. D p.l
6581 virginicum W.	sweet-scented	△ cu	3 ap.my	Br	Virginia 1759. D p.l
1073. BOCCONIA. W.	BOCCONIA.		<i>Papaveraceæ</i> .	Sp. 2—3.	
6582 frutescens W.	Tree Celandine	□ or	10 ja.ap	W.y	W. Indies 1739. S r.m
6583 cordata W.	heart-leaved	△ or	6 my.au	W.y	China 1795. C s.l



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1072. *Asarum*. An ancient name, said to have been formed from α, privative, and σμα, bandage, because it was not used in garlands of which the ancients were so fond; in that case it should be *Asarum*. The common name, *Asarabacca*, is Latin, qu = the berry of Asarum? Little inconspicuous herbaceous plants. The leaves of *A. europæum* are emetic, cathartic, and diuretic; and, perhaps, as Dr. Cullen has remarked, they form the most useful species of errhine stimulants. A proper dose snuffed up the nose for a few successive evenings at


1097. *Cuphea*. Cal. 6-12-toothed, occasionally gibbous at base. Pet. 6, inserted in calyx, or O. Caps. 1-celled, opening on one side longitudinally along with the calyx.
 1098. *Kleinovia*. Sepals 5. Petals 5. Nect. campanulate, 5-toothed, stamiferous, united to the column of ovary. Ovary stalked. Caps. with 5-angles and 5-cells inflated, cells 1-seeded.

Order 2. DIGYNIA.  12 Stamens. 2 Styles.

1099. *Callicoma*. Flowers in round heads. Calyx 4-5-leaved. Corolla O.
 1100. *Heliocarpus*. Sepals 4. Petals 4. Styles simple. Caps. 2-celled, compressed, radiating on each side longitudinally.
 1101. *Agrimonia*. Cal. 5-toothed, surrounded by another. Petals 5. Grains 2, in the bottom of the calyx.

Order 3. TRIGYNIA.  12 Stamens. 3 Styles.

1102. *Rosca*. Involucre many-leaved spreading. Hermaphrodite flower central, apetalous, surrounded by several fringed petaloid barren flowers.
 1103. *Euphorbia*. Involucre 1-leaved, ventricose, regular. Flowers naked, aggregate. Female floret surrounded by many monandrous male florets.
 1104. *Pedilanthus*. Like *Euphorbia*, but involucre calceiform.
 1105. *Visnea*. Cal. 5-leaved, inferior. Petals 5. Stigmas 3. Nut 2-3-celled, half inferior.

Order 4. TETRAGYNIA.  12 Stamens. 4 Styles.

1106. *Calligonum*. Cal. 5-parted. Corolla O. Filaments about 16, united at base. Ovary superior, 4-cornered. Styles 4. Nut with a many winged crust, 1-celled.

Order 5. PENTAGYNIA.  12 Stamens. 5 Styles.

1107. *Glinus*. Sepals 5. Cor. O. Nectary with bifid bristles. Caps. 5-angular, 5-celled, 5-valved, many-seeded.
 1108. *Blackwellia*. Cal. $\frac{3}{4}$ -superior, persistent, at the base turbinate, many-parted; with villous ciliated segments. Petals 15. Capsule 1-celled, many-seeded.
 1109. *Gastonia*. Cal. entire. Petals 5-6. Stam. 10-12: two opposite each petal. Styles 10-12, very small, united at base. Capsules 10-12-celled.

Order 6. DODECAGYNIA.  12 Stamens. 12 Styles.

1110. *Sempervivum*. Cal. 12-parted. Petals 12. Caps. 12, many-seeded.

MONOGYNIA.

- 6578 Leaves subhastate cordate, Calyx tubular shortly trifid
- 6579 Leaves reniform obtuse twin
- 6580 Leaves reniform mucronate
- 6581 Leaves cordate obtuse smooth stalked

- 6582 Leaves oblong sinuated
- 6583 Leaves cordate somewhat lobed

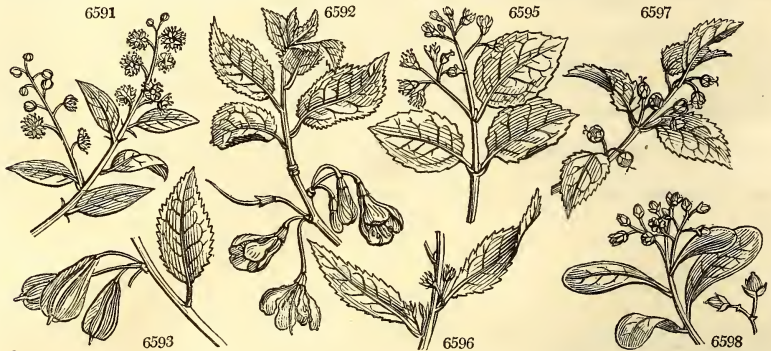


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bed time occasions a copious discharge from the nostrils, which continues to flow for several days. (*London Dispensatory*, 185.) The herb was formerly employed to correct the effects of excessive drinking, whence in French it is still called *cabaret*.

1073. *Bocconia*. In memory of Paolo Boccone, M. D., a Sicilian, and Cistercian monk under the name of Sylvius; author of *Icones et Descriptiones rariorum Plantarum Siciliae, Melitae, Galliae, et Italiae*; pub-

1074. <i>BASSIA</i> . <i>W.</i>	BASSIA.				<i>Sapotææ</i> .	<i>Sp.</i> 2—4.						
6584 <i>longifolia</i> <i>W.</i>	long-leaved	♂	or	40	...	Y	E. Indies	1811.	C	p.l	Lam. ill. t. 398	
6585 <i>latifolia</i> <i>W.</i>	broad-leaved	♂	or	40	...	Y	E. Indies	1799.	C	p.l	Rox. cor. 1. t. 19	
1075. <i>BLAKEA</i> . <i>W.</i>	BLAKEA.				<i>Melastomææ</i> .	<i>Sp.</i> 1—4.						
6586 <i>trinervia</i> <i>W.</i>	three-ribbed	♂	or	14	jn.jl	W	Jamaica	1789.	L	s.p	Bot. mag. 451	
1076. <i>BEJARIA</i> . <i>Ph.</i>	BEJARIA.				<i>Rhodoracææ</i> .	<i>Sp.</i> 1—3.						
6587 <i>racemosa</i> <i>Ph.</i>	sweet-scented	♂	or	4	jn.jl	Pu	Florida	1810.	C	l.p	Went. vent. cels. t. 52	
1077. <i>AGATHOPHYLLUM</i> . <i>W.</i>	MADAGASCAR-NUTMEG.				<i>Sp.</i> 1.							
6588 <i>aromaticum</i> <i>W.</i>	aromatic	♂	or	30	...	W	Madagasc.	1823.	C	p.l	Sonn. it. t. 127	
1078. <i>RHIZOPHORA</i> . <i>W.</i>	MANGROVE.				<i>Rhizophorææ</i> .	<i>Sp.</i> 1—9.						
6589 <i>Man'gle</i> <i>W.</i>	common	♂	or	cu	10	...	E. Indies	1820.	C	p.l	Jacq. am. t. 89	
1079. <i>GARCINIA</i> . <i>W.</i>	MANGOSTEEN.				<i>Guttiferææ</i> .	<i>Sp.</i> 1—8.						
6590 <i>Mangostana</i> <i>W.</i>	common	♂	or	fr	20	...	Pu	Java	1789.	C	r.m	Bot. cab. 845
1080. <i>GRANGERIA</i> . <i>Lam.</i>	GRANGERIA.				<i>Sp.</i> 1.							
6591 <i>borbonica</i> <i>Lam.</i>	Bourbon	♂	or	40	...	W	Bourbon	1823.	C	p.l	Lam. ill. t. 427	
1081. <i>HALESIA</i> . <i>W.</i>	SNOWDROP-TREE.				<i>Ebenacææ</i> .	<i>Sp.</i> 2—4.						
6592 <i>tetráptera</i> <i>W.</i>	four-winged	♂	or	6	ap.my	W	Carolina	1756.	C	p.l	Bot. mag. 910	
6593 <i>diptera</i> <i>W.</i>	two-winged	♂	or	6	ap.my	W	N. Amer.	1758.	C	p.l	Cav. dis. 6. t. 187	
1082. <i>DECUMARIA</i> . <i>W.</i>	DECUMARIA.				<i>Myrtacææ</i> .	<i>Sp.</i> 2.						
6594 <i>bárbara</i> <i>Ph.</i>	smaller	♂	or	4	jl.au	W	Carolina	1785.	L	p.l		
6595 <i>sarmentosa</i> <i>Ph.</i>	larger	♂	or	30	jl.au	W	Carolina	1758.	L	p.l	Act. par. 1. t. 13	
1083. <i>EURYA</i> . <i>Thunb.</i>	EURYA.				<i>Turnströmeacææ</i> .	<i>Sp.</i> 1—4.						
6596 <i>chinensis</i> <i>Abel.</i>	Chinese	♂	or	pr	2	f.d	W	China	1823.	C	p.l	Abel. China, c. fig
1084. <i>ARISTOTELIA</i> . <i>W.</i>	ARISTOTELIA.				<i>Rhamnææ</i> ?	<i>Sp.</i> 1.						
6597 <i>Máqui</i> <i>W.</i>	shining-leaved	♂	or	4	ap.my	W.g	Chili	1733.	C	l.p	Dend. brit. 44	
1085. <i>CANELLA</i> . <i>W.</i>	CANELLA.				<i>Guttiferææ</i> .	<i>Sp.</i> 1.						
6598 <i>álba</i> <i>W.</i>	Laurel-leaved	♂	or	40	...	W	W. Indies	1735.	L	r.l	Linn. trans. 1. t. 8	



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lished by Morrison at Oxford, 1764, quarto, and other works. *B. frutescens* is very ornamental in its foliage. The Indian kings, Hernandez tells us, planted it in their gardens, which must have been for its beauty, as it is neither culinary nor medicinal, though the juice is acrid, and used in the West Indies to take off warts.

1074. *Bassia*. So named by Koenig, in honor of Ferdinand Bassi, curator of the botanic garden at Bologna. Tall trees, natives of the hottest parts of the East Indies, with tufted alternate leaves growing only at the end of the shoots. Ripened cuttings root freely in sand.

1075. *Blakea*. So named by Dr. Patrick Browne, after Mr. Martin Blake of Antigua, a great promoter of useful knowledge, and a patron of the doctor's Natural History of Jamaica. This is one of the most beautiful plants of the West Indies. It supports itself for a time by the help of some neighboring shrub or tree, but it grows gradually more robust, and at length acquires a pretty moderate stem, which divides into a thousand weakly declining branches, well supplied with beautiful rosy blossoms on all sides. It cannot display itself to so great advantage in our stoves; but it flowers freely, and thrives well in loam and peat, well supplied with water. Ripe cuttings root in sand in moist heat and covered.

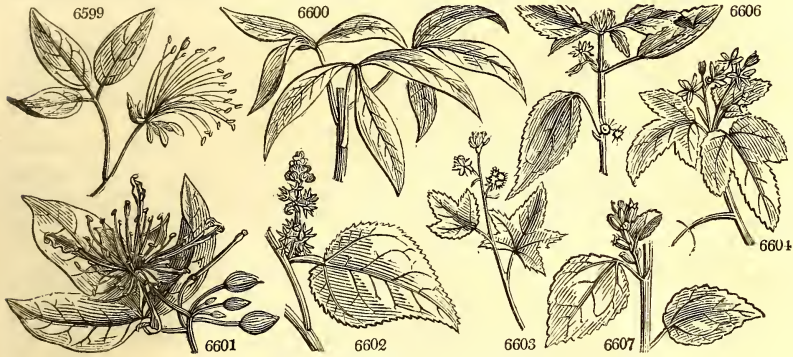
1076. *Bejaria*. So named by Mutis, in honor of Bejar, a Spanish botanist. The original species are natives of New Grenada. That in gardens, which is a native of the southern states of North America, is a beautiful shrub from three to four feet high, with pink flowers of an agreeable scent. It is found upon the banks of swamps and ponds, and requires the protection of a frame or greenhouse.

1077. *Agathophyllum*. From *αγαθος*, good, and *φύλλον*, a leaf. The leaf has a pleasant smell like cloves. In Madagascar, where it is called *Ravendzara*, it forms a large tree with a rufous aromatic bark, and a heavy insipid wood. The leaves are alternate and coriaceous. The dried fruit is very aromatic.

1078. *Rhizophora*. From *ρίζα*, a root, and *φερον*, to bear, in allusion to the numerous roots which are emitted by the seeds, which vegetate among the branches of the tree while yet adhering to their footstalk. This is the common Mangrove, which covers immense tracts of coast within the tropics, rooting and vegetating even as far as low water mark.

1079. *Garcinia*. So named in honor of Laurent Garcin, M. D., F. R. S., who travelled into the East Indies. *Mangostans* is the Malayan name. This tree bears a fruit, which in the East Indies ranks with that of the pine-apple. It rises with a taper stem, sending out many branches, not unlike a fir-tree, with oval leaves, seven or eight inches long. The flower is like that of a single rose; the fruit round, the size of a middling orange; the shell is like that of the pomegranate, the inside of a rose color, divided by thin partitions, as in oranges, in which the seeds are lodged, surrounded by a soft juicy pulp, of a delicious flavor, partaking of the strawberry and the grape, and is esteemed one of the richest fruits in the world. It is a native of the Molucca islands, whence it has been transplanted to Java and Malacca. The head of the tree is in the form of a parabola, so fine and regular, and the leaves so beautiful, that it is looked upon in Batavia as the tree most proper for adorning a garden, and affording an agreeable shade. It was introduced to England in 1789. According to Dr. Garcin, (*Phil. Trans.*) "it is esteemed the most delicious of the East Indian fruits, and a

- 6584 Leaves lanceolate, Peduncles 1-flowered very long horizontal axillary
 6585 Leaves elliptical acute, Peduncles 1-flowered nodding terminal
- 6586 Calyxes two, Leaves with three nerves finely striated across beneath
- 6587 Leaves ovate-lanceolate smooth, Flowers terminal in paniced racemes
- 6588 Leaves stalked alternate obovate obtuse coriaceous entire smooth
- 6589 Leaves acute, Fruit subulate-clavate
- 6590 Leaves ovate, Peduncles 1-flowered
- 6591 Leaves alternate stalked ovate entire smooth veiny
- 6592 Leaves ovate acuminate, Veins hairy beneath, Wings of the fruit equal
 6593 Lvs. obl. ovate obtusely pointed green on both sides very soft beneath, Wings of fruit alternately larger
- 6594 Leaves all ovate, Stem climbing
 6595 Lower leaves rounded : upper ovate-lanceolate, Stem sarmentose
- 6596 Branches at end pubescent, Leaves cuneate oval, Flowers axillary
- 6597 Leaves opposite evergreen ovate shining serrated
- 6598 Leaves oblong obtuse shining, Racemes terminal



and Miscellaneous Particulars.

great deal of it may be eaten without any inconvenience; it is the only fruit which sick people are allowed to eat without scruple. It is given with safety in almost every disorder; and we are told that Dr. Solander, in the last stage of a putrid fever in Batavia, found himself insensibly recovering by sucking this delicious and refreshing fruit. The pulp has a most happy mixture of the tart and sweet, and is no less salutary than pleasant. It is propagated by ripe cuttings in sand in moist heat. But the plant rarely survives long after its importation.

1080. *Grangeria*. Named after N. Granger, a traveller in Egypt, Persia, &c. who died at Bassora in 1733. His voyage into Egypt was published in 1745. This is a tree the size of an oak, with alternate ovate entire leaves. The flowers are small, in small terminal and axillary racemes.

1081. *Halesia*. So named by Ellis, in honor of the learned and venerable Stephen Hales, D. D., F. R. S., author of *Vegetable Statics*, 1727. The species are very ornamental shrubs, valuable for blossoming early in the season. The flowers hang in small bunches all along the branches, each bud producing from four to eight or nine; they appear before the leaves, are of a pure snowy whiteness, and last for two or three weeks; they are succeeded by pretty large winged juiceless drupes, hanging likewise in bunches. The leaves of *H. diptera* are six times the size of those of *H. tetraptera*, and the fruit has two large wings and two minute ones. They are propagated by cuttings of the roots.

1082. *Decumaria*. Derived from *decem*, ten, all the parts of fructification answering to the number 10. It is commonly propagated by layers, but will grow by cuttings in sand under a hand-glass.

1083. *Eurya*. A name of Thunberg's, supposed to have been formed from *eu*, broad; its application no one has been able to discover. The *Eurya chinensis* is a little evergreen bush, bearing many whitish flowers on the under side of the branches and hidden by the leaves. It is easily propagated by cuttings.

1084. *Aristotelia*. After the celebrated ancient philosopher and naturalist Aristotle. Maqui is the name of this shrub in Chili. It grows freely in a sheltered situation; but its flowers are of little beauty. They are succeeded by small berries of a purple or black color, slightly acid and eatable: the inhabitants of Chili make a wine from them, which they give in fevers, and for curing the plague. It is increased by layers or ripened cuttings.

1085. *Canella*. A name given by Murray, on account of the resemblance between its wood and the aromatic flavor of *Canella*, Cinnamon. This tree rises very straight, from ten to fifty feet in height. The branches are erect, not spreading, and only at the top of the tree; furnished with petiolated leaves of a dark green color, thick, and shining like those of the laurel, and emitting a similar odor. The flowers, which exhale a powerful aromatic perfume, are small, seldom open, and in bunches. The inner bark of the branches is freed from the cuticle, and dried in the shade. This bark is stimulant, and slightly tonic. It is a useful adjunct to bitters in some cases of dyspepsia and atonic gout; but it is employed chiefly on account of its flavor, and to correct the gripping quality of the resinous cathartics. It is said to prove useful in scurvy (*London Dispensatory*, 207.)

1086. CRATEVA W.	GARLICK-PEAR.																		
6599 gynandra W.	thin-leaved	☉	□	or	12	...	W,pu	Jamaica	1789.	C	r,m	Plu.alm.t.147.f.6							
6600 Tapia W.	smooth	☉	□	or	30	...	W	India	1752.	C	r,m	Com.hort.1.t.67							
6601 fragrans H. K.	sweet-scented	☉	□	or	6	jn,jl	W	S. Leone	1795.	C	r,m	Bot. mag. 596							
1087. TRIUMFETTA W.	TRIUMFETTA.																		
6602 Láppula W.	prickly-seeded	☉	□	un	6	jl.au	Y,g	Jamaica	1739.	C	lp	Plum. ic. t. 255							
6603 Bartramia W.	Currant-leav'd	☉	□	un	3	jn,jl	Y,g	E. Indies	1739.	C	lp	Ru. am.6.t.95.f.2							
6604 semitriloba W.	mallow-leaved	☉	□	un	6	jl	Y	W. Indies	1773.	C	co	Jac. vind. 3. t. 76							
6605 grandiflora W.	large-flowered	☉	□	un	3	...	Y	W. Indies	1810.	C	co								
6606 an'na W.	annual	☉	□	un	2	aus	Y	E. Indies	1760.	C	co	Bot. mag. 2296							
6607 rhomboidea Jacq.	rhomboidal	☉	□	un	3	aus	Y	Peru	1818.	C	co	Lind. coll. 29							
6608 macrophylla Vahl.	large-leaved	☉	□	un	3	aus	Y		1820.	S	co								
6609 trichoclada Link.	hairy-branched	☉	□	un	3	aus	Y	Nepal	1823.	S	co								
6610 oblongata Wall.	oblong	☉	□	un	2	aus	Y	Nepal	1823.	S	co								
1088. PEGANUM W.	PEGANUM.																		
6611 Hármala W.	Syrian-Rue	☉	△	cu	1	jl.au	W	Spain	1570.	C	co	Lam. ill. 401							
6612 dauricum W.	Milkwort-lvd.	☉	△	cu	1	jl.au	W	Siberia	1816.	C	s,l	Gm. sib. 4. t. 68							
1089. HUDSONIA W.	HUDSONIA.																		
6613 ericoides W.	Heath-leaved	☉	└	pr	...	my,jl	Y	N. Amer.	1805.	L	s,p	Bot. cab. 192							
1090. NITRARIA W.	NITRARIA.																		
6614 Schobéri W.	thick-leaved	☉	cu	1½	my.au	P,B		Siberia	1778.	C	s,l	Dend. brit. 130							
1091. PORTULACA W.	PURSLANE.																		
6615 sativa H. S.	garden	☉	cu	1½	aus	Y		S. Amer.	1652.	S	co								
6616 oleracea H. S.	small	☉	cu	½	jn,jl	Y		Europe	1582.	S	s,p	Plant. grass. 123							
6617 parvifolia H. S.	small-leaved	☉	cu	½	au	Y		Jamaica	1799.	S	s,l								
6618 pilosa W.	hairy	☉	cu	½	jn	PK		W. Indies	1690.	S	s,l	Bot. reg. 792							
6619 quadrifida W.	creeping	☉	cu	½	aus	Y		E. Indies	1773.	S	s,l	Jac. col.2.t.17.f.4							
6620 Meridiána W.	noonday	☉	pr	½	my,jn	Y		E. Indies	1791.	S	s,l								
6621 foliosa Lindl.	Guinea	☉	pr	½	jn	Y		Guinea	1822.	S	s,l	Bot. reg. 793							
6622 mucronata Link.	mucronate	☉	pr	½	jn	Y		.....	1822.	S	s,l								
1092. TALI'NUM Haw.	TALINUM.																		
6623 teretifolium Psh.	round-leaved	☉	△	pr	1	au	Pu	N. Amer.	1823.	D	s,l	Bot. cab. 819							
6624 ciliatum R. & P.	ciliated	☉	△	pr	1	au	Pu	Chili	1823.	S	s,p	Hook. ex. fl. 82							
6625 triangulare W.	triangular	☉	□	pr	½	aus	W	W. Indies	1739.	C	p,l	Jac. obs. 1. t. 23							
6626 crassifolium W.	thick-leaved	☉	□	pr	1	aus	R	.....	1800.	C	p,l	Jac. vind. 3. t. 52							
6627 patens W.	spreading-flow.	☉	□	pr	1	au,o	R	S. Amer.	1776.	C	p,l	Bot. rep. 253							
6628 reflexum H. S.	yellow-flower.	☉	□	pr	1	au,o	R	S. Amer.	1800.	C	p,l	Bot. mag. 1543							
1093. ANACAMP'SEROS L.	ANACAMP'SEROS.																		
6629 rotundifolia B. M.	round-leaved	☉	└	cu	½	jl,s	PK	C. G. H.	1732.	C	s,l	Bot. cab. 591							
	Talinum Anacampseros W.																		
6630 arachnoides B. M.	cobweb	☉	└	cu	½	jl,s	PK	C. G. H.	1790.	C	s,l	Bot. mag. 1368							
6631 rúbens Haw.	red-leaved	☉	└	cu	½	jl,s	R	C. G. H.	1795.	C	s,l								
6632 filamentosa B. M.	thready	☉	└	cu	1	aus	PK	C. G. H.	1795.	C	s,l	Bot. mag. 1367							
6633 lanceolata Haw.	spear-leaved	☉	└	cu	1	aus	PK	C. G. H.	1796.	C	s,l								



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1086. *Cratæva*. In honor of Cræteus, a Greek botanist and contemporary of Hippocrates. C. Tapia, an American name, produces a fruit about the size of an orange, with a mealy pulp and a strong smell of garlic, which is communicated to the animals that feed on it. All the species prefer a rich loamy soil, and may be increased by cuttings in sand under a hand-glass.

1087. *Triumfetta*. So named by Plumier, in memory of Giov. Battista Triumfetti, prefect of the botanic garden at Rome, author of Hortus Romanus, 1681, and other works. T. semitriloba has a tough strong bark which serves for ropes and other conveniences of that kind in the inland parts of the West Indies. The whole plant is mucilaginous and emollient. Cuttings root in sand under a hand-glass. All the species are uninteresting weed-like shrubs of tropical countries.

1088. *Peganum*. *Hyoscyamus* was the Greek name of the rue, which the modern plant resembles. Harmala is the Arabic name (*harmel*) of the species so called. The species are of easy culture and propagation in any light soil.

1089. *Hudsonia*. So named by Linnæus, in honor of William Hudson, apothecary of London, F. R. S., and author of Flora Anglica, 1762 and 1778, octavo. It is a heath-like plant which grows in peat soil, and young cuttings are rooted in sand under a bell-glass. It is extremely rare in gardens.

1090. *Nitraria*. So named by Schreber, who first found it in Siberia near the nitre works, with other saline vegetables. This is a curious thorny shrub, peculiar to the salt deserts of Siberia. Pallas informs us, that the berries, though saltish and insipid, are eaten in the Caspian desert, but in that arid soil they are almost the only luxury. Camels feed on the twigs. Linnæus had the shrub twenty years before it flowered in Sweden;

- 6599 Unarmed, Leaves entire, Flowers gynandrous
 6600 Leaflets ovate acuminate, Petals ovate roundish obtuse with globose ovaries
 6601 Stem twining, Cor. regular, Petals very long wavy, Peduncles capitate-racemose

- 6602 Leaves emarginate at base, Flowers without calyx
 6603 Leaves entire at base undivided
 6604 Leaves half three lobed, Flowers complete
 6605 Leaves subcordate ovate entire serrated rather hairy: the floral ones lanceolate, Branches hairy
 6606 Leaves ovate undivided rarely lobed
 6607 Leaves rhomboid: the upper lanceolate ovate, Flowers complete
 6608 Leaves ovate cordate entire unnequally serrated acuminate downy glandular at base, Fl. complete
 6609 Leaves ovate cordate 7-nerved acuminate serrate hairy, Flowers clustered
 6610 Leaves oblong serrate 5-nerved softly hairy, Fl. terminal clustered

- 6611 Leaves multifid, Stem herbaceous
 6612 Leaves oblong acute, Stem herbaceous

- 6613 Leaves subulate acerose hairy, Calyx erect pubescent

- 6614 Leaves entire obtuse

- 6615 Leaves wedge-shaped fleshy, Fl. sessile, Stem and branches nearly erect
 6616 Leaves wedge-shaped fleshy, Fl. sessile, Branches prostrate
 6617 Much branched prostrate, Leaves wedge-shaped minute fleshy, Fl. on long stalks and sessile
 6618 Leaves subulate alternate hairy at the axilla, Flowers sessile terminal
 6619 Bractes 4, Flowers 4-fid, Joints of the stem hairy
 6620 Leaves elliptical fleshy flat, Joints hairy, Flowers sessile terminal
 6621 Leaves subulate, Cal. hairy, involucre many-leaved, Flowers about 3, Petals retuse
 6622 Axils hairy, Leaves obversely oblong, Involucre 8-leaved

- 6623 Leaves cylindrical fleshy, Corymbs terminal stalked
 6624 Leaves linear oblong ciliated, Flowers solitary
 6625 Leaves flat cham. wedge-shaped emarg. mucronate, Raceme simple with a 3-cornered peduncle
 6626 Leaves flat obovate mucronate, Corymb long, Peduncle 3-cornered
 6627 Leaves ovate flat, Panicle terminal, Peduncle dichotomous
 6628 Leaves lanc. ovate sessile opposite, Panicle branched

- 6629 Leaves ovate difform smooth green, Peduncles round long paniced

- 6630 Leaves ovate acuminate difform green shining cobwebbed, Raceme simple, Peduncles round long
 6631 Leaves ovate acuminate difform shining cobwebbed dark-red, Rac. simple, Pedunc. very long
 6632 Leaves imbricated expanded dark-green cobwebbed rugose above, Threads axillary longer than leaves
 6633 Leaves lanceolate fleshy convex beneath, Scape leafy short 1-flowered



and Miscellaneous Particulars.

and during ten years having in vain tried to make it flower in the garden at Upsal, he at length succeeded by watering the plant with salt water; it flowered, however, at Gottingen without this assistance. Murray expresses a surprise that it has not been used in its native soil for making soda: but perhaps it does not grow in sufficient quantity, or there may be an ample harvest in that salt region of plants that answer the same purpose.

In this country it thrives in sandy loam with a little salt put round it, and is increased by layers, or cuttings in sand under a hand-glass.

1081. *Portulaca*. An ancient name of unknown origin. The species are succulents of the easiest culture. *P. sativa* and *oleracea* were formerly cultivated as potherbs, salads, for garnishings and pickling, though now little used for any of these purposes.

1092. *Talinum*. One of those names invented by Adanson, which probably were the mere creations of that botanist's erratic brain. This is a succulent genus allied in habits to *Portulaca*, and of the easiest culture.

1395. *Anacampseros*. *Ανακαμψερως* was the name of a plant, to which the ancients attributed the quality of restoring the passion of love, for which purpose it was used in philtres and incantations: from *ανακαμπτω*, to return, and *εργος*, love. The species are succulents, and grow freely in a sandy loam mixed with a little lime rubbish, and require but little water. Cuttings root readily, but should be laid to dry a few days before being planted. Leaves taken off close to the plants, and laid to dry a few days, and then planted, will root, and shoot out young plants at their base.

1094. LYTHRUM. <i>W.</i>	LYTHRUM.	<i>Salicariae.</i>	Sp. 5—10.				
6634 <i>Salicaria W.</i>	common	4 jl.au Pu	Britain riv.ba.	D	co	Eng. bot. 1061	
6635 <i>virgatum W.</i>	fine-branched	3 jn.s Pu	Austria 1776.	D	co	Bot. mag. 1003	
6636 <i>alatum Ph.</i>	winged-stalked	3 my.n Pu	N. Amer. 1812.	D	s.l	Bot. mag. 1812	
6637 <i>lineare W.</i>	white-flowered	1½ jl.au W	N. Amer 1812.	D	s.l		
6638 <i>hyssopifolium W.</i>	Hyssop-leaved	1 au Pu	England wat.pl.	S	s.l	Eng. bot. 292	
1095. <i>NESÆA. Kunth.</i>		<i>Salicariae.</i>	Sp. 2—3.				
6639 <i>triflora Kunth.</i>	three-flowered	2 au B	America 1802.	D	p.l		
6640 <i>verticillata Kunth.</i>	whorl-flowered	2 jls Pu	N. Amer. 1759.	D	p.l		
1096. <i>HEIMIA. Link.</i>		<i>HEIMIA.</i>	Sp. 1.				
6641 <i>salicifolia Link.</i>	willow-leaved	5 aus Y	Mexico 1821.	C	p.l		
1097. <i>CUPHEA. Jacq.</i>		<i>CUPHEA.</i>	Sp. 7—19.				
6642 <i>viscosissima W.</i>	clammy	1 jl.au Pu	America 1776.	C	s.l	Sw. fl. gard. 60	
6643 <i>procumbens Cav.</i>	procumbent	1 jls Pu	Papu Mexico 1816.	S	s.l	Bot. reg. 182	
6643 <i>lanceolata H. K.</i>	smooth-styled	1½ ... Pu	Mexico 1796.	C	s.l		
6643 <i>decandra H. K.</i>	decandrous	1½ jn.o Pu	Jamaica 1789.	C	s.l		
6643 <i>circoides Sims.</i>	Cirœa-like	1½ or Pu	S. Amer. 1821.	C	s.l	Bot. mag. 2201	
6647 <i>multiflora Lodd.</i>	many-flowered	1½ s Pu	Trinidad 1820.	C	p.l	Bot. cab. 808	
6648 <i>Melvilla Lindl.</i>	scarlet & green	2 au Sc	Guiana 1823.	C	p.l	Bot. reg. 852	
1098. <i>KLEINHOFIA. W.</i>	<i>KLEINHOFIA.</i>	<i>Malvaceae.</i>	Sp. 1.				
6649 <i>Hospita W.</i>	heart-leaved	20 ... Pu	E. Indies 1800.	C	p.l	Cav. dis. 5. t. 146	

DIGYNIA.

1099. <i>CALLYCOMA. B. R.</i>	<i>CALLYCOMA.</i>	<i>Cunoniaceae.</i>	Sp. 1.				
6650 <i>serratifolia B. R.</i>	saw-leaved	4 my.au Y	N. S. W. 1793.	C	s.p	Bot. rep. 566	
1100. <i>HELIOCARPUS. W.</i>	<i>HELIOCARPUS.</i>	<i>Tiliaceae.</i>	Sp. 1—2.				
6651 <i>americanus W.</i>	American	16 ... Pu	Vera Cruz 1733.	C	p.l	Lam. ill. t. 409	
1101. <i>AGRIMONIA. W.</i>	<i>AGRIMONY.</i>	<i>Rosaceae.</i>	Sp. 6—9.				
6652 <i>Eupatoria W.</i>	common	3 jn.jl Y	Britain bor. fi.	D	co	Eng. bot. 1335	
6653 <i>odorata W.</i>	sweet-scented	4 jl Y	Italy 1640.	D	co		
6654 <i>repens W.</i>	creeping	2 jls Y	Levant 1737.	D	co		
6655 <i>parviflora W.</i>	small-flowered	2 jl Y	N. Amer. 1766.	D	co		
6656 <i>striata Ph.</i>	white-flowered	2 jn.au W	N. Amer. 1812.	D	co		
6657 <i>Agrimoides W.</i>	three-leaved	1½ jn.au Y	Italy 1739	D	co	Col. ecp. 1. t. 144	

TRIGYNIA.

1102. <i>RESEDA. W.</i>	<i>RESEDA.</i>	<i>Resedacca.</i>	Sp. 19—23.				
6658 <i>Luteola W.</i>	Dyer's-weed	2 jn.jl Ap	Britain wa.gr.	S	s.l	Eng. bot. 320	
6659 <i>crispata Link.</i>	curled	2 jn.jl Ap	Portugal 1823.	S	co		



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1094. *Lythrum*. From *λυθρον*, black blood, in allusion to the color of the flowers. *L. Salicaria* (willow-like, from *Salix*) although a common British plant, is considered a handsome border flower, and several varieties, differing chiefly in size, are in cultivation. The whole plant is astringent, and has been used in medicine and tanning.

1095. *Nesæa*. Plants formerly referred to *Lythrum*, from which they seem to be satisfactorily distinguished.

1096. *Heimia*. Named by Link, in honor of Dr. Heim, a celebrated Berlin physician. A beautiful stove shrub with fine spikes of yellow flowers.

1097. *Cuphea*. From *κωφός*, curved, in reference to the form of its capsule. Pretty herbaceous or shrubby plants, resembling *Lythrum* in aspect. *C. Melvilla* is a very handsome stove shrub resembling *Bouvardia coccinea*.

1098. *Kleinhofia*. So named by Linneus, after Kleinhoff, formerly director of the botanic garden in Java. The leaves when bruised smell like violets; the flowers appear the greater part of the year, and the tree is seldom without fruit in all its different stages. Cuttings root in sand under a hand-glass.

1099. *Callioma*. From *καλος*, beautiful, and *κωμης*, hair, in allusion to the tufted yellow heads of flowers, for which the plant is remarkable. Ripened cuttings root in sand under a hand-glass.

1100. *Heliocarpus*. From *ἥλιος*, the sun, and *καρπος*, fruit. The valves of its round and elegantly ciliated capsule resemble a little sun surrounded by its rays. Cuttings root in sand under a hand-glass; and Miller found the seeds to vegetate after being kept ten years.

1101. *Agrimonia*. A corruption of the word *Argemone*, by which name the ancients distinguished a plant reputed useful in cataract of the eye, which in Greek was termed *argema*. *A. Eupatoria* was formerly regarded as a remedy of much importance as a tonic and deobstruent; but though still retained in the London *Materia Medica*, is seldom or never prescribed. The root in spring is sweet-scented, and the flowers fresh

- 6634 Leaves opp. cordate lanceolate, Flowers spiked 12-androus
 6635 Leaves opp. lanc. Panicle virgate, Flowers 12-androus 3 together
 6636 Leaves opp. ovate obl. acute cordate at base closely sessile, Branches 4-winged, Fl. axil. sol. 6-androus
 6637 Leaves opposite linear, Flowers opp. hexandrous
 6638 Leaves alternate linear, Flowers hexandrous

6639 Smooth, Leaves opp. subsessile lanceolate entire, Pedunc. axill. opposite, Head 3-flowered

6640 Leaves opp. somewhat downy stalked, Flowers whorled linear

6641 Leaves linear-lanceolate acute, Flowers axillary

6642 Fl. axill. solitary, Leaves ovate-lanceolate scabrous above, Stem erect hispid, Style hairy

6643 Branches decumbent viscos. Leaves ovate lanceolate hispid on short stalks

6644 Fl. axill. sol. Lvs. lanc. hairy, Stem erect hairy, Style smooth, The 2 long flam. having a tuft of wool longer

6645 Raceme term. Leaves ellipt. and branches pubesc. Stem shrubby, Fl. decandrous [than anthers

6646 Raceme term. Pedicels scattered, Bractes linear, Leaves ovate stalked pubescent

6647 Leaves small lanceolate, Flowers small solitary terminal, Bush compact

6648 Leaves lanceolate scabrous narrowed at each end, Racemes term. Cal. long bowed, Petals O

6649 A smooth tree, with broad cordate acuminate entire leaves

DIGYNIA.

6650 The only species

6651 The only species

6652 Fruit hispid, Cauline leaves pinn. with obl. ovate leaflets, Spikes elevated, Pet. twice as long as calyx

6653 Fruit hispid, Leaves pinnate with obl. leaflets the lower veiny short, Pet. twice as long as calyx

6654 Fruit hispid, Cauline leaves pinnate with obl. leaflets, Spikes subsessile, Petals 3 times as long as calyx

6655 Fruit hispid, Cauline leaves pinnate with many lanceol. leaflets, Petals half as long again as calyx

6656 Spikes virgate, Fruit reflexed turbinate furrowed crowned with hairs

6657 Fruit smooth, Cauline leaves ternate, Stamens usually 8

TRIGYNIA.

6658 Leaves lanc. entire with a tooth on each side at base, Cal. 4-fid

6659 Leaves lanceolate wavy entire with two glands at base



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gathered smell like apricots. When the plant is coming into flower it will dye wool a full nankeen color, and gathered in September a darker yellow. It has been used for dressing leather. Sheep and goats eat it, but kine, horses, and swine refuse it.

1102. *Reseda*. From *resedo*, to calm, to appease. The Latins thought it useful as a topical application in external bruises. *R. Luteola*, a diminutive of *lutea*, yellow, is used by dyers, especially in France. (Chaptal's *Chimie appliquée à l'Agriculture*, &c.) It affords a most beautiful yellow dye for cotton, woollen, mohair, silk and linen. Blue cloths are dipped in a decoction of it, in order to become green. The yellow color of the paint called Dutch Pink, is obtained from this plant. The entire plant, when it is about flowering, is pulled up and employed both fresh and dried. Mr. Swayne observes, that it is one of the first plants which grow on the rubbish thrown out of coal pits. It flowers in June and July. The root and bottom leaves are formed from the fallen seeds before winter; and thus it happens in this, as in many other cases, that the wild plant is biennial, whilst the cultivated plant, growing from seeds sown in the spring, is annual. It is an observation of Linnaeus's, that the nodding spike of flowers follows the course of the sun, even when the sky is covered; pointing towards the east in a morning, to the south at noon, westward in the afternoon, and to the north at night.

R. odorata is a well known and universal favorite. The flowers are highly odoriferous, and there are very few to whom this odor is offensive. The plant is in great demand in London for rooms and placing in balconies, and forms for these purposes an extensive article of culture among the florists and market gardeners. The plants are in many cases sown and transplanted into pots, three or four plants to a pot four inches in diameter. To obtain plants for blowing from December to February, a sowing should be made in July in the open ground, and the plants potted in September. The crop for March, April, and May, should be sown not later than the twenty-fifth of August, the plants from this sowing will not suffer by exposure to rain, whilst they are young; they must, however, be protected from early frosts, like the winter crop; they are to

6660 canescens W.	hoary	△	un	1	my.jl	Ap	Spain	1597.	D	s.l	Cl. his. 1. t. 295
6661 glauca W.	glaucous	△	un	1	my.jl	Ap	S. Europe	1700.	D	s.l	Pl. alm. t. 107. f. 2
6662 dipetala W.	Flax-leaved	△	un	1	au	Ap	C. G. H.	1774.	C	s.l	
6663 scoparia Brouss.	Broom-like	△	un	1	au.s	Ap	Teneriffe	1815.	C	s.l	
6664 sesamoides W.	spear-leaved	△	un	1	jl.au	Ap	France	1787.	S	s.l	All. p. 2. t. 88. f. 3
6665 virescens Horn.	green	△	un	1	jl.au	Ap	Spain	1820.	S	co	
6666 fruticulosa W.	shrubby	△	un	1	s	Ap	Spain	1794.	C	s.l	Jac. ic. 3. t. 474
6667 alba W.	upright-white	△	un	3	my.o	Ap	S. Europe	1596.	C	s.l	Lob. ic. 292
6668 pruinosa Detisle.	frosted	△	cu	1	jn	Ap	Egypt	1824.	C	s.l	
6669 undata W.	wave-leaved	△	un	1	jn.au	Ap	Spain	1739.	D	s.l	Bar. rar. t. 587
6670 bipinnata W.	bipinnate-leaf.	△	un	2	jn.au	Ap	Spain	1816.	C	s.l	
6671 saxatilis Pourr.	rock	△	un	1	jn.au	Ap	Spain	1816.	D	s.l	
6672 ramosissima W.	branching	△	un	1	jn.au	Ap	Spain	1816.	D	s.l	
6673 lutea W.	Base-rocket	△	un	3	jl.au	Ap	Britain	ch. so.	C	s.l	Eng. bot. 321
6674 Phytoloma W.	trifid	△	un	1	jn.s	Ap	S. Europe	1752.	S	s.l	Jac. aust. 2. t. 132
6675 mediterranea W.	Mediterranean	△	un	1	jn.s	Ap	Palestine	1791.	S	s.l	Lind. coll. 22
6676 odorata W.	Mignonette	△	ft	1	jn.o	Ap	Egypt	1752.	S	r.m	Bot. mag. 29
β frutescens	tree-mignonette	△	or	2	jn.o	Ap	Egypt	1752.	S	r.m	Bot. reg. 227

1103. EUPHORBIA W.	SPURGE.						<i>Euphorbiaceæ.</i>	Sp. 135-160.			
6677 uncinata Dec.	twin-spined	||	gr	3	jn.au	Ap	C. G. H.	1794.	C	s.l	Plant. grass. 151
6678 trigona Haw.	upright-triang.	||	gr	9	jl.au	Ap	E. Indies	1798.	C	s.l	
6679 antiquorum Haw.	spreading-trian.	||	gr	9	jl.au	Ap	E. Indies	1688.	C	s.p	Rh. mal. 2. t. 42
6680 lactea Haw.	marbled	||	gr	4	jl.au	Ap	E. Indies	1804.	C	s.p	
6681 canariensis W.	Canary	||	gr	20	mr.ap	Ap	Canaries	1697.	C	s.p	Plant. grass. 140
6682 heptagona W.	seven-angled	||	gr	3	jl.n	Ap	C. G. H.	1731.	C	s.p	Brad. suc. 2. 13
6683 enneagona Haw.	nine-angled	||	gr	3	jl.o	Ap	C. G. H.	1790.	C	s.p	
6684 mammillaris W.	warty-angled	||	gr	2	jl.au	Ap	C. G. H.	1759.	C	s.p	Com. pral. t. 9
6685 cereiformis W.	naked	||	cu	2	jn.jl	Ap	C. G. H.	1731.	C	s.p	Bur. afr. t. 9. f. 3
6686 officinarum W.	officinal	||	m	6	jn.jl	Ap	Africa	1597.	C	s.p	Plant. grass. 77
6687 polygona Haw.	many-angled	||	gr	3	jl.s	Ap	C. G. H.	1790.	C	s.p	
6688 nerifolia W.	Oleander-ldv.	||	gr	3	jn.jl	Ap	India	1690.	C	s.p	Plant. grass. 46
6689 Hystrix W.	Porcupine	||	gr	6	jn.au	Ap	C. G. H.	1695.	S	s.p	Jac. sch. 2. t. 207
6690 varians Haw.	variable-stem'd		cu	4	...	Ap	E. Indies	1800.	C	s.p	
6691 grandifolia Haw.	great-leaved		cu	4	...	Ap	S. Leone	1798.	C	s.p	



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be thinned in November, leaving not more than eight or ten plants in each pot; and at the same time, the pots being sunk about three or four inches in some old tan or coal ashes, should be covered with a frame, which it is best to place fronting the west: for then the lights may be left open in the evening, to catch the sun whenever it sets clear. The third, or spring crop, should be sown in pots, not later than the twenty-fifth of February; these must be placed in a frame, on a gentle heat, and as the heat declines the pots must be let down three or four inches into the dung-bed, which will keep the roots moist, and prevent their leaves turning brown, from the heat of the sun, in April and May. The plants thus obtained, will be in perfection by the end of May, and be ready to succeed those raised by the autumnal sowing. (*Rishon in Hort. Trans. ii. 372.*)

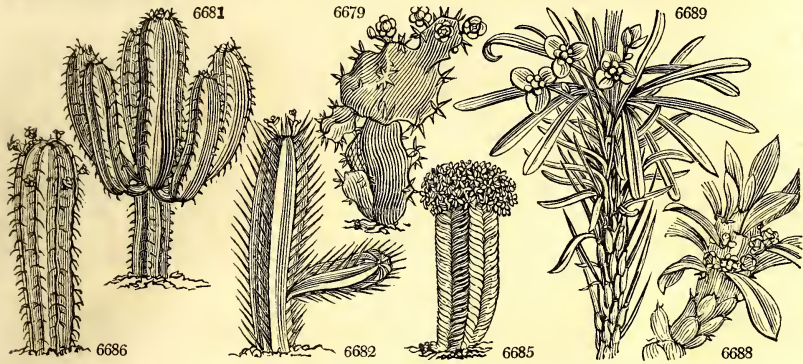
R. odorata frutescens, if left to itself, hardly appears a distinct variety, but trained against a wall or to a stick it, and also the common mignonette, may be made to assume a frutescent character. According to Sabine, the tree mignonette is to be propagated from seeds sown in spring; it may also be increased by cuttings, which will readily strike. The young plants should be put singly into small pots, and brought forward by heat, that of a gentle hot-bed being preferable, but they will grow well without artificial heat. As they advance, they must be tied to a stick; taking care to prevent the growth of the smaller side shoots, by pinching them off, but allowing the leaves of the main stem to remain on for a time to support and strengthen it. When they have attained the height of about ten inches or more, according to the fancy of the cultivator, the shoots must be suffered to extend themselves from the top, but must be occasionally stopped at the ends, to force them to form a bushy head, which by the autumn will be eight or nine inches in diameter, and covered with bloom. Whilst the plants are attaining their proper size, they should be shifted progressively into larger pots, and may ultimately be left in those of about six inches in diameter at top. (*Hort. Trans. iii. 181.*)

Mr. Lándley's theory of the nature of the inflorescence of this genus being remarkable, and only explained in his *Collectanea Botanica*, which is in few hands, it is here transcribed entire. "The usual idea of the flower of *Reseda* has been, that it is furnished with a calyx of a variable number of divisions, with as many petals, producing from their surface certain anomalous appendages, and with an ovary and stamens inserted on a great fleshy body, called nectary by Linnæan botanists, squama by others, and raised to the rank of a distinct organ by M. Mirbel, under the name of Gynophore. To us, however, it has always appeared, that this could by no means be the real structure of the plant, and that by a slight alteration of terms it not only might be much more satisfactorily explained, but its real affinity ascertained with some degree of probability. For even allowing for a moment an analogy between the nectary of this plant and the discus of others, particularly of some *Tiliacæ*, there is still a great difficulty remaining to be overcome in the anomalous structure of the supposed petals, of which we can imagine no probable explanation. We are therefore of opinion, that a much more natural mode of understanding *Reseda* is to consider it as having compound flowers; taking the calyx of authors for an involucre, their petals for neutral florets, and their nectary for the calyx of a fertile

- 6660 Leaves lanceolate wavy hairy
 6661 Leaves linear toothed at base, Styles 4
 6662 Leaves linear entire, Styles 4, Barren florets 2
 6663 Leaves linear entire, Fl. trigynous, Fruit clavate, Stem twiggy
 6664 Leaves lanceolate entire, Fruit stellate
 6665 Nearly related to *R. luteola*, but the leaves are not toothed at base
 6666 Leaves pinnate recurved at end, Styles 4, Involucre 5-parted spreading, Stem half shrubby
 6667 Leaves pinnate, Styles 4, Involucres 6-parted
 6668 Branches above and younger leaves covered with large distinct blisters
 6669 Leaves pinnate wavy, Styles 3 or 4
 6670 Leaves bipinnatifid very rough, Flowers spiked
 6671 Leaves all trifid; segments of the upper leaves linear flat; of the lower lanceol. wavy, Stem quite simple
 6672 Leaves linear simple or trifid, Stem erect branched, Fruit obovate
 6673 Leaves all trifid: the lower pinnate
 6674 Leaves entire and 3-lobed, Involucres 6-parted very large
 6675 Leaves entire and 3-lobed, Involucres shorter than florets
 6676 Leaves entire and 3-lobed, Involucres as long as florets

§ 1. *Stem thick, fleshy, naked, or with a few leaves, Flowers dispersed.*
 * Prickly.

- 6677 Fleshy prickly compressed channelled inflexed at end, Prickles twin diverging
 6678 Naked erect prickly triangular jointed, Branches erect somewhat channelled
 6679 Prickly naked triangular jointed, Branches spreading
 6680 Naked prickly jointed with 3-cornered expanded branches obsoletely marbled with white
 6681 Prickly naked nearly quadrangular, Prickles twin hooked, Fl. subsessile
 6682 Prickly naked with 7 angles, Prickles solitary subulate flower-bearing
 6683 Prickly naked erect with 9 angles, Prickles solitary flower-bearing, ascending fuscous, Branches pendulous
 6684 Prickly half naked, Angles warted with spines between, The young warts leafy
 6685 Prickly naked with many angles, Prickles solitary subulate
 6686 Prickly naked with many angles, Prickles twin
 6687 Prickly naked with numerous simple erect 10-13-angled stems, Prickles dark
 6688 Prickly half naked, Prickles twin, Angles obliquely warted leafy upwards, Leaves oblong
 6689 Stem round half naked leafy upwards, Leaves lanc. linear, Peduncle 1-fl. at length spiny
 6690 Prickles twin, Stem rounded or angular, Angles obliquely warted, Leaves nearly oblong
 6691 Prickles twin horizontal, Stem rounded simple, Leaves oblong spatulate very large



and Miscellaneous Particulars.

floret in the middle. In support of this opinion, we may observe, firstly, that there is a difference in the time of expansion of the neutral florets, and of the stamens of the fertile one; the former being quite open, in very many capituli, before one anther of the latter has burst in a single flower. Secondly, that there is an evident analogy between the appendages of the neutral florets, and the stamens of the perfect florets; inasmuch as in *Reseda odorata* those of the upper sterile florets are of nearly the same number as the real stamens; because in *Reseda alba*, and some others, in which a union of filaments takes place in the perfect floret, there is a corresponding but more complete union of the sterile appendages; and because occasionally, in *Reseda odorata*, stamens are changed into bodies altogether similar to the sterile appendages, and in *Reseda Phyteuma* the same appearance is always assumed by the perfect stamens after the anthers have performed their functions. Thirdly, that there is an equal analogy between the calyx of the neutral florets, and that of the perfect floret; because both have a peculiar glandular margin; the same form; both produce their stamens from their surface; and because the upper edge of the calyx in sterile florets has the same relation to the axis of each particular head, as that of the perfect floret has to the axis of the whole inflorescence. In *Reseda Phyteuma*, which has the margin of its neutral florets rolled back, the same thing occurs in the perfect floret. Fourthly, that there is no instance of the same analogy existing between the discus and petals of other plants. We may also observe, that in *Reseda Phyteuma*, there is a campanulate tube to the calyx, into the upper edge of which the stamens are inserted.

"To determine the affinity of *Reseda* to other orders, will not be so easy as to explain its structure. One cannot avoid remarking the resemblance between its calyx and the squama of *Amentaceæ* and *Ulmaceæ*. *Ficoideæ*, *Grossulaceæ* and *Cacti*, on account of placentation and structure of seed, may be supposed to have a certain relation to it: as may *Chenopodææ* with regard to inflorescence, absence of petals, and habit. But we are disposed to believe its real place in the system is in the neighbourhood of *Euphorbiaceæ*, where we have placed it in *Flora Scotica*. They agree with it in having the same sort of aggregation of flowers, similar habit, no corolla, and ternary division of ovarium. The insertion of their ovula is the same, as is also the direction of the radicle. They differ, however, firstly, in the presence of albumen; which yet is not entirely absorbed in *Reseda* till the seed is perfectly ripe, and which exists even after that time in the seed of *R. alba*, where it is fleshy as in *Euphorbiaceæ*. Secondly, in their solitary seeds; in which respect *Resedaceæ* may be supposed to bear the same relation to *Euphorbiaceæ* as *Campanulaceæ* do to *Compositæ*; or as some sections of *Rubiaceæ* to the others. In *R. suffruticulosa* the ovules appeared to be reduced to a single row, and the same is said to obtain in *Ochradenus*. Thirdly, in elastic dehiscence of capsule; but as this is not universal in *Euphorbiaceæ*, it is not, strictly speaking, an objection of importance." (*Lindley's Coll. Bot.*)

1103. *Euphorbia*. *Euphorbus* was physician to Juba, king of Mauritania, and first used this plant in medicine. This is a genus of grotesque and curious plants, few of them of either beauty or use, and most of

6692 cucumerina W.	Cucumber-like	gr	3	...	Ap	C. G. H.	...	C s.p	Vail. it. t. 5
6693 magniman'ma Haw.	large-warted	gr	3	...	Ap	Mexico	1823.	C s.p	
6694 lanifera Haw.	wool-bearing	gr	3	...	Ap	Mexico	1823.	C s.p	
6695 geminispina Haw.	double-spined	gr	3	...	Ap	Mexico	1823.	C s.p	
6696 meloformis W.	Melon-like	gr	2	mys	Ap	C. G. H.	1774.	C s.p	Bot. rep. 617
6697 Caput-meduse W.	gr. Med. Head	gr	1	au	Ap	Africa	1731.	C s.p	Com. pral. t. 7
6698 tessellata Haw.	chequer'd M.H.	gr	1	au	Ap	.....	1788.	C s.p	
6699 fructuspina Haw.	small Med. Hd.	gr	1	au	Ap	C. G. H.	1731.	C s.p	Plant. grass. 150
6700 procumbens Haw.	least M. Hd.	gr	1	au	Ap	C. G. H.	1768.	C s.p	Bur. afr. t. 10. f. 1
6701 anaantha W.	scaly	gr	1	s.o	Ap	C. G. H.	1727.	C s.p	Plant. grass. 144
6702 clava W.	club	gr	1	mr.au	Ap	C. G. H.	1774.	C s.p	Jac. ic. 1. t. 85
6703 bupleurifolia W.	cone-shaped	gr	1	jn.jl	Ap	C. G. H.	1791.	C s.p	Jac. sch. 1. t. 106
6704 mauritanica W.	Barbary	cu	1	jn.au	Ap	Africa	1732.	C s.p	Di. el. t. 289. f. 373
6705 hamata Haw.	hooked	cu	1	...	Ap	C. G. H.	1795.	C s.p	Bur. afr. t. 6. f. 3
6706 Ornithopus Jacq.	Bird's-foot	gr	1	jn.au	Ap	C. G. H.	1816.	C s.p	Jac. frag. t. 120
6707 aphylla Brouss.	leafless	cu	1	jn.au	Ap	Teneriffe	1815.	C s.p	
6708 balsamifera W.	Balsam	cu	1	...	Ap	Canaries	1779.	C s.p	
6709 Tirucalli W.	Indian-Tree	cu	3	...	Ap	India	1690.	C s.p	Rh. mak' 2. t. 44
6710 atropurpurea W. en.	dark-purple	cu	3	...	Ap	Teneriffe	1815.	C s.p	
6711 piscicaria W.	snth. spear-lvd.	cu	3	...	Ap	Canaries	1777.	C s.p	
6712 bracteata Jacq.	bracteated	cu	1	...	Ap	.....	1809.	C s.p	Jac. sclt' 2. t. 276
6713 pendula Haw.	pendulous	cu	1	...	Ap	.....	1808.	C s.p	
6714 dendroides W.	tree-like	cu	1	...	Ap	Italy	1768.	C s.p	
6715 cyathophora W.	colored	pr	1	jl.au	Ap	S. Amer.	1806.	C s.p	Bot. reg. 765
6716 repanda Haw.	waved	cu	2	au	Ap	E. Indies	1808.	C s.p	
6717 biglandulosa Haw.	twin-glanded	cu	3	s	Ap	Bourbon	1808.	C s.p	
6718 nudiflora Jac.	naked-flowered	cu	6	au	Ap	.....	1800.	C s.p	Jac. ic. 3. t. 470
6719 cotinifolia W.	Cotinus-leaved	or	10	jl.au	Ap	S. Amer.	1690.	C s.p	Hook. ex. fl. 59
6720 petiolaris Sims.	long-stalked	cu	3	my.jn	Ap	W. Indies	1800.	C s.p	Bot. mag. 883
6721 mellifera W.	honey-bearing	pr	6	ap.my	Ap	Madeira	1784.	C s.l	Bot. mag. 1305
6722 lmarifolia W.	Toad-flax-lvd.	cu	3	...	Ap	.....	1794.	C s.l	Jac. ic. 1. t. 86
6723 variegata E. M.	pie-bald	cu	s	...	Ap	Louisiana	1811.	S s.l	Bot. mag. 1747
6724 prunifolia Jacq.	Plum-leaved	cu	2	jn.jl	Ap	.....	1799.	S s.l	Jac. sch. 3. t. 277
6725 ocymoidea W.	Basil-leaved	w	1	jn.au	Ap	S. Amer.	1733.	S s.l	
6726 dentata Mich.	toothed	w	1	jn.jl	Ap	N. Amer.	1806.	S s.l	
6727 hypericifolia W.	Hypericum-lv.	w	1	jn.s	Ap	America	1727.	S s.l	Hook. ex. fl. 36
6728 Humboldtii W. en.	Humboldt's	w	1	ilo	Ap	S. Amer.	1809.	C s.l	
6729 prostrata W.	trailing red	w	1	ilo	Ap	W. Indies	1758.	S s.l	
6730 rosea W.	resy	w	1	au	Ap	E. Indies	1808.	S s.l	
6731 maculata W.	spotted	w	1	jl	Ap	S. Amer.	1660.	S s.l	Jac. vin. 2. t. 186
6732 picta W.	painted	w	1	my.jl	Ap	S. Amer.	1789.	S s.l	Jac. ic. 3. t. 477
6733 pilulifera W.	globular	w	1	jn.au	Ap	E. Indies	1800.	C s.l	Jac. ic. 3. t. 478
6734 hyssopifolia W.	Hyssop-leaved	w	1	au.s	Ap	W. Indies	1787.	C s.l	
6735 thymifolia W.	thyme-leaved	w	1	jl.au	Ap	India	1699.	S s.l	Pl. alm. t. 113. f. 2
6736 chamæsyce W.	scollop-leaved	w	1	jl.au	Ap	S. Europe	1752.	S s.l	Mo. h. 10. t. 2. f. 19
6737 Péplus W.	purple	w	1	jl.au	Ap	England sea.sh.	S s.l	S s.l	Eng. bot. 2002
6738 polygonifolia W.	knot-grass-lvd.	w	2	jn.jl	Ap	N. Amer.	1704.	S s.l	Jac. co. s. t. 13. f. 3
6739 Ipecacuanha W.	Ipecacuanha	w	2	jn.jl	Ap	N. Amer.	1812.	S s.l	Bot. mag. 1494
6740 canaliculata Pers.	channelled	w	1	jn.jl	Ap	Carthagin.	1819.	S co	Bot. cab. 727
6741 Péplus W.	petty	w	1	jl.au	Ap	Britain	clt. gr.	C s.l	Eng. bot. 959
6742 falcata W.	sickle-leaved	w	1	jn.au	Ap	S. Europe	1699.	C s.l	Jac. aus. 2. t. 121
6743 exigua W.	dwarf	w	1	jl	Ap	Britain	cor. fi. C.	s.l	Eng. bot. 1336



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the annuals poisonous weeds. One species (E. edulis), not yet introduced, is said to be used as a pot-herb in Cochinchina; one (E. punicea) is a very splendid plant, and the E. officinarum, and one or two other species gathered along with it, are used in medicine. They are all milky, mostly herbaceous, several however shrubby, upright for the most part, very few of them creeping; some are leafless, but most of them are leafy. Stems angular or tubercled, or more frequently cylindrical or columnar; unarmed, or in the angular sorts resembling the upright Cactuses, and armed with prickles, which are either solitary or in pairs, placed in a single row on the top of the ridges. Such as have leaves have them simple, most frequently alternate and naked; in some sorts, however, they are opposite, and are then commonly attended with stipules, and in a few they are placed by threes in whorls. Peduncles in the leafless sorts naked, bearing from one to three flowers; in the leafy ones axillary, but more frequently from two to five or more in a terminating umbel; each some-

- 6692 Prickly elliptical obtuse furrowed, Prickles subsolitary, Peduncles 3-flowered
 6693 Warts very large green downy at end, Spines about 4 strong black at end
 6694 Simple rounded obovate with warts woolly at end [than the rest
 6695 Columnar, Warts small numerous with many small spines between, Two spines in each cluster longer

** *Unarmed.*

- 6696 Unarmed globose with many angles
 6697 Unarmed imbricated, Warts with one leaf, Flowers somewhat stalked, Divisions palmate
 6698 Stem closely tessellated with warts upwards thickly branched
 6699 Unarmed imbricated with warts bearing a linear leaf
 6700 Unarmed with round procumbent branches, Warts 4-cornered
 6701 Unarmed imbricated, Warts with a roundish leaflet, Fl. term. solitary sessile with palmate segments
 6702 Unarmed imbricated, Warts with a lanceolate leaflet, Fl. stalked with entire segments
 6703 Unarmed imbricated capitate, Warts rhomboid with lanceolate stalked leaves, Segm. of flower entire
 6704 Unarmed half naked shrubby filiform flaccid, Leaves alternate
 6705 Warts large imbricated hooked at end : the upper having an oval leaflet at length withering
 6706 Unarmed warted, Warts with a deciduous leaf, Pedunc. solitary or 3 terminal 1-flowered
 6707 Unarmed naked leafless branched, Branches square, Fl. solitary terminal
 6708 Unarmed shrubby upright, Head terminal, Leaves lanceolate smooth glaucous
 6709 Unarmed half-naked shrubby filiform erect, Branches spreading regularly clustered

§ 2. *Stem uniform, shrubby, upright, Flowers scattered or aggregate, not in umbels.*

- 6710 Unarmed, Leaves lanceolate clustered entire, Umbel terminal sessile, Invol. connate colored
 6711 Unarmed shrubby upright, Umbel 5-fid term. Invol. oblong, Leaves lanc. smooth
 6712 Unarmed shrubby, Leaves oblong alternate distichous, Bractes persistent
 6713 Unarmed shrubby naked, Branches rounded effuse dependent jointed
 6714 Umbel multifid dichotomous, Invol. subcordate : the first 3-leaved
 6715 Unarmed, Leaves panduriform ovate, Fl. term. suberect, Invol. colored
 6716 Villous, Leaves with long stalks alternate broadly ovate repand-toothed, Stem erect striated
 6717 Leaves opp. minute stalked obovate entire, Two glands on the stem at the base of petioles
 6718 Unarmed shrubby, Leaves ovate entire, Cyme axillary naked
 6719 Leaves opp. subcordate stalked emarginate entire, Stem shrubby
 6720 Stalks whorled longer than the orbicular leaf, Fl. solitary, Stem unarmed naked
 6721 Leaves scattered lanceolate acute smooth, Pedunc. dichotomous, Caps. muricate
 6722 Unarmed shrubby, Leaves scattered lanc. mucron. Fl. solitary term. with a 3-leaved invol. Caps. muricate
 6723 Leaves oval entire wavy edged with white, Caps. smooth, Stem hairy
 6724 Dichotomous, Leaves ovate serrate acute villous, Fl. solitary, Upper dichotomous cymose

§ 3. *Dichotomous, herbaceous, Flowers solitary or aggregate, not umbelled.*

- 6725 Unarmed branched, Leaves subcordate entire shorter than their stalk, Fl. solitary
 6726 Dwarf hairy, Leaves opp. oval toothed, Flowers clustered at the end of branches
 6727 Dichotomous, Leaves serrate oval-obl. smooth, Corymbs terminal, Branches divaricate
 6728 Dichotomous, Leaves ovate obl. acute at each end smooth stalked entire, Capsules smooth
 6729 Dichotomous, Leaves oval obsol. serrated, Pedunc. axill. 3-flowered, Stems diffuse smooth
 6730 Dichotomous diffuse, Lvs. obov. oblique somewhat cord. at base toothletted at end, Pedunc. 1-f. axillary
 6731 Dichotomous, Leaves serrate oblong hairy, Fl. axill. solitary, Branches spreading
 6732 Dichotomous, Leaves ovate hairy stalked entire, Pedunc. axill. 1-f. Caps. smooth
 6733 Dichotomous, Leaves serrate oval oblong, Pedunc. 2-headed axillary, Stem erect
 6734 Dichotomous, Leaves subrenate linear, Fl. fascicled term. Stem erect
 6735 Dichotomous, Leaves serrate oval-obl. Heads axill. clustered subsessile, Stems procumbent
 6736 Dichotomous, Leaves crenulate roundish smooth, Fl. solitary axill. Stems procumbent
 6737 Dichotomous, Leaves entire half cordate, Fl. solitary axillary, Stems procumbent
 6738 Leaves opp. entire lanceolate obtuse, Fl. solitary axillary, Stems procumbent
 6739 Dichotomous, Leaves entire lanceolate, Peduncles axillary 1-f. as long as leaves, Stem erect
 6740 Branches alternate dichotomous channelled filiform, Leaves ovate stalked pubescent

§ 4. *Flowers umbelled with an involucre.*

* *Umbel trifid.*

- 6741 Dichotomous, Invol. ovate, Leaves entire obovate stalked
 6742 Dichotomous, Invol. subcordate mucronate, Leaves lanceol. obtuse
 6743 Dichotomous, Invol. lanceolate, Leaves linear



and *Miscellaneous Particulars.*

times in a many-flowered head, but more often dichotomous, trichotomous, or even tetrachotomous, with single flowers between the divisions at the base and in the forkings; having bractes in number the same with the peduncles, forming a sort of involucre. The juice of every species of Spurge is so acrid that it corrodes and ulcerates the body wherever it is applied; so that it is seldom used internally. Externally it is dropped on warts or corns to remove them, and in the hollow of a decayed tooth, to remove the pain by destroying the nerve, or it is rubbed behind the ears to give relief in the tooth-ache by blistering.

E. officinarum, and also *antiquorum* and *canariensis*, furnish the Euphorbium of the *Materia Medica*. In the lower regions of Mount Atlas, the inhabitants collect the concreted gum resin, which they call *furbium*, in September. It is obtained by making slight incisions in the branches of the plant with a knife, from which a milk-like juice exudes, and forms into tears of an oblong or roundish form. The quantity yielded is so

6744 minima Haw.	least	○	w	1	jl.s	Ap	.....	1800.	C	s.l	
6745 micrantha W.	small-flowered	○	w	1	jl.s	Ap	Persia	1803.	C	s.l	
6746 tuberosa W.	tuberous	■	○	1	o.d	Ap	Ethiopia	1800.	C	s.l	Bur. afr. 9. t. 4
6747 acuminata Bieb.	pointed	○	w	1	o.d	Ap	Albania	1820.	S	co	Boc. sic. t. 13. f.1
6748 Láthyrus W.	Caper	∇	w	3	my.o	Ap	England	d.st.pl	S	co	Eng. bot. 2255
6749 valentina Pers.	Spanish	○	w	1 1/2	jl.au	Ap	Spain	1804.	S	s.l	
6750 diffusa W.	diffuse	○	w	1 1/2	jl.au	Ap	Austria	1798.	S	s.l	Jac. ic. 1. t. 88
6751 A'pios W.	Pear-rooted	∇	w	1 1/2	jn.jl	Ap	Candia	1596.	D	s.l	
6752 læ'ta W.	Mezereon-lvd.	∇	cu	1	jn.jl	Ap	.....	1758.	C	s.l	Jac. ic. 1. t. 87
6753 genistoïdes W.	Genista-like	■	cu	1	jl.au	Ap	C. G. H.	1808.	C	s.l	
6754 spinosa W.	prickly	■	cu	2	my.s	Ap	Levant	1710.	C	s.l	Dend. brit. 45
6755 nummulariæfólia W.en.	Moneyw. lvd.	■	cu	1 1/2	jl	Ap	.....	1800.	C	co	
6756 epithymoides W.	broad-leaved	∇	cu	1	my.jn	Ap	Austria	1805.	D	co	Bot. rep. 616
6757 dúlcis W.	sweet	∇	cu	1	my.jn	Ap	S. Europe	1759.	D	co	Jac. aus. 3. t. 213
6758 carniólica W.	Carniolian	∇	cu	1	au	Ap	Carniola	1795.	D	co	Scop. carn. t. 21
6759 Pithyúsa W.	Juniper-lvd.	∇	cu	1	jn.jl	Ap	S. Europe	1741.	C	s.l	Boc. sic. t. 5
6760 portlándica W.	Portland	∇	pr	1 1/2	my.s	Ap	Britain	sea.sh.	D	s.l	Eng. bot. 441
6761 Paráthas W.	sea	∇	pr	1	jl.s	Ap	England	sea.sh.	C	s.l	Eng. bot. 195
β suffruticósa	shrubby-sea	∇	cu	1	jl.s	Ap	.....	.....	C	s.l	
6762 rigida Haw.	rigid	∇	cu	2	jl.au	Ap	.....	1795.	C	s.l	
6763 júncea W.	rushy	∇	cu	1	jl.au	Ap	Madeira	1779.	D	s.l	Jac. sch. 1. t. 107
6764 aleppica W.	Aleppo	∇	cu	1	jl.au	Ap	Crete	1739.	D	s.l	Alp. exot. t. 64
6765 segetális W.	corn	∇	w	1 1/2	jl.au	Ap	S. Europe	1699.	D	s.l	Jac. aus. 5. t. 450
6766 bumbelláta Pers.	double-umbell.	∇	cu	1	au	Ap	Barbary	1780.	D	s.l	Po. it. ed. ger.t.1
6767 angustifólia Haw.	narrow-leaved	∇	cu	1	jl	Ap	.....	1780.	D	s.l	
6768 multicorymbósa Ha.	many-flowered	∇	cu	1	jl	Ap	.....	1805.	D	s.l	
6769 provincialis W.	linear-leaved	∇	w	1 1/2	au.n	Ap	S. Europe	1800.	S	s.l	
6770 juncoïdes Haw.	Rush-like	∇	w	1	jl	Ap	.....	1800.	S	s.l	
6771 hiescópia W.	Wart-wort	∇	w	1 1/2	jl.au	Ap	Britain	cor.f.	S	s.l	Eng. bot. 883
6772 serráta W.	narr. notch-lvd.	∇	cu	1	jl	Ap	S. Europe	1710.	D	s.l	Jac. ic. 3. t. 483
6773 crética Haw.	Cretan hoary	∇	un	3	...	Ap	Levant	1768.	C	r.m	
6774 punicea W.	scarlet-flowered	∇	spl	6	ja.s	Ap	Jamaica	1778.	C	s.l	Bot. reg. 190
6775 verrucósa W.	warted	∇	un	1 1/2	jn	Ap	France	1800.	C	s.l	Mor. s. 10. t.3.f.3
6776 corolláta W.	great-flowered	∇	un	1 1/2	jl.s	Ap	N. Amer.	1803.	D	s.l	Bot. cab. 390
6777 spatulafólia Haw.	spatula-leaved	∇	cu	2	au	Ap	.....	1800.	C	s.l	
6778 corallioïdes W.	Coral-stalked	∇	un	1	jn.s	Ap	S. Europe	1752.	D	s.l	
6779 androsemitfólia Donn.	Tutsan-leaved	∇	un	2	jl.s	Ap	Hungary	1800.	D	s.l	
6780 pilósa W.	hairy	∇	un	1 1/2	my.au	Ap	Siberia	1758.	D	s.l	Gm. sib. 2. t. 93
6781 orientális W.	oriental	∇	un	1	jn.jl	Ap	Levant	1739.	D	s.l	
6782 platyphyllos W.	annual-warty	∇	w	1	jl.au	Ap	England	cor.f.	S	co	Jac. aust. t. 376
β stricta E. B.	upright-warty	∇	w	1 1/2	jl.au	Ap	England	.....	S	co	Eng. bot. 333
6783 literáta W.	blotch-leaved	∇	w	1	au	Ap	.....	1790.	S	co	Jac. ic. 3. t. 482
6784 E'sula W.	leafy-branched	∇	cu	1 1/2	my.jl	Ap	Britain	woods.	S	co	Eng. bot. 1399
6785 sylvática Link.	wood	∇	un	2	jl.s	Ap	S. Europe	1768.	D	co	
6786 Erythrina Link.	fleshy	∇	cu	1	jl.s	Ap	C. G. H.	1823.	D	co	
6787 glareósa Bieb.	sandy	∇	w	1	jl.s	Ap	Tauria	1822.	D	co	
6788 bialáta Link.	two-winged	∇	w	3	jl.s	Ap	.....	1823.	S	co	
6789 uralénsis Fisch.	Ural	∇	w	3	jl.s	Ap	Ural	1821.	D	co	
6790 micrantha Bieb.	small-flowered	∇	un	1 1/2	my	Ap	Tauria	1822.	S	co	Bux. cen. 2. t. 25
6791 crispá Horn.	crisp	∇	un	3	my	Ap	.....	1821.	D	co	
6792 condylocárpa Bieb.	heart-leaved	∇	un	1 1/2	my	Ap	Caucasus	1823.	D	co	
6793 fragifera Link.	berry-bearing	∇	un	2	my	Ap	Italy	1820.	D	co	
6794 Gerardiána W.	Gerard's	∇	un	1	jl	Ap	Germany	1801.	C	co	Jac. aust. t. 436
6795 Cyparissias W.	Cypress	∇	pr	2	my.s	Ap	England	woods.	D	co	Eng. bot. 840
6796 virgáta W. & K.	twigg	∇	un	1	ap.jn	Ap	Hungary	1807.	D	co	Pl. rar. h. t. 162
6797 myrsinítes W.	glaucous	∇	un	1	ap.jn	Ap	S. Europe	1570.	D	s.l	
6798 imbricáta P. S.	imbricated	∇	un	1	aus.	Ap	Portugal	1804.	C	s.l	
6799 nicáénsis W.	sharp-leaved	∇	un	1 1/2	...	Ap	Spain	1809.	D	s.l	Jac. ic. 3. t. 485



History, Use, Propagation, Culture,

considerable, that the plants are cut once only in four years; the supply then obtained being sufficient for that space of time for all Europe. The recent juice is so corrosive as to erode the skin wherever it touches; and the people who gather the gum are obliged to tie a cloth over their mouth and nostrils, to protect them from the acrid dust of the withered branches, which induces the most violent sneezing. It is inodorous; and, when first chewed, has little taste, but it soon gives a very acrid burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportable. Euphorbium possesses powerful cathartic, emetic, errhine, and rubeifacient properties. It has been given as a hydragogue in dropsies; but, owing to the violence of its effects, its internal use is now exploded: neither as an errhine can it be used alone, for it occasions so

- 6744 Dichotomous, Umbel trifid, Invol. broad obovate, Leaves entire obovate spatulate on long stalks
 6745 Dichotomous, Leaves lanceolate obovate serrate, Invol. cordate, Caps. warted
 6746 Invol. 4-leaved, Stem naked, Leaves oblong emarginate
 6747 Umbel subtrifid, Leaves mucronate, Cauline spatulate lanc. Invol. ovate, Caps. smooth

** Umbel 4 or 5-fid.

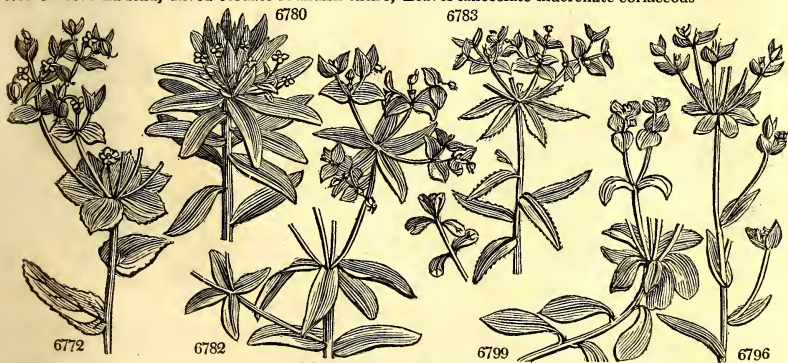
- 6748 Umbel 4-fid dichotomous, Leaves opposite entire
 6749 Umbel 4-fid trifid, Invol. ovate acute, Leaves lanc. : lower spatulate
 6750 Umbel 4-fid dichotomous, Invol. obtuse, Leaves altern. lin. cuneate emarginate mucron. Stem diffuse
 6751 Umbel 4-fid bifid, Invol. reniform : the first obcordate
 6752 Umbel 4 or 5-fid twice dichotomous, First invol. oblong : upper rhomboid-roundish, Leaves lin. lanceol.
 6753 Umbel 5-cleft bifid, Invol. ovate, Leaves linear erect
 6754 Umbel 5-cleft simple, Invol. ovate : first 3-leaved, Leaves oblong entire
 6755 Umbel 5-cleft bifid, Upper leaves obovate serrulate mucronate : lower lanc. reflexed
 6756 Umbel 5-cleft bifid, Invol. ovate toothletted, Leaves entire lanc. oblong villous beneath
 6757 Umbel 5-cleft bifid, Invol. subovate toothletted, Leaves lanc. obtuse, Caps. warted hairy
 6758 Umbel 5-cleft bifid, Rays nodding, Invol. ovate entire, Leaves lanc. acute, Caps. warted smooth
 6759 Umbel 5-cleft bifid, Invol. ovate mucronate, Leaves lanc. : the lower involute imbricated downwards
 6760 Umbel 5-cleft dichotomous, Invol. subcordate concave, Leaves lin. lanc. acute smooth spreading
 6761 Umbel 5-cleft bifid, Invol. cordate reniform, Leaves imbricated upwards

- 6762 Branches filiform, Leaves numerous linear oblong retuse, Rib mucronate, Fl. solitary terminal
 6763 Umbel 5-cleft dichotomous, Leaves and invol. linear lanceolate acute
 6764 Umbel 5-cleft dichotomous, Invol. ovate lanceolate mucronate, Lower leaves setaceous
 6765 Umbel 5-cleft dichotomous, Invol. cordate acute, Leaves lin. lanceolate : the upper broadest
 6766 Umbel multifid double, Invol. subcordate, Leaves linear
 6767 Umbel multifid clustered, Invol. subcordate, Leaves numerous close very narrow
 6768 Umbel multifid dichotomous, Invol. half orbicular cordate, Sterile branches many, Lvs. lin. lanc. obtuse
 6769 Umbel 5-cleft bifid, Invol. cordate mucronate, Leaves oblong
 6770 Umbel 5-cleft bifid, Invol. half orbic. cordate submucronate, Leaves linear imbricated backwards
 6771 Umbel 5-cleft bifid dichotomous, Invol. obovate, Leaves cuneiform serrate smooth, Caps. smooth
 6772 Umbel 5-cleft trifid dichotomous, Inv. l. 2-leaved reniform, Leaves alexicaul. cordate serrate
 6773 Umbel multifid bifid, Invol. orbicular, Leaves linear lanc. villous
 6774 Umbel 5-cleft trifid, Invol. oval acuminate colored, Caps. smooth, Leaves glaucous beneath
 6775 Umbel 5-cleft trifid, Invol. ovate, Leaves lanc. serrulate villous, Caps. warted
 6776 Umbel 5-cleft trifid dichotomous, Invol. and leaves oblong obtuse, Divisions of invol. white
 6777 Umbel 4-fid bifid, Invol. obovate, Leaves spatulate lanc. entire reflexed, Stem half shrubby branched
 6778 Umbel 5-cleft trifid dichotomous, Invol. ovate, Leaves lanceolate, Caps. villous
 6779 Naked smooth, Umbel 5-cleft bifid, Leaves sessile lanceolate veiny on each side
 6780 Umbel 5-cleft trifid bifid, Invol. ovate entire, Leaves lanc. hairy subserrulate at end
 6781 Umbel 5-cleft 4-fid dichotomous, Invol. roundish acute, Leaves lanceolate
 6782 Umbel 5-cleft 3-fid dichotomous, Invol. with a hairy keel, Leaves serrate lanceolate, Caps. warted

- 6783 Umbel 5-cleft 3-fid dichotomous, Invol. lanceolate, Leaves lanc. toothed pubescent, Caps. smooth warted
 6784 Umbel multifid bifid, Invol. subcordate 2-horned, Barren branches with 1-shaped leaves
 6785 Umbel 5-fid bifid, Invol. perfoliate cordate acute, Leaves lanc. entire
 6786 Leaves lanc. obtuse, Umbel 5-fid dichotomous, Invol. ovate obtuse 2-horned
 6787 Umbel 5-fid bifid, Leaves spatulate lanc. mucronate coriaceous serrulate, Invol. ovate, Caps. smooth
 6788 Leaves obversely obl. Invol. oblong and ovate serrulate at end, Umbel 5-fid dichotom. Caps. keeled twice
 6789 Leaves linear with long points entire smooth, Umbel 5-fid bifid, Invol. lanceolate, Leaves 2-horned
 6790 Umbel trifid dichotomous, Leaves serrate somewhat hairy : lower spatulate ; upper and invol. spatulate
 6791 Upper branches hairy, Leaves smooth lanceolate, Caps. warted, Invol. cordate
 6792 Umbel sub-5-fid bifid, Caul. leaves and invol. cordate lanceolate obtuse toothletted, Invol. reniform
 6793 Leaves lanceolate, Umbel 5-fid, Invol. oval obtuse, Caps. ramentaceous hairy

*** Umbel 6-many-fid.

- 6794 Umbel multifid dichotomous, Invol. roundish entire, Branches none
 6795 Umbel multifid dichotomous, Invol. subcordate, Branches sterile, Leaves setaceous, Cauline lanceolate
 6796 Umbel multifid bifid, Invol. subtriangular, Leaves sessile erect, Caps. rough
 6797 Umbel 8-fid bifid, Invol. subovate, Leaves spatulate spreading fleshy mucronate rough at edge
 6798 Umbel dichotomous bifid, Invol. roundish mucronate, Leaves obovate imbricate serrulate
 6799 Umbel 5-fid bifid, Invol. cordate roundish entire, Leaves lanceolate mucronate coriaceous



and Miscellaneous Particulars.

much inflammation to produce hæmorrhage from the nostrils, and swells the integuments of the head. When properly diluted, however, with starch or any other inert powder, and cautiously used, it is an effectual and excellent ermine in lethargy, deafness, palsy, amaurosis, and similar cases. (*London Dispensatory*, 298.)

E. Lathyris has seeds about the size and color of caper buds, and in Paris is sometimes substituted for that pickle. Eaten in any quantity they must prove highly deleterious.

E. helioscopia has a peculiarly acrid milky juice, which is often applied by country people to eat off warts ; but should be used with caution where the parts are tender. According to Linnæus, sheep eat it, and are purged by it, and their flesh acquires a bad taste ; but this is not the case with cows.

6800 palústris <i>W.</i>	marsh	∇ Δ un	4	my.au	Ap	Sweden	1570.	D s.l	Fl. dan. 866
6801 emargináta <i>W.</i>	freckled	∇ Δ un	2	jl.au	Ap	Italy	1758.	D co	
6802 hibérnica <i>W.</i>	Irish	∇ Δ cu	1	my.jn	Ap	Britain	fields.	D co	Eng. bot. 1337
6803 salicifólia <i>W.</i>	willow-leaved	∇ Δ w	2	my.jn	Ap	Hungary	1804.	D co	Pl. rar. h. t. 55
6804 amygdaloides <i>W.</i>	Almond-leav.	∇ Δ or	2	mr.jn	Ap	England	woods.	D co	Eng. bot. 256
6805 charácias <i>W.</i>	upright-red	∇ pr	4	mr.jn	Ap	England	mo. pl.	C co	Eng. bot. 442
6806 glaucescens <i>W.</i>	glaucescent	∇ un	1	mr.jn	Ap	.....	1823.	D co	
6807 agrária <i>Bieb.</i>	field	∇ ○ w	1	jn	Ap	Crimea	1821.	S co	
6808 pállida <i>W.</i>	pale	∇ un	1½	jn	Ap	Hungary	1822.	D co	
6809 prócera <i>Bieb.</i>	tall	∇ un	2	au	Ap	Crimea	1819.	D co	Gmel. sib. t. 94
6810 ceratocar'pa <i>Ten.</i>	horn-fruited	∇ Δ un	1	jl.au	Ap	Naples	1823.	D co	Ten. neap. t. 63
6811 salicifólia <i>Hort.</i>	willow-leaved	∇ Δ un	1	jn	Ap	Hungary	1820.	D co	
1104. PEDILAN'THUS.	Neck. SLIPPER PLANT.					<i>Euphorbiacæ.</i>	Sp. 1—3.		
6812 tithymaloídes <i>Kunth.</i>	Myrtle-leaved	∇ □ cu	1½	jl.au	Ap	S. Amer.	1820.	C co	Bot. reg. 837
6813 carinatus <i>Donn.</i>	keeled	∇ □ cu	1½	jl.au	Ap	.....	1817.	C co	Bot. mag. 2514
1105. VIS'NEA. <i>W.</i>	VISNEA.					<i>Ebenacæ.</i>	Sp. 1.		
6814 Mocanéra <i>W.</i>	Canary	∇ □ or	5	...	W	Canaries	1815.	C lp	

TETRAGYNIA.

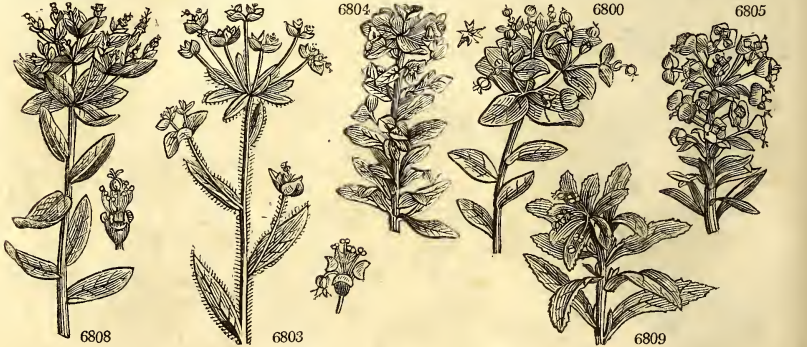
1106. CALLI'GONUM. <i>W.</i>	CALLIGONUM.					<i>Polygonacæ.</i>	Sp. 1—5.		
6815 Pallásia <i>W.</i>	Caspian	∇ or	4	au	G.w	Casp. Sea	1780.	C lp	Pall.ros.2.t.77,78

PENTAGYNIA.

1107. GLI'NUS. <i>W.</i>	GLINUS.					<i>Ficoídcæ.</i>	Sp. 1—3.		
6816 lotoídes <i>W.</i>	hairy	□ un	1½	jl	Y	S. Europe	1788.	S s.l	Boc. sic. 21. t. 11
1108. BLACKWEL'LIA. <i>Juss.</i>	BLACKWELLIA.					<i>Homalincæ.</i>	Sp. 1—6.		
6817 integrifolia <i>Lam.</i>	entire-leaved	∇ □ or	6	...	W	Madagasc.	1823.	C s.p	Lam.ill. t.412.f.2
1109. GASTO'NIA. <i>Juss.</i>	GASTONIA.					<i>Araliacæ.</i>	Sp. 1—2.		
6818 palmata <i>Wall.</i>	palmate	∇ □ or	4	l.mr	W.G	.....	1818.	C p.l	

DODECAGYNIA.

1110. SEMPERVIVUM. <i>W.</i>	HOUSELEEK.					<i>Sempervivacæ.</i>	Sp. 20.		
6819 arbóreum <i>W.</i>	tree	∇ □ or	9	mr.d	Y	Levant	1640.	C s.l	Bot. reg. 99
β variegátum	striped-leaved								
6820 canariense <i>W.</i>	Canary	∇ □ or	1½	jn.jl	Y	Canaries	1699.	R s.l	Plant. grass. 141
6821 glutinósum <i>W.</i>	clammy	∇ □ or	1½	jl.au	Y	Madeira	1777.	C s.l	Bot. mag. 1963
6822 glandulósum <i>W.</i>	glandulous-ldv.	∇ □ or	1	mr.my	Y	Madeira	1777.	C s.l	
6823 ciliátum <i>W. cn.</i>	white-flowered	∇ □ or	1½	...	W	Teneriffe	1815.	C s.l	Bot. mag. 1978
6824 Smithii <i>Sims.</i>	Smith's	∇ □ or	1	jl.au	Y	Teneriffe	1815.	C s.l	Bot. mag. 1980
6825 tabulæfórme <i>Haw.</i>	table-shaped	∇ □ or	1½	jl.au	Pa.Y	Teneriffe	1817.	C s.l	
6826 flagellifórme <i>Fisch.</i>	running	∇ Δ or	½	jl.au	R	Siberia	1823.	C s.l	
6827 tortuifórme <i>W.</i>	gouty	∇ □ or	½	jl.au	Y	Canaries	1779.	C s.l	Bot. mag. 296
6828 villósum <i>W.</i>	villous	∇ □ or	½	jn.jl	Y	Madeira	1777.	D s.l	Bot. mag. 1809
6829 stellátum <i>Sm.</i>	starry	∇ □ or	½	jl.au	Y	M. Baldo	1790.	D s.l	Seg. veron. 2.t.17
6830 tectórum <i>W.</i>	common	∇ Δ or	1	jn.s	F	Britain	roofs.	D s.p	Eng. bot. 1320
6831 africánum <i>Haw.</i>	African	∇ Δ or	1	...	...	C. G. H.	1768.	D s.l	
6832 dodrantéa <i>W. cn.</i>	smth.-ldv.-ann.	∇ Δ or	1	jl.au	Pk	Teneriffe	1815.	S s.l	
6833 hirtum <i>L.</i>	hairy	∇ Δ or	1	jn.jl	W	Italy	1804.	D s.p	Schmidt. ic. t.17
6834 soboliferum <i>B. M.</i>	Hen & Chicken	∇ Δ or	½	jn.jl	Pa.Y	Germany	...	D s.p	Bot. mag. 1457



History, Use, Propagation, Culture,

Many of the stove species of this genus are succulents, and will thrive the better if a little lime rubbish be added to their sandy loam. They are somewhat difficult to strike. Sweet says, "The way I have succeeded best, is to stick them in the tan amongst the pots in a good heat, and not cover them with any glass." (*Bot. Cult.* 55.)

The inflorescence of this genus is not now considered to consist of twelve stamens surrounding an ovary; but almost as in *Reseda*, of a number of monandrous naked male florets surrounding a naked female floret. This manner of understanding *Euphorbia* was first indicated by Jussieu, and afterwards correctly explained by Mr. Brown.

1104. *Pedilanthus*. From *πιδίλον*, a slipper, and *ανθος*, a flower, in allusion to the form of the involucre. A genus resembling *Euphorbia* in properties and appearance.

1105. *Visnea*. This seems to be a blunder of the younger Linnaeus for *Vismea*, which now is the name of a distinct genus, which sec. Ripened cuttings root freely in sand.

- 6800 Umbel multifid 3-fid bifid, Invol. ovate, Leaves lanceolate, Branches barren
 6801 Umbel multifid bifid, Invol. broadly cord. Leaves obl. emarg. smooth, Stem branched, Capsules warted
 6802 Umbel 6-fid dichotomous, Invol. oval, Leaves entire, Branches none, Capsules warted
 6803 Umbel multifid dichotomous, Invol. reniform cordate, Leaves lanceolate villous
 6804 Umbel multifid dichotomous, Invol. perfoliate orbiculate, Leaves obtuse
 6805 Umbel multifid bifid, Invol. perfoliate emarginate, Leaves lanceolate entire
 6806 Leaves linear lanceolate entire close together, Capsules smooth
 6807 Umbel multifid bifid, Cauline leaves and involucre cordate oblong rough at edge subserrulate
 6808 Umbel multifid trifid, Invol. roundish, Leaves lanc. attenuate, Stem simple, Caps. smooth
 6809 Umb. 5-fid 3-fid dichotomous, Leaves lanceolate hairy serrulate at end, Capsules smooth
 6810 Leaves lanceolate entire smooth, Caps. warted smooth, otherwise like *E. palustris*
 6811 Leaves entire lanceolate villous, Umb. multifid, Inv. reniform cordate

- 6812 Leaves ovate acuminate
 6813 Leaves ovate acuminate keeled beneath

6814 The only species

TETRAGYNIA.

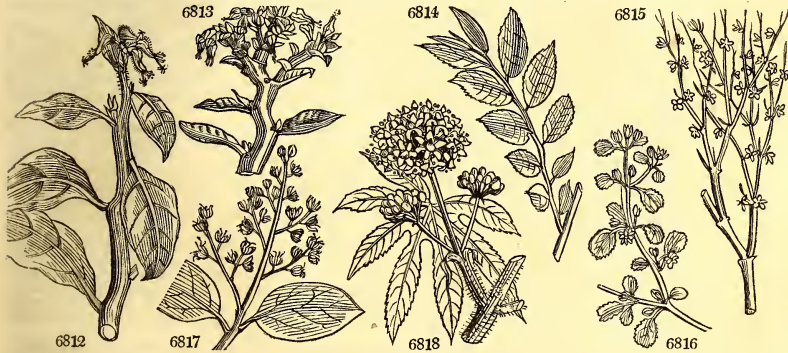
- 6815 Fruit winged, Wings membranous crisp toothed

PENTAGYNIA.

- 6816 Stem hairy, Leaves obovate
 6817 Leaves ovate obtuse usually entire, Fl. terminal panicled
 6818 Leaves palmate, Stem aculeate

DODECAGYNIA.

- 6819 Stem arborescent smooth branched, Leaves cuneiform smoothish ciliated, Ciliæ spreading smooth
 6820 Stem shrubby, Leaves orbicular-spatulate villous, Nectaries nearly square truncate
 6821 Stem shrubby, Leaves cuneiform viscid ciliated, Ciliæ cartilaginous appressed
 6822 Stem shrubby, Leaves orbicular-spatul. glutinous at edge with globose glands and cuneiform trunc. nects.
 6823 Leaves obovate acute smooth with a cartilaginous edge, Cymes clustered
 6824 Stem with dense spreading bristles, Leaves curved with longitudinal green spots beneath
 6825 Leaves closely packed together in a broad flat disk
 6826 Suckers spreading lateral, Leaves ovate mucronate warted, Branches of cyme bifid
 6827 Leaves obovate gibbous beneath villous, Nects. 2-lobed
 6828 Leaves spatulate cuneiform obtuse villous, Nects. palmate
 6829 Stem pubescent, Leaves spatulate scattered
 6830 Leaves ciliated, Suckers spreading, Nects. cuneiform with a swelling
 6831 Margins of leaves serrate toothed, Offsets spreading
 6832 Leaves entire oblong ovate smooth stalked, Cymes spreading, Pedunc. and calyx hairy
 6833 Leaves stem and petals hairy at end
 6834 Leaves ciliated, Offsets short round nearly sessile, Petals 6 fringed



and Miscellaneous Particulars.

1106. *Calligonum*. From *καλος*, beautiful, and *γωνη*, a knee or joint. This plant produces, instead of leaves, curious greenish excrescences disposed in joints, which give it a remarkable appearance.
 1107. *Glinus*. A name employed by Theophrastus to designate a kind of maple. This plant is, however, more like a purslane.
 1108. *Blackwellia*. Named after Elizabeth Blackwell, who published an Herbari in 1735, containing figures of between two and three hundred plants, drawn and engraved by herself. Curious stove plants with pretty foliage, but inconspicuous spikes of whitish green flowers.
 1109. *Gastonia*. Named by Commerson after Gaston de Bourbon, son of Henry IV. In the Isle de Bourbon it is called *Bois d'Eponge*.
 1110. *Sempervivum*. From *semper vivere*, to live for ever, in allusion to the tenacity of life common to plants of the genus. This is a succulent genus, some species of which are ornamental or singular, and others

6835 globiferum <i>W.</i>	globiferous	♀ ♂ or	¼ jn.jl	Y	Germany	1731.	D s.p	Bot. mag. 507
6836 montanum <i>W.</i>	mountain	♀ ♂ or	¼ jn.jl	R	Switzerl.	1752.	D s.l	Plant. grass. 105
6837 arachnoideum <i>W.</i>	cobweb	♀ ♂ or	¼ jn.jl	R	Italy	1699.	D s.p	Bot. mag. 68
6838 monanthos <i>W.</i>	one-flowered	♀ ♂ cu	¼ jl.s	R	Canaries	1777.	D s.l	Bot. mag. 93



History, Use, Propagation, Culture,

curious. *S. tectorum*, common on the roofs of buildings, is used by country people as an application to burns, inflammations, and ulcers, alone, in a bruised state, or mixed with cream. Linnaeus informs us, that house-



CLASS XII. — ICOSANDRIA. STAMENS many, perigynous, or inserted into the Calyx.

To gardeners this is one of the most interesting of the Linnean classes, containing a greater proportion than any other of objects which come within their observation and management. It also consists of genera for the most part naturally allied; and comprises not only the most remarkable portion of Ficoideæ, all Cacti, and the chief of the Myrtaceæ, but almost every genus of the beautiful and hardy tribes of Rosaceæ. Its characters are well defined, and depend upon the insertion of a number of distinct stamens, exceeding twenty, into the inner surface of the calyx; modifications of which organ are here found to be of more than ordinary importance in characterising the genera.

The genera are extremely natural, and have been all studied with unusual attention. Some difference of opinion exists among botanists as to the limits which ought to be assigned to them, and great diversity of nomenclature has thence arisen. "But," as has been observed by a modern author, "in a class so strictly natural as this is, greater difficulty is always to be expected in finding characters for genera, than in those of which our knowledge is more imperfect, and whose series of individuals may therefore be considered less complete." In the apple and pear tribe, Pomaceæ, where the greatest difficulty is thought to exist, we adopt Mr. Lindley's arrangement, as published in the Transactions of the Linnean Society, which we find admitted by all botanists of authority.

But if it is difficult to ascertain the definite limits of the genera of Icosandria, it is yet more perplexing to arrive at a satisfactory conclusion respecting the species of which the genera are constituted. Having all been, as long as gardens have existed, the objects of cultivation, it has happened that many individuals have, under the action of domestication, wandered so far from their original types, as to have acquired new characters for themselves, of so peculiar a kind as to have rendered it impossible at the present day to refer them with certainty to the source from which they originally sprung. To remedy this confusion, which has been thus increasing for ages, some persons have thought it necessary to distinguish the species by such artificial characters as they are now found to possess, without reference to any changes the genera may have undergone; but it has been found that no facilities of discrimination have been gained by multiplying distinctions in consideration of differences which are neither permanent or remarkable, nor connected with natural habit, but purely artificial. To others it has appeared proper to endeavour to reduce the aberrant forms which now exist to those from which, upon mature consideration, they may be presumed to have been derived, and to simplify the arrangement and discrimination of the species by confining them within their primitive limits. As we think the latter to be the most simple principles of arrangement, and as they are certainly the most philosophical, we shall here follow those authors who have adopted them.

It is usual in this class to distinguish the orders with two and three styles from that with five: but the different species vary so much in the same genus in this respect, that we have only separated the genera into those with one style, Monogynia; with two, three, or five styles, Di-Pentagynia; and with many styles, Polygynia.

Order 1. MONOGYNIA. Many perigynous Stamens. 1 Style.

§ 1. Ovary inferior.

1111. *Cactus*. Cal. imbricated. Petals numerous, in many rows: the inner the largest. Stigma many-cleft. Berry many-seeded.

1112. *Rhipsalis*. Cal. 3-4-parted, very short. Teeth acuminate, membranous, very fine. Berry 1-celled, pelucid. Seeds 12, in the centre.

1113. *Bartonia*. Cal. 5-cleft. Petals many. Caps. cylindrical, 1-celled at the end with 3-5 lid-like valves. Placentas 3-5, parietal, bearing seeds in a double row.

- 6835 Leaves ciliated, Offsets globose
 6836 Leaves entire, Offsets spreading
 6837 Leaves with entangled hairs, Offsets round
 6838 Leaves rounded clavate clustered, Pedunc. naked 1-fl. Nects. obcordate



and Miscellaneous Particulars.

leek is a preservative to the coverings of houses in Smoland. It may easily be made to cover the whole roof of a building, whether of tiles, thatch, or wood, by sticking the offsets on with a little earth or cow dung.

1114. *Philadelphus*. Cal. 4-5-parted. Petals 4-5. Style 4-cleft. Caps. half-superior, 4-5-celled, many-seeded. Seeds with an arillus.
 1115. *Leptospermum*. Cal. persistent at base, 5-cleft, half-superior. Petals 5, clawed, round, longer than stamens. Stigma capitate. Caps. depressed, 4-5-celled. Seeds angular, slender.
 1116. *Fabricia*. Cal. 5-cleft, half-superior. Petals 5, sessile. Stigma capitate. Capsule many-celled. Seeds winged.
 1117. *Metrosideros*. Cal. 5-cleft, half-superior. Petals 5. Stamens very long, separate. Stigma simple. Caps. 3-4-celled.
 1118. *Psidium*. Cal. 5-cleft. Petals 5. Berry soft, pulpy, many-seeded. Cotyledons leafy, very small. Radicle very large, arcuate. Testa bony.
 1119. *Eugenia*. Cal. 4-5-parted, superior. Petals 4-5. Fruit fleshy, 1-celled, 1-seeded. Cotyledons half-cylindrical. Radicle very small. Testa membranous.
 1120. *Caryophyllus*. Cal. funnel-form. Fruit dry, 1 or 2-celled. Otherwise like *Eugenia*.
 1121. *Myrtus*. Cal. 5-cleft. Petals 5. Berry 2 or 3-celled, many-seeded. Radicle and cotyledons distinct.
 1122. *Calyptanthus*. Cal. truncate, before flowering covered with an hemispherical deciduous lid. Cor. O. Berry 1-celled, 4-seeded.
 1123. *Pimenta*. Cal. 5-fid. Petals 5. Ovary 2-celled. Ovules solitary, appense. Style straight. Stigma somewhat capitate.
 1124. *Olythia*. Cal. 5-cleft. Petals 5. Stigma hooked. Berry 1-celled. Seeds angular. Embryo ferruginate.
 1125. *Stravadium*. Cal. 4-cleft. Petals 4. Fruit 4-cornered, 1-seeded. Flowers in terminal racemes. Leaves alternate.
 1126. *Eucalyptus*. Cal. truncate, covered with an entire deciduous lid. Cor. O. Capsule 4-celled, opening at end, many-seeded.
 1127. *Punica*. Cal. 5-cleft. Petals 5. Berry many-celled, many-seeded. Seeds berried. Placentas parietal.

§ 2. *Ovary superior.*

1128. *Amygdalus*. Cal. 5-cleft. Petals 5. Drupe with a nut perforated on its surface.
 1129. *Prunus*. Cal. 5-cleft. Petals 5. Drupe with a hard smooth nut.
 1130. *Chrysobalanus*. Cal. 5-cleft. Petals 5. Style lateral. Drupe with a 5-furrowed, 5-valved nut.

Order 2. DI-PENTAGYNIA.



Many perigynous Stamens. 2 to 5 Styles.

§ 1. *Ovary inferior*

1131. *Mespilus*. Cal. 5-parted, with leafy divisions. Disk arge, honey-bearing. Styles smooth. Apple turbinate, open, 5-celled, with a bony putamen.
 1132. *Crataegus*. Cal. 5-toothed. Petals spreading, orbicular. Ovary 2-5-celled. Styles smooth. Apple fleshy, oblong, closed by the teeth of the cal., or by the thickened disk. Putamen bony.
 1133. *Pyrus*. Cal. 5-toothed. Petals roundish. Apple closed, 5-celled, with a cartilaginous putamen. Cells 2-seeded. Testa cartilaginous.
 1134. *Cydonia*. Cal. 5-parted, with leafy divisions. Apple closed, many-seeded. Testa mucilaginous.
 1135. *Photinia*. Cal. 5-toothed. Petals reflexed. Ovary half-superior, villous, 2-celled. Styles 2, smooth. Pericarp 2-celled, included in the fleshy calyx. Testa cartilaginous.
 1136. *Raphiolepis*. Cal. with a funnel-shaped deciduous limb. Filaments filiform. Ovary 2-celled. Apple closed by the thickened discus, with a papery putamen. Seeds gibbous.
 1137. *Eriobotrya*. Cal. woolly, bluntly 5-toothed. Petals bearded. Stamens erect, the length of teeth. Styles 5, filiform, included, hairy. Apple closed, 3-5-celled. Chalaza none. Radicle included between the bases of cotyledons.
 1138. *Amelanchier*. Cal. 5-toothed. Petals lanceolate. Ovary 10-celled. Ovules solitary. Apple 3-5-celled, with a cartilaginous putamen.

1139. *Coloneaster*. Flowers polygamous. Cal. turbinate, bluntly 5-toothed. Petals short, erect. Stamens length of teeth. Styles smooth, shorter than stamens. Achenopses parietal, included in calyx.

§ 2. *Ovary superior.*

1140. *Waldsteinia*. Cal. 10-cleft; the alternate segments smaller. Petals 5. Styles clavate, deciduous. Grains 2, obovate.
 1141. *Spiræa*. Cal. spreading, 5-cleft. Petals 5. Caps. 1-celled, 2-valved, opening inwards, 1-3-seeded.
 1142. *Gillenia*. Cal. infundibuliform, 5-toothed. Petals 5. Stamens very short. Capsule 5-celled.
 1143. *Sesuvium*. Cal. 5-parted, colored. Petals O. Caps. ovate, 3-celled, cut round, many-seeded.
 1144. *Aizoon*. Cal. 5-parted. Pet. O. Caps. 5-celled, 5-valved.

Order 3. POLYGYNIA.

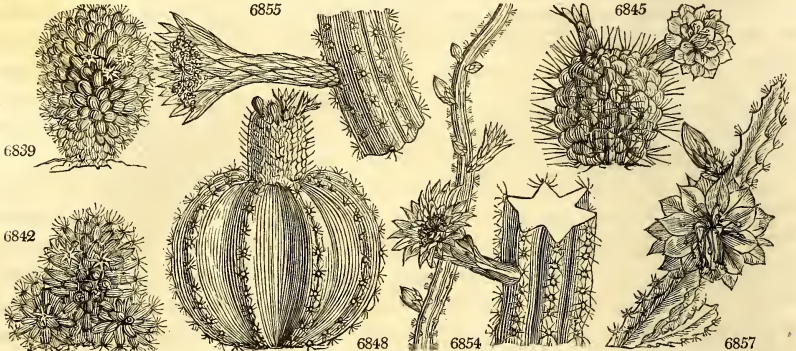


Stamens many, perigynous. Styles many.

1145. *Tetragonia*. Cal. 3-5-parted. Petals O. Drupe inferior, with a 3-8-celled nut.
 1146. *Mesembryanthemum*. Cal. 5-cleft. Petals many, linear. Capsule turbinate, fleshy, inferior, many-seeded.
 1147. *Hymenogyne*. Styles about 12, united in a delicate tube. Caps. 1-celled, many-seeded. Otherwise like *Mesembryanthemum*.

MONOGYNIA.

1111. CACTUS. W.	CACTUS.		<i>Cacti.</i>	<i>Sp.</i>	68-90.			
6839 mammillaris L.	small red-spin'd	fr	1	jl.au	W	W. Indies	1688.	C s.p Plant. grass 111
6840 coronatus W.	garland	gr	5	...	...	S. Amer.	1820.	C s.p
6841 depressus Dec.	depressed	gr	4	...	...	S. Amer.	1789.	C s.p
6842 stellaris W.	hoary	cu	4	my.jn	Pk	S. Amer.	1815.	C s.p Bot. cab. 79
6843 viviparus Pursh.	viviparous	cu	...	...	R	Louisiana	1811.	C s.p
6844 gibbosus Haw.	gibbous	gr	3	jl.au	W	.....	1808.	C s.p Bot. reg. 137
6845 magnimam'mus Haw.	large-teated	gr	3	...	...	Mexico	1823.	C s.p
6846 lanifer Haw.	woolly	gr	3	...	...	Mexico	1823.	C s.p
6847 geminispinus Haw.	two-spined	gr	3	...	...	Mexico	1823.	C s.p
6848 Melocactus L.	Turk's Cap	fr	1 1/2	jl.au	W	W. Indies	1688.	C s.p Plant. grass 112
6849 recurvus Mill.	recurved	gr	3	...	...	.....	1768.	C s.p
6850 nobilis Haw.	crook-spined	gr	2	...	...	Mexico	1796.	C s.p
6851 senilis Haw.	old	gr	3	...	...	Mexico	1823.	C s.p
6852 latispinus Haw.	broad-spined	gr	3	...	...	Mexico	1823.	C s.p
6853 macracanthus Haw.	long-spined	gr	1 1/2	...	...	S. Amer.	1820.	C s.p



History, Use, Propagation, Culture,

1111. *Cactus*. A name under which Theophrastus describes a spiny plant, an article of food, which grew in Sicily. This genus consists of succulent plants, permanent in duration, singular and various in structure; generally without leaves, and having the stem or branches jointed; for the most part armed with spines in bundles, with which, in many species, bristles are intermixed. These bundles of spines are placed on the top of the tubercles in the smaller melon thistle, which is tubercled all over, and produces its flowers between the tubercles. In the great melon thistle the spines are ranged in a single row on the ridge of the ribs. These are of an ovate or globular form. The torch thistle, on the contrary, are slender, rise up high, are jointed and branched; many of them are almost cylindrical, with from five to ten shallow ribs; some, however, are square or three cornered. The structure of the creeping *Cereuses* is the same with these, except that the stems are weak and cannot support themselves; they therefore seek support from trees, and throw out roots from the stem, like ivy. In the Indian figs the branches are jointed, and flattened like the sole of a shoe; the bundles of spines or bristles are scattered over the surface, and the flowers are produced from the edge of the extreme branches. In the *Phyllanthus* the branches are thinner, they are indented along the edge, and the flowers come out singly from the indentures. This seldom has any spines. *Pereskia* has a round stalk with leafy branches; the leaves alternate, flat, and thick; the prickles are large and stiff, and come out in bundles on the stalk and branches, chiefly at the axils; the flowers are produced several together from the axils also. In this and the Indian figs the flowers are pitcher-shaped; in the other species they are subcylindrical and longer; in *Phyllanthus* very long. The fruit in some of the sorts is small, like currants; but in most it is larger, and shaped like a fig, whence their name of Indian fig.

C. melocactus, the great melon thistle or Turk's cap, appears like a large fleshy green melon, with deep ribs, set all over with strong sharp thorns. When it is cut through the middle, the inside is found to be a soft, green, fleshy substance, very full of moisture. The flowers and fruit are produced in circles round the upper part of the cap. Some of those which have been brought to England, have been more than a yard in circumference, and two feet and half high including the cap. But in the West Indies there are plants near twice as large. Linnaeus observes, that this plant resembles a hedge-hog in its form and spines; and on the top has a discoid, convex, villous body, from which the flowers proceed.

1148. *Rosa*. Cal. urceolate, 5-cleft, fleshy, contracted at orifice. Petals 5. Grains bony, hairy, included in the fleshy tube of calyx.
 1149. *Rubus*. Cal. 5-cleft. Petals 5. Berry composed of many cohering fleshy grains. Receptacle nearly dry.
 1150. *Dalibarda*. Cal. 5-cleft. Petals 5. Berry dry. Styles 5, long, deciduous.
 1151. *Fragaria*. Cal. 10-cleft. Pet. 5. Grains inserted upon a fleshy deciduous receptacle.
 1152. *Comarum*. Cal. 10-cleft. Petals 5, less than calyx. Receptacle ovate, spongy, persistent.
 1153. *Potentilla*. Cal. 10-cleft. Petals 5. Grains rugose, roundish, naked, fixed to a small dry receptacle.
 1154. *Tormentilla*. Like *Potentilla*, but cal. 8-cleft. Petals 4.
 1155. *Geum*. Cal. 10-cleft. Sepals unequal. Petals 5. Grains generally with a jointed awn.
 1156. *Kerria*. Cal. 5-cleft. Pet. 5, orbicular. Ovaries 5-8, smooth, globose. Ovules solitary. Styles filiform. Capsules globose.
 1157. *Calycanthus*. Stamens unequal, deciduous; the 12 outer fertile. Grains many.
 1158. *Chimonanthus*. Stamens equal, persistent; the 5 outer fertile, in maturity closing the orifice of the calyx by their united bases.
 1159. *Dryas*. Cal. simple, 8-cleft. Petals 8. Grains with a hairy tail.
 1160. *Coluria*. Like *Sieversia*, but the style jointed with the top of ovarium and deciduous, and the achenia glandular, included in the long turbinate tube of the calyx.
 1161. *Sieversia*. Cal. 10-cleft. Petals 5. Stamens indefinite. Ovaries indefinite, with an ascending ovule. Styles terminal, continuous. Achenia awned with the persistent style. Embryo erect.

MONOGYNIA.

- 6839 Roundish covered with ovate bearded tubercles
 6840 Simple clavate, Tubercles ovate with woolly spines at end, Wool shorter than spines
 6841 Roundish depressed with ten angles
 6842 Proliferous, Warts small cylindrical, Spines fine whitish the lowest like hairs
 6843 Roundish multiplex, Warts cylindrical bearded above furrowed proliferous
 6844 Roundish deeply 16-angled, Angles with a remarkable swelling below each parcel of spines
 6845 Warts large very green downy at end, Spines about 4 strong expanded
 6846 Simple rounded obovate, Warts woolly at end with more than 20 spines
 6847 Columnar, Warts small very numerous with little spines between, 2 in each parcel much longer than rest
 6848 Roundish with about 14 angles
 6849 Roundish with 15 angles, Spines broad recurved numerous
 6850 Oblong with many angles, Angles and spines middle-sized straight
 6851 Oblong with about 20 angles, Rays of spines capillary long
 6852 Depressed spheroidal with about 21 angles, Rays of spines variable the lowest very broad flat deflexed
 6853 Roundish bright green with 14 angles, Ribs straight with long thick white spines



and Miscellaneous Particulars.

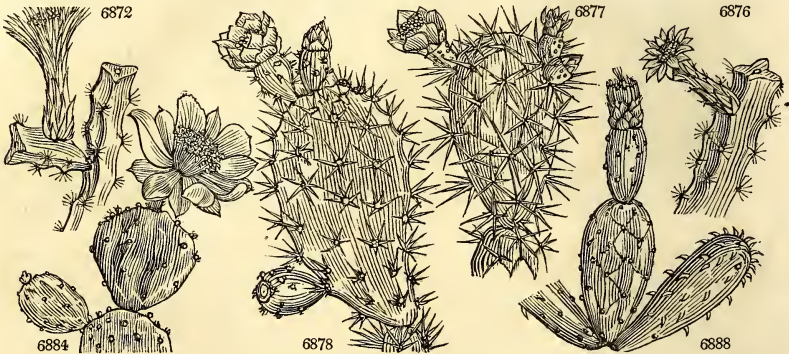
C. melocactus, *mammillaris*, and *proliferus*, by many thought to be but one species, grow upon the steep sides of rocks in the hottest parts of America, where they seem to be thrust out of the apertures, having little or no earth to support them: their roots shooting down into the fissures of the rocks to a considerable depth, so that it is troublesome to get the plants up. As they delight in such rocky places, they seldom live long when transplanted into a better soil. In times of great drought the cattle repair to the barren rocks where these plants grow, rip them up with their horns, tear off the outside skin, and greedily devour all the fleshy moist part. The fruit is frequently eaten by the inhabitants of the West Indies. It is about three quarters of an inch in length, of a taper form, drawing to a point at the bottom, but blunt at the top: the taste is an agreeable acid.

C. repandus has a fruit about the size and shape of a Bergamot pear, having many soft spines on the skin; the outside is a pale yellow, the inside very white, full of pulp, having a great number of small black seeds lodged in it. It frequently flowers in July, and in warm seasons will perfect its fruit, which has very little flavor in this country, but is frequently served up at table in the West India islands.

The fruit of *lanuginosus* and *peruvianus* are also occasionally eaten where they are natives.

C. grandiflorus and *flagelliformis* have flowers remarkable for their beauty and sweetness. *C. grandiflorus*, when arrived to a sufficient strength, will produce many exceeding large, beautiful, sweet scented flowers, like most of this kind, of very short duration, scarcely continuing six hours full blown: nor do the flowers ever open again when once closed. They begin to open between seven and eight of the clock in the evening, are fully blown by eleven, and by three or four in the morning they fade, and hang down quite decayed; but during their short continuance, there is scarcely any flower of greater beauty, or that makes a more magnificent appearance; for the calyx of the flower, when open, is near a foot diameter; the inside of which, being of a splendid yellow color, appears like the rays of a bright star; the outside is of a dark brown; the petals being of a pure white add to the lustre; the vast number of recurved stamens surrounding the style in the centre of the flower make a fine appearance: add to all this the fine scent of the flower, which perfumes the air to a considerable distance. There is scarce any plant which deserves a place in the hothouse so much as this, especially as it may be trained against the wall, where it will not take up any room. The usual season of its

6854 hexagónus L.	four-angled	gr	3	jlau	W	Surinam	1690.	C s.p	Bot. rep. 513
6855 peruvíanus W.	Peruvian	fr	3	au	W	Peru	1728.	C s.l	Plant. grass. 58
6856 tetragónus L.	six-angled	gr	3	jl	W	S. Amer.	1710.	C s.p	
6857 speciosissimus Desf.	beautiful	gr	3	jl	Cr	S. Amer.	1816.	C s.p	Bot. reg. 486
6858 pentagónus L.	five-angled	gr	3	jl	W	S. Amer.	1769.	C s.l	
6859 Royéni L.	nine-angled	fr	2	...	...	S. Amer.	1728.	C s.l	
6860 albispinus Salm.	white-spined	or	2	...	...	S. Amer.	1820.	C s.l	
6861 lanuginósus L.	woolly	fr	1	jl	W	W. Indies	1690.	C s.p	Herm. par. t.115
6862 repándus L.	wavy-angled	fr	20	au	W	W. Indies	1728.	C s.p	Bot. reg. 336
6863 obtúsus Haw.	blunt	cu	3	...	...	.....	1820.	C s.p	
6864 imbricátus Haw.	imbricated	cu	3	...	...	.....	1820.	C s.p	
6865 níger Salm.	black	cu	3	...	...	.....	1820.	C s.p	
6866 cylíndricus L.	cylíndric	cu	3	...	...	Peru	1799.	C s.l	
6867 serpentinus W.	serpentine	gr	4	...	...	Peru	.....	C s.l	
6868 multanguláris W.	many-angled	fr	3	jl	...	S. Amer.	1815.	C s.l	
6869 heptagónus W.	seven-angled	gr	3	jl	W	W. Indies	1728.	C s.p	
6870 trianguláris L.	great-triangul.	fr	1	jlau	W	W. Indies	1690.	C s.l	Bot. mag. 1884
6871 triquetor W.	least-triangul.	cu	3	...	...	S. Amer.	1794.	C s.p	
6872 trigónus Haw.	small-triangul.	cu	1	...	W	S. Amer.	1809.	C s.p	Plu.am.t.200.f.2
6873 grandiflorus L.	night-flowering	spl	1	jn.au	W.Y	Jamaica	1700.	C s.p	Bot. rep. 508
6874 réptans W.	trailing	cu	2	...	...	.....	1813.	C s.l	
6875 flagellifórmis L.	creeping	or	6	mr.jn	Pk	Peru	1690.	C s.l	Bot. mag. 17
6876 quadrangulárisHaw.	quadrangular	or	3	...	...	S. Amer.	1820.	C s.l	Plu.am.t.193.f.1
6877 clátor W.	great-bk.-spin'd	gr	6	jlau	Y	S. Amer.	1731.	C s.l	DI.el.t.294.f.379
6878 Tána L.	yellow-spined	clit	3	jlau	Pa.Y	S. Amer.	1731.	C s.l	Plant. grass. 138
6879 nigricans Haw.	lesser-bk.-spin.	cu	3	au	Pk	S. Amer.	1735.	C s.l	Bot. mag. 157
6880 polyánthus W.	many-flowered	cu	3	jlau	Y	S. Amer.	1811.	C s.l	Plant.grass.c.ic.
6881 brasiliénsis W.	thin-branched	cu	6	jlau	Y	Brazil	1816.	C s.l	
6882 hámilis Haw.	humble	cu	1	...	...	.....	1795.	C s.l	
6883 Dilléni Ker.	Dillenius's	cu	5	o	Pa.Y	.....	1810.	C s.l	
6884 opántia L.	Indian Fig	fr	2	jlau	Y	S. Europe	1596.	C s.l	Bot. mag. 2393
6885 strictus Haw.	oval-upright	gr	3	jlau	...	.....	1796.	C s.l	Plant.grass.c.ic.
6886 decumánus W.	great-oblong	gr	10	...	...	S. Amer.	1768.	C s.l	
<i>Opántia máxima</i> Haw.	warted	cu	1	...	...	.....	1818.	C s.l	
6887 tuberculátus W.	Cochineal Fig	clt	5	jl.s	Pu	S. Amer.	1688.	C s.l	Bot. rep. 533
6888 cochinillifer L.	single-spined	cul	2	...	...	S. Amer.	1816.	C s.l	
6889 monacánthus W.	long	cu	3	...	...	.....	1817.	C s.l	
6890 elongátus W.	three-spined	gr	2	...	...	S. Amer.	...	C s.l	
6891 triacánthus W.	spear-shaped	gr	2	jl	Y	S. Amer.	1796.	C s.l	
6892 lanceolátus Haw.	downy	cu	2	...	...	.....	1820.	C s.l	
6893 tomentósus Link.	few-spined	cu	2	...	...	.....	1819.	C s.l	
6894 subínermis Link.	cluster-spined	gr	20	jl	...	Jamaica	1732.	C s.p	
6895 spinosissimus L.	ferocious	gr	3	...	...	S. Amer.	1817.	C s.p	
6896 férox W.	Pin-pillow	gr	6	ju.jl	...	Curassao	1690.	C s.p	Knor.the.2 t.s.2
6897 curassávicus L.	brittle	gr	2	...	...	N. Amer.	1814.	C s.p	
6898 fráglis Nutt.	glaucous	gr	2	...	Y	S. Amer.	1817.	C s.p	
6899 foliósus W.	small Indi. Fig	fr	1	jn	Y	S. Amer.	1805.	C s.p	
6900 pusillus Haw.	Spleenwort	gr	2	jn	Pk	S. Amer.	1710.	C s.p	Plant. grass. 145
6901 phyllánthus L.	winged	gr	2	...	Pk	Jamaica	1817.	C s.p	Bot. mag. 2092
6902 phyllanthoides Dec.									



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flowering is in July, and when the plants are large, many flowers will open the same night, and there will be a succession of them for several nights together. Sometimes six, eight, or ten flowers open at the same time on one plant, making a most magnificent appearance by candle-light: but none of them are succeeded here by any appearance of fruit.

C. flagelliformis produces a greater number of flowers than the foregoing sort: they come out in May, and sometimes earlier, when the season is warm. The petals are of a fine pink color both within and without; they are not so numerous, and the tube of the flower is longer than that of the other. These flowers keep open three or four days, provided the weather, or the place where the plants stand, be not too warm; and during their continuance they make a fine appearance. This sort has very slender trailing branches, which require a support: they are not jointed, nor do they extend so far as those of the other sort. Fruit sometimes succeeds the flowers, but seldom ripens.

C. triangularis, the strawberry pear, *Poirer de Chardon*, Fr., bears the best flavored fruit of any of the sorts; it is slightly acid, and at the same time sweet, pleasant, and cooling; in Martinique and other West India islands it is much esteemed.

C. opuntia, native of the country of the Opuntiani, whose chief town was Opus, in the vicinity of Phocis, though like the others a native of America, is now found growing wild on the sides of the roads between Rome and Naples and other parts of Italy, and even in the Valais. Gerard says, it was brought from Virginia into England, and Collinson had it from Newfoundland. It was fruited in Scotland in a stove by

- 6854 Erect with deep furrows long with 6 distant angles
 6855 Erect with deep furrows long with about 8 obtuse angles
 6856 Erect with deep furrows long with 4 compressed angles
 6857 Erect with deep furrows long slightly quadrangular with toothed angles
 6858 Erect with deep furrows long jointed with about 5 angles
 6859 Erect slender with shallow furrows jointed with 9 angles, Joints ovate, Spines as long as wool
 6860 Erect slender with shallow furrows jointed with 9 angles not glaucous, Spines white; a variety of the last
 6861 Erect slender with shallow furrows long with 9 obsolete angles, Spines shorter than wool
 6862 Erect slender with shallow furrows long with 8 compressed wavy angles, Spines longer than wool
 6863 Erect slender with shallow furrows, Branches jointed few bluntly triangular
 6864 Erect slender with shallow furrows, Scarcely ang. Surface covered with variously imbric. lobed divisions
 6865 Erect slender with shallow furrows black with numerous brown spines longer than the wool
 6866 Erect slender with shallow furrows weak cylindrical, Surface covered with netted crossing furrows
 6867 Erect rounded below long elegant with about 9 angles, Spines snow-white weak, Wool very short
 6868 Erect with 18 close obtuse angles with bristly yellowish spines longer than the wool
 6869 Erect with deep furrows oblong with 7 angles
 6870 Creeping triangular rooting
 6871 Decumbent rooting 3-cornered, Spines fascicled divaricating seven two or three lines long
 6872 Creeping rooting 3-cornered with scarcely channelled angles, Spines 5-7 in stellate fascicles
 6873 Creeping rooting with about 5 angles
 6874 Creeping 5-cornered with subulate spines longer than the wool
 6875 Creeping rooting hispid with 10 angles
 6876 Creeping with 3 or 4 angles which are scarcely channelled, Spines 5-7 in stellate parcels
 6877 Erect, Joints broadly ovate-oblong, Spines subulate very long blackish
 6878 Erect, Joints broadly ovate-oblong, Spines subulate long yellow
 6879 Erect, Joints oblong and lanceolate, Spines of various shapes brownish black
 6880 Joints oblong and ovate, Spines of various shapes yellow, Fl. numerous solitary
 6881 Stem rounded, Branches ovate compressed flat, Spines solitary or 3 together subulate strong
 6882 Joints cuneate obovate decumbent, Spines variously shaped yellow
 6883 Erect, Joints obovate roundish glaucous, Stigma 6-lobed
 6884 Creeping prostrate, Joints ovate, Spines even numerous hair-shaped
 6885 Erect, Joints ovate elliptical, Spines even numerous short
 6886 Joints ovate oblong very thick, Spines unequal
- 6887 Jointed proliferous, Joints oval, Warts with a cluster of spines the length of the wool
 6888 Joints ovate oblong unarmed
 6889 Erect, Joints lanceolate-oblong, Clusters of spines fuscous weak with one strong white spine
 6890 Erect, Joints oblong or oval, Spines numerous variable brown; one very long straw-colored
 6891 Jointed proliferous, Joints ovate oblong with strong white spines longer than wool
 6892 Nearly erect, Joints lanceolate with even short spines, Leaves 3 lines long
 6893 Branches oblong with short soft hairs, Spines small
 6894 Branches oblong scarcely spiny
 6895 Joints very long slender compressed, Spines very long slender clustered white
 6896 Joints oblong with numerous stiff spines of which one is very long and white at base
 6897 Joints brittle cylindrical ventricose compressed much divaricating
 6898 Joints brittle compressed short, Spines numerous variable white erect
 6899 Jointed proliferous, Joints lanceolate-glaucous, Spines bristly longer than wool
 6900 Joints brittle linear-lanceolate divaricating, Spines unequal
 6901 Proliferous smooth branched ensiform compressed serrated with a central woody rib
 6902 Branches ensiform compressed obovate with spreading teeth, Spines few setaceous longer than wool



and Miscellaneous Particulars.

Justice, in 1750, and recently by Braddick, near London, in the open air. This active horticulturist, having eaten with pleasure of the prickly pear in Virginia, was desirous of cultivating it here. He recollected that the plant in its wild state delighted in a dry soil, amongst rocks, near the skirts of the sunny sides of the forests; and having heard that it would stand the open air in this country, he planted it in the compost described below, placed in a sheltered situation open to the sun. "The first plant that I turned out has lived in the open ground of this country for six or seven years, during which period it has endured one exceeding hard winter, and several trying springs; and in all, except the two first years, it has never failed to ripen its fruit and seeds, so that it may be now considered decidedly acclimated. The compost used by me for growing the Cactus Opuntia, is the following: one half is carbonate of lime, for which lime-rubbish from old buildings will answer; the remaining half consists of equal portions of London clay and peat-earth, having the acid neutralised by barilla; these are intimately blended and sifted. One square yard of this compost I conceive to be sufficient for one plant, which must be placed in the middle of a small artificial hillock, raised eighteen inches above the surface of the ground, which ground should be rendered perfectly dry, if not naturally so, by under-draining. Neither the leaves, flowers, nor fruit should ever be suffered to touch the ground, but they should as constantly as they are produced be kept from the earth by placing stones, pebbles, flints, or bricks under them, in imitation of artificial rock-work." (*Hort. Trans.* ii. 238.)

C. *Ficus indica* is very common in Jamaica, and on it feed the wild sort of cochineal insect. The fruit is large and of a deep purple color, and when eaten dyes the urine of a bloody color.

6903 truncatus Link.	truncate	st. <input type="checkbox"/>	gr	1	jn	Pk	Brazil	1818.	C	s p	Bot. reg. 695
6904 Pereskia L.	Barbad. Gooseb.	st. <input type="checkbox"/>	gr	5	o.n	W	W. Indies	1696.	C	s p	Dil. cl. t. 227. f. 294
6905 grandifolius Haw.	large-leaved	st. <input type="checkbox"/>	gr	3	...	...	Brazil	1818.	C	s p	
6906 longispinus Haw.	long-spined	st. <input type="checkbox"/>	gr	2	...	...	S. Amer.	1808.	C	s p	
1112. RHIP'SALIS. Gert.	RHIPSALIS.										
6907 Cassutha G.	naked	st. <input type="checkbox"/>	cu	1	s	Y	W. Indies	1758.	C	s p	Hook. ex. fl. 20
	<i>Cactus pëndulus</i> W.										
6908 parasiticus Haw.	parasitic	st. <input type="checkbox"/>	cu	1	...	Y	S. Amer.	1800.	C	s p	Plant. grass. 59
6909 grandiflorus Haw.	large-flowered	st. <input type="checkbox"/>	cu	1	jl	W	.....	1818.	C	s p	
6910 fasciculatus W. en.	bundled	st. <input type="checkbox"/>	cu	1	...	Y	S. Amer.	1817.	C	s p	
6911 salicornioides Haw.	salt-wort	st. <input type="checkbox"/>	cu	1½	jn	Y	E. Indies	1817.	C	s p	Bot. mag. 2461
1113. BARTONIA. Ph.	BARTONIA.										
6912 ornata Ph.	naked-seeded	st. <input type="checkbox"/>	or	2	jl.s	W	Missouri	1811.	C	s p	Bot. mag. 1487
6913 núda Ph.	winged-seeded	st. <input type="checkbox"/>	or	2	jl.s	W	Missouri	1811.	C	s p	
1114. PHILADELPHUS. W.	SYRINGA.										
6914 coronarius W.	common	st. <input type="checkbox"/>	or	8	my.jn	W	S. Europe	1596.	L	co	Bot. mag. 391
	<i>β nánus</i>										
6915 inodórus W.	dwarf	st. <input type="checkbox"/>	or	2	my.jn	W	.....	.....	L	co	
6916 grandiflorus Ph.	scentless	st. <input type="checkbox"/>	or	2	jn.jl	W	Carolina	1738.	L	co	Bot. mag. 1478
6917 hirsútus Nutt.	large-flowered	st. <input type="checkbox"/>	or	6	jn.jl	W	Carolina	1811.	L	co	Bot. reg. 570
	hairy	st. <input type="checkbox"/>	or	3	jn	W	N. Amer.	1820.	L	co	Dend. brit. 47
1115. LEPTOSPERMUM. W.	LEPTOSPERMUM.										
6918 scoparium W.	New Zeal. Tea	st. <input type="checkbox"/>	or	6	jn.jl	W	New Zeal.	1772.	C	p l	Bot. rep. 622
6919 flavescens W.	yellowish	st. <input type="checkbox"/>	or	5	my.jl	Y	N. S. W.	1787.	C	p l	Sch. s. ha. 24. t. 14
6920 attenuatum W.	fine-branched	st. <input type="checkbox"/>	or	5	my.jl	W	N. S. W.	1795.	C	p l	
6921 lanigerum H. K.	hoary	st. <input type="checkbox"/>	or	5	jn.jl	W	N. S. W.	1774.	C	p l	
6922 pubescens W.	pubescent	st. <input type="checkbox"/>	or	5	jn.jl	W	N. S. W.	1774.	C	p l	
6923 grandifolium L. T.	large-leaved	st. <input type="checkbox"/>	or	5	jn.jl	W	N. S. W.	1803.	C	p l	Bot. mag. 1810
6924 parvifolium W.	small-leaved	st. <input type="checkbox"/>	or	5	jn.jl	W	N. S. W.	1789.	C	p l	
6925 stellatum Cav.	short-leaved	st. <input type="checkbox"/>	or	5	jn.jl	Y	N. S. W.	1790.	C	p l	Cav. ic. 4. t. 330
6926 arachnoideum W.	cobweb	st. <input type="checkbox"/>	or	3	my.jl	W	N. S. W.	1795.	C	p l	Gar. sem. 1. t. 35
6927 flexuosum Link.	flexuose	st. <input type="checkbox"/>	or	10	my.jl	W	N. S. W.	1823.	C	p l	
6928 juniperinum W.	Juniper-leaved	st. <input type="checkbox"/>	or	2	jn.jl	W	N. S. W.	1790.	C	p l	Vent. malm. 89
6929 baccatum W.	berry-fruited	st. <input type="checkbox"/>	or	3	jn.jl	W	N. S. W.	1790.	C	p l	Ca. ic. 4. t. 331. f. 2
6930 porophyllum Cav.	dotted	st. <input type="checkbox"/>	or	3	jn.jl	W	N. S. W.	1800.	C	p l	
6931 triloculare V.	trilocular	st. <input type="checkbox"/>	or	2	jn.jl	W	N. S. W.	1800.	C	p l	Bot. cab. 791
6932 ambiguum W.	hook-leaved	st. <input type="checkbox"/>	or	3	jn.jl	W	N. S. W.	1791.	C	p l	Exot. bot. 1. t. 59
1116. FABRYCIA. W.	FABRYCIA.										
6933 myrtifolia W.	opposite-leaved	st. <input type="checkbox"/>	or	3	...	Y	N. Holl.	...	C	s p	Ga. sc. 1. t. 355. f. 4
6934 levigata W.	smooth-leaved	st. <input type="checkbox"/>	or	3	my.jn	Y	N. S. W.	1788.	C	s p	Bot. mag. 1304



History, Use, Propagation, Culture,

C. tuna (tyn the Arabic name for fig) is used as a hedge plant in Spain, South America, and the West Indies. When the island of St. Christopher was to be divided between the English and the French, three rows of the tuna were planted by common consent between the boundaries. (Sloane.) Sir J. E. Smith informs us, that the stamens of the flower are very irritable; and that if a feather be drawn through them, in two or three seconds they begin to lie down gently on one side, and in a short time become recumbent at the bottom of the flower.

C. cochiniifer is the species on which the cochineal insect chiefly feeds. The insect feeds on other succulent plants besides those of the Cactus genus, but this species is cultivated because least annoying by its prickles. It produces an edible fruit larger than that of C. opuntia. On the top of the fruit there grows a red flower: this when the fruit is ripe, falls down on the top of it, and covers it so that no rain or dew can get the inside. A day or two after, the flower being scorched up by the heat of the sun, the fruit opens wide, and the inside appears full of small red insects. The Indians, when they perceive the fruit open, spread a large linen cloth, and then with sticks shake the plant, to disturb the insect, so that they take wing to be gone, but keep hovering over the plant, till by the heat they fall down dead on the cloth, where the Indians let them remain two or three days till they are dry. The cochineal plants are called by the Spaniards Toona. They are planted in the country about Guatimala, Chiapa, and Guaxaca, in the kingdom of Mexico.

The difference, in point of goodness, observable in the cochineal, is entirely owing to the plant it feeds upon. The prickly pear (C. tuna) so abundant in Jamaica, is covered with the insects, but not having their proper food, they are in general diminutive, and have very little red tincture in their bodies. The delicate red colored juice of the fruit is the natural food of the insect. The exuvia and animal salts of the insect are, from the minuteness of its parts, inseparable from the essential principles of the dye, and must diminish the brilliancy of the color; and this has put some persons upon inspissating the juice of the fruit itself. The ripe fruit is said to check fluxes by its mild restringency; it is also a powerful diuretic, and sometimes imparts a tinge to the urine.

C. pereskia, so called from the generic name of Plumier, who made this species a distinct genus, in memory of N. F. Peiresk of Aix, whose name, as Tournefort says, is his only monument, has fruit about the size of a walnut, having tufts of small leaves on it, and within a whitish mucilaginous pulp.

In our stoves, according to Sweet, "sandy loam, or loam mixed with a little brick rubbish, is the best soil for all the Cacti: the pots should be as small as the plants will allow, and well drained with potherds. They

- 6903 Branched, Joints short oblong truncated
 6904 Leaves elliptical fleshy, Spines about $\frac{1}{2}$ an inch long, Buds little woolly
 6905 Spines numerous variable strong, Leaves lanc. oblong with a strong rib beneath
 6906 Leaves elliptical fleshy, Spines $\frac{1}{2}$ an inch long, Buds very woolly
- 6907 Branches pendulous whorled round smooth naked green
- 6908 Branches pendulous whorled round green the younger covered with bundles of white hairs
 6909 Branches round as thick as a quill, Spines scarcely any
 6910 Pendulous, Branches rounded fascicled, Hairs bundled in six lines
 6911 Jointed erect, Branches round and angular, Young spines in minute inconspicuous parcels
- 6912 Ovary leafy, Seeds naked
 6913 Ovary naked, Seeds winged
- 6914 Leaves somewhat toothed ovate oblong
- 6915 Leaves quite entire
 6916 Leaves ovate acuminate toothletted, Axils of veins hairy, Stigmas 4 linear
 6917 Leaves hairy oblong-ovate acute sharply and angularly toothed
- 6918 Leaves ovate mucronate obsolete 3-nerved, Cal. smooth with colored membranous teeth
 6919 Leaves lin.-lanc. obtuse nerveless, Cal. smooth with membranous naked teeth
 6920 Leaves lanc. lin. acute 3-nerved, Cal. silky villous, with membr. colored naked teeth
 6921 Leaves oblong or oval mucr. pubescent on each side obsolete 3-nerved, Branches villous, Cal. very vill.
 6922 Leaves lanc. oblong hairy oblique reflexed at end
 6923 Leaves oval lanceolate, Young shoots colored, Flowers large, Teeth of calyx colored
 6924 Leaves obovate nerveless, Branches and calyxes hairy with membranous colored teeth
 6925 Leaves ovate lanceolate short three nerved, Fl. sol. sessile, Cal. entire persistent
 6926 Leaves subulate pungent, Branches hairy, Calyxes and teeth villous
 6927 Branches flexuose, Flowers sessile fascicled, Cal. hairy
 6928 Leaves lin.-lanc. pungent, Branches silky, Cal. smooth with membranous colored naked teeth
 6929 Leaves lin.-lanc. pungent, Branches hairy, Cal. smooth with membranous col. pubescent teeth
 6930 Leaves oblanc. densely dotted, Fl. sol. terminal, Sepals deciduous
 6931 Leaves acicular rigid fascicled, Flowers solitary, Teeth of calyx colored
 6932 Leaves linear recurved at end, Cal. smoothish, Teeth leafy lanc. naked, Stamens longer than cor.
- 6933 Leaves lanceolate obovate opp. Teeth of calyx round
 6934 Leaves obovate altern. glaucous, Teeth of calyx triangular



and Miscellaneous Particulars.

require very little water. The best way to flower them is to expose them to the air all the summer, which makes them get plump and throws them into flower-bud. Most of the species are fine flowers. Cuttings, after they are taken off, should be left to dry a few weeks till they are shrivelled, then potted, and they will root immediately. (*Bot. Cult.* 31.)

1112. *Rhipsalis*. From $\rho\epsilon\upsilon\lambda\alpha$, a willow branch, in allusion to the flexible decumbent branches of the genus. Curious, branched, jointed, leafless, prostrate plants. Culture as in Cactus.

1113. *Bartonia*. Named by Pursh, in honor of Dr. B. S. Barton of Philadelphia, an American botanist. Beautiful plants, with alternate pinnatifid rough glaucous leaves, and large white flowers, which open during the night, and spread a most agreeable odor. Very rare, if they yet exist, in collections.

1114. *Philadelphus*. A name used by Athenæus for a tree which is now unknown. Bauhin applied it to this genus. The species are free flowerers, well adapted for the shrubbery. The native country of *P. coronarius* is not known; it is generally referred to the south of Europe, but it has only been found twice in Italy, and then in situations where it might have been planted. The flowers have the appearance and odor of those of the orange, but the odor in near contact is much more powerful. Seeds are seldom produced in this country. The leaves taste like fresh cucumbers. *P. grandiflorus* is a very shewy plant. All the species grow freely in common soil, and are increased by layers.

1115. *Leptospermum*. From $\lambda\epsilon\pi\tau\omicron\varsigma$, slender, and $\sigma\pi\epsilon\rho\mu$, seed, in allusion the extreme tenuity of the seeds. Pretty New Holland plants. *L. scoparium* grows commonly in dry places near the shores in New Zealand, and the underwood in Adventure Bay, Van Dieman's Land, chiefly consists of this shrub. The leaves were used by Captain Cook's ships' crews as tea, whence they named it the tea plant. The leaves have a very agreeable bitter flavor, with a pleasant smell, when fresh; but lose something of both, when dry. If the infusion was made strong, it proved emetic to some, in the same manner as green tea. It was also used with spruce leaves, in equal quantity, to correct their astringency in brewing beer from them; and they rendered the beer exceedingly palatable.

Young cuttings of all the species will root readily in sand, under a bell-glass: the species may also be raised from seeds; but plants from cuttings are best, as they flower young, and the seedlings do not flower till they attain a considerable size. (*Bot. Cult.* 214.)

1116. *Fabricia*. Dedicated by Gærtner to John Christian Fabricius, the famous Entomologist. The species

1117. METROSIDE'ROS. <i>W.</i>	METROSIDEROS.	<i>Myrtaceæ.</i>	<i>Sp.</i>	16—20.				
6935 hispida <i>Sm.</i>	rough	or	6	my.au	Y	N. S. W.	1789.	C s.l Exot. bot. 1. t.42
6936 floribunda <i>Sm.</i>	many-flowered	or	6	jl.au	W	N. S. W.	1788.	C s.l
6937 costata <i>Sm.</i>	ribbed	or	6	...	Y	N. S. W.	1816.	C s.l Gæ. se. 1. t.34. f.2
6938 glomulifera <i>W.</i>	cluster-flowered	or	15	my.jn	Y.G	N. S. W.	1805.	C s.l
6939 angustifolia <i>W.</i>	narrow-leaved	or	6	...	Y.G	C. G. H.	1787.	C s.l
6940 marginata <i>P. S.</i>	margined	or	6	...	P.Y	N. S. W.	1816.	C s.l Cav. ic. 4. t. 332
6941 linearis <i>W.</i>	linear-leaved	or	6	jn.jl	W	N. S. W.	1788.	C s.l Ser. han. 19. t. 11
6942 piniifolia <i>W. en.</i>	Pine-leaved	or	6	jn.jl	W	N. S. W.	...	C s.l Wen. col. 1. t. 16
6943 viminialis <i>W.</i>	long-leaved	or	10	mr.jn	R	N. S. W.	1800.	C s.l Gæ. se. 1. t.34. f.4
6944 saligna <i>W.</i>	willow-leaved	or	6	my.jn	R	N. S. W.	1788.	C s.l Bot. mag. 1821
6945 lanceolata <i>W.</i>	spear-leaved	or	10	jn.n	Cr	N. S. W.	1788.	C s.l Bot. mag. 260
6946 speciosa <i>B. M.</i>	splendid	or	10	mr.jn	Cr	N. S. W.	1803.	C s.l Bot. mag. 1761
6947 vera <i>Lindl.</i>	true Iron-wood	or	20	mr.jn	G	E. Indies	1819.	C s.l Lindl. coll. 18
6948 semperflorens <i>Lodd.</i>	ever-blowing	or	6	mr.jn	Cr	N. S. W.	1818.	C p.l Bot. cab. 523
6949 linearifolia <i>Link.</i>	linear-leaved	or	10	mr.jn	R	N. S. W.	1820.	C p.l
6950 rugulosa <i>W.</i>	wrinkled	or	6	mr.jn	Pk	N. S. W.	1821.	C p.l
1118. PSI'DIUM. <i>W.</i>	GUAVA.	<i>Myrtaceæ.</i>	<i>Sp.</i>	7—10.				
6951 pyriferum <i>W.</i>	white	fr	7	jn.jl	W	W. Indies	1656.	C r.m Rum. am. 1. t.47
6952 pomiferum <i>W.</i>	red	fr	20	jn.jl	W	W. Indies	1692.	C r.m Rhe. mal. 3. t. 35
6953 aromaticum <i>W.</i>	aromatic	fr	5	...	W	W. Indies	1779.	C r.m Aub. gui. 1. t.191
6954 cordata <i>B. M.</i>	cordate	fr	5	my.jl	W	W. Indies	1811.	C r.m Bot. mag. 1779
6955 montanum <i>W.</i>	mountain	fr	4	...	W	W. Indies	1779.	C r.m
6956 polycarpum <i>And.</i>	clustered	fr	3	my	W	Trinidad	1810.	C r.m Bot. reg. 653
6957 Cattleianum <i>Lindl.</i>	purple	fr	20	my.jn	W	S. Amer.	1818.	C r.m Lindl. coll. 16
1119. EUGENIA. <i>W.</i>	EUGENIA.	<i>Myrtaceæ.</i>	<i>Sp.</i>	14—37.				
6958 malaccensis <i>W.</i>	Malay Apple-tr.	fr	25	my.au	S	E. Indies	1768.	C s.p Bot. rep. 458
6959 Jambos <i>W.</i>	narrow-leaved	fr	25	f.jl	G.Y	E. Indies	1768.	L s.p Bot. mag. 1696
6960 baruensis <i>W.</i>	many-flowered	or	20	...	W	S. Amer.	...	L s.p Jac. ic. 3. t. 486
6961 myrtifolia <i>Ker.</i>	myrtle-leaved	or	8	ap.jl	W	N. Holl.	1818.	L s.p Bot. reg. 627
<i>M. australis</i> <i>B. M.</i>								
6962 axillaris <i>W.</i>	axillary	or	10	s	W	Jamaica	1793.	C s.p
6963 fragrans <i>W.</i>	sweet-scented	or	10	ap.my	W	Jamaica	1790.	C s.p Bot. mag. 1242
6964 Mini <i>W.</i>	small-fruited	or	10	...	W	Guiana	1803.	C s.p Au. gui. 1. t. 197
6965 elliptica <i>W.</i>	round-fruited	or	8	my.s	W	N. S. W.	1790.	C s.p Bot. mag. 1872
6966 ligustrina <i>W.</i>	privet-leaved	or	8	au	W	Hispaniol.	1798.	C s.p
6967 uniflora <i>W.</i>	one-flowered	or	7	ja.mr	W	Brazil	1759.	C s.p Bot. mag. 473
6968 zeylanica <i>W.</i>	Ceylon	or	10	jn.jl	W	Ceylon	1798.	C s.p Bot. rep. 619
6969 latifolia <i>W.</i>	broad-leaved	or	10	...	W	Guiana	1793.	C s.p Aub. gui. 1. t.199
1120. CARYOPHYLLUS. <i>P. S.</i>	CLOVE-TREE.	<i>Myrtaceæ.</i>	<i>Sp.</i>	1				
6970 aromaticus <i>P. S.</i>	aromatic	cul	20	...	W	Moluccas	1797.	C lp Ru. amb. 2. t.1.2
1121. MYRTUS. <i>W.</i>	MYRTLE.	<i>Myrtaceæ.</i>	<i>Sp.</i>	10—35.				
6971 communis <i>W.</i>	common	or	6	jl.au	W	S. Europe	1597.	C r.m Du. ar. e. n. t. 43
<i>α romána</i>	broad-leaved	or	6	jl.au	W	S. Europe	1597.	C r.m Mil. ic. t. 184. f. 1
<i>β tarentina</i>	Box-leaved	or	6	jl.au	W	S. Europe	1597.	C r.m



History, Use, Propagation, Culture,

requiring to grow to a good size before they produce flowers are well adapted for a conservatory: the culture and propagation as in *Leptospermum*.

117. *Metrosideros*. From *urtica*, the heart of a tree, and *sideros*, iron, in allusion to the hardness of the wood. One species (*M. vera*) is called iron wood. The Chinese make their rudders and anchors of it; and among the Japanese it is so scarce and valuable that it is only allowed to be manufactured in the service of their king. The bark is used as a remedy for fluor albus and diarrhoea, being mixed with Pinang, and a small quantity of cloves and nutmegs. This is a genus distinguished at sight by the peculiar character of the shrubs of Australasia, with both sides of the leaf alike. *M. hispida*, *lancoolata*, and *speciosa*, are beautiful plants, but not free flowerers. They are rather difficult to strike. Sweet recommends "ripened wood planted under a bell-glass in sand."

1118. *Psidium*. One of the Greek names of the Pomegranate. In English it is called *Guava*, a corruption of the American name *Guayaba*. Most of the species are cultivated in the tropics for their fruit, which also ripens freely in this country, though it is of little merit. *P. pyriferum* bears fruit the size of a hen's egg, yellowish, with a peculiar smell. The rind is brittle and fleshy; pulp rather firm, full of bony seeds, flesh colored, sweet, aromatic, and pleasant. In the West Indies it is eaten with avidity, not only by the natives, but by Europeans; with those who are not accustomed to it, the Guava is apt to occasion a slight flux; but Jacquin affirms, that when he has been thirsty on a journey he has eaten of it to satiety without suffering any harm. It is eaten raw in the desert, but the seeds are scarcely separable. It is also preserved with sugar. *P. pomiferum* has fruit like a pomegranate, which is seldom eaten, though eatable, and being astringent is counted strengthening for the stomach. *P. Cattleianum* is reckoned one of the best of the Guavas; the fruit is of a fine deep claret color, and the pulp in consistence and flavor bears a considerable resemblance to the strawberry.

All the species are of easy culture in light and rather rich loam, and are increased readily by seeds, layers, or cuttings in sand under a hand-glass.

- 6935 Leaves opposite cordate at base stem-clasping, Branches calyxes and peduncles hispid
 6936 Leaves opposite stalked ovate lanceolate, Panicle brachiate, Pedic. umbelled
 6937 Leaves opposite stalked lin.-lanc. acuminate oblique, Panicle brachiate decomposed
 6938 Leaves opposite ovate netted veiny beneath pubescent, Heads lateral stalked and bracts downy
 6939 Leaves opposite lin.-lanc. naked, Pedunc. axillary umbelled, Bracts lanc. smooth
 6940 Leaves alternate lanceolate 3-nerved, Fl. racemose clustered terminal smooth
 6941 Leaves scattered linear channelled acute rigid, Fl. lateral clustered sessile
 6942 Leaves alternate lin. filiform rigid mucronate channelled rough, Fl. clustered sessile
 6943 Leaves alternate linear-lanceolate, Fl. clustered lateral pubescent
 6944 Leaves alternate lanceolate narrowed at each end mucronate, Fl. lateral clustered sessile smooth
 6945 Leaves alternate lanceolate mucronate, Fl. lateral clustered sessile pubescent
 6946 Leaves scattered lanceolate veiny glandular mucronate, Caps. downy at end
 6947 Leaves ovate-lanceolate acuminate quite smooth, Cymes stalked many-flowered
 6948 Very like *M. lanceolata*, but the blossoms appear more copiously
 6949 Leaves alternate lin.-lanceolate with a long acute point
 6950 Leaves lin.-lanceolate with a long point dotted rough

- 6951 Leaves elliptical pubescent beneath, Peduncles 1-flowered
 6952 Leaves oblong lanceolate pubescent beneath, Peduncles 3-flowered
 6953 Leaves oblong acuminate smooth, Peduncles 1-flowered
 6954 Leaves sessile cordate rounded smooth on each side, Pedunc. 1-fl. clustered
 6955 Leaves oblong acuminate crenulate shining, Peduncles many-fl.
 6956 Leaves ovate oblong acute sub-crenate, pubescent above rugose beneath, Branches reclinate
 6957 Leaves obovate smooth coriaceous, Fruit purple

- 6958 Leaves entire oblong, Peduncles 4-fl. lateral
 6959 Leaves entire lanceolate, Pedunc. 4-fl. terminal
 6960 Leaves entire ovate-lanceolate, Ped. many-fl. axillary shorter than petiole
 6961 Leaves elliptical, Pedunc. trichotomous lateral and terminal, Stamens much longer than petals

- 6962 Leaves entire oblong acuminate obtuse flat, Pedunc. axill. many-fl. the length of petioles
 6963 Leaves entire roundish ovate obtuse, Pedunc. axill. many-fl. trichotomous the length of leaves
 6964 Leaves entire oblong-lanceolate acuminate, Pedunc. axillary many-fl. racemose shorter than leaf
 6965 Leaves entire elliptical acuminate, Pedunc. panic. axill. and terminal, Fruit globose
 6966 Leaves entire lanceolate narrowed at base obtuse veinless, Pedunc. 1-fl. solitary terminal
 6967 Leaves entire ovate-lanceolate, Pedunc. 1-flowered solitary lateral
 6968 Leaves entire oblong acuminate coriaceous not dotted, Pedunc. 1-fl. filiform
 6969 Leaves entire ovate oblong acuminate netted with veins, Pedunc. 1-fl. about 3 in fruit nodding

6970 The only species

- 6971 Flowers solitary, Involucre 2-leaved
 α Leaves ovate longer than the peduncles
 β Leaves ovate with round berries



and Miscellaneous Particulars.

1119. *Eugenia*. In honor of Prince Eugene of Savoy, who was a protector and encourager of botany, and possessed a botanic garden. Some of the species bear edible fruits: that of *E. malaccensis* is ovate, an inch and a half in diameter, flesh smelling like the rose, agreeable to the taste, and wholesome. It is generally cultivated between the tropics. *E. Jambos* bears smaller fruit, edible, but not so much esteemed; it is nevertheless excellent, resembling in appearance and flavor a Brussels apricot, and produced in great abundance in the stove. All the species grow freely in two-thirds loam and one-third peat, and flower abundantly when the plants are of a good size. Ripened cuttings strike root freely in sand under a hand-glass.

1120. *Caryophyllus*. The Arabs, who have been acquainted from all antiquity with the clove, called it *qarunfel*, which the Greeks altered into *Caryophyllon*. *Girolfuer*, Fr. The fruit is thought to bear some resemblance to a nail, and hence is called clove, *clou*, Fr., *Chiode*, Ital., *Clavo*, Span., *Naghet*, Ger. and Dutch. The whole tree is aromatic, and the fruit or clove is considered as one of the hottest and most acrid substances of the aromatic class, and as such is often used, not only internally, but externally, as a stimulant; as in paralytic cases for example, in which the oil of cloves has been administered to advantage: it is also made use of in the tooth-ache, in which it often succeeds in suddenly abating and subduing the pain. A tincture of cloves in rectified spirit is kept in the shops, as well as the essential oil, which latter is perhaps seldom free from sophistication. For culinary purposes, the uses of cloves are innumerable. The Dutch, who had for a long time the monopoly of the spice trade, prevented while they could the tree from being removed from the Moluccas and other islands, where it grows naturally; but the French now cultivate it in Cayenne and St. Domingo. There are a few specimens in the British gardens. It grows freely in loam and peat, and ripened cuttings are not difficult to root in sand, in moist heat under a hand-glass.

1121. *Mirtus*. From *μύρτος*, perfume. *Myrtos* of the Greeks. *Le Myrte*, Fr., *Myrtle*, Ger., *Myrtus*, Dutch, *Mirto*, Ital. and Span., *Myrta*, Portug., *Myrter*, Dan. and *Myrten*, Swed. The common myrtle is a well known popular shrub, which has been in English gardens for an unknown length of time; evidently from

<i>γ ἰταλικά</i>	Italian, or upr.	♂	or	6	jl.au	W	S. Europe 1597.	C	r.m	
<i>δ βεῖτικά</i>	Orange-leaved	♂	or	6	jl.au	W	S. Europe 1597.	C	r.m	Blackwell, t. 114
<i>ε λυσιτάνικα</i>	Portugal	♂	or	6	jl.au	W	S. Europe 1597.	C	r.m	Clus. hist. 1. t. 1
<i>ζ βέλγικα</i>	broad-leaf. Dutch	♂	or	6	jl.au	W	S. Europe 1597.	C	r.m	
<i>η μυκρονάτα</i>	Rosemary-leaf.	♂	or	2	jl.au	W	S. Europe 1597.	C	r.m	
6972 <i>tomentosa</i> W.	woolly-leaved	♂	or	6	jn.jl	Pu	China 1776.	C	s.p	Bot. mag. 250
6973 <i>biflora</i> W.	two-flowered	♂	or	10	ap.my	W	Jamaica 1759.	L	s.p	Br. jam. t. 25. f.3
6974 <i>lúcida</i> W.	shining	♂	or	6	... W	W	Surinam 1793.	L	s.p	
6975 <i>dumosa</i> W.	bushy	♂	or	3	jn.jl	W	W. Indies 1793.	L	s.p	
6976 <i>Grégii</i> W.	Greg's	♂	or	6	... W	W	Dominica 1776.	L	s.p	Gæ. se. 1. t.33 f.3
6977 <i>virgultosa</i> W.	twiggy	♂	or	6	jl.au	W	Jamaica 1787.	L	s.p	Plu. ic. t.208. f. 1
6978 <i>ácris</i> W.	Wild Clove-tree	♂	or	10	my.jl	W	Jamaica 1759.	L	s.p	Pl. alm. t.155. f.3
6979 <i>coriacea</i> W.	Sumach-leaved	♂	or	30	... W	W	Hispaniol. 1759.	L	s.p	Pl. ic. t. 208. f. 2
6980 <i>pimentoides</i> Lindl.	Allspice-like	♂	or	20	my	W	W. Indies ...	L	s.p	Bot. cab. 178
1122. CALYPTRANTHES. W. CALYPTRANTHES.							<i>Myrtaceæ.</i>			<i>Sp. 4-6.</i>
6981 <i>Zuzýgium</i> W.	oval-leaved	♂	or	20	my.jl	W	W. Indies 1778.	L	s.p	Br. jam. t. 7. f.2.
6982 <i>Jambolána</i> W.	Jambolana-tree	♂	or	20	... W	W	E. Indies 1796.	L	s.p	Ru. amb. 1. t. 42
6983 <i>Chytracúlia</i> W.	forked	♂	or	20	mr.my	W	Jamaica 1778.	L	s.p	Br. jam. t. 37. f.2
6984 <i>caryophyllifolia</i> W.	clove-leaved	♂	or	20	... W	W	E. Indies 1822.	L	s.p	Ru. amb. 1. t. 41
1123. PIMENTA. Lindl. PIMENTA.							<i>Myrtaceæ.</i>			<i>Sp. 1.</i>
6985 <i>vulgáris</i> Lindl.	Allspice-Tree	♂	or	30	cul	W	W. Indies 1723.	L	s.p	Bot. mag. 1236
	<i>Myrtus Pimenta</i> L.									
1124. OLYNTHIA. Lindl. OLYNTHIA.							<i>Myrtaceæ.</i>			<i>Sp. 1.</i>
6986 <i>disticha</i> Lindl.	globe-berried	♂	or	2	ap.jl	W	Jamaica 1793.	L	s.p	Bot. mag. 867
	<i>Myrtus disticha</i> W.									
1125. STRAVADIUM. Juss. STRAVADIUM.							<i>Myrtaceæ.</i>			<i>Sp. 1-2.</i>
6987 <i>acutangulum</i> Juss.	sharp-angled	♂	or	20	... ..	...	E. Indies 1822.	L	s.p	Rumph. 3. t. 116
1126. EUCALYPTUS. W. EUCALYPTUS.							<i>Myrtaceæ.</i>			<i>Sp. 30-40.</i>
6988 <i>robústa</i> Sm.	Brown Gum-tr.	♂	or	30	aus.	W	N. S. W. 1794.	L	lp	Sm. no. hol. t. 13
6989 <i>rostráta</i> Cav.	beaked	♂	or	30	... W	W	N. S. W. 1804.	L	lp	Cav. ic. 4. t. 312
6990 <i>piluláris</i> Sm.	narrow-leaved	♂	or	30	... W	W	N. S. W. 1804.	L	lp	
6991 <i>tereticórnis</i> Sm.	long-horned	♂	or	30	... W	W	N. S. W. 1804.	L	lp	
6992 <i>resinifera</i> Sm.	Red Gum-tree	♂	or	30	ap.jl	W	N. S. W. 1788.	L	lp	Bot. rep. 400
6993 <i>margináta</i> Sm.	thick-edged	♂	or	30	ap.jl	W	N. Holl. 1794.	L	lp	
6994 <i>capitelláta</i> Sm.	headed	♂	or	30	... W	W	N. Holl. 1804.	L	lp	Sm. n. holl. 42
6995 <i>saligna</i> Sm.	willow-like	♂	or	30	... W	W	N. S. W. 1804.	L	lp	
6996 <i>botryoides</i> Sm.	bunched	♂	or	30	... W	W	N. S. W. 1804.	L	lp	Cav. ic. 4. t. 341
6997 <i>botryoides</i> Sm.	glaucous-leaved	♂	or	30	ap.jl	W	N. Holl. 1803.	L	lp	Cav. ic. 4. t. 341
6998 <i>hæmástoma</i> Sm.	red-mouthed	♂	or	30	... W	W	N. Holl. 1803.	L	lp	
6999 <i>piperita</i> Sm.	Peppermint-tr.	♂	or	30	... W	W	N. S. W. 1788.	L	lp	
7000 <i>obliqua</i> W.	oblique-leaved	♂	or	100	jl.au	W	V. Diem. 1774.	L	lp	Par. lond. 15
7001 <i>corymbósa</i> W.	corymbus-flow.	♂	or	30	... W	W	N. S. W. 1788.	L	lp	Cav. ic. 4. t. 340



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what Gerarde and Evelyn say, before the invention of greenhouses, and probably in that case preserved by covering or housing in rooms. It was a great favorite among the ancients, for its elegance, and its evergreen sweet leaves. It was sacred to Venus, either on this account, or perhaps because it flourishes most in the neighbourhood of the sea. Myrtle-wreaths adorned the brows of bloodless victors, and were the symbol of authority for magistrates at Athens. Both branches and berries were put into wine, and the latter were used in the cookery of the ancients. The myrtle was also one of their medicinal plants. All parts of it are astringent, but it is discarded from modern practice.

M. coriacea, sometimes called wild cinnamon, is a most elegant tree, with a handsome ash-colored straight trunk, and pyramidal head. It grows slowly, and flowers late twice a year. In old trees, the bark becomes white, and hangs down in shreds which have an aromatic quality. The timber is red, very hard, and used in mill-work. The berries, which are the size of peas, and of an agreeable aromatic smell and taste, are used in culinary purposes.

1122. *Calyptranthes*. From *καλυπτρον*, a lid, and *ανθος*, a flower, in allusion to the peculiar manner in which the segments of the calyx, being grown together, fall off.

Zuzýgium, is so called from *ζυζυγος*, coupled, in allusion to the manner in which the branches and leaves are united by pairs. *C. Jambolana*, frequently called the Java plum, bears a black esculent berry. Cuttings of this genus, Sweet observes, "do not strike freely; ripened ones strike best in sand under a bell-glass; but the plants root best from layers." (*Bot. Cult.* 34.)

1123. *Pimenta*. A genus readily distinguishable from *Myrtus* by the structure of its ovarium. It is a handsome tree, common in the hilly parts of the north side of Jamaica. The flowers are without show, and are succeeded by spherical purple berries crowned with a persistent calyx: they are called Jamaica pepper or all-spice, from their taste being thought to resemble a composition of all other spices. The berries are gathered before being ripe, and are carefully dried on mats or terraced floors in the shade. In ten or twelve

- γ Leaves ovate-lanceolate acute
 δ Leaves ovate-lanceolate close together
 ε Leaves lanceolate ovate acute
 ζ Leaves lanceolate acuminate
 η Leaves lin.-lanceolate acuminate. Very small
 6972 Peduncles 1-flowered, Leaves 3-nerved downy beneath
 6973 Peduncles 2-flowered, Leaves lanceolate
 6974 Peduncles about 3-fl. Leaves subsessile lanceolate attenuated
 6975 Racemes axillary very short, Leaves stalked broad lanceolate acuminate
 6976 Peduncles axillary many-fl. Leaves ellipt. acute entire pubescent beneath
 6977 Racemes lateral and terminal, Leaves broad lanceolate attenuated
 6978 Peduncles axillary terminal and corymb. trichotomous, Leaves ellipt. convex coriaceous veiny dotted
 6979 Peduncles 3-chotomous terminal, Leaves roundish elliptical convex coriaceous veinless dotted
 6980 Leaves elliptical flat with close parallel transverse veins, Cymes stalked few-flowered shorter than leaves

- 6981 Pedunc. axillary 3-chotomous spreading, Leaves ovate obtuse, Branches dichotomous
 6982 Panic. subterminal, Leaves ovate emarginate
 6983 Peduncles terminal paniced trichotomous downy, Leaves ovate attenuated at end
 6984 Panicles lateral, Leaves elliptical ovate entire

6985 Flowers trichotomous paniced, Leaves oblong lanceolate acuminate

6986 Leaves distichous deflexed ovate-lanceolate

6987 Leaves crenate, Raceme very long, Drupe ovate

- 6988 Lid conical contracted in middle broader than calyx, Leaves ovate
 6989 Lid rostrate, Umbels lateral, Leaves ovate-lanceolate attenuate oblique
 6990 Leaves linear lanceolate, Lid conical contracted in middle, Umb. lateral
 6991 Lid conical rounded very smooth membranous, Umb. lateral solitary
 6992 Lid conical rounded coriaceous twice as long as calyx, Umb. lateral solitary
 6993 Leaves ovate thickened at edge, Umbels lateral
 6994 Leaves ovate-lanceolate, Heads lateral solitary, Fruit globose
 6995 Leaves lin.-lanceolate, Heads lateral solitary, Fruit turbinate
 6996 Lid hemispherical obtuse, Heads lateral solitary, Fruit turbinate
 6997 Heads lateral solitary, Pedunc. cuneate compressed, Fruit turbinate
 6998 Umb. lateral and terminal, Pedunc. compressed, Branches angular
 6999 Pedunc. compressed, Branches angular, Umbels lateral paniced or solitary
 7000 Pedunc. and branches round, Umb. lateral solitary
 7001 Umb. corymbose paniced terminal, Calyx round, Lid hemispherical mucronulate



and Miscellaneous Particulars.

days they become wrinkled, dry, and of a dark brown color, and are then packed in bags or casks for sale. Some kiln-dry them by which the same object is sooner effected. The berries have an agreeable aromatic subastringent taste, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm pungent taste of the cloves; qualities which reside chiefly in the cortical part of the dried berry, and are better extracted by a watery infusion, than by spirit or distillation. They are much used in the kitchen, and also by the druggists to cover the disagreeable taste of other remedies, or to give them warmth. An oil is obtained by distillation which is said to be nearly equal to that of oil of cloves, and sometimes substituted for it.

1124. *Olymthia*. So named from *ολυθιος*, a little fig or berry. A genus separated from *Myrtus* on account of the singular manner in which all the parts of the seed are consolidated. A small stove plant common in collections.

1125. *Stravadium*. The Malabar name of this plant is *Tsjera samstravadi*, from which *Stravadium* has been contrived. A fine tree with racemose flowers, and large, four-cornered, oblong fruit. A delicate stove plant rarely seen.

1126. *Eucalyptus*. From *eu*, well, and *καλυπτω*, to cover as with a lid; a name, therefore, with the same meaning as *Calyptranthes*, No. 1122. This genus consists of the loftiest timber trees of New Holland. Botanists knowing them principally from dried specimens, their respective heights cannot be stated correctly. They are all of the tallest habit, and soon grow beyond the limits of our stoves. In Van Dieman's Island a manufactory has been established for the preparation of extract of tannin from the bark of various species of *Eucalyptus*. A considerable quantity of the substance has been imported into England recently, and it is said to have been found by the tanners to be twice as powerful in its operation as oak-bark.

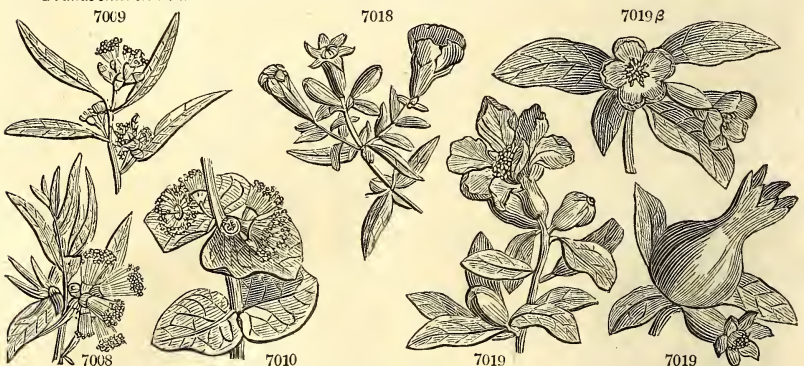
E. resinifera produces a gum resin something like the Kino of druggists (obtained from a species of *Pterocarpus*), and for all medical purposes full as efficacious.

All the species, Sweet observes, "are fine plants for a large conservatory, as they grow very fast, and are

7002 paniculata L. T.	panicked	♂	or 30	...	W	N. S. W.	1804.	L s.p	
7003 cornuta Lab.	horned	♂	or 30	...	W	N. Holl.	1803.	L s.p	Lab. voy. 1. t. 20
7004 reticulata Link.	netted	♂	or 30	...	W	N. Holl.	1823.	L co	
7005 longifolia Link.	long-leaved	♂	or 30	...	W	N. Holl.	1823.	L co	
7006 media Link.	intermediate	♂	or 30	...	W	N. Holl.	1823.	L co	
7007 mucronata Link.	mucronate	♂	or 30	...	W	N. Holl.	1823.	L co	
7008 triantha Link.	three-flowered	♂	or 30	...	W	N. Holl.	1823.	L co	
7009 persicifolia Lodd.	peach-leaved	♂	or 30	jl	W	N. Holl.	1817.	L co	Bot. cab. 501
7010 pulverulenta Link.	powdery	♂	or 30	jn	W	N. Holl.	1816.	L co	Bot. mag. 2087
7011 elongata Link.	long	♂	or 30	...	W	N. Holl.	1823.	L co	
7012 myrtifolia Link.	myrtle-leaved	♂	or 6	...	W	N. Holl.	1823.	L co	
7013 microphylla Link.	small-leaved	♂	or 30	...	W	N. Holl.	1823.	L co	
7014 stenophylla Link.	narrow-leaved	♂	or 30	...	W	N. Holl.	1823.	L co	
7015 hypericifolia Dum.	Hypericum-ld.	♂	or 30	...	W	N. Holl.	1823.	L co	
7016 hirsuta Link.	hairy	♂	or 30	...	W	N. Holl.	1823.	L co	
7017 purpurascens Link.	dark-branched	♂	or 30	...	W	N. Holl.	1823.	L co	

1127. PUNICA. W.	POMEGRANATE.			Myrti.	Sp. 2.				
7018 nana W.	dwarf	♂	or 5	jl.s	R	W. Indies	1723.	C r.m	Bot. mag. 634
7019 Granatum W.	common	fr	18	jn.s	S	S. Europe	1548.	C r.m	Bot. mag. 1832
β alba	white-flowered	♂	or 10	jn.s	S	China	...	C r.m	Bot. rep. 95
γ plena	double-flowered	♂	or 10	jn.s	S	S. Europe	...	C r.m	Tr. ehr. t. 71. f. 2

1128. AMYGDALUS. W.	ALMOND.			Rosaceæ.	Sp. 6.				
7020 Persica W.	common Peach	♀	fr 15	ap.my	R	Persia	1562.	B h.l	
β Nectarina	Nectarine	♀	fr 15	ap.my	R	Persia	1562.	B h.l	
γ plena	double-flowered	♀	or 15	ap.my	R	Persia	...	B h.l	
7021 communis W.	Sweet-almond	♀	fr 15	mr.ap	R	Barbary	1548.	S h.l	
β amara	Bitter-almond	♀	fr 15	mr.ap	R	Barbary	1548.	S h.l	Blackw. t. 195
7022 nana W.	common-dwarf	or	or 2	mr.ap	R	Russia	1683.	B s.l	Bot. mag. 161
7023 incana W.	woolly	or	or 2	mr.ap	R	Caucasus	...	B s.l	Pall. ross. 1. t. 7
7024 orientalis W.	silvery-leaved	♂	or 10	mr.ap	R	Levant	1756.	B s.l	
7025 pumila W.	double-dwarf	♂	or 4	my.jn	R	China	1683.	L s.l	Bot. mag. 2176



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generally well clothed with beautiful foliage; they will also flower freely, when of a moderate size. The best soil for them is a mixture of loam and peat; and cuttings of them may be struck in sand under a bell-glass; but they are not so free to root, as most of this natural order are. (Bot. Cult. 189.)

1127. *Punica*. This fruit was called by the ancients *Malum Punicum*, Carthaginian apple; because, as Pliny tells us, the tree was first known to grow in the vicinity of Carthage. Hence has the term *Punica* been constructed. *P. nana* has very small fruit and flowers, and is used in the West Indies as a hedge-plant, as *P. Granatum* (from *granum*, grain, on account of the numerous grains of its fruit) is in the south of France and in Italy. The latter, in its wild state, is a thorny bush not unlike our hawthorn: its flowers have a fine appearance, and the fruit is very ornamental. It will produce fruit, trained against a south wall, in many parts of England; and under a glass case, or against a fluted wall, it is probable, the fruit might be as highly flavored as that imported from Genoa and Leghorn. The flowers come out at the ends of the branches, singly, or three and four together; and, therefore, in pruning, care must be had to bring into action only the strongest buds. For this purpose, all the weak shoots should be cut out, and the stronger ones shortened, so as to produce bearing-shoots over the whole tree. The best soil is a rich strong loam.

The double-flowering varieties are to be treated in the same manner, and are highly ornamental.

1128. *Amygdalus*. The Greek name of the almond. The species are fruit-trees, or ornamental trees and shrubs, both much esteemed for the gay color and early appearance of their flowers. *A. Persica*, the peach and nectarine, bears the most exquisitely delicious of European fruits; it is more gratifying to the palate by its mass of juicy pulp than the grape, and more delicate than the melon. Some, however, prefer the grape and melon to the peach and nectarine; but the most delicate of taste consider the latter as surpassed only by the pine-apple. The varieties of peach and nectarine are numerous, and by raising from seed might easily be rendered innumerable. The best varieties have been raised in France, at Montreuil, a village of peach growers for the Paris market. Some good varieties have been raised in England by Mr. Knight, and other members of the Horticultural Society. The peach, to attain its proper flavor, must be protected by glass during the spring and earlier summer months, and exposed to the direct influence of the weather during the ripening process. Ripened under glass, unless very liberal supplies of air are given, the flavor will be very inferior. Mr. Knight considers that the direct rays of the sun (without the intervention of glass) are of great advantage to the proper ripening, and essential to the coloring of the peach.

Linnaeus divides the *A. Persica* into two varieties; that with downy fruit, or the peach, and that with smooth fruit, or the nectarine. There are various instances on record (*Hort. Trans.* vol. i. p. 103.) of both fruits growing on the same tree, even on the same branch; and one case has occurred of a single fruit partaking of the nature of both. The French consider them as one fruit, arranging them in four divisions; the *pêches*, or free-stone peaches, the flesh of whose fruit separates readily from the skin and the stone; the *pêches lisses*, or free-stone nectarines, or free-stone smooth peaches; the *pavies*, or cling-stone peaches, whose flesh is firm, and adheres

- 7002 Lid hemispherical obtuse, Cal. angular, Umb. paniced terminal
 7003 Lid very long and cornute, Heads lateral solitary, Style persistent 3-4-fid at base, Leaves lin. lanceolate
 7004 Leaves lanceolate subfalcate acuminate subovate at base oblique netted with veins beneath
 7005 Leaves lanceol. unequal at base, on one side rounded with an incurved point, Branches axillary many-fl.
 7006 Leaves lanceolate with a long point at the base subovate oblique with parallel nerves beneath
 7007 Leaves lanceol. with a short point wavy with parallel nerves beneath and a marginal nerve on both sides
 7008 Leaves obl. unequal at base attenuated somewhat falcate with axillary 3-fl. peduncles and sessile flowers
 7009 Leaves lanceolate stalked, Pedunc. short axillary 6-12-flowered
 7010 Leaves amplexicaul. with a short point glaucous beneath
 7011 Leaves lanc. attenuated with a filiform point netted with veins beneath
 7012 Leaves acute reticulated, the nerves united at the margin
 7013 Leaves falcate at end, those on the branchlets small clustered
 7014 Leaves linear narrowed at base obtuse veiny with nerves united on this side the edge
 7015 Leaves 6 lines long and $\frac{1}{4}$ broad with the lateral parallel nerves united on this side the edge
 7016 Leaves stalked cordate obtuse with nerves downy beneath, Branches and peduncles strigose
 7017 Leaves amplexicaul. lanceolate with a long point glaucous beneath

- 7018 Leaves linear, Stem shrubby
 7019 Leaves lanceolate, Stem arborescent

- 7020 Leaves with all the serratures acute, Flowers sessile solitary

- 7021 Lower serratures of the leaves glandular, Flowers sessile in pairs

- 7022 Leaves ovate attenuate at base simply and finely serrate
 7023 Leaves oblong lanceolate serrate downy beneath
 7024 Leaves lanceolate entire silvery perennial shorter than footstalk
 7025 Leaves lanceolate doubly serrated



and Miscellaneous Particulars.

both to the skin and stone; and the *brugnons*, or nectarines, or cling-stone smooth peaches. *Knight. (Hort. Trans. iii. 1.)*

The double-blossomed peach is one of the most ornamental of spring-flowering trees; its blossoms appear about three weeks later than those of the common peach.

A. communis and *amara*, and especially the former, are employed as ornamental trees in front of shrubberies, and in suburban gardens. In the south of France, Italy, Spain, and different parts of the Levant, they are cultivated for their fruit. In France they have above a dozen species or varieties, besides a hybrid called the almond-peach. (See *Duhamel.*) The common and bitter almond are only to be distinguished by the taste of the kernels of their fruit. The Jordan almonds, which come from Malaga, are the best sweet almonds brought to England; the bitter come chiefly from Magadore. The bitter cuticle of almonds is taken off by immersion in boiling water. The almond eaten as food is not very digestible, and requires to be well masticated.

Robertson (*Hort. Trans. iii. 382*) and various botanists consider the peach and almond as one species.

Four distinguished and ingenious attempts have been made to class the varieties of peaches and nectarines by the leaf and flower as well as the fruit: the first is by Poiteau, in the *Bon Jardinier*; the next by Count Lelieur, in his *Pomone Française*; the third by Robertson, nurseryman, of Kilkenny, whose arrangement is founded on the glands of the leaves; and the fourth, and most important, by Mr. George Lindley, in the fifth volume of the Horticultural Society's Transactions. The latter writer has, in a peculiarly distinct manner, arranged no fewer than 155 sorts of peaches and nectarines in well defined divisions or sections.

The bitter almond contains less fixed oil, than the sweet almond, and a portion of prussic acid or hydrocyanic acid, upon which its narcotic power is supposed to depend. This variety is said to operate as a poison on dogs and some other animals, but not generally on the human species. The distilled water exerts an action not less deleterious than that of laurel water on the human frame. It produces vertigo, head-ache, tinnitis aurium, dizziness of sight, and vomiting, when taken to the extent of thirty drops only; and a drachm of it has killed a stout dog. When a large doze is taken, death almost instantly follows. In order to counteract its poisonous effects recourse is had to diffusibles, as brandy and ammonia; or three or four spoonfuls of oil of turpentine may be given at intervals of half an hour. The fixed oil, which both varieties of the almond yield by expression in large quantity, is insipid and inodorous when heat has not been employed.

Sweet almonds are used more as food than as medicine, but they afford little nourishment. Heartburn is said to be relieved by eating six or eight of them decorticated. When triturated with water, milky mixtures or emulsions are formed; and they are also used in pharmacy for assisting, by trituration, the combination of substances, such as camphor and the resins with water. Bitter almonds are scarcely ever used medicinally. (*London Dispensatory, 151.*)

A. nana and *pumila* are very ornamental shrubs, both in their double and single varieties.

1129. PRUNUS. W.		PLUM & CHERRY.		Rosaceæ. Sp. 33—47.						
7026	<i>Padus</i> W.	Bird-cherry	辛辛	or 30	ap.my	W	Britain	woods.	L co	Eng. bot. 1383
	<i>rubra</i> W.	Cornish-Bird	辛辛	or 30	ap.my	W	Britain	...	L co	Will. ar. t. 4. f. 2
7027	<i>virginiana</i> Ph.	Virginian	辛辛	or 30	my.jn	W	Virginia	1724.	L co	Will. ar. t. 5. f. 2
7028	<i>serotina</i> W.	American-Bird	辛辛	or 30	my.jn	W	N. Amer.	1629.	L co	Dend. brit. 48
7029	<i>occidentalis</i> W.	West Indian	辛辛	or 20	ja.d	W	Jamaica	1784.	L co	
7030	<i>lusitânica</i> W.	Portugal Laurel	辛辛	or 20	jn	W	Portugal	1648.	S co	Mill. ic. t. 196. f. 1
7031	<i>caroliniana</i> W.	Evergreen Bird	辛辛	or 30	my	W	Carolina	1759.	L co	
7032	<i>Lauro-cerasus</i> W.	common Laurel	辛辛	or 12	ap.my	W	Levant	1629.	C co	Duh. ar. 1. t. 133
7033	<i>Mahaleb</i> W.	perfumed dwarf	辛辛	or 20	ap.my	W	Austria	1714.	G co	Jac. aust. 3. t. 237
7034	<i>púmila</i> W.	Black choke-ch.	辛辛	or 2	my	W	N. Amer.	1756.	L s.l	Mill. ic. t. 89. f. 2
7035	<i>hyemális</i> P. S.	bastard-cherry	辛辛	or 8	my	W	N. Amer.	1805.	L s.l	
7036	<i>chamacérasus</i> W.	common-cherry	辛辛	or 8	my	W	Austria	1597.	L s.l	Jac. ic. 1. t. 90
7037	<i>Cerasus</i> W.	Toussaint-cherry	辛辛	fr 20	ap.my	W	England	woods.	G s.l	Eng. bot. 706
7038	<i>Pseudocerasus</i> Lind.	Chinese-cherry	辛辛	fr 6	ap.my	Pk	China	1821.	G co	Bot. reg. 800
7039	<i>sempervirens</i> Ehr.	Corone-cherry	辛辛	fr 20	ap.my	W	.....	...	G co	Dend. brit. 131
7040	<i>avium</i> W.	Pensylvanian	辛辛	or 50	ap.my	W	England	...	S co	Blackw. t. 425
7041	<i>pensylvânica</i> W.	black	辛辛	or 30	my	W	N. Amer.	1773.	S co	Will. ar. t. 3. f. 3
7042	<i>nigra</i> W.	Japan	辛辛	or 20	ap.my	W	N. Amer.	1773.	G co	Bot. mag. 1117
7043	<i>japónica</i> P. S.	Briançon Apr.	辛辛	or 2	mr.my	Pk	Japan	1810.	G co	Bot. reg. 27
7044	<i>brantiâcia</i> Vill.	common-Plum	辛辛	fr 20	ap	W	Dauphiny	1823.	G co	
7045	<i>doméstica</i> W.	Bullace-tree	辛辛	fr 20	ap	W	England	hed.	G r.m	Eng. bot. 1783
7046	<i>insititia</i> W.	Myrobalan	辛辛	fr 20	ap	W	Britain	hed.	S co	Eng. bot. 841
7047	<i>cerasifera</i> W.	Sand-cherry	辛辛	or 8	ap.my	W	N. Amer.	1629.	L r.m	
7048	<i>depressa</i> Ph.	Chicasaw-Plum	辛辛	or 4	my	W	N. Amer.	1805.	L s.l	
7049	<i>Chicasa</i> Ph.	sea	辛辛	or 6	ap.my	W	N. Amer.	1806.	L s.l	
7050	<i>maritima</i> Ph.	glaucous-leaved	辛辛	or 4	my	W	N. Amer.	1800.	L s.l	
7051	<i>Susquehanna</i> Ph.	Sloe-tree	辛辛	or 6	my	W	N. Amer.	1800.	L sp	
7052	<i>spinosa</i> W.	Birch-leaved	辛辛	or 15	mr.ap	W	Britain	hed.	S co	Eng. bot. 842
7053	<i>porráta</i> W.	Choke-cherry	辛辛	or 1	ap.my	Pk	Crete	1802.	L s.l	Bot. reg. 136
7054	<i>breâilis</i> Mich.	pigny	辛辛	or 20	my.jn	W	N. Amer.	1822.	L co	
7055	<i>pygmaea</i> W.	common-apric.	辛辛	or 4	my	W	N. Amer.	1823.	B co	
7056	<i>armeniaca</i> L.		辛辛	fr 15	f.mr	W	Levant	1548.	L b	Lam. ill. t. 431



History, Use, Propagation, Culture,

1129. *Prunus*. The origin of this name is wholly unknown. The Greeks called it *περουν*, and the Latins *prunus*. From this genus have been obtained the principal characters of that section of the natural order Rosaceæ, which is called Amygdalæ or Prunaceæ, and which is curiously and chemically known by the presence of Prussic acid all in the species, and in all their parts.

P. Padus (a name of Theophrastus), the bird-cherry, is an ornamental tree, by its purple bark, leafy bunches of white flowers, and berries successively green, red, and black. It is common in the native woods of Scotland and Sweden, and in both countries the berries are infused in spirits in order to give them an agreeable flavor. The fruit is nauseous to the taste, though greedily eaten by birds. The bark is used by the Finlanders to cure venereal complaints, and also with success by regular practitioners in Stockholm for the same purpose. (*Stockholm Acts*.) The tree is very leafy, and dislikes a wet soil; but bears lopping as copewood. The wood is beautifully veined, and used for cabinet work in France, as is that of *P. virginiana* in America.

P. Lauro-cerasus is one of our most popular evergreens. It was first brought from Constantinople to Holland in 1576; the first we read of in England was one at Highgate, in the garden of Mr. James Cole, a merchant of London, who, as Parkinson informs us, used to cover it in winter with a blanket. In less than half a century afterwards (1688), Ray informs us, the laurel was common in English gardens. It is now as universal in shrubberies as the rose. The kernel-like flavor of the fresh leaves has led to their use in flavoring custards and other culinary preparations; but as these leaves are poisonous, they ought to be used with caution. To brute animals the effect of the distilled water of laurel leaves is almost instant death; and two women in Dublin, and Sir T. Boughton in England, have been poisoned by it.

P. lusitanica is a most beautiful evergreen shrub, nearly as universal as the lauro-cerasus. It was brought to England from Portugal, but does not appear to be a native of that country; probably of Madeira or some other islands possessed by the Portuguese in the sixteenth or seventeenth centuries.

P. Mahaleb (*Mahaleb* the Arabic name) flowers profusely, and disperses an odor resembling that of Clematis for a considerable distance around. Its fruit is round, shining black, and so hard that it has been bored for beads by the catholics. The wood is perfumed and used by the French in cabinet-work, especially in the village of St. Lucie, near Commercy, whence, among the French, the plant has obtained the name of *Bois de St. Lucie*.

P. Cerasus, the cultivated cherry, is by some considered a distinct species, and by others only a variety of *P. avium*, the gean or wild black cherry. Lucullus is said to have first introduced the cultivated cherry to Italy, in 73 A. C. from a town in Pontus in Asia, called Cerasus, whence its specific name, and it was introduced to Britain 120 years afterwards. Many suppose that the cherries introduced by the Romans into Britain were lost, and that they were re-introduced in the time of Henry VIII. by Richard Haines, the fruiterer to that monarch. But though we have no proof that cherries were in England at the time of the Norman conquest, or for some centuries after it; yet Warton has proved, by a quotation from Lidgate, a poet who wrote about

- 7026 Flowers racemose, Racemes pendulous, Lvs. decid. doubly serrat. somewhat rugose, Petioles with 2 glands
 β Serratures of leaves less, Racemes more erect
 7027 Flowers racemose, Racemes erect, Leaves deciduous doubly toothed smooth, Stalks with 4 glands
 7028 Flowers in loose racemes, Lvs. decid. simply serrated: lower serratures glandular, Rib beard. towards base
 7029 Flowers in lateral racemes, Leaves without glands oblong acuminate entire smooth on each side
 7030 Flowers racemose, Racemes lateral, Leaves evergreen without glands oblong acuminate entire
 7031 Flowers racemose, Leaves evergreen ovate-lanceolate serrated without glands
 7032 Flowers racemose, Leaves evergreen with two glands at back
 7033 Flowers corymbose terminal, Leaves ovate
 7034 Umbels sessile aggregate few-flowered, Cal. acute, Branches virgate round, Leaves narrow lanceolate
 7035 Umbels sessile aggregate few-fl. Sepals lanc. Stipules setaceous compound, Lvs. obl. oval suddenly pointed
 7036 Umbels sessile, Leaves obovate obtuse smooth with glandular serratures
 7037 Umbels somewhat stalked, Leaves ovate-lanceolate smooth folded together
 7038 Leaves obovate acuminate flat serrated, Racemes pubescent
 7039 Flowers racemose, Calyxes serrated, Leaves ovate serrated glandular at base
 7040 Umbel sessile, Leaves ovate-lanceolate pubescent beneath folded together
 7041 Umbel subsessile aggregate many-fl. at length paniced, Leaves obl. lanceolate serrated smooth
 7042 Umbel sessile solitary few-fl. Leaves deciduous ovate acuminate finely serrated, Petioles with 2 glands
 7043 Peduncles solitary, Leaves ovate acuminate smooth, Branches unarmed
 7044 Fl. lateral clustered, Leaves doubly serrated roundish acute
 7045 Peduncles subsolitary, Leaves lanceolate ovate acuminate, Branches not spiny
 7046 Peduncles twin, Leaves ovate villous beneath convolute, Branches spiny
 7047 Peduncles solitary, Leaves elliptical smooth, Fruit pendulous, Branches nearly unarmed
 7048 Umbel sessile clustered few-fl. Cal. obtuse, Branches angular prostrate, Lvs. cun. lanc. glaucous beneath
 7049 Buds clustered 2-fl. Ped. very short, Cal. smooth, Leaves oblong acum. serrulate, Branches spiny
 7050 Pedunc. subsolitary, Leaves ovate-oblong acuminate doubly serrated
 7051 Peduncles solitary, Leaves obovate obl. beneath glaucous serrated entire at base
 7052 Peduncles solitary, Leaves ellipt. lanceolate pubescent beneath, Branches spiny
 7053 Peduncles twin, Leaves ovate cut serrate without glands beneath white, Stem prostrate
 7054 Flowers corymbose, Ped. elongated, Leaves oval oblong eroded membranous smooth
 7055 Umbels sessile aggregate few-fl. Leaves ovate ellipt. acute smooth on each side with 2 glands at base
 7056 Flowers sessile, Leaves subcordate



and Miscellaneous Particulars.

or before 1415, that the hawkers in London were wont to expose cherries for sale in the same manner as is now done early in the season. The tree is now very generally cultivated both as a wall and standard fruit, and has been forced for upwards of two centuries.

The Romans had eight varieties of cherry: in the British gardens are upwards of forty sorts. The French divide their cherries into *griottes*, or tender-fleshed; *bigarreaux*, or hard-fleshed; and *guignes*, or small fruits. The fruit of many varieties is somewhat heart-shaped, hence the very general cognomen; why some sorts are called dukes is not as obvious. The Morello cherry is very distinct from the other varieties, bearing almost exclusively on the preceding year's wood, and the pulp of the fruit having the consistence and flavor of the Morel, whence the name. Cherries are grafted or budded on seedlings from cherry-stones, or better from seedlings of the wild cherry. For dwarfing, they are worked on the bird cherry or perfumed cherry: the latter is preferred in Holland.

Cherry trees are very ornamental in shrubberies and woods, and valuable as encouraging the different species of thrush. The gum of cherry trees is eatable, and equal to that of gum arabic; the wood is hard and tough, and used by the turner and cabinet maker.

Prunus Pseudo-Cerasus, the Chinese cherry, is of recent introduction, and most valuable on account of its bearing an excellent fruit, and producing it abundantly in a forcing-house.

P. avium, the gean, *guigne*, Fr., attains a large size, and its timber is of considerable value: the black corone cherry is supposed to be an improved variety of it, as are the different geans.

P. domestica is generally considered the original of the plum tree, *Prune*, Fr., *Pflaumen*, Ger., and *Prugno*, Ital. Many, however, conjecture that *P. insititia*, spinosa, and domestica, are the same species. There are several sorts of plums found wild in Britain, independently of the sloe, such as the bullace, damson, muscle, and winesour. The plum is said to love a lofty exposure, and to be favorable to the growth of grass under it. The bark dyes yellow, the wood is used in turnery, and the dried fruit or prune is formed into electuaries and gentle purgatives. Prunes were originally brought from Damascus, whence their name of damask, but are now chiefly imported from France.

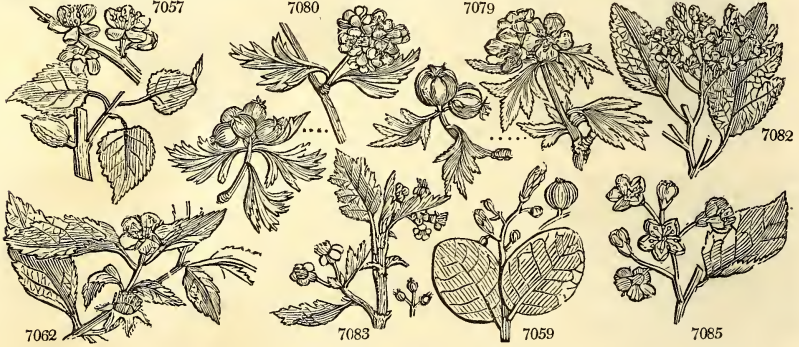
There are a great many varieties of the plum in France, and in British gardens nearly a hundred sorts. By far the best desert plum is the greengage, *Reine Claude*, Fr., *Regina Claudio*, Ital. It is well known throughout Europe, and perfectly distinct from every other variety. The damson is the best baking plum, and the winesour the best for sweetmeats. Plums are generally grafted or budded on muscle or damson stocks.

Prunus Armeniaca, *Abricot*, Fr., *Abricosenbaum*, Ger., *Albicocco*, Ital., *Albarcoque*, Portug. is a fruit tree next in esteem to the peach. From its trivial name, it is generally supposed to have originated in Armenia, but Regnier and Sickler assign it a parallel between the Niger and the Atlas; and Pallas states it to be a native of the whole of the Caucasus; the mountains there, to the top, being covered with it, Thunberg describes it as a very large, spreading, branchy tree in Japan. Grossier says, that it covers the barren mountains to the west of Peking, that the Chinese have a great many varieties of the tree double-

7057 sibirica W.	Siberian-apric.	♂	fr	6	ap	Pk	Siberia	1788.	L	r.m	Pall. ross. 1. t. 8
7058 dasycarpa Ehr.	Black-apricot	♀	fr	15	ap	W	Siberia	1800.	B	co	
1130. CHRYSOBA/LANUS W. COCOA PLUM.											
7059 Icáco W.	West Indian	♂	fr	15	...	W	W. Indies	1752.	L	r.m	Jac. amer. t. 94
7060 oblongifolius Ph.	American	♂	or	3	my.jn	W	Georgia	1812.	C	l.p	Bartr. iter. c. ic

DI-PENTAGYNIA.

1131. MES/PILUS Lindl.	MEDLAR.										
7061 germánica W.	common-eatabl.	♀	fr	12	my.jl	W	England	hed.	G	h.l	Eng. bot. 1523
7062 grandiflora H. K.	large-flowered	♀	or	12	my.jn	W	.....	1800.	L	co	Ex. bot. 1. t. 18
1132. CRATEGUS L.	HAWTHORN.										
7063 coccinea W.	Scarlet-fr. Haw.	♀	or	20	ap.my	W	N. Amer.	1683.	B	co	Dend. brit. 62
7064 cordata W.	Maple-leaved	♀	or	20	my	W	N. Amer.	1738.	B	co	Dend. brit. 63
7065 pyrifolia W.	Pear-leaved	♀	or	15	jn	W	N. Amer.	1765.	B	co	Dend. brit. 61
7066 elliptica W.	oval-leaved	♀	or	20	my	W	N. Amer.	1765.	B	co	
7067 glandulosa W.	hollow-leaved	♀	or	20	my.jn	W	N. Amer.	1750.	B	co	Dend. brit. 58
7068 flavá W.	yell. Pear-berr.	♀	or	20	my	W	N. Amer.	1724.	B	co	Dend. brit. 59
7069 parvifolia W.	spotted-fruited	♀	or	15	my.jn	W	N. Amer.	1704.	B	co	Dend. brit. 65
7070 punctata W.	woolly-fruited	♀	or	15	my	W	N. Amer.	1746.	B	co	Dend. brit. 57
7071 Crus-galli W.	Cocks-pur-thorn	♀	or	20	my.jn	W	N. Amer.	1691.	B	co	Dend. brit. 56
β pyracanthifolia	Pyracantha-ly.	♀	or	20	my.jn	W	N. Amer.	...	B	co	
γ salicifolia	Willow-leaved	♀	or	20	my.jn	W	N. Amer.	...	B	co	
7072 Pyracantha Lindl.	Evergr.-thorn	♀	or	10	my	W	S. Europe	1629.	S	s.l	Schm. arb. t. 90
7073 spatulata Ph.	spatula-leaved	♀	or	15	my.jn	W	N. Amer.	1806.	B	co	
7074 apiifolia Ph.	Parsley-leaved	♀	or	15	my.jn	W	N. Amer.	1812.	S	co	Eng. bot. c. ic.
7075 Oxycantha E. B.	common-Haw.	♀	or	15	my.jn	R	Britain	hed.	S	co	
β rósea	red-flowered	♀	or	15	my.jn	W	.....	...	B	co	
γ major	great-fruited	♀	or	15	my.jn	W	.....	...	B	co	
δ præcox	Glastonbury	♀	or	15	my.jn	W	.....	...	B	co	
ε pléna	double-flowered	♀	or	15	my.jn	W	.....	...	B	co	
ζ atrea	yellow-berried	♀	or	15	my.jn	W	.....	...	B	co	
7076 eriocarpa Lindl.	woolly-fruited	♀	or	15	my.jn	W	Britain woods.	B	co		
7077 monógyna Pall.	one-styled	♀	or	15	my.jn	W	Siberia	...	B	co	Pall. ross. 1. t. 12
7078 Azarólus W.	Azarole	♀	or	15	my.jn	W	S. Europe	1640.	B	co	Bot. rep. 579
7079 tanacetifolia B. R.	Tansy-lv. Azar.	♀	or	15	my.jn	W	Greece	1789.	B	co	Bot. rep. 591
7080 odoratissima B. R.	sweet-sc. Azar.	♀	or	15	my.jn	W	Crimea	...	B	co	Bot. rep. 590
7081 pentagyna W. & K.	five-styled	♀	or	15	my.jn	W	Hungary	1820.	B	co	
7082 terminális L.	Wild-service	tm	50	ap.my	W	W	England woods.	S	co	Eng. bot. 298	
7083 nigra W. & K.	black	♀	or	20	ap.my	W	Hungary	1819.	G	co	Dend. brit. 64
1133. PYRUS Sm.	PYRUS.										
7084 arbutifolia Ph.	red-berried	♂	or	4	my.jn	W	N. Amer.	1700.	G	co	Mill. ic. 100
7085 melanocarpa Ph.	black-fruited	♂	or	4	my.jn	W	N. Amer.	1700.	S	co	Schm. arb. t. 86



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blossomed, which they plant on little mounts for ornament, and dwarfs in pots for their apartments. It appears from Turner's Herbal, that the apricot was cultivated here in 1562; and in Hackluyt's Remembrancer, 1582, it is affirmed, that the apricot was procured out of Italy by Wolfe, a French priest, gardener to Henry VIII. The fruit seems to have been known in Italy in the time of Dioscorides, under the name of *Præcocia*, probably, as Regnier supposes, from the Arabic, *Berkoch*; whence the Tuscan, *Bacoch* or *Albicocco*, and the English *Apricock*; or, as Professor Martyn observes, a tree when first introduced, might have been called a *præcox*, or early fruit; and gardeners, taking the article *a* for the first syllable of the word, might easily have corrupted it to *apricocks*. The orthography seems to have been finally changed to *apricot* about the end of the last century.

There are fifteen or twenty excellent varieties of apricot, besides the peach apricot, a large fruit supposed to be a hybrid between a peach and an apricot. The trees are generally budded on plum stocks, and always trained against walls. Apricots do not force freely.

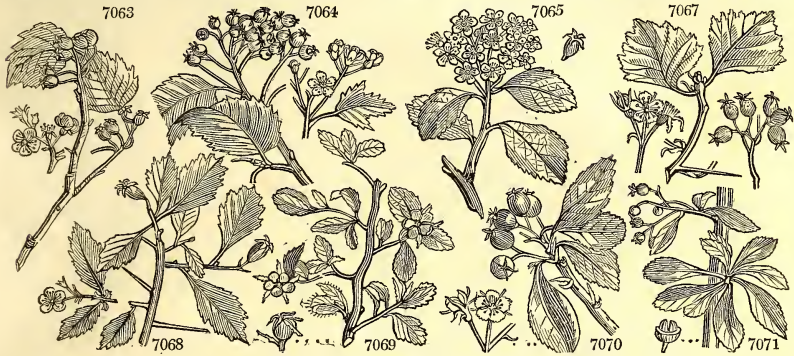
1130. *Chrysobalanus*. From χρυσος, gold, and βάλανος, an acorn; in allusion to the size, color, and form of its fruit. *C. Icaco* (the West Indian name) bears flowers and fruit not unlike the plum, which is sold in the markets of the West Indies, and eaten both raw and preserved. Both species grow well in a sandy loam. Large cuttings root best, taken off at a joint, and planted thinly in a pot of sand, without having their leaves injured, and a hand-glass placed over them. (*Bot. Cult.* 39.)

1131. *Mespilus*. In Greek μῆσπιλον, from μῆσος, half, and πῖλος, bullet; the fruit resembling half a bullet or round ball. In French it is called *nefle*, from the Celtic *naff*, which also signifies truncate. *M. Germanica*, bears a turbinate berry, which is eaten raw in a state of incipient decay. It is little cultivated, but one or two trees are generally introduced in shrubberies or in complete orchards. There are one or two varieties besides the wild sort; what is called the Dutch medlar is reckoned the best. It is grafted on seedlings of the

- 7057 Flowers sessile, Leaves ovate acuminate simply serrate, Petioles without glands
 7058 Flowers sessile, Leaves ovate acuminate doubly serrate, Petioles with glands
 7059 Leaves orbicular alternate, Flowers in loose racemes
 7060 Leaves wedge-shaped hoary beneath, Stamens smooth, Flowers in large panicles

DI-PENTAGYNIA.

- 7061 Unarmed, Leaves lanceolate downy beneath, Flowers sessile solitary
 7062 Leaves cuneate oblong woolly beneath, Petals roundish or oval, Stamens smooth, Fruit obl. ovate
 7063 Spiny, Leaves cordate ovate cut angular smooth, Petioles and cal. glandular, Styles 5
 7064 Spiny, Leaves cordate ovate cut angular smooth, Pet. and cal. without glands, Styles 5
 7065 Spiny or not, Lvs. ovate ellipt. cut serrate somewhat plaited and hairy, Cal. villous, Sep. lin.-lanc. Styles 3
 7066 Spiny, Leaves ellipt. unequally serr. smooth, Pet. and cal. glandular, Berries round with 5 seeds
 7067 Spiny, Lvs. ov. wedge-shaped ang. smooth shining, Pet. stip. and cal. glandular, Berries oval with 5 seeds
 7068 Spiny, Lvs. obov. cuneiform angul. smooth shining, Pet. stip. and cal. glandular, Berries turbin. 4-seeded
 7069 Spiny, Leaves cuneiform ovate cut serrate, Sepals lanc. cut the length of pet. Styles 5
 7070 Spiny or not, Leaves obovate cuneiform smooth serrated, Cal. villous, Sepals subulate entire
 7071 Spiny, Leaves obovate cuneiform subsessile shining coriaceous, Sepals lanc. serrate, Styles 2
 7072 Spiny, Leaves lanc. ovate crenate, Cal. of fruit obtuse
 7073 Spiny, Leaves fasciated small very much narrowed downwards subspatulate trifid, Cal. downy
 7074 Spiny, Leaves deltoid cut-lobed, Tube of calyx oblong with serrated sepals
 7075 Leaves obtuse subtrifid serrated smooth, Pedunc. and cal. nearly smooth, Sepals lanc. acute
 7076 Leaves obtuse 3-lobed serrated smooth, Pedunc. and calyx covered with wool
 7077 Spiny, Leaves 5-cleft cut wedge-shaped, Lower lobes divaricating, Stipules half cordate
 7078 Leaves obtuse subtrifid toothed pubescent, Sepals ovate
 7079 Leaves pinnatifid hairy on both sides, Segments serrate, Flowers with bracts
 7080 Leaves pinnatifid downy on both sides, Segments trifid
 7081 Leaves ovate trifid serrated : at the axillæ of the veins beneath hairy, Pedunc. and cal. pubesc. Styles 5
 7082 Leaves cordate ovate cut-lobed serrated, Lower lobes divaricating, Flowers corymbose
 7083 Leaves lobed sinuate serrated : at the base truncate cuneate beneath villous, Calyxes villous, Styles 5
 7084 Unarmed, Lvs. obovate obl. acute crenate toothed downy beneath, Rachis glandular above, Cal. downy
 7085 Unarmed, Leaves obovate obl. acuminate serrated smooth beneath, Rachis glandular above, Cal. smooth



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wild medlar, or on any other species of the same genus : often on the common thorn. The other species bears fruit similar to *M. germanica*, but more dry.

1132. *Crataegus*. From *αγραία*, force, on account of the extreme hardness of the wood of the original *Crataegus*, which appears to be what is now called *Pyrus aria*, the beam-tree. This is a very ornamental genus of small hardy trees, valuable for the neatness of their foliage, the earliness of their flowers in spring, and the rich colors of their berries in autumn.

C. oxyacantha, *εξορ*, *αξαρία*, sharp-spine, is the best hedge plant in Europe, and also furnishes some highly ornamental varieties, especially the double-blossomed and scarlet-blossomed.

The fruit of *C. odoratissima* is very agreeable. That of the Azarole (*ἀλ ζ'αρὸν* Arabic, according to Castel and John de Souza) is much esteemed in the South of Europe. In this country it rarely arrives at perfection.

1133. *Pyrus*. From the Celtic *peren*, the Anglo-Saxons made *pere*, the English, *pear*, the French, *poire*, and the Latins, *pyrus*, or for the fruit, *pyrum*. From the Celtic word *api*, which also signified a fruit resembling an apple, the Greeks obtained *ἄπιος*, the English, *apple*, the Germans, *apfel*. To this day the French distinguish a tribe of small fruited apples by the name *api*.

P. malus, *Pomme*, Fr., *Apfel*, Ger., and *Pomo*, Ital., is the most popular of British fruits. None can be brought to so high a degree of perfection with so little trouble ; and of no other are there so many excellent varieties in general cultivation, calculated for almost every soil, situation, and climate, which our islands afford. Very good apples are grown in the Highlands and Orkneys, and even in the Shetland isles, (*Calcd. Hort. Mem.* vol. ii.) as well as in Devonshire and Cornwall ; some sorts are ripe in the beginning of July, and others, which ripen later, will keep till June. Unlike other fruits, those which ripen latest are the best.

The tree attains a great age, is in general very prolific, and the timber is valuable for the turner, millwright

7086	communis W.	common-Pear	辛	or	20	ap	W	England	woods.	G	co	Eng. bot. 1784
7087	Pollvéria W.	woolly-leaved	辛	or	15	ap.jn	W	Germany	1786.	G	co	
7088	salicifolia W.	Willow-leaved	辛	or	20	my.jn	W	Russia	1780.	G	co	Bot. reg. 514
7089	nivalis W.	white-leaved	辛	or	6	my	W	Austria	...	L	p.l	Jac. aus. 2. t. 107
7090	Máhus W.	Apple-tree	辛	fr	20	ap.my	W	Britain	woods.	G	r.m	Eng. bot. 179
7091	spectabilis W.	Chinese-apple	辛	fr	20	my	Pk	China	1780.	G	co	Bot. mag. 267
7092	prunifolia W.	Siberian-crab	辛	fr	20	ap.my	Pk	Siberia	1758.	G	co	Mill. ic. 2. t. 269
7093	baccata W.	small-fruited	辛	or	15	ap.my	Pk	Siberia	1784.	G	co	Dend. brit. 51
7094	coronaria W.	sweet-sc. crab	辛	or	20	my	Pk	Virginia	1724.	G	co	Bot. mag. 2009
7095	angustifolia W.	narrow-leaved	辛	or	20	my	Pk	N. Amer.	1750.	G	co	Dend. brit. 132
7096	A'ria W.	white Beam-tr.	辛	tm	40	my.jn	W	Britain	moi.w.	G	co	Eng. bot. 1858
7097	intermedia W.	Swedish Bm-tr.	辛	tm	40	ap.my	W	Sweden	1789.	G	co	Fl. dan. 301
7098	hybrida Mönch.	hybrid	辛	tm	40	ap.my	W	.....	.....	S	co	Mönch weis. t. 9
7099	pinnatifida E. B.	Bastard Serv.	辛	tm	40	my.jn	W	England	rocks.	S	co	Eng. bot. 2331
<i>Sorbus hybrida</i> W.												
7100	domestica E. B.	True Service	辛	fr	30	my.jn	W	England	moi.w.	S	co	Eng. bot. 350
7101	aucuparia E. B.	Mountain Ash	辛	or	30	my.jn	W	Britain	moi.w.	S	co	Eng. bot. 337
7102	americana Ph.	purple-berried	辛	or	15	my.jn	W	Canada	1782.	L	co	Dend. brit. 54
7103	microcarpa Ph.	small-fruited	辛	or	10	my.jn	W	N. Amer.	...	L	co	
7104	Chamae Mésipilus L.	Bastard Quince	辛	or	8	my.jn	W	Pyrenees	1683.	L	co	Schm. arb. t. 87
7105	sinica Thoun.	Mt. Sinai Med.	辛	fr	20	my.jn	W	Levant	1820.	G	co	Eng. bot. 49
7106	édulis W.	eatable	辛	fr	10	ap.my	W	France	1816.	G	co	Dend. brit. 52
7107	dioica W.	dieicious	辛	cu	10	ap.my	W	.....	.....	G	co	
1134. CYDO'NIA. Juss. QUINCE. <i>Rosaceae.</i> Sp. 3-4.												
7108	vulgaris W. en.	common	辛	fr	20	my.jn	W	Austria	1573.	L	h.l	Jac. aus. 4. t. 342
7109	japonica P. S.	Japan	辛	or	4	ja.d	S	Japan	1815.	L	r.l	Bot. mag. 622
	<i>β alba</i>	white	辛	or	4	ja.d	Pk	.....	.....	L	r.l	
7110	chinensis Thoun.	Chinese	辛	fr	15	my.jn	Pk	China	1818.	L	co	
1135. PHOTI'NIA. Lindl. PROTINIA. <i>Rosaceae.</i> Sp. 3-5.												
7111	scrutata Lindl.	smooth-leaved	♀	or	10	ap.jl	W	China	1804.	C	p.l	Bot. mag. 2105
	<i>Crataegus glabra</i> B.											
7112	arbutifolia Lindl.	Arbutus-ldv.	♀	or	10	jl.au	W	California	1796.	G	p.l	Bot. reg. 491
7113	dóbia Lindl.	doubtful	♀	or	10	...	W	Nepal	1821.	L	p.l	Linn. tr. 13. t. 10
	<i>Mesp. bengalensis</i> Hort.											
1136. RAPHIOLE'PIS. Lindl. INDIAN HAWTHORN. <i>Rosaceae.</i> Sp. 4-6.												
7114	indica Lindl.	common	♀	or	4	f.au	W	China	1806.	C	p.l	
7115	róbra Lindl.	red	♀	or	4	f.au	W	China	1820.	C	p.l	Lindl. coll. 3
7116	pharostémon Lindl.	long-stamened	♀	or	4	f.au	W	China	1820.	C	p.l	Bot. reg. 468
7117	salicifolia Lindl.	willow-leaved	♀	or	3	f.au	W	China	1821.	C	p.l	Bot. reg. 652
1137. ERIOBO'TRYA. Lindl. LOQUAT. <i>Rosaceae.</i> Sp. 1-4.												
7118	japonica Lindl.	common	♀	fr	15	o	W	Japan	1787.	G	s.l	Vent. malm. 19



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and cabinet maker. The Romans had twenty-two varieties, and there are now several hundreds in Britain and France, and some excellent sorts from America. They are usually divided into dessert, baking, and cyder fruits; the first high flavored, the second such as fall or become mellow in baking or boiling, and the third austere, and generally fruits of small size. Besides this division, apples are classed as pippins or seedlings, pearmain or somewhat pear-shaped fruits, rennets or queens, specked fruits, calvilles or white-skinned fruits, russets or brown fruits, codlings or falling fruits, and burknotts, which grow readily by cuttings. Most sorts of apple form ugly trees as standards, but are otherwise very ornamental in shrubberies from their blossoms. The crabs, and especially the varieties obtained from the Siberian crab, form much the handsomest heads, and have also more brilliant blossoms. The apple may be propagated by layers, and many sorts by cuttings; but the usual mode is by grafting on crab-stocks, and for dwarfing on stocks of the paradise apple.

P. communis, Poirier, Fr., *Birnbaum*, Ger., and *Pero*, Ital., is a fruit-tree next in popularity and value to the apple tree. It is a greatly superior dessert fruit, but not so valuable for culinary purposes and the press. There are fewer good sorts of pears, in proportion to the number of current varieties, than of apples; but a few, as the Jargonelles, Bergamots, Beurrées, Chaumontelles, &c. are most exquisite dessert fruits, and are much easier of digestion than the apple. It arrives in greater perfection in France and the north of Italy than in England. The Chaumontelles of Guernsey are in high repute, as are the St. Germain's and other sorts of Picardy, and the Beurrées of Milan. The Romans had thirty-six varieties, and there are many hundreds in the French and British nurseries, most of them good for little. Professor Van Mons, of Brussels, and M. Duquessie, of Mons, fruited about 8000 seedling pears, from which they obtained nearly 800 sorts worth cultivating. (*Nail's Hort. Tour.*) The varieties are divided into dessert and baking fruits; and also into melting or butter pears, *beurrées*, Fr., breaking pears, *crevers*, Fr., and perry, *poirée*, Fr., fruits. The tree is grafted on seedlings of the same species, and for dwarfing and precocity on the quince. It is a much handsomer upright growing tree than the apple, more durable, and its wood hard and valuable for the turner and millwright; but its blossoms being white, are less showy than those of the apple.

P. domestica, and the other species of service are very ornamental trees; their leaves are mostly white

- 7086 Leaves ovate serrated, Pedunc. corymbose
 7087 Leaves serrated downy beneath, Flowers corymbose
 7088 Leaves lin. lanc. hoary white with down beneath, Fl. axillary solitary subsessile
 7089 Leaves ovate stalked entire silky beneath, Flowers corymbose
 7090 Umbel sessile, Leaves ovate oblong acuminate serrated smooth, Claws shorter than cal. Styles smooth
 7091 Umbel sessile, Leaves oval oblong serrated smooth, Claws longer than cal. Styles woolly at base
 7092 Umbel sessile, Pedunc. pubescent, Styles woolly at base, Leaves ovate acuminate
 7093 Leaves equally serrulate, Pedunc. clustered, Apples like berries, Cal. deciduous
 7094 Leaves cordate cut-serrate angular smooth, Pedunc. corymbose
 7095 Leaves lanc. oblong shining tooth-serrated narrowed at base entire, Pedunc. corymbose
 7096 Leaves roundish ovate cut serrate hoary beneath, Flowers corymbose
 7097 Leaves ovate lanceolate cut-lobed toothed beneath snow-white, Flowers corymbose
 7098 Leaves pubescent beneath pinnated with the last pinna very large pinnatifid and simple
 7099 Leaves half pinnated downy beneath

- 7100 Leaves pinnated villous beneath
 7101 Leaves pinnated smooth on both sides
 7102 Leaves pinnated, Leaflets acute almost equally serrated and common petiole smooth
 7103 Lvs. pinnated, Leaflets acuminate unequally cut serrated and common petiole smooth, Serratures bristly [mucronate
 7104 Leaves oval acutely serrated smooth, Fl. in corymbose heads
 7105 Leaves ovate oblong entire somewhat downy, Peduncle simple downy corymbose
 7106 Leaves oblong cuneate at base unequally and doubly serrated hoary beneath, Fl. corymbose
 7107 Leaves oval serrated, Fl. solitary dioecious, Pet. linear the length of calyx

- 7108 Leaves downy deciduous
 7109 Leaves smooth shining evergreen

- 7110 Leaves smooth deciduous

- 7111 Leaves oblong acute serrulate, Pedicels longer than calyx

- 7112 Leaves oblong lanc. distantly toothed, Pedicels shorter than calyx
 7113 Leaves lanceolate distantly serrated, Panicle hairy

- 7114 Raceme imbricated with persistent foliaceous bractes, Petals roundish
 7115 Leaves ovate lanceolate acuminate at each end, Pet. lanc. Stamens upright shorter than calyx
 7116 Leaves long lanceolate, Stamens spreading longer than the calyx
 7117 Leaves linear lanceolate, Sepals subulate much longer than stamens, Panicle contracted

- 7118 Leaves lanceolate serrated



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underneath, and they are generally profusely covered with blossoms and fruit. Of *P. domestica* there are two varieties, the pear and apple-shaped, cultivated in some parts of France and near Genoa for their fruits. Those like the medlar and quince are not eaten till in a state of incipient decay. There are but few of the true service in English gardens, but the *P. hybrida* and *pinnatifida* are common, and their fruit, which resembles that of the mountain ash, is sometimes made use of.

P. aucuparia and *Americana* are handsome trees for shrubberies, the former very popular in suburban gardens.

1134. *Cydonia*. So called from being native of the ancient town Cydon in the Island of Crete; or perhaps it may be a corruption of *malus-cotonea*, by which the Latins designate the fruit. *C. vulgaris* is a deformed low tree, sometimes cultivated for its fruit, which is a pome with a persisting calyx like the medlar. It is used as a marmalade for flavoring apple-tarts. It prefers moist loam, and is raised by layers. It is most in use, however, as a stock for the pear. *C. japonica* is a beautiful low bush, remarkable for the brilliancy of its blossoms, which vary from the richest scarlet to the most delicate bluish color. It is hardy, and well adapted for single plants, upon grass, or for forming ornamental hedges in flower gardens.

1135. *Photinia*. So named, we believe, from *φωσ φωτος*, light, in allusion to the lucid surface of the leaves of the species. *P. serrulata* and *arbutifolia* are elegant shrubs, and nearly hardy. The latter succeeds perfectly against a south wall.

1136. *Raphirolepis*. From *ραφίς*, a needle, and *λεπίς*, a scale, in allusion to the numerous, subulate, persistent bractes, which are mixed among the racemes of flowers. Pretty Chinese small shrubs, formerly known under the collective name of *Cratægus indica*.

1137. *Eriobotrya*. From *ερίον*, wool, and *βότρυν*, a bunch of grapes, in allusion to the woolliness of its raceme. This genus is excellently characterized by the structure of its seed, of which the radicle is retracted within the cotyledons, not exerted as in all the other genera of Pomacæ. *E. Japonica* produces an agreeable fruit about the size of a gooseberry, of a fine yellow color, and, according to Sir Joseph Banks, as good as the mango. To ripen it with flavor, it requires the temperature of the stove, and comes into use in March. It may be grafted on any species of the genus, or on the hawthorn.

1138. AMELAN'CHIER. <i>Lindl.</i>	AMELANCHIER.	<i>Rosaceæ.</i>	<i>Sp. 3—4.</i>					
7119 vulgaris <i>Lindl.</i>	Alpine	or	6 ap.my W	S. Europe	1596.	L co	Bot. mag.	2430
7120 Botryápium <i>Lindl.</i>	snowy	or	12 ap.my W	N. Amer.	1746.	L co	Schm. arb. t.	84
7121 ovalis <i>Lindl.</i>	oval-leaved	or	8 ap.my W	N. Amer.	1800.	L co		
1139. COTONEAS'TER. <i>Lindl.</i>	COTONEASTER.	<i>Rosaceæ.</i>	<i>Sp. 4—5.</i>					
7122 vulgaris <i>Lindl.</i>	dwarf	or	4 ap.my Pk	Europe	1656.	L co	Schm. arb. t.	89
7123 tomentósa <i>Lindl.</i>	quince-leaved	or	4 ap.my Pk	.....	1759.	L co		
7124 acumináta <i>Lindl.</i>	taper-pointed	or	4 ap.my Pk	Nepal	1820.	L co	Linn. tr. 13. t.	9
7125 affinis <i>Lindl.</i>	downy Nepal	or	4 ap.my Pk	Nepal	1820.	L co		
1140. WALDSTEINIA. <i>W.</i>	WALDSTEINIA.	<i>Rosaceæ.</i>	<i>Sp. 1.</i>					
7126 geoides <i>W.</i>	Avens-like	or	3 jn.jl Y	Hungary	1804.	D lp	Bot. cab.	492
1141. SPIRÆ'A. <i>W.</i>	SPIRÆA.	<i>Rosaceæ.</i>	<i>Sp. 23—34.</i>					
7127 lævigáta <i>W.</i>	smooth-leaved	or	4 ap.jn R	Siberia	1774.	L p.l	Sch. arb. 1. t.	49
<i>S. altaica</i> <i>Pall.</i>								
7128 salicifólia <i>W. en.</i>	willow-leaved	or	5 jn.au Pk	Britain	moi.h	L co	Eng. bot.	1468
<i>æ alba</i>	white-flowered	or	5 jn.au W	N. Amer. ...	.....	L co	Mil. ic. t. 257. f. 2	
7129 carpini-fólia <i>W. en.</i>	Hornbeam-lvd.	or	4 jn.au W	N. Amer. ...	.....	L co	Dend. brit.	66
7130 tomentósa <i>W.</i>	tomentose	or	5 aus Pk	N. Amer. 1756.	.....	Sk p.l	Sch. arb. 1. t. 51	
7131 alpina <i>W.</i>	Alpine	or	3 jl W	Siberia	1806.	Sk p.l	Pall. ros. 1. t. 20	
7132 hypericifólia <i>W.</i>	Italian May	or	5 ap.my W	N. Amer. 1640.	.....	L co	Sch. arb. 1. t. 26	
7133 chamædrifólia <i>W.</i>	Germander-lvd.	or	1½ jn.jl W	Siberia	1789.	L p.l	Pall. ros. 1. t. 15	
7134 ulmi-fólia <i>W.</i>	Elm-leaved	or	3 jn.jl W	Carniola	1790.	L p.l	Jac. vin. 2. t. 140	
7135 betulifólia <i>Pall.</i>	Birch-leaved	or	2 jn.jl Pk	N. Amer. 1812.	.....	L p.l	Dend. brit. 67	
7136 crenáta <i>W.</i>	Hawthorn-lvd.	or	2 ap.my W	Siberia	1799.	L p.l	Sch. arb. 1. t. 55	
7137 oblongifólia <i>W. en.</i>	oblong-leaved	or	3 my.jn W	Hungary	1816.	L p.l	Pl. rar. h. 3. t. 235	
7138 trifóba <i>W.</i>	three-lobed	or	3 my W	Siberia	1801.	L p.l	Dend. brit. 68	
7139 thalictroídes <i>W.</i>	MeadowRue-lv.	or	2 my W	Siberia	1790.	Sk p.l	Pall. ros. 1. t. 18	
7140 obováta <i>W. en.</i>	obovate-leaved	or	3 my.jn W	Hungary	1816.	Sk p.l	Sch. arb. 1. t. 52	
7141 opulifólia <i>W.</i>	Guel'd. Rose-lv.	or	5 jn.jl W	N. Amer. 1690.	.....	L co	Sch. arb. 1. t. 98	
7142 sorbifólia <i>W.</i>	pinnated	or	4 au W	Siberia	1759.	Sk co	Sch. arb. 1. t. 58	
<i>æ alpina</i>	large-flowered	or	3 au W	Siberia	1817.	Sk co	Pall. ros. 1. t. 25	
7143 bélla <i>Sims.</i>	pretty	or	2 jl.au R	Nepal	1820.	L co	Bot. mag.	2426
7144 corymbósa <i>Ladd.</i>	corymbose	or	1½ jl.au W	N. Amer. 1819.	.....	L co	Bot. cab.	671
7145 crategifólia <i>Link.</i>	Hawthorn-lvd.	or	3 jl.au W	.....	1823.	L co		
7146 Aráncus <i>W.</i>	Goat's-beard	or	4 jn.jl W	Siberia	1633.	D p.l	Pall. ros. 1. t. 96	
7147 Filipéndula <i>W.</i>	Dropwort	or	2 jn.o W	Britain	m. pas.	D co	Eng. bot.	284
<i>æ píena</i>	double-flowered	or	1½ jn.o W	.....	.....	D co		
7148 Ulmária <i>W.</i>	Meadow-sweet	or	2 jn.o W	Britain	m. me. D	co	Eng. bot.	900
<i>æ píena</i>	double-flowered	or	2 jn.o W	Britain	m. me. D	p.l		
7149 lobáta <i>W.</i>	palmed	or	2 jl.au R	Siberia	1765.	D p.l	Jac. vin. 1. t. 88	
1142. GILLE'NIA. <i>Mönch.</i>	GILLENIA.	<i>Rosaceæ.</i>	<i>Sp. 2.</i>					
7150 trifoliáta <i>Mönch.</i>	three-leaved	or	2 jn.au R.w	N. Amer.	1713.	D p.l	Bot. mag.	489
7151 stipulácea <i>W.</i>	large-stipuled	or	2 jn.au R.w	N. Amer.	1805.	L co		
1143. SESU'VIUM. <i>W.</i>	SESUVIUM.	<i>Ficoideæ.</i>	<i>Sp. 5—7.</i>					
7152 Portulacástrum <i>W.</i>	Purslane-lvd.	or	2 jn.jl R.w	W. Indies	1692.	C r.m	La. ill. t. 434. f. 1	
7153 sessile <i>P. S.</i>	sessile-flowered	or	3 jn.jl R.w	W. Indies	.....	C r.m	Plant. grass. 9	
7154 revolutifólium <i>W. en.</i>	revolute-leaved	or	1½ jl.au R.w	S. Amer. ...	.....	D lp	Bot. mag.	1701
7155 longifólium <i>W. en.</i>	long-leaved	or	1½ jl.au R.w	S. Amer. 1816.	.....	S lp		
7156 répens <i>W. en.</i>	creeping	or	1 jl.au R.w	E. Indies	1816.	S lp	R. am. 5. t. 72. f. 1	
1144. AIZO'ON. <i>W.</i>	AIZOON.	<i>Ficoideæ.</i>	<i>Sp. 4—16.</i>					
7157 canariénsis <i>W.</i>	Purslane-lvd.	or	1 jl.au Y	Canaries	1731.	S r.m	Bot. rep.	201
7158 glinóides <i>W.</i>	hairy	or	1 jn.au C	C. G. H.	1774.	C r.m		
7159 hispánicum <i>W.</i>	Spanish	or	¾ jl.au Ap	Spain	1728.	C r.m	Plant. grass. 30	
7160 lanceolátum <i>W.</i>	spear-leaved	or	¾ au Pk	C. G. H.	1752.	S r.m		



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1138. *Amelanchier*. According to Clusius, *Amelancier* is the old Savoy name of the plant. It has been adopted by Mr. Lindley as the title of a small group of plants nearly related to *Pyrus*, but curiously distinguished by the 10-cells of the ovary.

1139. *Cotoneaster*. Named in allusion to the cottony nature of the fruit and young branches of the most common species. Small inconspicuous bushes, with solitary pink flowers almost hidden among the leaves.

1140. *Waldsteinia*. Named by Willdenow, in honor of Franz de Waldstein, a distinguished German botanist. Named with the aspect of *Potentilla* or rather *Geum*.

1141. *Spiræa*. *Σπειρα*, signifies a cord. *Spireon* is Pliny's name for a plant the blossoms of which are used in garlands. That plant is thought to have been the *Viburnum Lantana*. This genus affords some orna-

- 7119 Leaves roundish elliptical acute pubescent beneath, Sepals smooth, Germen villous
 7120 Leaves oblong elliptical cuspidate smooth, Sepals smooth, Germen pubescent
 7121 Leaves roundish elliptical acute smooth, Petals obovate, Sepals and germen pubescent

- 7122 Leaves ovate rounded at base, Cal. and pedunc. naked
 7123 Leaves elliptical obtuse at each end, Cal. and pedunc. woolly
 7124 Leaves ovate acuminate a little hairy on each side, Cal. and pedunc. naked
 7125 Leaves ovate attenuate at base, Cal. and pedunc. woolly

7126 Leaves radical stalked 5-lobed

7127 Leaves lanceolate entire sessile, Racemes compound

7128 Leaves oblong serrated smooth, Racemes decomposed

- 7129 Leaves ovate elliptical acute at each end smooth coarsely serrated, Racemes spreading paniced
 7130 Leaves lanceolate unequally serrate downy beneath, Flowers doubly racemose
 7131 Leaves linear-lanceolate toothletted smooth, Corymbs lateral
 7132 Leaves obovate entire, Umbels sessile
 7133 Leaves obovate cut-toothed at end, Corymbs stalked
 7134 Leaves ovate lanceolate doubly toothed, Corymbs stalked
 7135 Leaves broad ovate cut-serrate smooth, Corymbs terminal compound leafy
 7136 Leaves obovate acute toothed at end 3-nerved, Corymbs close stalked
 7137 Leaves oblong lanceolate serrated at end and entire, Corymbs stalked
 7138 Leaves roundish bluntly lobed toothed, Umbels stalked
 7139 Leaves obovate obtuse 3-lobed, Umbels lateral sessile
 7140 Leaves obovate obtuse at the end bluntly and unequally 3-nerved, Corymbs axillary sessile
 7141 Leaves ovate 3-lobed serrated, Corymbs stalked
 7142 Leaves pinnated, Leaflets even serrated, Flowers paniced

- 7143 Leaves ovate acute smooth serrated stalked glaucous beneath, Cymes pubescent
 7144 Leaves oblong bluntly and irregularly serrated, Flowers in dense corymbs
 7145 Leaves obovate obtuse forwards doubly serrated smooth, Corymbs terminal compound, Flowers capitate
 7146 Leaves supra-decomposed, Spikes paniced, Flowers diœcium
 7147 Leaves pinnated, Leaflets even serrated, Flowers corymbose

7148 Leaves pinnated downy beneath, The end lobe larger and 3-lobed; the side ones undivided

7149 Leaves pinnated smooth, The end lobe 7-lobed; the lateral 3-lobed, Corymbs proliferous

- 7150 Stipules linear entire, Calyx tubular campanulate
 7151 Stipules leafy ovate cut-toothed, Calyx campanulate

- 7152 Leaves spatulate oblong, Joints of stem tumid, Fl. stalked
 7153 Flowers sessile, Leaves linear oblong flat
 7154 Leaves linear lanc. revolute at edge, Fl. terminal sessile
 7155 Leaves lin. spatulate, Joints of stem equal, Fl. stalked
 7156 Leaves lanc. spatulate, Joints of stem creeping filiform, Fl. stalked

- 7157 Leaves cuneiform ovate, Flowers sessile
 7158 Leaves roundish cuneiform pilose, Fl. sessile, Cal. hairy
 7159 Leaves lanceolate, Flowers sessile apetalous
 7160 Leaves lanceolate, Flowers paniced



and Miscellaneous Particulars.

mental shrubs, free flowerers, and of easy culture; as *S. salicifolia*, *hypericifolia*, *tomentosa*, &c. The herbaceous species, especially *filipendula*, *ulmaria*, and *aruncus*, are also very ornamental.

1142. *Gillenia*. A genus well divided by Mönch from *Spiræa*, from which it differs in so many respects as to make it astonishing that the species should ever have been referred to that genus, even by the most unreasonable advocate of the exploded doctrines of synthetical botany. Pretty North American plants with lobed discolored leaves, and white flowers.

1143. *Scouviom*. Meaning of the name unknown. Inelegant plants with the habit of purslane.

1144. *Aizoon*. From *αἰ*, always, and *ζῶν*, alive, always alive, or evergreen. A name given by the Greeks to the *Sempervivum*. This is an uninteresting genus, only known among the curious.

1145. TETRAGO'NIA.		<i>W.</i> TETRAGONIA.		<i>Ficoidea.</i>		<i>Sp.</i> 10—16.						
7161	expānsa <i>W.</i>	N. Zeal. spinage	□	cul	6	au.s	G	N. Zeal.	1772.	C	s.l	Bot. mag. 2362
7162	crystāllina <i>W.</i>	Diamond	□	un	9	in	G	Peru	1788.	S	s.l	Plant. grass. 34
7163	fruticōsa <i>W.</i>	shrubby	□	un	9	ils	G	C. G. H.	1712.	C	s.l	Mil. ic. 2. t. 263. f. 2
7164	decūmbens <i>W.</i>	trailing	□	un	1	ils	G	C. G. H.	1758.	C	s.l	Plant. grass. 23
7165	Tetrāpteris <i>Haw.</i>	winged-seeded	□	un	9	ils	G	C. G. H.	1795.	C	s.l	
7166	spicāta <i>W.</i>	spiked	□	un	1	jl	G	C. G. H.	1795.	C	s.l	
7167	herbācea <i>W.</i>	herbaceous	□	un	9	in.jl	G	C. G. H.	1752.	C	s.l	Co. hort. 2. t. 102
7168	echināta <i>W.</i>	Hedge-hog	□	un	9	my.au	G	C. G. H.	1774.	C	s.l	Plant. grass. 113
7169	lineāris <i>Haw.</i>	linear	□	un	1	s	G	C. G. H.	1819.	C	s.l	
7170	obovāta <i>Haw.</i>	obovate	□	un	1	...	G	C. G. H.	1821.	C	s.l	
1146. MESEMBRYAN'THEMUM. L.		<i>FIG-MARYGOLD.</i>		<i>Ficoidea.</i>		<i>Sp.</i> 291—350.						
7171	minūtum <i>Haw.</i>	minute	□	cu	lin	s.n	Pk	C. G. H.	1795.	C	s.l	Bot. mag. 1376
7172	minimūm <i>Haw.</i>	small	□	cu	lin	s.d	Pa.Y	C. G. H.	1776.	C	s.l	
7173	perpusillum <i>Haw.</i>	very small	□	cu	cu	s.d	Pa.Y	C. G. H.	1819.	C	s.l	
7174	obcordēllum <i>Haw.</i>	obcordate	□	cu	cu	f.o	W	C. G. H.	1776.	C	s.l	Bot. mag. 1647
7175	obconēllum <i>Haw.</i>	conical	□	cu	cu	f.o	W	C. G. H.	1786.	C	s.l	
7176	ficifōrme <i>Salm.</i>	fig-like	□	cu	lin	f.o	...	C. G. H.	1819.	C	s.l	
7177	truncatēllum <i>Haw.</i>	truncated	□	cu	lin	f.o	Pa.Y	C. G. H.	1795.	C	s.l	
7178	fibulifōrme <i>Haw.</i>	cloth-button	□	cu	lin	...	...	C. G. H.	1795.	C	s.l	
7179	uvæfōrme <i>Haw.</i>	berry-like	□	cu	lin	...	...	C. G. H.	1820.	C	s.l	Bur. dic. t. 10. f. 2
7180	nucifōrme <i>Haw.</i>	Nut-shaped	□	cu	lin	...	...	C. G. H.	1790.	C	s.l	
7181	testiculāre <i>Att.</i>	short white-lvd.	□	cu	n	n	Y	C. G. H.	1774.	C	s.l	Bot. mag. 1573
7182	octophyllum <i>Haw.</i>	eight-leaved	□	cu	n	n	Y	C. G. H.	1819.	C	s.l	
7183	obtusūm <i>Haw.</i>	obtuse-cloven	□	cu	cu	mr.ap	Pk	C. G. H.	1792.	C	s.l	
7184	fissūm <i>Haw.</i>	cleft-leaved	□	cu	cu	...	...	C. G. H.	1776.	C	s.l	
7185	digitifōrme <i>Thunb.</i>	finger-leaved	□	cu	cu	...	...	C. G. H.	1775.	C	s.l	
7186	magnipunctum <i>Sal.</i>	large-dotted	□	cu	cu	...	...	C. G. H.	1822.	C	s.l	
	<i>β uncialē</i>	<i>small</i>	□	cu	cu	...	...	C. G. H.	1822.	C	s.l	
	<i>γ affīne</i>	<i>alike</i>	□	cu	cu	...	...	C. G. H.	1822.	C	s.l	
7187	cānum <i>Haw.</i>	hoary	□	cu	lin	...	...	C. G. H.	1822.	C	s.l	
7188	aloides <i>Haw.</i>	aloe-like	□	cu	cu	...	...	C. G. H.	1822.	C	s.l	
7189	caninūm <i>Haw.</i>	dog-chap	□	gr	cu	...	...	C. G. H.	1795.	C	s.l	
7190	lupinūm <i>Haw.</i>	wolf's-chap	□	gr	cu	...	...	C. G. H.	1819.	C	s.l	
7191	vulpinūm <i>Haw.</i>	fox-chap	□	gr	cu	...	...	C. G. H.	1717.	C	s.l	Plant. grass. 95
7192	hybridūm <i>Haw.</i>	bastard	□	gr	cu	...	...	C. G. H.	1795.	C	s.l	
7193	albīdum <i>L.</i>	white	□	gr	cu	...	...	C. G. H.	1714.	C	s.l	Bot. mag. 1824
7194	tigrinūm <i>Haw.</i>	tiger-chap	□	gr	cu	...	...	C. G. H.	1790.	C	s.l	Bot. reg. 260
7195	felinūm <i>Haw.</i>	cat-chap	□	gr	cu	...	...	C. G. H.	1730.	C	s.l	Plant. grass. 152
7196	mustellinūm <i>Haw.</i>	weasel-chap	□	gr	cu	...	...	C. G. H.	1820.	C	s.l	
7197	murinūm <i>Haw.</i>	mouse-chap	□	gr	cu	...	...	C. G. H.	1790.	C	s.l	
7198	dolābrifōrme <i>Haw.</i>	hatchet-leaved	□	gr	cu	...	...	C. G. H.	1705.	C	s.l	Plant. grass. 6
7199	scapigerūm <i>Haw.</i>	great-scaped	□	gr	cu	...	...	C. G. H.	1823.	C	s.l	
7200	carinans <i>Haw.</i>	keeled	□	cu	cu	...	...	C. G. H.	1818.	C	s.l	
7201	denticulātum <i>Haw.</i>	toothed	□	or	cu	...	...	C. G. H.	1793.	C	s.l	
	<i>β glaucūm</i>	<i>glaucous</i>	□	or	cu	...	...	C. G. H.	...	C	s.l	
	<i>γ candidissimūm</i>	<i>fair</i>	□	or	cu	...	...	C. G. H.	...	C	s.l	
7202	robūtum <i>Haw.</i>	robust	□	or	cu	...	...	C. G. H.	1795.	C	s.l	
7203	compāctum <i>H. K.</i>	compact	□	or	cu	...	...	C. G. H.	1780.	C	s.l	
7204	quadrifidūm <i>Haw.</i>	quadrifid	□	or	cu	...	...	C. G. H.	1795.	C	s.l	
7205	bifidūm <i>Haw.</i>	bifid	□	or	cu	...	...	C. G. H.	1795.	C	s.l	
7206	bibractētum <i>Haw.</i>	double-bracted	□	or	cu	...	...	C. G. H.	1803.	C	s.l	
7207	rostrātum <i>L.</i>	heron-beaked	□	or	cu	...	...	C. G. H.	1732.	C	s.l	Di. el. t. 186. f. 229
7208	tuberculātum <i>Mill.</i>	warted	□	or	cu	...	...	C. G. H.	1732.	C	s.l	
7209	ramulōsum <i>Haw.</i>	small heron-be.	□	or	cu	...	...	C. G. H.	1791.	C	s.l	
7210	pisifōrme <i>Haw.</i>	Pea-shaped	□	or	cu	...	...	C. G. H.	1796.	C	s.l	



History, Use, Propagation, Culture,

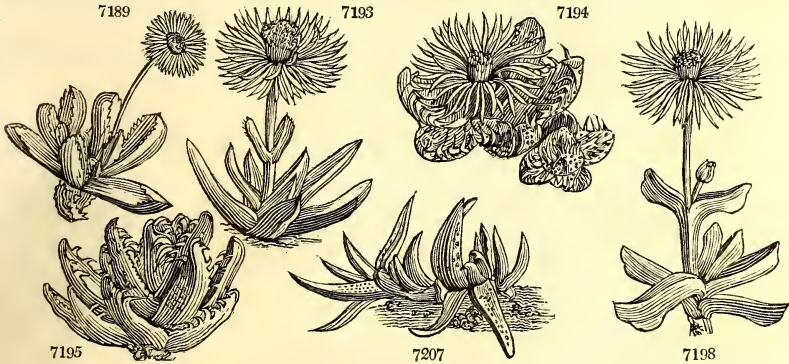
1145. *Tetragonia*. From τετρας, quaternary, and γωνία, an angle, in allusion to the four angles of the bony pericarpium. The species are succulent trailers of no beauty, but possibly all fit to be used, like Chenopodium, as a spinage. *T. expansa* has been so used by Captain Cook when visiting New Zealand, and lately introduced for the same purpose in British gardens; as a summer spinage, it is as valuable as the orache, or perhaps more so. Every gardener knows the plague that attends the frequent sowing of common spinage through the the warm season of the year; without that trouble it is impossible to have it good, and with the utmost care it cannot always be obtained exactly as it ought to be, (particularly when the weather is hot and dry,) from the rapidity with which the young plants run to seed. The New Zealand spinage, if watered, grows freely, and produces leaves of the greatest succulency in the hottest weather. Anderson, one of its earliest cultivators, had only nine plants, from which, he says, "I have been enabled to send in a gathering for the kitchen every other day since the middle of June, so that I consider a bed with about twenty plants quite sufficient to give a daily supply, if required, for a large table."

- 7161 Herbaceous, Leaves ovate rhomboid, Fruit with 4 horns
 7162 Frosted, Leaves ovate sessile, Fruit not horned
 7163 Shrubby, Leaves linear, Fruit winged
 7164 Shrubby frosted, Leaves obovate, Fruit winged
 7165 Procumbent, Leaves sessile lanceolate decumbent, Wings of fruit 8 alternately smaller
 7166 Smooth herbaceous erect, Lower leaves ovate: upper lanceolate smooth, Fl. racemose
 7167 Smooth herbaceous, Leaves ovate stalked, Fruit winged
 7168 Herbaceous, Leaves rhomboid ovate, Fruit ubinate
 7169 Leaves alternate linear revolute at edge with a dorsal line above
 7170 Leaves alternate frosted obovate with winged decumbent stalks

§ 1. *Stem none or very short, Root perennial, Leaves large.*

- 7171 Whitish polished unarmed, Flower with a long tube
 7172 Smooth rather glaucous with branched confluent spots, Ovary exserted
 7173 Smooth green with great confluent branched spots, Ovary included
 7174 Glaucous, Spots branched confluent, Ovary included
 7175 Green, Spots confluent wart-like, Ovary included
 7176 Pyriform glaucous retuse at end, Spots generally distinct green and obsolete
 7177 Very depressed and rather glaucous, Spots nearly distinct, Ovary exserted
 7178 Somewhat hoary and pubescent much depressed
 7179 Nearly globose pale green berry-shaped with little dark scarcely confluent spots
 7180 Glaucous smooth, Ends of the leaves unequally distinct flat above
 7181 Leaves about 4 broadly ovate or parabolic half rounded expanded
 7182 Leaves 6-8 oblong-ovate half round erect
 7183 Green, Leaves unequally half rounded acinaciform obtuse
 7184 Whitish, Leaves equally half rounded very blunt
 7185 Stemless, Leaves rounded very smooth
 7186 Leaves perfect about 4 clavate 3-cornered very thick glaucous with many large dots
 7187 Leaves hoary at the base half rounded and thin upwards gibbous and keeled
 7188 Stemless, Leaves entire half round green marbled at the end keeled 3-cornered
 7189 Stemless, Lvs. glaucous towards the end and the bractes incurved and toothed, Pedunc. length of leaves
 7190 Leaves glaucous, Marginal fringes numerous very deep
 7191 Nearly steml. Lvs. glauc. towards end entire or with large teeth, Bractes entire, Pedun. longer than leaves
 7192 Stemless smooth whitish, Lvs. half round entire at end keeled 3-cornered little thickened with a recurved
 7193 Stemless very smooth white, Leaves thick subulate 3-cornered obtuse with a point [point
 7194 Green stemless, Leaves cordate ovate expanded marbled with white and with a deep fringe
 7195 Stemless glaucous, Leaves deeply tooth-fringed obsoletely dotted with a cartilaginous keel at end
 7196 Stemless green with clear spots, Leaves 3-cornered towards the end with a shortly toothed fringe
 7197 Nearly stemless glaucous, Leaves with 3 rows of toothed fringe and small dots
 7198 Leaves exactly hatchet-shaped, The old stem nearly six inches high and erect
 7199 Leaves keeled 3-cornered green, Scape strong panicled 2-edged
 7200 Leaves erect incurved keeled upwards long glaucous rugose with large dots
 7201 Leaves very glaucous triquetrous compressed at the end with a dilated keel which is often toothletted

- 7202 Leaves obt. dotted with gibbous pustules at the base in the inside, Stem strong short decumbent branch.
 7203 Stemless, Leaves connate dotted half round at the end triquet. reflexed acute, Fl. sessile, Cal. cylin. 6-fid
 7204 Nearly stemless, Leaves hoary glaucous obtuse towards the end with a few spots, Cal. 4-fid
 7205 Nearly stemless, Leaves glaucous very blunt with many dots, Cal. 2-4-fid
 7206 Nearly stemless branched, Leaves subul. elong. dott. very glauc. Bractes 4 crossing shorter than scape
 7207 Stemless, Leaves subulate elongated acute glauc. much dott. Bractes 2 longer than scape
 7208 Like the last, but leaves half cylindr. connate warted outside
 7209 Leaves obl. at the base inside with elevated pustules, Old stem three inches long decumbent
 7210 Leaves papulose iced, the first pisiform, the next half round, Stem much branched corky



and Miscellaneous Particulars.

The seed should be sown in the latter end of March in a pot, which must be placed in a melon-frame; the seedling plants, while small, should be set out singly in small pots, and kept under the shelter of a cold frame, until about the twentieth of May, when the mildness of the season will probably allow of their being planted out, without risk of being killed by frost. The plants must be put out three feet apart in very rich soil. In five or six weeks from the planting, their branches will have grown sufficiently to allow the gathering of the leaves for use. In dry seasons, the plants will probably require a good supply of water. They put forth their branches vigorously as soon as they have taken to the ground, and extend before the end of the season three feet on each side.

1146. *Mesembryanthemum*. From *mesembryanthemum*, the mid-day: on account of the flowers usually expanding at that time: the termination *anthemum*, which signifies flowering, is, to say the least of it, superfluous. The species of this extensive genus are singular, yet beautiful, and some even splendid plants. Their leaves are of odd shapes, and the habits of most of the sorts slovenly and insignificant, though some are grotesque; but the

7211 monilifôrme Haw.	bracelet	Y	Δ	or	1	mr.ap	W	C. G. H.	1791.	C	s.1	
7212 scalprâtum Haw.	great-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1714.	C	s.1	Di. el. t.183.f.224
7213 frâgrans Salm.	fragrant	Y	Δ	or	1	...	Y	C. G. H.	1792.	C	s.1	
7214 prepin'gue Haw.	soft-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1820.	C	s.1	
7215 médium Haw.	intermediate	Y	Δ	or	1	au.o	Y	C. G. H.	1820.	C	s.1	
7216 cultrâtum Haw.	cutlute	Y	Δ	or	1	au.o	Y	C. G. H.	1732.	C	s.1	
7217 lûcidum Mill.	shining	Y	Δ	or	1	au.o	Y	C. G. H.	1805.	C	s.1	
7218 ascéndens Haw.	ascend-tongue	Y	Δ	or	1	au.n	Y	C. G. H.	1818.	C	s.1	
7219 pustulâtum Haw.	blistered	Y	Δ	or	1	au	Y	C. G. H.	1725.	C	s.1	Plant. grass. 71
7220 lôgum Haw.	long-tongue	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.1	
α depressum B. M.	depressed	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.1	
β declive Haw.	sloping	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.1	
γ angustius Haw.	tufted	Y	Δ	or	1	au.o	Y	C. G. H.	...	C	s.1	
δ purpurascens Haw.	purple-green	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.1	
ε uncatum Haw.	leaden-green	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.1	
ζ attolens Haw.	narrow-drop	Y	Δ	or	1	au.o	Y	C. G. H.	1819.	C	s.1	
7221 linguâfôrme Haw.	common-tong.	Y	Δ	or	1	mr.n	Y	C. G. H.	1732.	C	s.1	
α rufescens Haw.	reddish-green	Y	Δ	or	1	mr.n	Y	C. G. H.	1732.	C	s.1	
γ subcruciatum Haw.	subcruciate	Y	Δ	or	1	mr.n	Y	C. G. H.	1820.	C	s.1	
δ prostratum Haw.	prostrate	Y	Δ	or	1	mr.n	Y	C. G. H.	1819.	C	s.1	
ε assurgens Haw.	upright	Y	Δ	or	1	mr.n	Y	C. G. H.	1620.	C	s.1	Di. el. t.184.f.225
7222 latum Haw.	blunt-tongue	Y	Δ	or	1	mr.n	Y	C. G. H.	1802.	C	s.1	
β breve Haw.	short	Y	Δ	or	1	mr.n	Y	C. G. H.	1795.	C	s.1	Bot. mag 1866
7223 depressum Haw.	depressed-tong.	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.1	
β lividum Haw.	livid	Y	Δ	or	1	s.n	Y	C. G. H.	1792.	C	s.1	
7224 cruciatum Haw.	cross-leaved	Y	Δ	or	1	my.n	Y	C. G. H.	1795.	C	s.1	
7225 salinum Haw.	Bull's-horn	Y	Δ	or	1	s.n	Y	C. G. H.	1818.	C	s.1	
7226 Salmii Haw.	Salmian	Y	Δ	or	1	s.n	Y	C. G. H.	1818.	C	s.1	
β semicruciatum Sal.	half-crossed	Y	Δ	or	1	s.n	Y	C. G. H.	1823.	C	s.1	
γ angustifolium Haw.	narrow-leaved	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.1	
7227 surrectum Haw.	erect	Y	Δ	or	1	s.n	Y	C. G. H.	1819.	C	s.1	
β brevifolium Haw.	short-leaved	Y	Δ	or	1	s.n	Y	C. G. H.	1790.	C	s.1	
7228 heterophyllum Haw.	various-leaved	Y	Δ	or	1	...	Y	C. G. H.	1790.	C	s.1	
7229 angustum Haw.	slender-tongue	Y	Δ	or	1	mr.o	Y	C. G. H.	1790.	C	s.1	Bot. rep. 540
β pallidum Haw.	pale	Y	Δ	or	1	mr.o	Y	C. G. H.	1732.	C	s.1	Di. el. t.194.f.242
γ heterophyllum Jack.	variable	Y	Δ	or	1	au	Y	C. G. H.	1818.	C	s.1	
7230 diffôrme Haw.	deformed	Y	Δ	or	1	au	Y	C. G. H.	1818.	C	s.1	
7231 bidentatum Haw.	two-toothed	Y	Δ	or	1	au	Y	C. G. H.	1732.	C	s.1	
β majus Haw.	large	Y	Δ	or	1	au	Y	C. G. H.	1732.	C	s.1	Di. el. t.194.f.241
7232 semicylindricum Ha.	semi-cylindric	Y	Δ	or	1	mr.n	Y	C. G. H.	1780.	C	s.1	
7233 gibbosum Haw.	gibbous	Y	Δ	or	1	ja.ap	R	C. G. H.	1795.	C	s.1	
7234 luteoviride Haw.	yellow-green	Y	Δ	or	1	ja	R	C. G. H.	1792.	C	s.1	
7235 perviride Haw.	dark-green	Y	Δ	or	1	ja.my	R	C. G. H.	1792.	C	s.1	
7236 pubescens Haw.	downy	Y	Δ	or	1	ja	R	C. G. H.	1717.	C	s.1	Plant. grass. 5
7237 calami fôrme L.	quill-shaped	Y	Δ	or	1	js	W	C. G. H.	1796.	C	s.1	
7238 obsubulatum Haw.	reverse-quilled	Y	Δ	or	1	...	W	C. G. H.	1792.	C	s.1	
7239 cylindricum Haw.	cylindrical	Y	Δ	or	1	f.s	R	C. G. H.	1794.	C	s.1	
7240 teretifolium Haw.	round-quilled	Y	Δ	or	1	f.s	R	C. G. H.	1794.	C	s.1	
7241 teretiôsculum Haw.	turgid	Y	Δ	or	1	...	R	C. G. H.	1717.	C	s.1	Di. el. 189. f.233
7242 bellidiflorum L.	Daisy-flowered	Y	Δ	or	1	jn.au	R	C. G. H.	1717.	C	s.1	
β subulatum Mill.	gray-green	Y	Δ	or	1	jn.au	R	C. G. H.	1717.	C	s.1	
γ viride Haw.	Pea-green	Y	Δ	or	1	jn.au	R	C. G. H.	1793.	C	s.1	
7243 acutum Haw.	great-awl-leav.	Y	Δ	or	1	ap.n	R	C. G. H.	1793.	C	s.1	
7244 punctatum Haw.	spotted awl-lvd.	Y	Δ	or	1	ap.n	R	C. G. H.	1789.	C	s.1	
7245 diminutum Haw.	diminutive	Y	Δ	or	1	ap	R	C. G. H.	1789.	C	s.1	
β cauliculatum Haw.	small-stemmed	Y	Δ	or	1	ap	R	C. G. H.	1732.	C	s.1	Di. el. t.200.f.255
7246 lôreum Dill.	leathery-stlkd.	Y	Δ	or	1	mr.o	Pa.Y	C. G. H.	1726.	C	s.1	Di. el. t.198.f.252
7247 diversifolium L.	short horned-lv.	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.1	
β glaucus Haw.	glaucous	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.1	
γ brevifolium Haw.	short-leaved	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.1	
δ late-virens Haw.	bright-green	Y	Δ	or	1	au	Pa.Y	C. G. H.	...	C	s.1	
ε atro-virens Haw.	dark-green	Y	Δ	or	1	au	Pa.Y	C. G. H.	1820.	C	s.1	
7248 decipiens Haw.	middle	Y	Δ	or	1	au	Pa.Y	C. G. H.	1800.	C	s.1	Brad. suc. 4. t.40
7249 dâbitum Haw.	round-stalked	Y	Δ	or	1	my.n	Pa.Y	C. G. H.	1800.	C	s.1	



History, Use, Propagation, Culture,

flowers make ample amends by their profusion, the brilliancy of their colors, and the length of time the species continue in flower. Few are annual, fewer biennial, many are perennial, but most are shrubby,

- 7211 First leaves connate spheroidal, next half round subulate very long recurved green
 7212 Leaves sloping graver-shaped very broad thickest on one edge at the base inside pimpled, Fl. sessile
 7213 Nearly steml. Lvs. tongue-shaped thick; one convex blunt at end, the other with a long keel, Fl. stlkd. frag.
 7214 Leaves obliquely tongue-shaped pale green very soft, the younger ciliated pubesc. hooked inwards at end
 7215 Nearly stemless, Lvs. tongue-shaped sloping 4-inches long, 1-broad cultrate, Pedunc. an inch long
 7216 Nearly stemless, Lvs. distichous tongue-shaped at the edge and end cultrate. Fl. stalked
 7217 Leaves long very green and polished, Pedunc. longer than calyx, Caps. small depressed
 7218 Leaves broad tongue-shaped ascending obtuse green longer than peduncles
 7219 Leaves tongue-shaped ascending 5-6-in. long, 3-11-lines broad, with large pimples at the base inside
 7220 Leaves long tongue-shaped shining thinner, Flowers subsessile, Caps. large depressed

7221 Leaves unequally tongue-shaped thick green partially keeled, Caps. little elevated subsessile

7222 Leaves tongue-shaped obtuse thick often sloping and a little hollowed, Caps. large conical subsessile

7223 Prostrate, Lvs. narr. tongue-shaped obt. recurved depressed variously bent inwards at end, Caps. depressed

7224 Leaves lin. tongue-shaped half cylindr. very soft cruciate. Old stem three inches long

7225 Lvs. bifarious obliquely crossed half round obt. very thick yellowish green incurv. Old stem 6 in. high

7226 Stemless, Lvs. $\frac{1}{2}$ cylin. subul. variously obliquely hooked blunt with broad smooth spots at base, Caps. flat
 [half included]

7227 Lvs. crossing suberect or spreading half round subulate acute soft often pustulate at base, Ovary exerted
 [stalked]

7228 Stemless, Leaves green deformed the upper longest

7229 Leaves linear linguiform half cylindrical very long

7230 Lvs. obliquely cruciate long variously obliquely deformed with one or more obscure teeth, Old stem 3-6-in.

7231 Lvs. $\frac{1}{2}$ cylin. thick soft with two large opp. fleshy teeth beyond the midd. at the end variously and obliquely
 [deformed]

7232 Lvs. very narr. tongue-shap. $\frac{1}{3}$ round towards end oblique with 1 or 2 obsolete teeth, Old stem branch. 6 in.

7233 Nearly stemless, Leaves yellowish green spreading ovate half cylindrical rarely keeled at end

7234 Stem weak two or three inches long, Lvs. obl. $\frac{1}{2}$ -cylindr. upwards 3-cornered yellowish green

7235 Stem weak two or three inches long, Leaves half-cylindr. 3-cornered or subovate very green

7236 Leaves downy hoary or silky smooth

7237 Leaves subulate glaucous at the base above flat, Styles 8

7238 Leaves obsubulate thick obtuse green

7239 Leaves 3-cornered cylindr. subglaucous dotted 3 inches long, The old stem 3 inches closely branched

7240 Lvs. 4 in. long green roundish or cylindr. : the younger polished $\frac{1}{2}$ round very green the old stems 6 in.

7241 Leaves 3-cornered rounded very thick green dotted two inches long [polished]

7242 Leaves 3-cornered blunt with three rows of teeth at end, The old stem branched half shrubby

7243 Leaves half round subulate incurved with clear spots, Spots obsolete not wrinkled

7244 Leaves half round subulate incurved with clear spots, Spots large numerous with a white head

7245 Leaves half round subulate incurved with clear spots, Spots nearly middle sized with a little white point

§ 2. Cluster-leaved. Stem about a foot high decumbent perennial, Leaves in capitata clusters, Flowers polygamous, Calyx 5-leaved.

7246 Lvs. capit. closely clustered $\frac{1}{2}$ cylindr. 3-cornered elong. recurv. somewhat glaucous, Stems roundish white

7247 Lvs. capitata closely clustered long 3-cornered half cylindr. glaucous or green, Stems angular red

7248 Lvs. somewhat clustered long $\frac{1}{2}$ -cylindr 3-cornered minutely wrinkled, Stems prostrate with distant joints

7249 Leaves clust. longish broad erect half cylindr. 3-cornered shining, Joints close, Styles 12



and Miscellaneous Particulars.

especially towards the base. Leaves mostly opposite, seldom alternate, thick, or succulent, of various forms. Flowers solitary, axillary, or extra-axillary, but more frequently terminating. The fruit is some-

7250	corniculatum Haw.	long-horned	Y Δ	or	1	mr.my	Pa.Y	C. G. H.	1732.	C	s.1	
	β isophilum Dec.	equal-leaved	Y Δ	or	1	mr.my	Pa.Y	C. G. H.	1732.	C	s.1	Plant, grass, 108
7251	procumbens Haw.	procumbent	Y Δ	or	1	mr.my	Pa.Y	C. G. H.	1820.	C	s.1	
7252	tricolorum Haw.	three-colored	Y Δ	or	1	o	Y.R	C. G. H.	1794.	C	s.1	Bot. mag. 2144
7253	pugioniforme L.	long dagger-ld.	Y Δ	or	1	jl.s	Pa.Y	C. G. H.	1714.	S	s.1	Dill. elth. f. 269
	β carneum Haw.	flesh-colored	Y Δ	or	1	jl.s	Pk	C. G. H.	1714.	S	s.1	
	γ purpureum Haw.	purple	Y Δ	or	1	jl.s	Pu	C. G. H.	1714.	S	s.1	
	δ bienne Haw.	biennial	Y Δ	or	1	jl.s	Pa.Y	C. G. H.	1714.	S	s.1	
7254	capitatum Haw.	short dagger-ld.	Y Δ	or	1	jl.s	Pa.Y	C. G. H.	1717.	S	s.1	Bot. reg. 494
7255	brevicaule Haw.	dwarf dagg. lvd.	Y Δ	or	1	3/4 jl.s	Pa.Y	C. G. H.	1820.	S	s.1	
7256	coriscans Haw.	glittering-dagg.	Y Δ	or	1	3/4 jl.s	Pa.Y	C. G. H.	1812.	S	s.1	
7257	elongatum Haw.	dwarf-tuberous	Y Δ	or	1	my	Pa.Y	C. G. H.	1793.	S	s.1	
	β minus Haw.	small	Y Δ	or	1	my	Pa.Y	C. G. H.	1793.	S	s.1	Bot. reg. 493
	γ fusiforme Haw.	fusiform	Y Δ	or	1	my	Pa.Y	C. G. H.	1793.	S	s.1	
7258	geminatum Jacq.	small pale	Y Δ	or	2	...	Pk	C. G. H.	1819.	C	s.1	Jacq. frag. 56
7259	simile Haw.	short-jointed	Y Δ	or	1	...	Pk	C. G. H.	1819.	C	s.1	
7260	laxum W.	long-jointed	Y Δ	or	1	my	Pk	C. G. H.	1820.	C	s.1	
7261	sarmentosum Haw.	sarmentose	Y Δ	or	1 1/2	ap	Pk	N. Holl.	1805.	C	s.1	
7262	rigidicaule Haw.	stiff-stemmed	Y Δ	or	1 1/2	my.jn	Pk	C. G. H.	1819.	S	s.1	
7263	Schöllii Salm.	large-rough	Y Δ	or	1	my.jn	Pk	C. G. H.	1810.	S	s.1	Jac. frag. t.51.f.2
7264	filamentosum Haw.	thready	Y Δ	or	1	mr.ap	Pk	C. G. H.	1732.	C	s.1	Di.el. t.212.f.273
7265	serrulatum Haw.	saw-leaved	Y Δ	or	2	n.d	Pk	C. G. H.	1795.	C	s.1	
	β viridius Haw.	greener	Y Δ	or	2	n.d	Pk	C. G. H.	...	C	s.1	
7266	rubricaulis Haw.	red-stalked	Y Δ	or	2	f.d	Pk	C. G. H.	1802.	C	s.1	
	β densus Haw.	crowded	Y Δ	or	2	...	Pk	C. G. H.	1818.	C	s.1	
	γ subvirens Haw.	tall-green	Y Δ	or	2	...	Pk	C. G. H.	1818.	C	s.1	
7267	acinaciforme L.	scymetar-leav.	Y Δ	or	2	aus.s	Pk	C. G. H.	1714.	C	s.1	Bot. rep. 80
	β longum Haw.	long	Y Δ	or	2	aus.s	Pk	C. G. H.	...	C	s.1	
7268	laevigatum Haw.	polished	Y Δ	or	2	jn	Pk	C. G. H.	1802.	C	s.1	
7269	rubrocinctum Haw.	red-bordered	Y Δ	or	2	...	Pk	C. G. H.	1811.	C	s.1	
	β compressum Haw.	compressed	Y Δ	or	2	au	Pk	C. G. H.	...	C	s.1	
	γ tenerum Haw.	delicate	Y Δ	or	2	au	Pk	C. G. H.	...	C	s.1	
7270	subulatum Haw.	pale Daisy-flow.	Y Δ	or	2	...	Pk	C. G. H.	1768.	C	s.1	Plant, grass, 41
7271	édule L.	Hottentots' fig	Y Δ	or	2	jl.au	Pk	C. G. H.	1690.	C	s.1	Di. el. t.212.f.272
7272	dimidiatum Haw.	Lesser Hot. fig	Y Δ	or	2	...	Pk	C. G. H.	1811.	C	s.1	Plant, grass. 89
7273	glaucescens Haw.	glaucescent	Y Δ	or	2	jl	Pk	N. Holl.	1804.	C	s.1	
7274	Róssi Haw.	Ross's	Y Δ	or	2	...	Pk	V. Di. L.	1820.	S	s.1	
7275	virescens Haw.	virescent	Y Δ	or	2	jn	Pk	N. Holl.	1804.	C	s.1	
7276	aquilaterale Haw.	equal-sided	Y Δ	or	2	jn	Pk	N. Holl.	1791.	C	s.1	
7277	virens Haw.	upright-green	Y Δ	or	2	jn	Pk	C. G. H.	1821.	C	s.1	
7278	réptans H. K.	creeping	Y Δ	or	2	jl.au	Pk	C. G. H.	1774.	C	s.1	
7279	australe Haw.	New Zealand	Y Δ	or	2	jl.au	Pk	N. Zeal.	1773.	C	s.1	
7280	crassifolium L.	thick-leaved	Y Δ	or	2	my.au	Pk	C. G. H.	1727.	C	s.1	Di. el. t.201.f.257
7281	clavellatum Haw.	club-leaved	Y Δ	or	2	jn.jl	Pk	N. Holl.	1803.	C	s.1	
	β minus Haw.	small	Y Δ	or	2	jl.au	Pk	C. G. H.	1810.	S	s.1	
7282	forficatum L.	scissar-leaved	Y Δ	or	1 1/2	s.o	Pk	C. G. H.	1758.	C	s.1	Jac. vind. I. t. 26
7283	geminatum Haw.	twin-shooted	Y Δ	or	1 1/2	...	W	C. G. H.	1792.	C	s.1	
7284	marginatum Haw.	white-edged	Y Δ	or	1	...	W	C. G. H.	1793.	C	s.1	
7285	rostellum Haw.	little-beak	Y Δ	or	1	jn	W.pk	C. G. H.	1820.	S	s.1	
7286	perfoliatum Mill.	great-perfoliate	Y Δ	or	1	jn.au	Pa.pu	C. G. H.	1714.	C	s.1	Di.el.t.192.f.240
	β monacanthum Bradl.	one-spined	Y Δ	or	1	jn.au	Pa.pu	C. G. H.	...	C	s.1	
7287	uncinellum Haw.	small-hooked	Y Δ	or	1	jn.au	Pa.pu	C. G. H.	1819.	C	s.1	Dill. elth. f. 239
7288	uncinatum Haw.	lesser-perfoliate	Y Δ	or	1	au	Pa.pu	C. G. H.	1725.	C	s.1	Plant, grass. 54
7289	semidentatum Haw.	slender-hooked	Y Δ	or	1	au	Pa.pu	C. G. H.	...	C	s.1	
7290	viride Haw.	green-perfoliate	Y Δ	or	1	jl	Pa.pu	C. G. H.	1792.	C	s.1	
7291	acutangulum Haw.	acute-angled	Y Δ	or	1 1/2	...	W	C. G. H.	1821.	C	s.1	
7292	cúrtum Haw.	short-sheathed	Y Δ	or	1 1/2	...	W	C. G. H.	...	C	s.1	
	β majus Haw.	large	Y Δ	or	1 1/2	...	W	C. G. H.	...	C	s.1	
	γ politum Haw.	polished	Y Δ	or	1 1/2	...	W	C. G. H.	...	C	s.1	
	δ minus Haw.	small	Y Δ	or	1 1/2	...	W	C. G. H.	...	C	s.1	
7293	vaginatum Haw.	sheathed	Y Δ	or	1 1/2	jl.au	W	C. G. H.	1802.	C	s.1	
	β parviflorum Haw.	small-flowered	Y Δ	or	1 1/2	jl.au	W	C. G. H.	...	C	s.1	



History, Use, Propagation, Culture,

times shaped like a fig. Linnæus arranged the species from the color of the flower; Haworth chiefly from the leaves.

7250 Leaves clust. 3-cornered $\frac{1}{2}$ cylindr. very long glaucous incurved, Stems scarcely angular, Joints distant

7251 Leaves in pairs coriuculate incurved $\frac{1}{2}$ cylindr. 3-cornered glaucous, Stems flexuose procumbent

7252 Leaves exactly cylindr. three inches long acute green, Styles 20

7253 Leaves glaucous about a foot long 3-cornered, Angles dilated with a broad furrow, Stem simple

7254 Leaves somewhat glaucous 6-7 inches long 3-cornered, Old stem simple

7255 Leaves green 3-4 inches long 3-cornered, Old stem two inches high simple erect

7256 Leaves dagger-shaped long glittering, Stem shrubby perennial

7257 Leaves glauc. about a span long bluntly 3-cornered channelled or half round, Root large tuberous fleshy

§ 3. *Trailers. Stems prostrate or creeping, angular, Calyx 5-leaved, Flowers polygynous, Leaves connate at base acutely 3-cornered.*

7258 Branches long slender spreading, Lvs. equilateral 3-corn. green hooked a little outwards at end, Fl. 3 or 2

7259 Lvs. equilateral 3-corn. glauc. much dotted straight at end lon. than joints, Edges not serr. Stems firm proc.

7260 Lvs. conn. comp. 3-corn. very green watted often short. than joints, Edges finely tooth. Branches very slen.

7261 Runners $1\frac{1}{2}$ foot long slender rooting, Lvs. clustered compressed 3-corn. bright green not rough at edge

7262 Leaves long equilateral 3-cornered straight roughish at edge, Stem firm procumbent

7263 Leaves compressed 3-cornered large recurved serrulate very rough, Old stems firm decumbent [decum.

7264 Lvs. bright green clust. thick comp. 3-corn. acinacif. dott. lon. than joints with rough edges, Stems short

7265 Lvs. comp. 3-corn. acinacif. glauc. not serrated and scarcely cartilaginous at edge generally lon. than joints

7266 Lvs. comp. 3-corn. greenish rugose the edges with cartilaginous serratures generally shorter than joints

7267 Leaves acinaciform, Edges curled wavy rough

7268 Leaves acinaciform polished glaucous with entire cartilaginous edges

7269 Leaves acinaciform with the edges and keel rough and red

7270 Leaves compressed 3-cornered acinaciform and equilateral, Every edge roughish

7271 Old leaves equilateral 3-cornered green incurved three inches long blistered inside at base, Keel serrulate

7272 Leaves about two inches sharply 3-cornered, the old ones comp. with their keel upwards serrulate burnt

7273 Young lvs. incurved equilateral 3-cornered soft glauc. with a cartilaginous smoothish white edge, Styles 7

7274 Leaves acinaciform or compressed 3-cornered glauc. with a pink smooth cartilag. edge, Stems prostrate

7275 Leaves not equilateral 3-cornered greenish, Stems prostrate, Pedunc. terminal solitary winged, Styles 8

7276 Leaves equilateral 3-cornered greenish, Edges smooth cartilaginous, Stems weak prostrate

7277 Lvs. comp. 3-corn. acinacif. smooth dotted green, in the inside at the base blistered, Keel roughish at edge

7278 Leaves clustered 3-cornered acute glaucous with large rough pellucid dots, Stems filiform very weak

7279 Leaves glaucous dotted 3-cornered incurved smooth

7280 Leaves 3-cornered not dotted smooth very green half cylindrical at base

7281 Leaves clustered expanded obsolete 3-cornered clavate obtuse green with a little point

§ 4. *Perfoliate. Leaves connate sheathing generally three-cornered upwards, usually hooked at end, Calyx 5-leaved.*

7282 Leaves 3-cornered compressed green prickly at end, Stem 2-edged decumbent

7283 Leaves erect white smooth 3-cornered thick sheathing beyond their middle with a cartilaginous edge

7284 Leaves 3-cornered subacinaciform white at edge, Keel dilated

7285 Leaves beaked connate half round subulate recurved dotted green, Stems prostrate branched knotty

7286 Leaves white thick hard dotted usually with about three spines beneath, Branches few

7287 Leaves whitish thick dotted recurved at end usually with one spine beneath, Branches many

7288 Leaves greenish with two spines beneath at the end

7289 Branches simple slender upright hard, Lvs. 3-cornered dotted white with 1-4 teeth at the back upwards

7290 Leaves quite entire very green smooth thick hooked backwards at the end

7291 Leaves acute-angled 3-cornered acum. incurved recurved green rough at edge

7292 Erect, Lvs. usually close recurved smooth green with the angles roughish above, Sheath often sharp

7293 Erect roughish, Lvs. about an inch long spreading straight recurv. at end, Sheaths green smooth, Angles [rough upwards



and Miscellaneous Particulars.

Most of the species are so hardy, that on dry rock-work, in a sheltered part of the garden, they will endure ordinary winters. Every thing, however, depends on keeping them dry. Among the hardy sorts may be reckoned

7294	<i>parviflorum</i> Haw.	small-flowered	yz	or	3	au	W	C. G. H.	1800.	C	s.1	
7295	<i>rigidum</i> Haw.	rigid	yz	or	1½	au	W	C. G. H.	1793.	C	s.1	
7296	<i>tenellum</i> Haw.	least-perfoliate	yz	or	1½	au	W	C. G. H.	1792.	C	s.1	
7297	<i>imbricatum</i> H. K.	imbricated	yz	or	3	jl	W	C. G. H.	1792.	C	s.1	
	β <i>medium</i> Haw.	intermediate	yz	or	3	jl	W	C. G. H.	...	C	s.1	
	γ <i>viride</i> Haw.	green	yz	or	3	jl	W	C. G. H.	...	C	s.1	
7298	<i>multiflorum</i> Haw.	many-flowered	yz	or	3	jl.s	W	C. G. H.	1792.	C	s.1	Plu.phy.t.117.f.1
	β <i>minus</i> Haw.	small	yz	or	3	jl.s	W	C. G. H.	...	C	s.1	
	γ <i>rubrum</i> Haw.	red-flowered	yz	or	3	jl.s	Pk	C. G. H.	...	C	s.1	
	δ <i>patens</i> W.	spreading	yz	or	3	jl.s	W	C. G. H.	1820.	C	s.1	
	ε <i>nitens</i> Haw.	shining	yz	or	3	...	...	C. G. H.	...	C	s.1	
7299	<i>umbellatum</i> Haw.	umbel-flowered	yz	or	3	jn.s	W	C. G. H.	1727.	C	s.1	Dil.el.t.208.f.266
	β <i>anomatum</i> W.	anomalous	yz	or	3	jn.s	W	C. G. H.	...	C	s.1	
7300	<i>tumidulum</i> Haw.	tumid	yz	or	3	mr	Pk	C. G. H.	1802.	C	s.1	
	β <i>minus</i> Haw.	small	yz	or	3	mr	Pk	C. G. H.	1820.	C	s.1	
7301	<i>foliosum</i> Haw.	leafy	yz	or	3	s	Pk	C. G. H.	1802.	C	s.1	
7302	<i>lineolatum</i> Haw.	lined	yz	or	½	jl.s	...	C. G. H.	1819.	C	s.1	
	γ <i>laeve</i> Thunb.	smooth	yz	or	½	jl.s	...	C. G. H.	1819.	C	s.1	
	β <i>nitens</i> Haw.	shining	yz	or	½	jl.s	...	C. G. H.	1819.	C	s.1	
7303	<i>serratum</i> L.	saw-keeled	yz	or	2	jn.jl	Pk	C. G. H.	1707.	C	s.1	Dil.el.t.192.f.238
7304	<i>gladiatum</i> Jacq.	purple-serrate	yz	or	2	jn	Pk	C. G. H.	1792.	C	s.1	
7305	<i>heteropetalum</i> Haw.	various-petaled	yz	or	2	my.au	Pk	C. G. H.	1794.	C	s.1	
7306	<i>glaucinum</i> Haw.	glaucine	yz	or	1½	jl.au	Pk	C. G. H.	...	C	s.1	
	β <i>crassum</i> Haw.	thick-leaved	yz	or	1½	jl.au	Pk	C. G. H.	...	C	s.1	
7307	<i>mutabile</i> Haw.	changeable	yz	or	1½	jl.s	Pk	C. G. H.	1792.	C	s.1	Plant. grass. 60
7308	<i>inclaudens</i> Haw.	open-flowered	yz	or	1½	jn.s	Pk	C. G. H.	1805.	C	s.1	Bot. rep. 388
7309	<i>caulescens</i> Mill.	smooth delta-ly.	yz	or	1½	my.jl	Pk	C. G. H.	1731.	C	s.1	D.e.t.195.f.243-4
7310	<i>deltoidum</i> Haw.	great delta-lyd.	yz	or	1½	my	Pk	C. G. H.	1731.	C	s.1	Plant. grass. 53
7311	<i>muricatum</i> Haw.	small delta-lyd.	yz	or	1½	my	Pk	C. G. H.	1731.	C	s.1	D.e.t.195.f.245-7
	β <i>minus</i> Haw.	less	yz	or	1½	my	Pk	C. G. H.	...	C	s.1	
7312	<i>microphyllum</i> Haw.	small-leaved	yz	or	½	my	Pk	C. G. H.	1795.	C	s.1	
7313	<i>mucronatum</i> Haw.	mucronated	yz	or	¼	...	...	C. G. H.	1794.	C	s.1	
7314	<i>pygmaeum</i> Haw.	pigmy	yz	or	¼	...	...	C. G. H.	1805.	C	s.1	
7315	<i>pulchellum</i> Haw.	neat	yz	or	¼	ap	Pk	C. G. H.	1793.	C	s.1	
	β <i>revolutum</i> Haw.	revolute	yz	or	¼	ap	Pk	C. G. H.	...	C	s.1	
7316	<i>maximum</i> Haw.	moon-leaved	yz	or	1½	mr.au	Pk	C. G. H.	1787.	C	s.1	Bot. reg. 358
7317	<i>lunatum</i> W.	lunate	yz	or	1	jl	Pk	C. G. H.	1812.	C	s.1	
7318	<i>falcatum</i> L.	sickle-leaved	yz	or	1	jn.au	Pk	C. G. H.	1727.	C	s.1	D.e.t.213.f.275-6
7319	<i>decumbens</i> Haw.	decumbent	yz	or	1	my.o	Pa.R	C. G. H.	1759.	C	s.1	
7320	<i>incurvum</i> Haw.	incurved	yz	or	1½	jn	Pk	C. G. H.	1802.	C	s.1	
	β <i>dilatans</i> Haw.	gibbous-keeled	yz	or	1½	jn	Pk	C. G. H.	...	C	s.1	
	γ <i>pallidius</i> Haw.	pale	yz	or	1½	jn	Pk	C. G. H.	...	C	s.1	
	δ <i>densifolium</i> Haw.	dense-leaved	yz	or	1½	jn	Pk	C. G. H.	1819.	C	s.1	
	ε <i>roscum</i> W.	rosy	yz	or	1½	jn	Pk	C. G. H.	...	C	s.1	
7321	<i>confertum</i> Haw.	crowded-leaved	yz	or	1½	s.o	Pk	C. G. H.	1805.	C	s.1	
7322	<i>falciforme</i> Haw.	sickle-shaped	yz	or	1½	jl.au	Pk	C. G. H.	1805.	C	s.1	
7323	<i>glomeratum</i> L.	clustered	yz	or	1½	jn.au	Pk	C. G. H.	1732.	C	s.1	Dill. elt. f. 274
7324	<i>inflexum</i> Haw.	inflexed	yz	or	1	jn.au	Pk	C. G. H.	1819.	C	s.1	
7325	<i>scabrum</i> L.	scabrous	yz	or	1½	jl	Pk	C. G. H.	1731.	C	s.1	Dill. elt. f. 251
7326	<i>versicolor</i> Haw.	changeable-fl.	yz	or	1	my.au	Pk	C. G. H.	1795.	C	s.1	
7327	<i>retroflexum</i> Haw.	white-barked	yz	or	1½	my.o	Pk	C. G. H.	1794.	C	s.1	
7328	<i>imbricans</i> Haw.	imbricating	yz	or	2	my.o	Pk	C. G. H.	1818.	C	s.1	
7329	<i>deflexum</i> H. K.	deflexed	yz	or	1	jl.o	Pk	C. G. H.	1774.	C	s.1	
7330	<i>leptaleon</i> Haw.	slender	yz	or	1½	jl.o	Pk	C. G. H.	1819.	C	s.1	
7331	<i>polyanthon</i> Haw.	copious-flower.	yz	or	1	au	Pk	C. G. H.	1803.	C	s.1	
7332	<i>flexile</i> Haw.	flexile	yz	or	1½	au	Pk	C. G. H.	1820.	C	s.1	
7333	<i>polyphyllum</i> Haw.	many-leaved	yz	or	2	jn.o	Pk	C. G. H.	1819.	C	s.1	
7334	<i>violaceum</i> Dec.	violet	yz	or	2	jn.o	Pu	C. G. H.	1820.	C	s.1	
7335	<i>emarginatum</i> L.	notch-flowered	yz	or	2	jn.au	Pk	C. G. H.	1732.	C	s.1	Dil.el.t.197.f.250
7336	<i>dilatatum</i> Haw.	dilated	yz	or	3	jn.au	W	C. G. H.	1820.	C	s.1	
7337	<i>virgatum</i> Haw.	twiggy	yz	or	3	f.ap	Pk	C. G. H.	1793.	C	s.1	
7338	<i>bracteatum</i> Haw.	bracted	yz	or	1½	jl.o	Y	C. G. H.	1774.	C	s.1	Bot. cab. 251
7339	<i>anceps</i> Haw.	two-edged	yz	or	1½	s.o	Yk	C. G. H.	1811.	C	s.1	
	β <i>pallidum</i> Haw.	pallid	yz	or	1½	n	P.Pk	C. G. H.	1819.	C	s.1	



History, Use, Propagation, Culture,

M. hispidum, striatum, barbatum, crassifolium, glaucum, uncinatum, corniculatum, &c. Hardy, and yet showy sorts, are M. inclaudens, aurantium, perfoliatum, deltoides, barbatum, &c. These will grow and

- 7294 Leaves half an inch long smooth suberect, Keel not serrulate, Stem three feet high and branches erect
- 7295 Lvs. about three lines long horiz. and sheaths smooth, Keel rough at end, Branches very stiff and spread.
- 7296 Lvs. 3 lines long and more spreading thin and sheaths rough at edge, Branches filiform decumbent
- 7297 Lvs. somewhat compressed 3-cornered glauc. about one inch long, Branches many erect, Cal. turbinate

7298 Leaves somewhat compressed 3-cornered glaucous and the branchlets spreading

7299 Leaves distant roundish somewhat glaucous roughish with dots, Sheaths tumid at end

7300 Leaves remote greenish smooth about an inch and half long recurved at end, Sheaths tumid at end

7301 Leaves somewhat glaucous smooth clustered obtuse an inch long with a recurved point

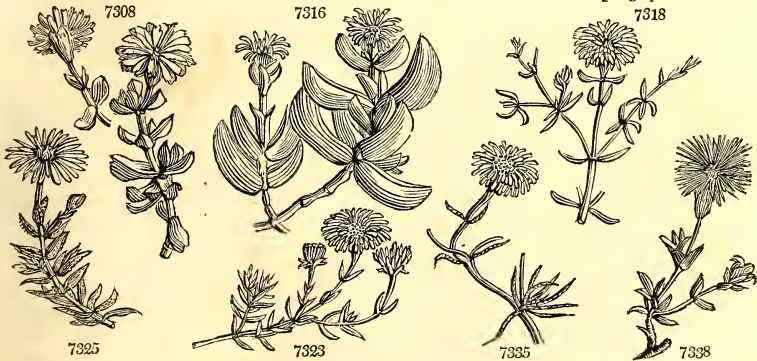
7302 Leaves connate incurve-recurved blunt, Keel roughish at end with a sheathing line at base

§ 5. *Delta-leaved. Leaves more or less deltoid or hatchet formed. Flowers pink.*

- 7303 Leaves subulate 3-cornered dotted with the keel serrated backward
- 7304 Leaves glaucous compressed 3-cornered gladiate, Keel cartilaginous torn, Petals much longer than calyx
- 7305 Lvs. clust. not dotted glauc. shortly falcate gladiate, Angles cartilag. Petals much shorter than calyx
- 7306 Lvs. clust. compressed 3-cornered shortly acinaciform glauc. entire dotted with a cartilaginous edge
- 7307 Leaves distinct clust. equilaterally 3-corn. shortly acinaciform green dotted with a cartilaginous edge
- 7308 Lvs. subdelt. smooth very green with a gibb. entire keel, Pet. not closing: the inner imbricate very short
- 7309 Leaves clustered glaucous long 3-cornered deltoid, The sides not toothed, Keel entire
- 7310 Leaves clust. very glauc. 3-corn. deltoid toothed in three rows, Keel of the bractes and sepals entire
- 7311 Leaves clust. deltoid with the bractes and sepals 3-cornered glaucous toothletted in three rows
- 7312 Leaves 3-corn. acuminate awned green blistered inside at the base, Branches much clustered
- 7313 Leaves obl. ovate acute glaucous 3-corn. with a little white point at end
- 7314 Leaves connate at base oblong ovate half round not pointed, the winter leaves joined almost to the end
- 7315 Leaves acute equilaterally 3-corn. cymbiform grey obsoletely dotted with a downy fringe and recurv. point

§ 6. *Triquetrous. Leaves more or less 3-cornered distinct. Cal. 5-leaved. Styles 5.*

- 7316 Leaves large clustered much compressed 3-corn. incurved very glaucous, Stem woody erect bushy
- 7317 Leaves small much clust. somewhat connate compressed 3-corn. closely incurved, Branches clustered
- 7318 Leaves minute distinctly compressed 3-cornered falcate, Branches numerous filiform
- 7319 Leaves much compressed 3-corn. very glauc. attenuate at each end incurved, Branches much clustered
- 7320 Leaves compressed 3-corn. very glaucous attenuate at each end acinaciform, Stem erect
- 7321 Leaves 3-corn. clust. robust incurved very glaucous, Stem erect much branched
- 7322 Leaves much clustered thick acinaciform falcate with large spots glaucous
- 7323 Lvs. bluntly 3-corn. comp. glauc. incurv. atten. at each end, Pedunc. and branches erect filiform comp.
- 7324 Lvs. clustered falcate inflexed from 3-cornered half round compressed subglaucous smooth
- 7325 Leaves subtriquetrous green shining warty very rough, Sepals ovate acuminate, Petals crenate at end
- 7326 Leaves subtriquetrous glaucouscens warty very rough, Sepals ovate-acuminate, Petals two toothed at end
- 7327 Leaves subtriquetrous very glaucous rough, Sepals and petals distant reflexed, Stamens clust. Bark white
- 7328 Erect woody, Leaves lin. obsoletely 3-corn. smoothish glauc. white imbricated at the ends of old branches
- 7329 Leaves subtriquetrous glauc. roughish attenuated downwards, Stems clust. deflexed, Pet. very numerous
- 7330 Leaves subtriquetrous glauc. attenuated upwards smooth, Keel roughish, Branches distant filiform
- 7331 Leaves small glauc. 3-corn. rough, Branches bushy clust. The young bark brown, Flowers panicle
- 7332 Leaves small often longer than the joints but inwards by pairs glauc. 3-corn. obtuse smooth
- 7333 Leaves much clust. strong incurved-recurved clavate compressed dotted glaucous, Branches bushy
- 7334 Leaves compressed bluntly 3-corn. roughish with dots glaucous, Sepals like spines spreading
- 7335 Leaves subglaucous subtriquetrous rough, Calyxes spiny, Petals deeply emarginate
- 7336 Leaves distinct remote subrecurved triquetrous much comp. dotted glauc. Keel gibbous above middle
- 7337 Leaves distinct distant triquetrous compressed acute subglaucous dotted, Branches twiggy
- 7338 Leaves green, Bractes 4 broadly ovate keeled embracing the calyx, Pet. white at base, Branches fuscous
- 7339 Branches decumbent 2-edged brown, Leaves acinacif. 3-corn. with sides membranous downwards, Dots [large pellucid elevated



and Miscellaneous Particulars.

flower vigorously if planted in a bed in the open air and protected during winter, or if planted in a common pit, and matted over during frost.

7340	<i>gracile</i> Haw.	starry	st.	or	1½	au.n	R	C. G. H.	1794.	C	s.l	
	<i>stellatum</i> Haw.		st.	or	1½	au.n	R	C. G. H.	1732.	C	s.l	Di.cl.t.197.f.249
7342	<i>compressum</i> Haw.	compressed	st.	or	1½	jl.s	D.R	C. G. H.	1792.	C	s.l	
7343	<i>pátulum</i> Haw.	spreading	st.	or	1½	o.n	Pk	C. G. H.	1811.	C	s.l	
7344	<i>asperum</i> Haw.	rough	st.	or	1½	...	...	C. G. H.	1818.	C	s.l	
	β <i>caerulescens</i> Haw.	blue	st.	or	1½	...	...	C. G. H.	1820.	C	s.l	
7345	<i>formosum</i> Haw.	white-eyed	st.	or	1	aus	Cr	C. G. H.	1820.	C	s.l	
7346	<i>speciabile</i> Haw.	showy	st.	or	1	my.au	Cr	C. G. H.	1787.	C	s.l	Bot. mag. 396
7347	<i>conspicuum</i> Haw.	dark-showy	st.	or	1	s.o	Cr	C. G. H.	1806.	C	s.l	
7348	<i>blándum</i> Haw.	bland	st.	or	1½	jn	Pk	C. G. H.	1810.	C	s.l	Bot. reg. 582
7349	<i>curviflorum</i> Haw.	curve-flowered	st.	or	2	jn	W	C. G. H.	1818.	C	s.l	
7350	<i>aíreum</i> L.	golden-flower'd	st.	or	1	mr.o	Y	C. G. H.	1750.	C	s.l	Bot. mag. 262
7351	<i>cymbifolium</i> Haw.	boat-leaved	st.	or	1	...	Y	C. G. H.	1822.	C	s.l	
7352	<i>aurántium</i> Haw.	orange-flower'd	st.	or	1½	jn.au	Y	C. G. H.	1793.	C	s.l	
7353	<i>gláucum</i> L.	glaucous-leaf'd	st.	or	1½	ju.jl	Or	C. G. H.	1696.	C	s.l	Plant. grass. 146
7354	<i>stráctum</i> Haw.	erect	st.	or	3	...	Y	C. G. H.	1795.	C	s.l	
7355	<i>gymnifórmé</i> Haw.	boat-shaped	st.	or	1½	...	Y	C. G. H.	1793.	C	s.l	
7356	<i>granifórmé</i> Haw.	grain-leaved	st.	or	1	s.o	Y	C. G. H.	1727.	C	s.l	Brad. suc. 2. t.20
7357	<i>mólle</i> H. K.	soft-leaved	st.	or	1	o	Pk	C. G. H.	1774.	C	s.l	
7353	<i>coccíneum</i> Haw.	scarlet-flowered	st.	or	1½	my.s	S	C. G. H.	1696.	C	s.l	Bot. mag. 59
7359	<i>bicolórum</i> L.	two-colored	st.	or	1½	my.s	Or	C. G. H.	1732.	C	s.l	Di. el. t.202.f.258
	β <i>pétulum</i> Haw.	spreading	st.	or	1	my.s	Or	C. G. H.	...	C	s.l	
	γ <i>minus</i> Haw.	small	st.	or	1	my.s	Or	C. G. H.	...	C	s.l	
7360	<i>inaequáte</i> Haw.	unequal-cupped	st.	or	1	my.s	Or	C. G. H.	1716.	C	s.l	Brad. suc. 1. f.7
7361	<i>tenuifolium</i> Haw.	slender-leaved	st.	or	1	jn.s	S	C. G. H.	1700.	C	s.l	Plant. grass. 82
	β <i>eréclum</i> Haw.	erect	st.	or	1	jn.s	S	C. G. H.	...	C	s.l	
7362	<i>variábilé</i> Haw.	variable	st.	or	1½	jn.au	Y	C. G. H.	1796.	C	s.l	
7363	<i>spiniifórmé</i> Haw.	thorn-leaved	st.	or	1	s.o	Pk	C. G. H.	1793.	C	s.l	
	β <i>subaduncum</i> Haw.	hooked	st.	or	1	s.o	Pk	C. G. H.	...	C	s.l	
7364	<i>curvifolium</i> W.	crooked-leaved	st.	or	1	o	Pk	C. G. H.	1799.	C	s.l	
7365	<i>flexifolium</i> Haw.	bent-leaved	st.	or	1½	o	Pk	C. G. H.	1820.	C	s.l	
7366	<i>adúncum</i> Haw.	hook-leaved	st.	or	1	f.mr	Pk	C. G. H.	1795.	C	s.l	
7367	<i>filicáulé</i> Haw.	thread-stalked	st.	or	1½	s	Pk	C. G. H.	1800.	C	s.l	
7368	<i>spinósium</i> L.	thorny	st.	or	1½	jn.s	Pk	C. G. H.	1714.	C	s.l	Di. el. t.208.f.265
7369	<i>stipuláceum</i> L.	upright-shrub.	st.	or	1½	my.jn	Pk	C. G. H.	1723.	C	s.l	D.cl.t.209.f.27,8
7370	<i>corallinum</i> Thunb.	coral	st.	or	1	my.jn	Pk	C. G. H.	1820.	C	s.l	
7371	<i>prodúctum</i> Haw.	long-calyxed	st.	or	1	my.jn	Pk	C. G. H.	1822.	C	s.l	
7372	<i>Hawórchii</i> Donn.	Haworth's	st.	or	1	ja.jn	Br	C. G. H.	1793.	C	s.l	
7373	<i>la've</i> H. K.	white-wooded	st.	or	1½	jl.s	Y...	C. G. H.	1774.	C	s.l	
7374	<i>verruculátum</i> L.	spot-leaved	st.	or	1½	my.jn	Y	C. G. H.	1751.	C	s.l	
	β <i>Candollii</i> Pl. gr.	Decandolle's	st.	or	1½	my.jn	Y	C. G. H.	...	C	s.l	Plant. grass. 36
7375	<i>insititium</i> W.	purple and saff.	st.	or	1	au.o	Pu	C. G. H.	1780.	C	s.l	
	β <i>purpuro-cróceum</i> Haw.		st.	or	1	au.o	Y	C. G. H.	1816.	C	s.l	
	γ <i>minus</i>	yellow and saff.	st.	or	1	au.o	Y	C. G. H.	...	C	s.l	
7376	<i>crystállinum</i> L.	Ice-plant	st.	or	1	my.au	W	Greece	1727.	S	s.l	Plant. grass. 128
7377	<i>glaciále</i> Haw.	frozen	st.	or	1	my.au	W	Greece	...	S	s.l	
7378	<i>pinnatifidum</i> L.	jagged	st.	or	1	my.o	Y	C. G. H.	1774.	S	s.l	Bot. mag. 67
7379	<i>sessiliflorum</i> H. K.	sessile-flowered	st.	or	1	jl	Y	C. G. H.	1774.	S	s.l	
	β <i>ábum</i> Haw.	white	st.	or	1	jl	Y	C. G. H.	...	S	s.l	
7380	<i>humifosum</i> H. K.	narrow-lvd. icy	st.	or	1	jl.au	W	C. G. H.	1774.	C	s.l	
7381	<i>Aitóni</i> Jacq.	Aiton's	st.	or	1	jn.o	Pk	C. G. H.	1774.	S	s.l	Jac. vind. 3. t.7
7382	<i>lanceolátum</i> Haw.	spear-leaved	st.	or	1	my.au	W	C. G. H.	1795.	S	s.l	
	β <i>roseum</i> Haw.	pink	st.	or	1	my.au	Pk	C. G. H.	1813.	S	s.l	
7383	<i>cordifolium</i> L.	heart-leaved	st.	or	1	my.s	Pk	C. G. H.	1774.	C	s.l	Plant. grass. 102
7384	<i>pomeridiánium</i> L.	great yellow-fl.	st.	or	1	jl.au	Y	C. G. H.	1774.	S	s.l	Bot. mag. 540
	β <i>glábrum</i>	smooth	st.	or	1	jl.au	Y	C. G. H.	...	S	s.l	
7385	<i>Candollii</i> Haw.	Decandolle's	st.	or	1	au	Y	C. G. H.	1815.	S	s.l	
7386	<i>pilosum</i> Haw.	hairy-yellow	st.	or	1	jn.au	Y	C. G. H.	1800.	S	s.l	
7387	<i>calenduláceum</i> Haw.	Pot-marigold	st.	or	1	au	Y	C. G. H.	1819.	S	s.l	
7388	<i>Helianthoides</i> H. K.	Sun-flower	st.	or	1	au.o	Y	C. G. H.	1774.	S	s.l	Plant. grass. 135
7389	<i>limpidum</i> H. K.	transparent	st.	or	1	jl	R	C. G. H.	1774.	S	s.l	Jac. ic. 3. t. 488



History, Use, Propagation, Culture.

M. nodiflorum grows wild in Italy and Egypt, and in the latter country is burnt for potash, which it produces in excellent quality.

- 7340 Leaves glauc. slender roughish, Bractes ovate acute almost surrounding the calyx, Branches very slender [straight]
- 7341 Leaves glaucous, Bractes broad ovate, Branchlets clustered, Stem hoary
- 7342 Leaves glauc. equilateral 3-corn. very rough, Bractes ovate acute embracing the peduncles upwards
- 7343 Leaves 6-12 lines long half erect glauc. with little pellucid rough dots
- 7344 Leaves compressed 3-corn. longish bluish-green with rough pellucid dots, Keel usually onetoothed
- 7345 Low, Leaves green sparkling in the sun and branches very dense, Flower-stems decumbent
- 7346 Lowish, Lvs. glauc. 3-corner. and branches very close, Fl.-stems ascending or erect, Styles obovate twice
- 7347 Leaves green sparkling in the sun and branches close, Flower-stems erect [as short as stamens]
- 7348 Lvs. close compressed 3-cornered very green, Ped. longer than bract, Flowers spreading flat in the sun
- 7349 Leaves compressed 3-cornered glaucous, Branches stout, Pedunc. clavate, Corolla incurved
- 7350 Leaves cylindrical 3-cornered, Petals orange, Styles dark purple
- 7351 Leaves cymbiform pale-green with large dots, Branches few 2-edged hoary
- 7352 Lvs. very glauc. 3-corn. compressed, Sepals obl. ovate, Pet. deep orange imbricated, Styles purple outside
- 7353 Lvs. acutely 3-corn. much compressed glauc. roughish, Sepals ovate cordate, Pet. sulphur, Styles yellow
- 7354 Leaves 3-cornered obtuse expanded glaucous with large spots, Stem much branched woody stiff erect
- 7355 Leaves 3-cornered spreading cymbiform glaucous, Stems branched, Branches filiform nearly erect close
- 7356 Lvs. distinct 3-corn. ovate granular 3 lines long, Flowers yellow opening in the evening, Stems expanded
- 7357 Leaves spreading turgid 3-cornered hoary bluntly dotted at edge, Branches clustered 2-edged decumbent
- § 7. *Slender, Leaves distinct, dotted, rounded, without warts, Flowers opening in the morning, red, orange, or yellow.*
- 7358 Lvs. rounded 3-corn. somewhat compressed obt. glauc. Pedunc. smooth at base, Sepals obt. nearly equal
- 7359 Leaves 3-cornered acute green, Pedunc. and cal. unequal rough, Petals yellow inside
- 7360 Leaves about 3-cornered very green, Pedunc. in fruit clavate, Sepals very unequal, Branches loose
- 7361 Leaves half round subcompressed subulate green smooth longer than joints, Stems erect or procumbent
- 7362 Lvs. 3-corn. compressed glauc. rough, Sepals unequal, Petals changing from yellow to pink, Stems effuse
- 7363 Branches and lvs. cylindrical subul. spiniform erect recurved at end, Pedunc. and keels of bractes rough
- 7364 Lvs. distant expanded at base incurv. half round subul. Branch. firm suberect roughish angul. compressed
- 7365 Lvs. 3-cornered subulate incurved below hooked at end, Branches filiform compressed wavy decumbent
- 7366 Leaves clustered half cylindrical acuminate much recurved at end, Branches filiform nearly erect very close
- 7367 Tufted, Leaves clustered half cylindrical acuminate with filiform very weak creeping stems
- 7368 Leaves rounded 3-cornered dotted distinct, Spines branched
- 7369 Leaves long rounded 3-cornered subulate incurved glaucous edged at base
- 7370 Leaves rounded incurved smooth thickest in middle glaucous, Stem straight branched
- 7371 Flowers terminal 3, Two sepals deeply divided
- 7372 Leaves subulate rounded 3-cornered acute somewhat incurved very glaucous, Bark chestnut-colored
- 7373 Leaves clustered cylindrical obtuse arcuate glaucous smooth
- 7374 Leaves connate at base very close and glaucous 3-cornered cylindrical soapy, Flowers afternoon
- 7375 Leaves clustered 3-cornered half cylindrical mealy obtuse shorter than joint soapy, Sepals very unequal

§ 8. *Warted, Leaves and branches almost always more or less warted, Root biennial or annual.*

- 7376 Leaves large ovate acute wavy frosted with three nerves beneath, Root biennial
- 7377 Leaves large altern. ovate much wavy, as are the stems and cal., bespangled with ice drops, Root annual
- 7378 Leaves oblong pinnatifid pimpled, Petals minute yellow
- 7379 Leaves flat spatulate and stems pimpled, Branches divaricating, Fl. sessile
- 7380 Leaves amplexicaul. spatulate keeled, Pimples conical rough, Petals very minute
- 7381 Leaves opp. and altern. ovate spatulate wavy pimpled, Branches and calyxes angular, Fl. afternoon
- 7382 Leaves altern. lanceolate bluntnish pimpled, Calyxes stalked crystalline
- 7383 Leaves stalked cordate ovate, Stems procumbent spreading, Cal. 4-cleft 2-horned
- 7384 Leaves broad lanceolate flattish smooth ciliated distinct, Stem peduncle and ovaries hairy
- 7385 Leaves opp. lanc. acute subciliate, Pedunc. solitary subterminal very long hairy, Sepals lanceolate
- 7386 Lvs. lin.-lanc. ciliated, Stems branched effuse, Pedunc. bractes and cal. shorter than flower woolly villous
- 7387 Leaves lin.-lanc. scarcely spatulate and calyx ciliated, Sepals linear thick or turgid, Pedunc. scabrous
- 7388 Leaves spatulate flat smooth, Pedunc. very long, Cal. flat at base angular
- 7389 Leaves opp. spatulate blunt rough, Pimples oblong, Sepals oblong blunt contracted in middle



and Miscellaneous Particulars.

- M. crystallinum is a popular hothouse annual, which does well in the open air in the summer season.
- M. umbellatum forms one of the handsomest shrubs of the genus, standing without support with a stout

7390	tricolor <i>Haw.</i>	three-colored	or	卍	jl	R	C. G. H.	1795.	S	s.1	
	γ <i>roseum</i> <i>Haw.</i>	pink	or	卍	jl	Pk	C. G. H.	1795.	S	s.1	
	γ <i>lineare</i> <i>Thunb.</i>	linear	or	卍	jl	W	C. G. H.	1819.	S	s.1	
7391	villosum <i>L.</i>	villosus	or	卍	jl	Ap	C. G. H.	1759.	C	s.1	
7392	caducum <i>H. K.</i>	deciduous	or	卍	jl.au	W	C. G. H.	1774.	S	s.1	
7393	apetalum <i>H. K.</i>	dwarf-spread.	or	卍	jl.au	Ap	C. G. H.	1774.	S	s.1	
7394	nodiflorum <i>L.</i>	knof-flowered	or	卍	au.o	W	Egypt	1739.	S	s.1	Jac. vind. 3. t. 6 Plant. grass. 88
7395	ciliatum <i>H. K.</i>	ciliated	or	卍	...	W	C. G. H.	1774.	C	s.1	
7396	geniculiflorum <i>L.</i>	joint-flowering	or	卍	jl.s	W	C. G. H.	1774.	C	s.1	Plant. grass. 17
7397	Tripolium <i>L.</i>	Aster-leaved	or	卍	jn.o	Pa.Y	C. G. H.	1927.	C	s.1	Di. el. t.179.f.220
7398	expansum <i>L.</i>	Houseleek-lvd.	or	卍	jl.au	Pa.Y	C. G. H.	1705.	C	s.1	Plant. grass. 94
7399	varians <i>Haw.</i>	varying	or	卍	jl.o	Pa.Y	C. G. H.	1706.	C	s.1	Pet. gaz. t.78.f.10
7400	tortuosum <i>L.</i>	twisted-leaved	or	卍	jn.o	Pa.Y	C. G. H.	1705.	C	s.1	Di. el. t.181.f.222
7401	pallens <i>H. K.</i>	pale-flowered	or	卍	jl.au	Pa.Y	C. G. H.	1774.	C	s.1	Plant. grass. 47
7402	loratum <i>Haw.</i>	lorate	or	卍	jl.au	W	C. G. H.	1819.	C	s.1	
7403	relaxatum <i>W.</i>	livid strap-leav.	or	卍	jl.au	Pk	C. G. H.	1815.	C	s.1	
7404	crassicaule <i>Haw.</i>	thick-leaved	or	卍	jl.au	Pa.Y	C. G. H.	1815.	C	s.1	
7405	anatomicum <i>Haw.</i>	skeleton-leaved	or	卍	jl.au	W	C. G. H.	1803.	C	s.1	
	β <i>fragile</i> <i>Haw.</i>	brittle	or	卍	jl.au	W	C. G. H.	1803.	C	s.1	
7406	rectum <i>Haw.</i>	straight	or	卍	jl.au	W	C. G. H.	1819.	C	s.1	
7407	crassuloides <i>Haw.</i>	Crassula-like	or	卍	jl.au	Pk	C. G. H.	1819.	C	s.1	
7408	incornutum <i>Haw.</i>	persistent	or	卍	jl.au	W	C. G. H.	1819.	C	s.1	
7409	spéndens <i>L.</i>	shining	or	卍	jn.au	W	C. G. H.	1716.	C	s.1	Plant. grass. 35
7410	flexuosum <i>Haw.</i>	zigzag	or	卍	jl.au	W	C. G. H.	1795.	C	s.1	
7411	acuminatum <i>Haw.</i>	acuminate	or	卍	aus.	W	C. G. H.	1820.	C	s.1	
7412	sulcatum <i>Haw.</i>	scutate	or	卍	aus.	W	C. G. H.	1819.	C	s.1	
7413	fastigiatum <i>Haw.</i>	level-topped	or	卍	jl.s	W	C. G. H.	1794.	C	s.1	
	β <i>reflexum</i> <i>Haw.</i>	reflexed	or	卍	aus.	W	C. G. H.	1792.	C	s.1	
7414	umbelliflorum <i>W.</i>	umbellate	or	卍	aus.	W	C. G. H.	1820.	C	s.1	
7415	pallescens <i>Haw.</i>	pallid	or	卍	aus.	W	C. G. H.	1820.	C	s.1	
7416	micranthum <i>Haw.</i>	small-blossom.	or	卍	...	W	C. G. H.	1804.	C	s.1	
	parviflorum <i>Jacq.</i>										
7417	juceum <i>Haw.</i>	Rush-leaved	or	卍	au.o	Pk	C. G. H.	1800.	C	s.1	
7418	granulatae <i>Haw.</i>	granulated	or	卍	...	...	C. G. H.	1820.	C	s.1	
7419	tenuis <i>Haw.</i>	slender	or	卍	...	...	C. G. H.	1819.	C	s.1	
7420	longispinulum <i>Haw.</i>	long-spined	or	卍	au.n	Pa.Y	C. G. H.	1820.	C	s.1	
7421	spinuliferum <i>Haw.</i>	spinulescent	or	卍	jn.o	Pa.Y	C. G. H.	1794.	C	s.1	
7422	grossum <i>Haw.</i>	gouty	or	卍	au.o	Pa.Y	C. G. H.	1774.	C	s.1	
7423	salmoneum <i>Haw.</i>	salmon-colored	or	卍	au.o	Pa.Y	C. G. H.	1819.	C	s.1	
7424	canaliculatum <i>Haw.</i>	channel-leaved	or	卍	jlo	Pk	C. G. H.	1794.	C	s.1	
7425	viridiflorum <i>H. K.</i>	green-flowered	or	卍	jl.n	Gk	C. G. H.	1774.	C	s.1	Bot. mag. 326
7426	tenuiflorum <i>Jacq.</i>	slender-flower.	or	卍	jl.n	Pk	C. G. H.	1820.	C	s.1	
7427	nitidum <i>Haw.</i>	nitid	or	卍	jlo	Y	C. G. H.	1790.	C	s.1	
7428	brachiatum <i>H. K.</i>	three-forked	or	卍	jn.au	Y	C. G. H.	1774.	C	s.1	
7429	subpiceum <i>Haw.</i>	hoary	or	卍	aus.	W	C. G. H.	1820.	C	s.1	
7430	testaceum <i>Haw.</i>	tile-colored	or	卍	aus.	Or	C. G. H.	1820.	C	s.1	
7431	tuberosum <i>L.</i>	tuberous-rooted	or	卍	jn.o	Or	C. G. H.	1714.	C	s.1	Dill. eth. f. 264
7432	noctiflorum <i>L.</i>	night-flowering	or	卍	jn.au	W.pk	C. G. H.	1714.	C	s.1	Bot. cab. 495
	β <i>stramineum</i> <i>Haw.</i>	straw-colored	or	卍	jn.au	Str	C. G. H.	1732.	C	s.1	
7433	fulvum <i>Haw.</i>	grey-barked	or	卍	jn.au	Str	C. G. H.	1820.	C	s.1	
7434	defoliatum <i>Haw.</i>	clubbed	or	卍	jn.au	Str	C. G. H.	1820.	C	s.1	
7435	horizontalis <i>Haw.</i>	horizontal-lvd.	or	卍	jn.au	W.pk	C. G. H.	1820.	C	s.1	
7436	speciosum <i>Haw.</i>	specious	or	卍	my.o	S	C. G. H.	1793.	C	s.1	
7437	micans <i>L.</i>	glittering	or	卍	my.au	S	C. C. H.	1704.	C	s.1	Bot. mag. 448
7438	maculatum <i>Haw.</i>	spotted-stalked	or	卍	...	S	C. G. H.	1792.	C	s.1	
7439	flavum <i>Haw.</i>	small-yellow	or	卍	au	Pk	C. G. H.	1820.	C	s.1	
7440	obliquum <i>Haw.</i>	oblique	or	卍	au	Pu	C. G. H.	1819.	C	s.1	Bot. reg. t. 863
7441	parvifolium <i>Haw.</i>	small-leaved	or	卍	jl.o	Pu	C. G. H.	1820.	C	s.1	
7442	brevifolium <i>H. K.</i>	short-leaved	or	卍	jl.o	R	C. G. H.	1777.	C	s.1	
7443	subglobosum <i>Haw.</i>	globular	or	卍	jl.o	R	C. G. H.	1795.	C	s.1	
7444	pulverulentum <i>Haw.</i>	dusty-leaved	or	卍	my.o	Pk	C. G. H.	1792.	C	s.1	
7445	hispidum <i>L.</i>	hispid	or	卍	my.o	Pu	C. G. H.	1704.	C	s.1	Dill. eth. f. 278
	β <i>platypetalum</i> <i>Haw.</i>	broad-petalled	or	卍	my.o	Pu	C. G. H.	1820.	C	s.1	
7446	hirtellum <i>Haw.</i>	dwarf-bristly	or	卍	my.n	Pk	C. G. H.	1792.	C	s.1	
7447	candens <i>Haw.</i>	glowing-icy	or	卍	...	...	C. G. H.	1820.	C	s.1	
7448	floribundum <i>Haw.</i>	pale-bristly	or	卍	my.o	Pk	C. G. H.	1704.	C	s.1	Di. el. t.214.f.280



History, Use, Propagation, Culture,

stem, two or three feet high, with terminating white flowers, which open, when the sun shines, from seven or eight in the morning to two or three in the afternoon, and smell like those of the hawthorn. The fruit of *M. edule* is eaten by the Hottentots and Dutch inhabitants of the Cape, and is called Hottentots' figs.

7390 Leaves linear inflexed channelled blunt rough, Pedunc. and calyx jewelled with crystals

- 7391 Leaves pubescent connate not dotted, Stem hairy [of leaves
 7392 Leaves filiform half round distinct, Pimples ovate, Fl. lateral sessile: the terminal surrounded by a pair
 7393 Leaves amplexicaul. distinct linear flat above pimples longer than joints, Fl. stalked
 7394 Leaves alternate roundish obtuse ciliated at base
 7395 Leaves opp. connate half round, Stipules membranous reflexed torn fringe-like
 7396 Leaves half round papulose distinct, Fl. sessile axill. Cal. 4-cleft
 7397 Leaves alternate lanceolate flat not dotted, Stems lax simple, Cal. 5-cornered
 7398 Leaves flattish lanceolate not dotted spreading distinct opp. and altern. remote
 7399 Leaves lanc. acuminate keeled fleshy bluntly 3-cornered channelled, Pedunc. very thick
 7400 Leaves flattish oblong ovate papulose clustered connate, Cal. 3-leaved 2-horned
 7401 Leaves amplexicaul. glaucous distinct obl. lanc. inflexed concave, Sepals ovate obl. longer than cor.
 7402 Leaves lorate long channelled inflexed blunt very glaucous convex beneath, Sepals obtuse as long as cor.
 7403 Lvs. lorate obl. blunt glauc. livid channelled dotted papulose keeled, Stems branched rounded decumbent
 7404 Leaves lorate acuminate green smooth, Stem very short and thick
 7405 Leaves lanc. elliptical crystalline when dead having only the nerves remaining, Stems procumbent

- 7406 Leaves connate ovate papulose, Branches erect clustered
 7407 Leaves lanc. lin. somewhat channelled convex beneath, Fl. solitary terminal [acute
 7408 Lvs. clustered papulose erect somewhat imbricate subul. half round, Fl. ternate cymose, Sepals digitiform
 7409 Leaves half round not dotted recurved distinct close, Cal. terminal finger-shaped
 7410 Lvs. close flexuose recurved very green half round, Sepals finger-shaped, Stems flexuose shining slender
 7411 Leaves acuminate green, Sepals 2 much elongated
 7412 Leaves close linear subulate half round pale green deeply channelled, Sepals acute
 7413 Leaves close flexuose reflex subulate half round glaucous, Sepals equal 3 membranes on each side
- 7414 Leaves distinct roundish pimples, Stem erect, Branchlets 1-flowered
 7415 Leaves opposite amplexicaul. distichous oblong-lanceolate acute bluntly keeled, Pimples minute
 7416 Leaves lanc. linear keeled not dotted distinct, Flowers stalked, Two sepals very long

- 7417 Lvs. subulate half round acute remote, Fl. term. dichotomous, Sepals very unequal, Branches sometimes
 7418 Branches round granular closely dotted [rush-formed
 7419 Leaves very slender 1-sided effuse, Leaves erect linear very fine
 7420 Branches procumbent knotted at the base, Spines of the leaves very long
 7421 Leaves close half round channelled, Stem and branches erect thick
 7422 Leaves lin. round obtuse narrowed at each end, Old stem strumose at base, Branches effuse
 7423 Branches filiform weak long prostrate, Old roots strumose above, Leaves lin. furrowed longer than joints
 7424 Leaves lin. half round with shining pimples, Stems procumbent filiform
 7425 Leaves half round pimples hairy, Cal. hairy, Stem thick, Branches diffuse knotty
 7426 Leaves half round blunt channelled spreading iced, Branches diffuse weak cinereous
 7427 Beautifully pimples all over, Leaves half round, Branches knotty slender, Fl. small dichotomous
 7428 Stems and leaves cylindrical pimples, Branches dichotomous
 7429 Leaves expanded compressed 3-cornered somewhat hoary soft recurved at end mucronate
 7430 Leaves half round somewhat triquetrous glaucous, Fl. 3-chofomous testaceous, Stem erect shrubby
 7431 Leaves subtriquetrous compressed minutely pimples recurved at end, Old root tuberous large
 7432 Leaves remote obsoletely cylindrical glaucous, Fl. 2 ternate cymose, Bark white

- 7433 Leaves remote subcylindrical glaucous exactly half erect, Fl. ternate, Bark cinereous
 7434 Leaves half round, Pedunc. terminal aggregate clavate cymose
 7435 Leaves remote half cylindrical glaucous exactly horizontal, Fl. ternate
 7436 Leaves half cylindrical subul. subacute incurved sparkling, Sepals and petals obtuse, Cor. funnel-shaped
 7437 Leaves half cylindrical obtuse subrecurved much sparkling, Sepals and petals subacute
 7438 Leaves expanded remote blunt compressed subcylindrical, Stems very rough spotted
 7439 Leaves half round narrowed at each end sparkling incurved erect variously bent, Branches filiform
 7440 Leaves distant cylindrical blunt small shining pimples: one of each pair deflexed, Branches hard suberect
 7441 Leaves graniform expanded bluntly 3-cornered papulose shining, Branches hard rough erect
 7442 Leaves cylindrical blunt spreading short, Branches numerous diffuse filiform
 7443 Leaves expanded very short or globose cylindrical, Branches numerous filiform divaricating decumbent
 7444 Leaves cylindrical 3-cornered obtuse with white dots, Calyx 6-cleft
 7445 Leaves cylindr. very blunt and cal. smooth obconical green pimples sparkling, Stamens longer than styles

- 7446 Leaves close cylindrical blunt with crystalline pimples, Cal. turbinate hairy, Stamens length of styles
 7447 Leaves cylindrical incurved crystalline hoary blunt sparkling, Branches long weak procumbent
 7448 Lvs. subcylindr. incur. pimpl. obt. Cal. hemispheric. pimpl. hairy cluster. Branch. numerous spreading



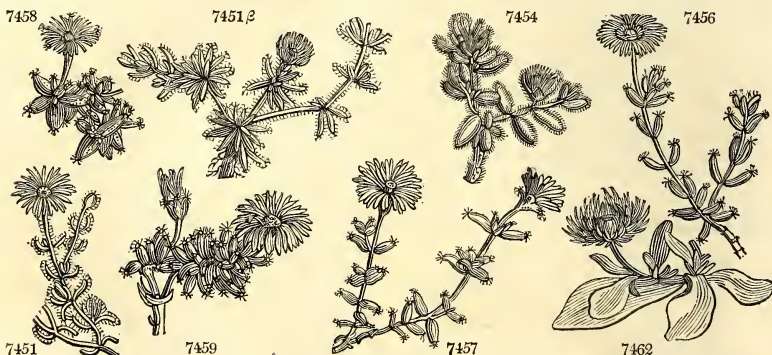
and Miscellaneous Particulars.

Mr. Haworth's arrangement of the genus, which is the only intelligible one, is here followed. Respecting the general culture of the genus, Sweet observes, "the dwarf kinds require but little water, and to be grown in small pots in a very sandy or gravelly soil. The species should be kept quite dry when in a dormant state;

7449 <i>torquatum</i> Haw.	twisted	or	my.o	Pk	C. G. H.	1820.	C	s.1	
7450 <i>calycinum</i> Haw.	long-cupped	or	jl.au	W	C. G. H.	1819.	C	s.1	
7451 <i>striatum</i> Haw.	striped-bristly	or	my.o	Pk	C. G. H.	1727.	C	s.1	Dill. elth. f. 281
β <i>pallens</i>	pale	or	my.o	W	C. G. H.	...	C	s.1	Plan. grass. t. 130
7452 <i>attenuatum</i> Haw.	slender	or	my.o	W	C. G. H.	1821.	C	s.1	
7453 <i>hispidifolium</i> Haw.	bristle-stemmed	or	my.o	W	C. G. H.	1818.	C	s.1	
β <i>roseum</i> Haw.	rosy	or	my.o	Pk	C. G. H.	1818.	C	s.1	
7454 <i>echinatum</i> H. K.	hedge-hog	or	jl.o	Y	C. G. H.	1774.	C	s.1	Plant. grass. 24
7455 <i>strumosum</i> Haw.	tubr. hedge-hog	or	au	Pa.Y	C. G. H.	1820.	C	s.1	
7456 <i>barbatum</i> L.	trailing beard.	or	jn.au	Pk	C. G. H.	1705.	C	s.1	Plant. grass. 28
7457 <i>stelligerum</i> Haw.	or lesser bearded	or	my.o	Pk	C. G. H.	1793.	C	s.1	Bot. mag. 70
7458 <i>stellatum</i> Dec.	small bearded	or	s.o	Pk	C. G. H.	1716.	C	s.1	Dill. elth. f. 235
<i>M. hirsutum</i> Haw.									
7459 <i>densum</i> Haw.	dwarf bearded	or	my.au	Pk	C. G. H.	1732.	C	s.1	Bot. mag. 1220
7450 <i>bulbosum</i> Haw.	bulbous	or	au	Pk	C. G. H.	1820.	C	s.1	
7461 <i>intonsum</i> Haw.	black-bearded	or	jl	Pk	C. G. H.	1824.	C	s.1	
1147. HYMENO'GYNE. Haw. HYMENO'GYNE.									
7462 <i>glabra</i> Haw.	smooth	cu	jl.o	Pa.Y	C. G. H.	1787.	S	s.1	Bot. rep. 57
<i>Mesemb. glabrum</i> H. K.									

POLYGYNIA.

1148. ROSA. IV.	Rose.				<i>Rosacee.</i>	<i>Sp.</i>	59—90.		
7463 <i>berberifolia</i> Pall.	Berberry-leavd.	or	1½	jn.jl	Y	Persia	1790.	C	r.m Par. lond. 101
7464 <i>férox</i> Lawr.	hedge-hog	or	3	jn.au	R	Caucasus	1796.	L	co Bot. reg. 420
7465 <i>Kamchatica</i> Vent.	Kamatchatka	or	4	jl.au	R	Kamtsch.	1802.	L	co Bot. reg. 419
β <i>K. nitens</i> Lindl.	shining	or	4	jl.au	R	.....	1822.	L	co Bot. reg. 824
7466 <i>involutrata</i> Rox.	involutrated	or	3	jl.au	W	E. Indies	1818.	L	co Bot. reg. 739
7467 <i>bracteata</i> Wendl.	Macartney	or	2	au.o	W	China	1795.	C	l.p Vent. ccls. t. 28
β <i>b. scabrifolia</i> Lindl.	rough-stemmed	oi	2	au.o	W	China	.....	C	l.p Bot. mag. 1377
7468 <i>nitida</i> W.	glossy	or	2	jn.au	R	N. Amer.	1807.	L	co Lindl. ros. t. 2
7469 <i>rápa</i> Bosc.	Turneps	or	4	jn.au	R	N. Amer.	.....	L	co Red. ros. 1. t. 7
7470 <i>lúcida</i> Ehr.	shining-leaved	or	2	jn.au	R	N. Amer.	1724.	L	co Di. el. t. 245. f. 316
7471 <i>gemella</i> W.	twin-flowering	or	3	jl.au	R	N. Amer.	1800.	L	co
7472 <i>láxa</i> Lindl.	sprdg. Carolina	or	3	jl.au	R	N. Amer.	.....	L	co Lindl. ros. t. 3
7473 <i>parviflora</i> Ehr	small-flowered	pr	1½	jn.au	F	N. Amer.	1724.	L	s.p Lawr. ros. t. 3
— <i>flor pleno</i>	double	pr	1½	jn.au	F	N. Amer.	.....	L	co
7474 <i>Woodsi</i> Lindl.	Wood's	or	3	my.jn	R	N. Amer.	.....	L	co
7475 <i>carolina</i> L.	Carolina	or	6	jn.jl	R	N. Amer.	1723.	L	s.p Lindl. ros. t. 4
β <i>florida</i> Donn.	smooth Carolina	or	5	jn.jl	R	N. Amer.	.....	L	s.p
7476 <i>fraxinifolia</i> Bork.	ash-leaved	or	6	my.jn	R	Newfound.	.....	L	co Bot. reg. 458
7477 <i>cinnamómea</i> L.	Cinnamon	or	6	my	Pk	Europe	.....	L	co Eng. bot. 2388
β <i>c. flor pleno</i>	double	or	5	my.jn	Pu	Europe	.....	L	co Lindl. ros. t. 5
γ <i>flor semipleno</i>	semidouble	or	7	my.jn	R	Siberia	1805.	L	co
7478 <i>majalis</i> Retz.	dwarf-cinnam.	pr	3	my.jn	Pk	Europe	.....	L	co Fl. dan. t. 688



History, Use, Propagation, Culture,

but when growing freely, and at the flowering season, they require a moderate supply of water. The stronger and more woody kinds may be planted in a richer soil; but the poorer the soil is, the dwarfer they will grow, and the more abundantly they will flower; they also require more water than the dwarf kinds, particularly at the flowering season, but need very little in winter. A good dry frame is sufficient to preserve them through the winter, with the covering of mats in frosty weather. Cuttings of any of them strike root readily, planted in pots of earth, and kept dry till they begin to wither; when they may have a little water, and they will root very soon. (*Bot. Cult.* 224.)

1147. *Hymenogyne*. From *ὑμν*, a membrane, and *γυν*, a woman, or, in botanical language, a style, in allusion to the cohesion of the styles into a membranous tube. An artificial division of *Mesembryanthemum*.

1148. *Rosa*. From *rhos*, signifying red in Armenian, whence *ῥόδον*, Greek, and *rosa*, Latin. The rose has been a favorite flower from time immemorial among the civilized nations of Europe and Asia. The shrub varies in size in different species, from one foot to six or eight, and the colors are red, white, yellow, purple, striped; simple, or in almost numberless shades and mixtures; the flowers are single, semi-double, and double. The odour is universally grateful. It is cultivated in every garden, from that of the most humble cottager upwards; some species, as *R. centifolia*, *damascena*, &c. are also cultivated by commercial gardeners on a large scale for distilling rose water, and for making attar, or essential oil of roses. Six pounds of rose leaves will impregnate by distillation a gallon of water strongly with their odor; but a hundred pounds affords scarcely half an ounce of attar. The rose is also used in medicine. Botanists are not agreed as to the number of

- 7449 Lvs. subcylindr. incurved pimpled obt. hoary, Cal. hemispheric. pimpled numerous, Stamens longer than
 7450 Leaves cylindrical fine, Two sepals leafy much longer than the others [styles
 7451 Erect, Leaves subulate half cylindrical, Cal. woolly, Stamens the length of styles
- 7452 Slender, Lvs. half cylindr. blunt or half round, Cal. hairy at base, Pedunc. long and branches decumbent
 7453 Branches, leaves, peduncles, and calyxes hispid
- 7454 Leaves obl. ovate subtriquetrous gibbous, Sepals very unequal filiform ragged hispid the length of petals
 7455 Leaves close depressed cylindrical hispid all over, Old root tuberous
 7456 Procumbent, Leaves remote suboblong exactly half erect with 5 rays at end, Cal. 5-cleft very irregular
 7457 Erect decumbent, Leaves remote nearly oblong horizontal flat above with 6 rays at end, Cal. 5-cleft equal
 7458 Lvs. tufted hoary thick half round pimpl. rough with many rays at end ciliated at base, Cal. 6-8-fid hairy
- 7459 Densely tufted, Leaves half round papulose rough with many rays at end, Cal. 6-cleft very hairy
 7460 Branches villous, Leaves horizontal, Root tuberous
 7461 Branches erect decumbent hairy, Leaves with about 10 rays at end, Calyx with a black beard
- 7462 Leaves on long stalks spatulate lanceolate green

POLYGYNIA.

Div. I. SIMPLICIFOLIA. *Lindl. ros. mon. p. 1.*

7463 Leaves simple

Div. II. FEROCES. *Lindl. p. 3.*

7464 Arms very close unequal of the same form

7465 The prickles below the stipules falcate larger than the rest, Leaves opaque
 β Leaflets shiningDiv. III. BRACTEATE. *Lindl. p. 7.*

7466 Leaflets lanceolate elliptical downy beneath, Bractes contiguous pectinate

7467 Leaflets oblong obtuse very smooth, Bractes closely appressed pectinate
 β Branches covered with setæDiv. IV. CINNAMOMEÆ. *Lindl. p. 13.*

7468 Dwarf, Arms very close and slender, Leaflets shining narrow lanceolate flat

7469 Tall diffuse, Branchlets unarmed, Leaflets oblong wavy shining, Fruit hemispherical

7470 Compact, Prickles of the branches stipulary, Leaf. obl. imbricated flat shining, Fruit depressed globose

7471 Fruit depressed glob. and pedunc. smooth, Fl. twin, Leaf. obl. acute, Petioles and veins pubesc. beneath

7472 Diffuse, Branches twiggy nearly unarmed, Leaf. oblong wavy opaque glaucous

7473 Dwarf, Stipules linear, Prickles acicular, Leaflets lanceolate smoothish finely serrated, Cal. viscid

7474 Erect, Prickles stipulary straight, Leaflets oblong glaucous blunt smooth

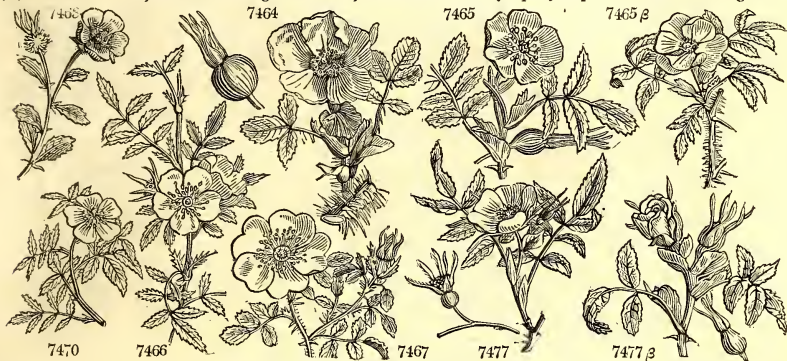
7475 Stipules convolute, Leaflets lanceolate, Sepals spreading

β Leaflets not downy

7476 Tall unarmed, Branches upright glaucous, Leaf. opaque wavy not downy [beneath

7477 Tall cinereous, Branches upright, Prickles stipulary straight, Stipules wavy, Leaf. oblong rugose downy [beneath

7478 Dwarf cæsious, Branches straight coloured, Prick. scatt. nearly equal, Stip. lin. Leaf. obl. flat glaucous



and Miscellaneous Particulars.

original species of this genus: some regard all the European species as originated from one source; others, and especially the moderns, divide them into species, subspecies, and varieties. The most scientific work which has appeared in England on roses is the *Rosarum Monographia* of Mr. Lindley, 1819, in which above a hundred species or subspecies are described, and some of them figured; Miss Lawrence has published ninety plates of A Collection of Roses from Nature, 1810. In France, Guillemeau has published *Histoire Naturelle de la Rose*, 1800; and Redouté and Thory are engaged in a splendid work, in folio, entitled *Les Roses*, containing plates of all the known species and varieties of this flower. Thory has published a separate tract on their culture, entitled *Prodrome de la Monographie du Genre Rosier*, &c. 1820; Pronville, a *Nomenclature Raisonnée*, in 1818; and Vibert, *Observations*, &c., in 1820. A copious and intelligent account of the Scotch roses has been given by Mr. Sabine (*Hort. Trans.* iv. 231.), and some hundreds of new varieties have flowered from seedling plants in the Hammersmith nursery, and will soon be found in the sale catalogues.

Species and varieties. The lists of the London and Paris nurserymen contain upwards of 500 names: that of Calvert and Co., Englishmen, who have established a nursery at Bonne Nouvelle near Rouen, enumerates near 900 sorts. The greater part of these have been raised, within the last thirty years, from seed on the continent, where it ripens better than in this country. A number of varieties have also been raised in Britain, especially of the *R. spinosissima*, or Scotch rose, of which above 300 varieties are procurable in the Glasgow nursery. New varieties are raised in France and Italy annually; Villaresi, royal gardener at Monza, has raised upwards of fifty varieties of *Rosa indica*; not one of which has, as far as we know, reached this

7479	macrophýlla Lindl.	long-leaved	或	or	6	...	...	Nepal	1822.	C	co	Lindl. ros. t. 6
7480	alpina L.	Alpine	或	or	3	jn.jl	Pk	Switzerl.	1683.	L	r.m	Bot. reg. 424'
	β pyrenæica Gouan.	Pyrenean	或	or	3	jn.jl	Pk	Pyrenees	...	L	co	Gouan. ill. t. 19
	γ pendulina L.	pendulous	或	or	5	my.jn	Pu	Switzerl.	1726.	L	co	Laur. ros. t. 91
7481	rubella Sm.	reddish	或	or	2	jn.jl	Pk	England	sea sh.	L	co	Eng. bot. 2521
	β r. melanocarpa Lindl.	intermediate	或	or	2	jn.jl	Pk	.....	...	L	co	
7482	stricta Lindl.	uprig. Carolina	或	or	3	jn	Pk	N. Amer.	...	L	co	Lindl. ros. t. 7
7483	acicularis Lindl.	acicular	或	or	6	my.jn	Pk	Siberia	1805.	L	co	Lindl. ros. t. 8
	β a. pauciflora Lindl.	few-flowered	或	or	6	my.jn	Pk	Siberia	1813.	L	co	
7484	sulphurea H. K.	double-yellow	或	or	3	jl	Y	Levant	1629.	L	s.l	Bot reg. 46
7485	lutescens Psh.	hispid-stemmed	或	or	3	my.jn	Pa. Y	Siberia?	1780.	L	co	Lindl. ros. t. 9
	hispida B. M.											
7486	spinosissima L.	Scotch	或	or	2	jn.jl	W.r	Britain	sa.hea.	L	p.l	Eng. bot. 187

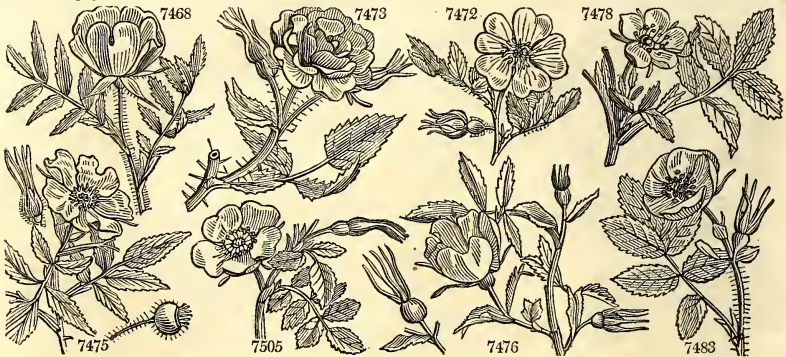
Garden Varieties.

Blush, Anderson's Double	Blush, Double Rose	Marbled, Double Dark										
Lady's	Blush, Dutch Double	Marbled, Double Light										
Blush, Double Lady's	Blush, Princess Double	Purple, Double										
Blush, Double Pink	Crimson, Double	Purple, Small Double Light										
Blush, Double Provins	Marbled, Double Crimson	Red, Double Dark										
β s. revêrsa Lindl.	reversed	或	or	1	my.jn	W	Siberia	1814.	L	co	Bot. reg. 431.	
γ s. Pallasii Lindl.	Pallas's	或	or	2	my.jn	W	Siberia	...	L	co	Pall. ross. t. 75	
δ sanguisorbifolia Do.	Burnet-leaved	或	or	3	my.jn	W	.....	...	L	co		
7487	grandiflora Lindl.	large-flowered	或	or	4	my.jn	W	Siberia	1818.	L	co	Bot. reg. 888
7488	myriacantha D. C.	many-spined	或	or	1	my.jn	W	S. France	1820.	L	co	Lindl. ros. t. 10
7489	Biebersteini Lindl.	Bieberstein's	或	or	2	my.jn	W	Caucasus	1822.	L	co	
	R. ferox Bieb.											
7490	involuta Sm.	Dr. Walker's	或	or	2	jn.jl	W.r	Hebrides	moun.	L	co	Eng. bot. 2068
7491	reversa W. & K.	reversed	或	or	5	jn.jl	W.r	Hungary	1816.	L	co	W. & K. h. t. 264
7492	Sabini Woods.	Sabine's	或	or	8	my.jn	W.r	Britain	woods.	L	co	
	β Doniâna Woods.	Don's	或	or	4	my.jn	Pk	Britain	hed.	L	co	

7493	damascena Mill.	Damask	或	or	3	jn.jl	Pk	Levant	1573.	L	co	Laur. ros. t. 38
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Garden Varieties.

Agathe, Rouge	Belgic, Blush	Damas Argente
Argentea	Blush, Early	Damas Pourpré
Auguste, Belle	Blush, Imperial	Damask, Blush
Aurora	Blush Monthly	Damask, Red
Bifera Carnea	Blush, Watson's	Damask, White
Bifera de Naples	Brunswick	Egyptian
Bifera Grandiflora	Cluster, Pale	Emperor
Belgique carnée	Couronné, Belle	Felicité
Belgique violette	Couronnée Petite	Goliath



History, Use, Propagation, Culture,

country. Some of them are quite black, others shaped like a ranunculus, and many of them highly odoriferous. The most remarkable only are here arranged under the species to which they are referable.

A modern invention, of Dutch origin, in the culture of roses, is that of forming standards, by budding on stocks of any of the hardy woody growing sorts, as the dog rose, *R. canina*, or the tree rose, *R. villosa*. They are budded at different distances from the ground, according to taste and the purposes in view, and form, after a few years, handsome round heads, which flower freely, and preserve the variety a longer time than in plants raised from cuttings or layers. They are particularly valuable for shrubberies and lawns, where the culture at the root required by dwarf roses could not be given, and if omitted would occasion the degeneracy of the variety.

New varieties of the rose are obtained from seed; but the usual mode of propagation is by layers. All will grow by cuttings, and some, as the sempervirens, freely; but that mode is seldom resorted to. For preserving delicate varieties, the best mode seems decidedly that of budding on hardier sorts.

No species of rose, wild or cultivated, thrives well in or very near large towns, on account of the smoke and confined air. The yellow and Austrian roses (*R. lutea* and *R. bicolor*) are difficult to flower in any situation, but seldom or never blow in the suburbs of London; even the monthly rose does not thrive so well there as at some miles distance in the country. Roses are generally planted in the front of shrubberies, and in borders; they are also planted by themselves in rose gardens or rosaries, in groups on lawn, either with common edgings, or with edgings of wire, in imitation of basket-work. These last are called baskets of roses; the ground enclosed in the basket-margin is made convex, so as to present a greater surface to the eye, and increase the illusion; the shoots of the stronger sorts are layered or kept down by pegs till they strike roots

- 7479 Lvs. very long, Petioles with a few glands and lanc. leaf. downy ben. Sep. very narr. longer than pointed [petals
 Div. V. PIMPINELLIFOLIÆ. Lindl. p. 36.
 7480 Unarmed, Fruit long pendulous, Peduncle hispid
 β Tube of calyx and peduncle hispid
 γ Leaflets several and stem colored
 7481 Arms close equal, Fruit long pendulous
 β Fruit dark colored shorter than usual
 7482 Much branched, Branchlet's unarmed, Fruit long pendulous
 7483 Tall, Branches acicular unequal, Leaf. glauc. rugose convex, Fruit obampullaceous cernuous
 β Foliage bright pale green
 7484 Stipules linear dilated at end divaricating, Leaf. glauc. flattish, Tube hemispherical [simply serrate
 7485 Arms of branches very close uneq. reflex. slender, those of the branches very small nearly equal, Leaf. flat
 7486 Arms unequal, Leaflets flat naked simply serrated

Garden Varieties.

Red, Double Light	White, Large Double	Yellow, Globe Double
Red, True Double	White, Large Semi-double	Yellow, Large Double
Two-colored, Large Double	White, Small Double	Yellow, Pale Double
Two-colored, Small Double	White, Whitley's Double	Yellow, Small Double

- β Dwarf, Arms very slender : the lower deflexed, Fruit ovate
 γ Taller, Arms nearly equal close
 δ Tall, Leaflets 9-11 oblong, Fruit depressed globose
 7487 Setæ of the branches none, Prickles nearly equal distant, Leaflets flat not downy simply serrate
 7488 Arms unequal : the larger dagger-shaped, Leaflets glandular not downy round
 7489 Arms unequal : the larger falcate strong, Branches and orbicular leaflets glandular
 7490 Arms very unequal and close, Leaflets doubly serrate pubescent, Petals convolute, Fruit aculeate
 7491 Arms setaceous nearly equal reflexed, Leaflets doubly serrate pubescent, Fruit hispid
 7492 Setæ few, Prickles unequal distant, Leaflets doubly serrated downy, Sepals compressed
 β Setæ scarcely any, Prickles nearly straight

Div. VI. CENTIFOLIÆ. Lindl. p. 60.

- 7493 Arms unequal : the larger falcate, Sepals reflexed, Fruit long

Garden Varieties.

Gracieuse	Pæstana	Quatre Saisons sans épines
Hundred-leaved, Petite	Prolific	Quatre Saisons, semidouble
Incomparable	Perpetual	Royal, Great
Mignonne, Favorite	Quatre Saisons	Swiss
Monarque, Grande	Quatre Saisons blanche	Valiant
Monthly, Red	Quatre Saisons, flesh-colored	Versailles
Monthly, White	Quatre Saisons Francois	York and Lancaster
Paragon	Quatre Saisons panaché	Zealand
Parnassus	Quatre Saisons pomponne	



and Miscellaneous Particulars.

into the ground, so that the points of the shoots furnished with buds appear only above the soil, which is sometimes covered with moss or small shells. Under this treatment, the whole surface of the basket becomes, in two or three years, covered with rose-buds and leaves of one or of various sorts. Where one of the larger free-growing sorts is employed, as the moss, or any of the Provence varieties, one plant may be trained so as to cover a surface of many square yards. Where different sorts are introduced in the same basket, they should be as much as possible assimilated in size of leaves and flowers and habits of growth, and as different as possible in the colors of their flowers. By mixing small-flowered with large showy sorts, the beauty of the former is lost without adding to the effect of the latter.

In rosaries, commonly, but one plant of a sort is introduced, and the varieties which most resemble each other are placed together, by which their distinctions are better seen. Particular compartments are often devoted to one species, as the Scotch, Chinese, yellow, burnet-leaved, &c. which has an excellent effect; sometimes a piece of rock-work in the centre is covered with the creeping roses, and on other occasions these are trained to trellis-work, which forms a fence or hedge of roses round the whole. In this hedge, standard roses are sometimes introduced at regular distances; a grove of standards is also frequently formed in the centre of the rosary, and sometimes they are introduced here and there in the beds.

Standard roses, however, have certainly the best effect in flower borders, or when completely detached on a lawn: their sameness of form, and that form being compact and lumpish, prevents them from grouping well, either among themselves or with other objects. Their beauty consists in their singularity as rose plants, and in their flowers; and, therefore, to display these beauties to the best advantage, they require to be seen singly, or in succession. This is the case where they occur as single objects on a lawn, or in the centre, and here and

7494 Centifolia L. Provens or 3 jn.au Pk S. Europe 1596. L r.m Red. ros 1. t.1
R. provincialis Mill.

Aunay, Belle d'
 Aurora
 Belgic, Red
 Blandford or Kingston
 Blush Royal
 Bourbon
 Bright Crumpled
 Cabbage, Blush
 Cabbage, Single
 Carmine
 Carmine, Superb
 Centfeuilles anemone

Garden Varieties.

Centfeuilles de Bruxelles
 Centfeuilles de Hesse
 Centfeuilles gaufrée
 Chamois
 Cluster
 Constance
 Cramois, Grand
 Cumberland
 Dragon
 Duchesse d'Angoulême
 Duchesse de Berri
 Elysian

Emperor
 Juno
 Louis XVIII.
 Malta
 Mère Gryone
 Mottled Purple
 Neapolitan
 One-sided
 Eillet
 Pencilled
 Petite Hollande
 Persian

β muscosa Mill. Moss or 3 jn.jl Pk L r.m Red. ros. 1. t.8

Moss, Blush

Garden Varieties.

Moss, Common

Moss, Dark

γ Pomponia D. C. Pompone or 2 jn.jl Pk L r.m Red. ros. 1. t.21

Dwarf Bagshot
 De Meaux

Garden Varieties.

Mossy de Meaux
 Mignonne Charmante

Pompone
 Pompone, Proliferous

δ c. bipinnata Red. *bipinnate* or 3 jn.jl R L co Red. ros. 2. t.4
 7495 gallica L. *official* or 2 jn.jl R S. Europe 1596. L co Bot. reg. 448

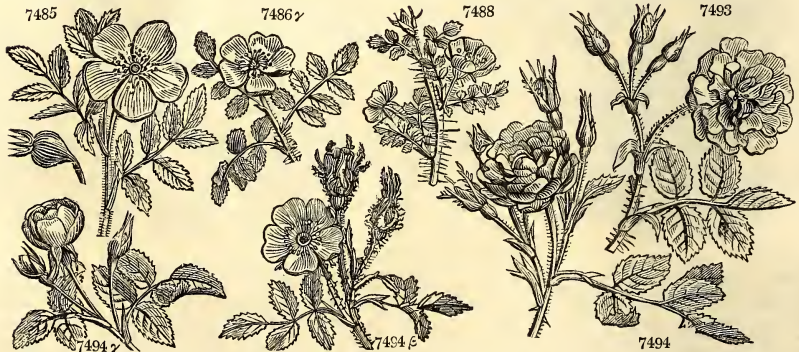
Garden Varieties.

Admirable
 Aigle noir
 Albanian
 Amaranth
 Antwerp
 Atlas
 Belle Aurore
 Burning Coal
 Beauté Aimable
 Beauté Rouge
 Beauté Suprême
 Bijou
 Bishop
 Black Frizzled
 Blue
 Bouquet rouge royale
 Brunette
 Brussels
 Buonaparte
 Cardinal
 Carmine
 Carmine Brillante
 Carmine, Proliferous
 Carnation
 Catalonian

Champion
 Chancellor
 Changeable
 Cherry
 Clementine
 Coquette
 Couleur de feu
 Cramoisie, Grand
 Cramoisie, Belle
 Crimson, Dutch
 Crimson, Purple
 Crimson, Royal
 Crown
 Cupid
 Damask, Black
 Delicious
 Dingy
 Duc de Guiche
 Duchesse d'Orleans
 Dwarf Proliferous
 Enchanter
 Enfant de France
 Eucharis
 Fanny Bias

Fieri
 Flanders
 Flemish
 Formidable
 Fringed
 Garnet
 Gay
 Giant
 Gloria Mundi
 Granaat Appel
 Grand Monarque
 Grand Sultan
 Henry IV.
 Herminie, Belle
 Hervy
 Hollande, Noir de
 Hundred-leav., Blush
 Hundred-leav., Dutch
 Hundred-leaved, Sin-
 gleton's
 Imperatrice
 Incomparable
 Infernal
 Invincible

Italian
 Josephine
 Junon
 King
 La Dauphine
 L'Ombre agreable
 L'Ombre superbe
 Leyden
 Lisbon
 Lively
 Lurid
 Maiden
 Majorca
 Malabar
 Malta
 Manteau Royal
 Marbled
 Marbled, Dark
 Marbled, Double
 Marbled, Grand
 Margaret
 Matchless
 Mauve
 Mignonne



History, Use, Propagation, Culture,

there among groups of flowers; or in lines or avenues, along flower walks. In the gardens of the Grand Trianon, they are planted profusely in large masses, like plantations of trees and shrubs, and there much of their individual beauty is lost, and no good general effect produced.

Most species of the rose, in their wild state, grow in sandy and rather poor soil, except such as are natives of woods, where the soil is richer, and comparatively moist. But all the cultivated roses, and especially the double-flowering kinds, require a rich loamy soil, inclining to clay rather than sand; and they require also, like most double flowers, plenty of moisture when in a growing state.

To produce strong flowers, roses require some attention to pruning; old wood should be yearly cut out, and the young shoots thinned and shortened according to their strength, and whether number or magnitude of flowers be wanted. Those sorts which throw up numerous suckers should be taken up every three or four years, reduced, and replanted; and most sorts, excepting the standards, will be improved by the practice, provided attention be paid to remove a part of the old soil, and replace it by new. The points of the shoots

7494 Arms unequal : the larger falcate, Leaflets glandular-ciliate, Fl. cernuous, Cal. viscid, Fruit oblong

Garden Varieties.

Pompon, Gros
Pourprée Aimable
Pourprée Favorite
Pourprée Violette
Prolific
Provins, Blush
Provins, Cabbage
Provins, Childings
Provins, Common
Provins, Damask
Provins, Dutch

Provins, Early
Provins, Grand
Provins, Imperial
Provins, Invincible
Provins, Royal
Provins, Scarlet
Provins, Semidouble
Provins, Shailers
Provins, Single
Provins, White

Rouge Superbe
Sans pétales
Souchet
Spongs
Striped Nosegay
Surpassante
Syren
Trianon, Belle de
Versailles
Vilmorin

β Calyxes and peduncles mossy

Garden Varieties.

Moss, Prolific

Moss, Single

Moss, Striped

Moss, White

γ Smaller in every part

Garden Varieties.

Provins, Dwarf
Provins, Small

Rheims, De

St. Francis

δ Leaves bipinnate

7495 Arms nearly equal of the same shape weak, Leaflets rigid ellipt. Fl. erect, Sep. ovate, Fruit nearly round

Garden Varieties.

Mignonne, Blush
Mignonne, Dark
Mignonne, Favorite
Mignonne, Red
Mignonne, Semidouble
Mignonne, Striped
Mirabelle
Mogul
Montauban
Morocco
Mottled, Black
Natalie
Negrette
Negro
Ninon de l'Enclos
Nonpareil
Nonsuch
Normandy
Official
Official, Blush
Official, Carmine
Orleans
Ornement de Parade

Panachée, Petite
Paradise
Paragon
Pavot
Perruque
Phoenix
Plicate
Pluto
Pestana
Pomona
Pompador
Pomponne Bizard
Poniatowsky
Poppy
Porcelaine
Portland
Pourprée, Belle
Pourpre Bouquet
Pourpre Charmante
Pourpre de Tyr
Pourprée, Grande
Belle
Pourprée, Point
Pourpres, Roi des

Pourpre Velours
Prince
Princess
Prince William V.
Prolific
Pronville
Proserpine
Provins Pulmonaire
Purple, Blue
Purple, Bright
Purple, Favorite
Purple, Grand
Purple, Light
Purple, Royal
Pyramid
Queen
Ranunculus
Ranunculus, Early
Red and Violet
Royal Red
Roi de France
Rosa Mundi
Rose de Parade
Royal Virgin

Sable
Sanspareil
Sceptre
Shell
Spanish
Stadtholder
Stepney
St. John's
Striped Nosegay
Superb Red
Sultana
Trafalgar
Triumphant
Tuscan
Two-Colored
Velvet, Double
Velvet, Semidouble
Velvet, Single
Velvet, Striped
Venetian
Victory
Violet, Dark
Violette, Belle
Violette and Rouge



and Miscellaneous Particulars.

of the more delicate sorts of roses, are very apt to die when pruning is performed in winter or spring; to avoid the consequences of this evil, many give a second pruning in June, or do not prune the tender sorts at all till the beginning of that month. A very good time for performing the operation, is immediately after the bloom is over; cutting out old exhausted wood, shortening shoots which have flowered to a good bud accompanied with a healthy leaf, but leaving such shoots as are still in a growing state untouched till October. Where very large roses are wanted, all the buds but that on the extreme point of each shoot should be pinched off as soon as they make their appearance, and the plant liberally supplied with water. To lessen evaporation, and keep up a constant moisture at the roots of their roses, the Paris gardeners generally mulch them with half-rotten stable-dung, or partially rotten leaves.

The earliest flowering rose is the monthly, which, in mild seasons, and planted against a wall, will sometimes flower in the beginning of April; the roses next in succession are the cinnamon, which flowers in May; the damask in the end of May or beginning of June; the blush, York and Lancaster, Provins, and Dutch

<i>β pámila</i> L.	<i>wild officinal</i>	藥	or	3	jn,jl	R	Austria	1810.	L	co	Jac. aus. t. 198
7496 <i>parvifolia</i> Ehr.	Burgundy	藥	or	1	jn,jl	Pu	Europe	...	L	r.m	Bot. reg. 452
7497 <i>turbináta</i> H. K.	Frankfort	藥	or	5	jn.au	Pk	.....	1629.	L	r.m	Miss L. ros. t. 63
7498 <i>villósa</i> L.	Apple-bearing	藥	or	8	jn,jl	Rk	Britain	high.v.	L	r.m	Eng. bot. 583
7499 <i>tomentósa</i> Sm.	downy-ld. dog	藥	or	6	jn,jl	Pk	England	hed.	L	co	Eng. bot. 990
<i>β móllis</i> Sm.	<i>soft</i>	藥	or	6	jn,jl	R	Britain	hed.	L	co	Eng. bot. 2459
<i>γ t. resinósa</i> Lindl.	<i>turpentine</i>	藥	or	4	jn,jl	R	Ireland	...	L	co	...
7500 <i>álba</i> L.	single white	藥	or	4	jn,jl	W	Crimea	1597.	L	r.m	Miss L. ros. t. 37

Garden Varieties.

Agate	Blush, Double	White	Eliza	Henriette, Belle							
Belle Aurore	Bouquet Blanc	Feuille fermée	Grand Cuisse	Joanne d'Arc							
Blanche à cœur-vert	Celeftial	Grand Cuisse	Nymphe	Maiden's Blush, Clus-							
Blanche de Belgique	Duc d'York	Nymphe		ter							
7501 <i>hibérnica</i> Sm.	Irish	藥	or	2	jn,n	Pk	Ireland	ir.thi.	Sk	co	Eng. bot. 2196
7502 <i>lútea</i> Mill.	single-yellow	藥	or	3	jn	Y	Germany	1596.	L	r.m	Bot. mag. 363
— <i>punicca</i> Mill.	<i>Austrian</i>	藥	or	3	jn	Y.o	Germany	1596.	L	r.m	Bot. mag. 1077
7503 <i>rubiginósa</i> L.	Sweet Briar	藥	or	5	my,jn	Pk	Britain	ch. ba.	S	co	Eng. bot. 991

Garden Varieties.

American, Single	Clementine	Double	Maiden								
Blush	Cluster	Dwarf, Semidouble	Mannings								
<i>β micrántha</i> Sm.	<i>small-flowered</i>	藥	or	6	my,jl	Pk	Britain	thick.	L	co	Eng. bot. 2490
<i>γ umbelláta</i> Leers.	<i>Semid. Sw. Briar</i>	藥	or	4	my,jn	Pk	Germany	...	L	r.m	Miss L. ros. t. 63
<i>δ sépium</i> Thuill.	<i>dwarf</i>	藥	or	3	my,jn	Pk	Britain	thick.	L	co	...
<i>ε inodóra</i> Agdh.	<i>scentsless</i>	藥	or	6	my,jn	Pk	Britain	hed.	L	co	...
<i>R. Borreri</i> Woods.											
7504 <i>pruinósa</i> Lindl.	frosted	藥	or	3	my,jn	Pk	Siberia	1818.	L	co	...
7505 <i>glutinósa</i> Sm.	Cretan	藥	or	2	my,jn	Pk	Candia	1821.	L	co	Red. ros. 1. t. 125
7506 <i>caucásea</i> Lindl.	Caucasian	藥	or	20	jn,jl	R	Caucasus	1798.	L	co	Lindl. ros. t. 11
7507 <i>canina</i> L.	dog, or Hip	藥	or	8	jn,jl	Pk	Britain	hed.	L	co	Eng. bot. 992
<i>δ collina</i> Jacq.	<i>hill</i>	藥	or	8	jn,jl	Pk	Britain	hed.	L	co	...
<i>ε dumetórum</i> Thuill.	<i>bushy</i>	藥	or	8	jn,jl	Pk	England	hed.	L	co	Eng. bot. 2579
7508 <i>rubrifolia</i> Vill.	red-stained	藥	or	6	jn,jl	Pu	Europe	1814.	L	co	Bot. reg. 430
<i>β Redutéa</i> Thory.	<i>Redoute's</i>	藥	or	3	jn,jl	Pu	.....	1822.	L	co	Red. ros. 1. t. 38
7509 <i>indica</i> L.	blush Chinese	藥	or	20	ja,d	F	China	1789.	C	pl	Lawr. ros. t. 26

Garden Varieties, referable either to *Rosa indica* or *R. semperflorens*.

Alba	Bengale à fl. panaché	Carnescens	Cucullata								
Animating	Bengale Blanche	Centifolia	Elegant								
Atro-nigra	Bichonia	Chiffonnée	Florida								
Bengale à Bouquet	Boursault	Cérise éclatante	Gigantea								
<i>β odoratissima</i> Sweet.	<i>Sweet Chinese</i>	藥	or	3	f.au	P.p.k	China	1810.	C	pl	Bot. reg. 804
<i>γ pumila</i> Red.	<i>dwarf</i>	藥	or	1	my.au	Pk	China	...	C	pl	Red. ros. 1. t. 42
<i>δ longifolia</i> W.	<i>willow-leaved</i>	藥	or	5	my.au	Pk	China	...	C	pl	Red. ros. 2. t. 12
7510 <i>sempervlorens</i> Curt.	<i>ever-blowing</i>	藥	or	10	ja,d	Cr	China	1789.	C	pl	Bot. mag. 284
7511 <i>Lawranceana</i> Sweet.	<i>Miss Lawrence's</i>	藥	or	1	ja,d	R	China	1810.	C	pl	Bot. mag. 1762
7512 <i>microphylla</i> Roxb.	<i>small-leaved</i>	藥	or	3	...	Pk	E. Indies	1823.	C	pl	...
7513 <i>systifla</i> Bal.	one-styled	藥	or	6	my,jl	Pk	Britain	hed.	L	co	Eng. bot. 1895
<i>β s. Monsónia</i> Lindl.	<i>Lady Monson's</i>	藥	or	3	my,jl	Pk	Britain	hed.	L	co	...
7514 <i>arvensis</i> Huds.	<i>white-dog</i>	藥	or	8	jn,jl	W	Britain	hed.	L	co	Eng. bot. 188
<i>β híbrida</i> Schleich.	<i>Double-Hep.</i>	藥	or	4	my,jn	Pk	Switzerl.	...	L	co	...



History, Use, Propagation, Culture,

hundred-leaved, in June, July, and August. The Virginia and musk roses are the latest European sorts; they flower in September, and in shaded situations will sometimes continue in bloom till the middle of October; but the earliest rose (the monthly) is also the latest, and generally continues flowering till interrupted by frost. The earliest sorts may be materially forwarded by being planted against a south wall; and if portable sashes are placed before them, and the wall is either stued and heated by fires, or a lining of dung placed behind, the plants may be brought to flower in February or March. The monthly rose being protected by glass in autumn, or aided by artificial heat, may be continued in bloom till Christmas. A very

♂ Flowers single, Roots creeping
 7496 Dwarf, Arms nearly equal, Leaflets rigid ovate acute finely serrate, Sepals ovate

Div. VII. VILLOSE. *Lindl.* p. 72.

7497 Tube of calyx turbinate
 7498 Leaflets ellipt. obtuse, Fruit very large with close stiff prickles, Sepals viscid hispid
 7499 Leaflets ovate nearly acute, Fruit hispid or naked
 ♂ Root-shoots upright, Sepals nearly simple
 ♀ Dwarf caesious, Leaflets narrow, Flowers very red
 7500 Leaflets oblong glaucous naked above simply serrate, Sepals reflexed, Fruit unarmed

Garden Varieties.

Maiden's Blush, Great	Nova caelestis	Rosea	Triangularis
Maiden's Blush, Small	Nova plena	Simonville	White, Double
Moraga la Favorite	Petite cuisine de Nym-	Spineless Virgin	White, Semidouble
Muscate rouge	phe	Thornless, Double	

7501 Prickles unequal: the smaller setiform, Leaflets ovate acute naked simply serrate

Div. VIII. RUBIGINOSÆ. *Lindl.* p. 84.

7502 Prickles straight, Leaflets flat concave, Cal. nearly naked entire
 7503 Prickles hooked, Leaflets rugose opaque, Cal. and peduncles hispid

Garden Varieties.

Monstrous	Petite Hessoise	Scarlet	White, Semidouble
Mossy	Royal	Tree, Double	Zabeth

♂ Prickles nearly equal or none, Sepals deciduous
 ♀ Branches of the inflorescence very prickly, Fruit long
 ♂ Branches weak flexuose, Leaflets acute at each end, Sepals very long and narrow
 ♀ Prickles much hooked nearly equal, Leaflets less glandular than usual, Sepals deciduous

7504 Branches glandular, Leaves frosted on each side: the upper somewhat whorled
 7505 Branches hairy, Leaflets hoary roundish viscid

Div. IX. CANINÆ. *Lindl.* p. 97.

7506 Leaflets soft ovate, Ovaries 50-60
 7507 Leaflets rigid ovate, Ovaries 20-30
 ♂ Leaflets more or less hairy beneath, Sepals and peduncles hispid
 ♀ Leaflets hairy on both sides, Sepals and peduncles smooth
 7508 Prickles small distant, Leaflets ovate and branches glauc. opaque discolored, Ovaries 20-30
 ♂ Dwarf with setæ upon the branches
 7509 Leaflets ellipt. acuminate smooth crenate serrate glaucous beneath, Ovaries 40-50

Garden Varieties, referable either to Rosa indica or R. sempervirens.

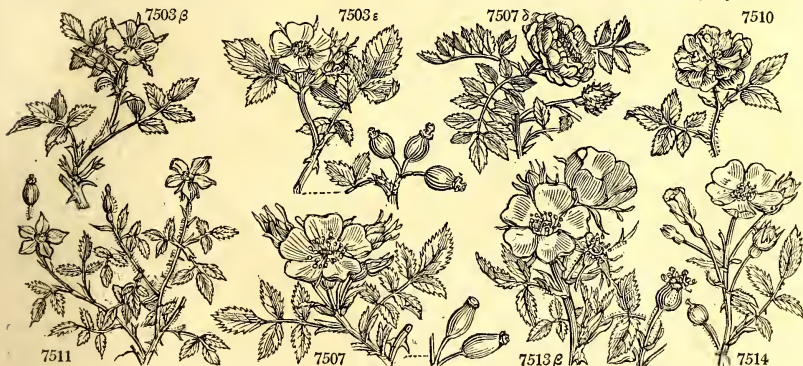
Lie de Vin	Monstrosa	Purpurea	Thisbe
Lucida	Moonshine	Sanguinea	Terneaux
Major	Nigra	Sans épines	Veloutée
Minor	Noisette	Subalba	

♂ Fruit ovate, Flowers very fragrant
 ♀ A little bush, smaller in every respect
 ♂ Leaves lanceolate, Branches nearly unarmed

7510 Leaflets ovate-lanceolate crenate serrate, Ovaries 15, Petals entire
 7511 Dwarf, Leaflets ovate acute finely serrated, Petals acuminate, Ovaries 7-8
 7512 Leaflets finely serrate shining, Cal. mucricated with very dense prickles, Sep. short broad acute apiculate

Div. X. SYSTYLE. *Lindl.* p. 111.

7513 Root-shoots assurgent, Prickles very strong hooked
 ♂ Stem lower, when in flower erect many-flowered, Branches with a few setæ
 7514 Root-shoots flagelliform, Prickles unequal falcate, Leaflets glaucous beneath
 ♀ Root-shoots thicker and shorter, when in fl. erect many-fl. Branches with a few scat. setæ, Styles distinct

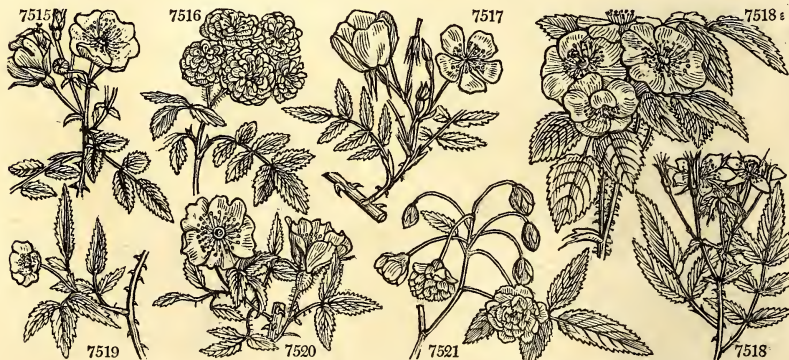


and *Miscellaneous Particulars.*

common mode of obtaining late roses, and one of the greatest antiquity, is by cutting all the flower shoots off when the buds begin to appear, or by rubbing off all the rudiments of shoots, of every kind, early in spring; a second crop is in consequence produced, which will not be in a state to bloom before the autumn.

The best roses for forcing are the common and moss Provence; the Indian sorts force well, or rather, in stoves, continue in bloom all the year; but the commoner varieties of these not being fragrant, they are in less repute than the European roses. Rose plants should be a year in pots previously to the autumn when it is intended to force them; they should be planted in pots of six or eight inches diameter, in rich loam, and

7515 <i>sempervirens</i> L.	evergreen	2	or	20	jn.au	W	S. Europe	1629.	L	co	Bot. reg. 465
β <i>sublectua</i>	<i>Ayrshire</i>	2	or	20	jn.au	W	.....	1818.	L	co	
7516 <i>multiflora</i> Thunb.	bramble-flow.	2	or	12	jn.jl	Pk	China	1804.	C	s.l	Bot. mag. 1059
7517 <i>Brunonii</i> Lindl.	Brown's	2	or	12	...	W	Nepal	1822.	C	co	Lindl. ros. t. 14
7518 <i>moschata</i> Mill.	musk	2	or	12	jl.o	W	Barbary	1596.	L	r.m	M.Lawr.ros.t.64
β <i>-fl. pleno</i>	<i>double-musk</i>	2	or	12	jl.o	W	Barbary	1596.	L	r.m	M.Lawr.ros.t.53
γ <i>m. nepalensis</i> Lindl.	<i>Nepal tree</i>	2	or	12	jl.o	W	Nepal	1822.	L	co	Bot. reg. 829
δ <i>arborescens</i> Pers.	<i>snow-bush</i>	2	or	30	...	W	Nepal	1822.	L	co	
ε <i>m. nivea</i> Lindl.	<i>Muscade-rouge</i>	2	or	4	jl	W	.....	1822.	L	co	Bot. reg. 861
ζ <i>evratina</i> Bosc.	<i>bramble-leaved</i>	2	or	4	jl.au	Pk	N. Amer.	1822.	L	co	
7519 <i>rufifolia</i> R. Br.	<i>smooth-leaved</i>	2	or	6	aus	F	N. Amer.	1800.	L	p.l	
β <i>r. fenestratis</i> Lindl.	<i>bramble-leaved</i>	2	or	4	aus	F	N. Amer.	1800.	L	p.l	Lindl. ros. t. 15
7520 <i>sinica</i> Ait.	3-leaved China	2	or	5	my.jl	W	China	1759.	L	p.l	Lindl. ros. t. 16
7521 <i>Bank'sia</i> R. Br.	Lady Banks's	2	or	20	jn.jl	W	China	1807.	C	p.l	Bot. reg. t. 397
β <i>-flore lateo</i>	yellow	2	or	...	...	Y	China	1824.	C	p.l	
1149. RUBUS. W.	BRAMBLE.						<i>Rosaceae. Sp. 42-68.</i>				
7522 <i>rosafolius</i> Sm.	Rose-leaved	2	or	3	ap.o	W	Mauritius	1811.	C	p.l	Smith ic. 3. t. 60
β <i>coronarius</i>	<i>double-flower'd</i>	2	or	3	ap.o	W	Mauritius	1811.	C	p.l	Bot. mag. 1783
7523 <i>pinnatus</i> W.	pinnate	2	or	5	jn.jl	Pk	Madeira	1789.	C	p.l	
7524 <i>Idaeus</i> W.	Raspberry	2	fr	5	my.jn	W	Britain	m.wo.	Sk	r.m	Eng. bot. 2442
7525 <i>occidentalis</i> W.	Americ. Raspb.	2	fr	5	my.jn	W	N. Amer.	1696.	Sk	co	Dil.el.t.247.f.319
7526 <i>pauciflorus</i> Wall.	Nepal Raspber.	2	fr	10	my.au	R	Nepal	1822.	C	co	Bot. reg. 854
7527 <i>cuneifolius</i> Ph.	plaited-leaved	2	or	3	jn.jl	W	N. Amer.	1811.	Sk	co	
7528 <i>canadensis</i> W.	purple-stalked	2	or	3	jn.jl	W	N. Amer.	1811.	Sk	co	
7529 <i>hispidus</i> W.	bristly	2	or	3	au	W	Canada	1768.	Sk	co	
7530 <i>caesius</i> W.	Dewberry	2	fr	2	jn.jl	W	Britain	bor.fi.	Sk	co	Eng. bot. 826
7531 <i>corylifolius</i> E. B.	Hazel-leaved	2	or	10	jl	W	Britain	hed.	Sk	co	Eng. bot. 827
7532 <i>fruticosus</i> W.	common	2	or	10	jn.s	Pk	Britain	hed.	L	co	Eng. bot. 715
β <i>albus</i>	<i>white-fruited</i>	2	or	10	jn.s	W	Britain	...	L	co	
γ <i>plenus</i>	<i>double-flowered</i>	2	or	6	jn.s	Pk	Britain	...	L	co	
7533 <i>argutus</i> Link.	fine-toothed	2	or	3	jn.jl	W	N. Amer.	1823.	L	co	
7534 <i>sacculus</i> Schreb.	holy	2	or	8	jn.jl	Pk	Palestine	1823.	L	co	
7535 <i>paniculatus</i> Schlect.	panicked	2	or	10	jn.jl	W	.....	1821.	L	co	
7536 <i>sanguinolentus</i> Link.	blood-red	2	or	4	...	R	I. France	1824.	C	co	
7537 <i>jamaicensis</i> Swz.	Jamaica	2	or	6	...	...	Jamaica	1822.	C	co	
7538 <i>ulmifolius</i> Schott.	elm-leaved	2	or	10	jn.s	W	Spain	1823.	L	co	
7539 <i>Sprenglii</i> Weihe.	Sprengel's	2	or	10	jn.s	Pk	Germany	1823.	L	co	
7540 <i>Schlechtendahlii</i> W.	Schlechtendahl's	2	or	10	jn.jl	W	Europe	1823.	L	co	
7541 <i>rugosus</i> Smith.	rugose	2	or	6	...	W	S. Amer.	1824.	L	co	
7542 <i>plicatus</i> Weihe.	plicate	2	or	10	jn.s	W	Britain	hed.	L	co	
7543 <i>rhamnifolius</i> Weihe.	Buckthorn-ld.	2	or	10	jn.s	W	Britain	hed.	L	co	
7544 <i>nitidus</i> Weihe.	shining	2	or	3	jn.s	W	Britain	thick.	L	co	
7545 <i>tomentosus</i> W. en.	woolly-leaved	2	or	10	jn.s	W	Germany	...	L	co	
7546 <i>glandulosus</i> W. en.	glandular	2	or	10	jn.s	W	Germany	1816.	L	co	
β <i>R. leucostachys</i> Smith.											
7547 <i>hirtus</i> W. en.	hairy	2	or	10	jn.s	W	Hungary	1816.	L	co	Pl.rar.hu.2.t.141
7548 <i>laciniatus</i> W. en.	jag-leaved	2	or	12	jn.s	W	.....	...	L	co	Dend. brit. 69
7549 <i>trivialis</i> Ph.	procumbent	2	or	7	jn.jl	W	N. Amer.	1789.	Sk	co	
7550 <i>villosus</i> W.	shaggy	2	or	3	jl.au	W	N. Amer.	1777.	Sk	co	
7551 <i>strigosus</i> Ph.	strigose	2	or	6	jn.jl	W	N. Amer.	...	Sk	co	
7552 <i>flagellaris</i> W. en.	shining-leaved	2	or	6	jn.jl	W	N. Amer.	1789.	Sk	co	
7553 <i>inermis</i> W. en.	smooth	2	or	12	jn.jl	W	N. Amer.	1805.	Sk	co	
7554 <i>odoratus</i> W.	flowering	2	or	7	jn.jl	R	N. Amer.	1700.	Sk	co	Bot. mag. 323
7555 <i>suberectus</i> E. B.	upright	2	or	4	jn.s	W	Britain	woods.	Sk	co	Eng. bot. 2572



History, Use, Propagation, Culture,

plunged in an open airy situation; their flower buds pinched off as they appear; and the plants put early into a state of rest, by excluding the sun and rain, but not a free circulation of air.

All the species of roses are very liable to the attacks of insects, especially of the aphides; some, and especially the briar and Scotch rose, are attacked by the *Cynips rosa*, which, by puncturing the bark, occasions the production of rose-galls, and of those mossy tufts often seen on wild roses, which were known formerly under the name of *Bedeguar*, and used in medicine. Under cover tobacco smoke will prove an effectual remedy for the aphides; but the larvæ of many others, and especially of tipula and the tenthredinidæ, which occasion the wrapping up and shrivelling of the leaves, can only be removed by washing with lime-water or hand picking.

1149. *Rubus*. From the Celtic *rub*, which signifies red. Many of the species are only biennial woody plants, producing suckers or stolones from the roots, which ripen and drop their leaves one year, and resume their

- 7515 Root-shoots climbing, Prickles nearly equal falcate, Leaves evergreen
 β Leaves nearly deciduous
 7516 Branchlets peduncles and calyx downy, Leaflets soft lanceolate rugose, Stipules pectinate
 7517 Branchlets lanceolate, Leaflets and calyxes downy glandular, Stipules entire [acuminate
 7518 Branchlets nearly naked, Leaflets ellip. acumin. glauc. beneath with connivent serratures, Sepals comp. [acuminate
 β Flowers double
 γ Leaflets ovate lanceolate, Petals acute, Pedicels and calyxes glandular
 δ Stem arborescent
 ε Stem branched, Leaflets ovate-obl. acuminate rugose, Petals large obcordate
 ζ Stem erect, Flowers double pink [pisiform
 7519 Branchlets not downy, Leaflets ovate lanc. with diverging serratures, Stipules entire, Sepals ovate, Fruit
 β Leaflets smooth on each side

Div. XI. BANKSIANÆ.

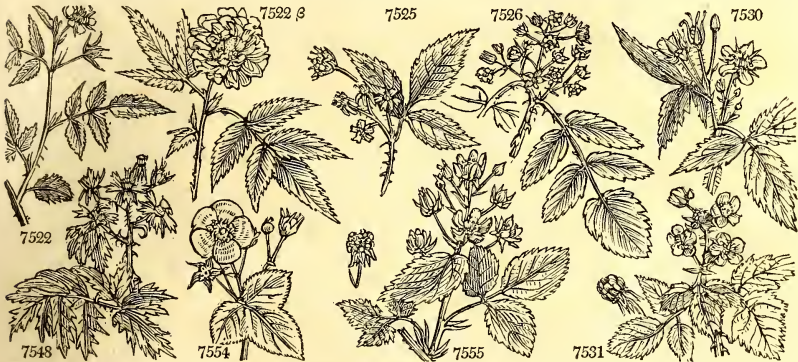
- 7520 Stipules setaceous deciduous, Petioles and rib prickly, Fruit muricate
 7521 Branches and fruit unarmed

* Shrubby.

- 7522 Leaves quinate pinnate and ternate green on each side, Stem and petioles prickly, Fl. solitary
 7523 Leaves quinate pinnate and ternate rugose smooth on each side, Stem petioles and pedunc. prickly, Raceme
 7524 Leaves quinate pinnate and ternate white beneath, Leaf. rhomboid lined [terminal
 7525 Leaves three white beneath, Stem prickly, Petioles round
 7526 Lvs. pinnate, Stem round, Leaf. 5-7 obl. plicate serr. white beneath, Pan. cymose, Pet. shorter than calyx
 7527 Branches pet. and ped. downy, Leaf. 3-5 cuneate obovate unequally toothed upwards, Racemes tern. pan.
 7528 Smoothish, Leaf. 10-5-3 lanceolate naked on each side finely serrated, Stem unarmed, Bractes lanceolate
 7529 Leaves 3 naked, Stems and petioles very hispid, Bristles stiff
 7530 Leaves ternate nears naked: the lateral 2-lobed, Stem prickly round
 7531 Stem erect roundish, Prickles many close, Leaf. 5 pubes. beneath, the lateral sessile, Cal. of fl. reflexed
 7532 Stem angular furrowed, Leaf. 5 obtuse shining and even above, hoary beneath, Pan. decomp. hoary

- 7533 Stem with small straight prickles, Leaf. 3 and 5 obl. acum. doubly and finely serr. pubes. beneath, Fl. pan.
 7534 Stems square hoary, Leaf. 3 obov. round. unequally and finely cut-tooth. hoary beneath, Pan. small hoary
 7535 Stem aculeate, Leaf. 3-5 unequal ovate acum. serr. with fine white down beneath, Fl. panicle
 7536 Stem densely prickly and strigose, Leaf. 5 lanc. acum. serrul. smooth, Pedunc. axill. few-flowered
 7537 Lvs. 3-5 cut-serr. downy beneath, Stem petioles and leaves pubes. with recurved prickles, Pan. diffuse
 7538 Stem decum. very prick. Leaf. 3 subcord. ov. doub. acute. cren. smooth prick. beneath, Branches very red
 7539 Differs from R. corylifolius in having the upper shoots and peduncles covered with short hairs
 7540 Differs from the last in having the leaves covered all over beneath with soft hairs
 7541 Unarmed, Branches lvs. beneath and calyxes downy with brown hairs, Lvs. 3-lobed, Fl. sol. on short stalks
 7542 Stem suberect angular prickly smooth, Leaf. 5 cordate ovate cusp. pubes. beneath, Pan. simple
 7543 Stem angl. furrowed, Leaf. 5 orbicular cusp. hoary beneath, Pan. comp. divaricating, Cal. prickly at base
 7544 Stem suberect angular smooth, Leaf. 5 ovate shining pubes. beneath, Panicle prickly
 7545 Leaves 3 obovate downy and soft on each side, Fl. panicle
 7546 Leaves tern. Leaf. roundish ovate acum. mucronate serr. Stem pet. ped. and cal. prickly and glandular

- 7547 Lvs. 5-3 hairy, Leaf. ov. acum. unequally serr. Stem decum. and pet. prickly and gland. Ped. unarm. gland.
 7548 Lvs. 3-5-nate, Leaf. pinn. Stem pet. and ped. with recurved prickles
 7549 Procumbent, Stipules subulate, Lvs. 3-5 digitate, Leaf. ovate obl. smoothish serrate, Pedicels solitary
 7550 Leaves 5 ellipt. acumin. finely serrate villous on each side, Stem and petioles prickly
 7551 Unarmed hispid, Leaf. 3 or pinnate quinate ovate blunt at base white beneath: the odd one cordate
 7552 Lvs. 3-nate smooth unequally serr.: intern. ov.-cuneate at base; lat. rhomb. Stem round proc. and pet. prick.
 7553 Lvs. ternate, Leaf. ovate acute unequally serrate downy beneath, Stem pet. and ped. unarmed
 7554 Leaves simple palmate, Stem unarmed many-leaved many-flowered
 7555 Leaves pinnate about 7 hairy beneath: the upper ternate, Stem ascending with small straight prickles



and Miscellaneous Particulars.

foliage, produce blossom shoots, flower, and fruit, and die the next. The common raspberry and bramble are examples.

R. idaeus is a native fruit, greatly improved by cultivation; it has a grateful subacid taste, and like the strawberry, is one of the few fruits that does not undergo the acetous fermentation in the stomach. There are red and yellow varieties, and one very excellent sort that bears twice a-year, in July and September. The raspberry requires a soft rich moist soil, and if a plant stands singly or a single row is planted by itself, the situation should be gently shaded. Where a plantation is made of several rows together it may be placed in the open garden, as the plants will shade one another to a sufficient degree. Frequent renewal is necessary to prevent the stools getting large and matted when they send up only weak suckers. No more suckers should be left at the stools than are intended to bear the following year, unless young plants are wanted; and if very

7556	<i>moluccanus W.</i>	Molucca	☉ □ or	3	jl.au	R	E. Indies	1810.	Sk	l p	Ru.am.5. t.47.f.2
7557	<i>reflexus Ker.</i>	reflexed	☉ □ or	3	jl.au	R	China	1817.			Bot. reg. 461
7558	<i>parvifolius L.</i>	small-leaved	☉ □ or	2	au.s	Pk	China	1818.	L	co	Bot. reg. 496
7559	<i>saxatilis W.</i>	stone	☉ Δ or	½	jn	W	Britain	m.w.o.	Sk	p.l	Eng. bot. 2233
7560	<i>triflorus Richardson</i>	Americ.-stone	☉ Δ or	½	jn	W	Canada	1802.			Sk p.l
7561	<i>pistillatus Ph.</i>	close-styled	☉ Δ or	½	jn.jl	R	Labrador	1802.	Sk	p.l	Exot. bot. 2. t. 86
7562	<i>arcticus E. B.</i>	dwarf-crimson	☉ Δ or	½	my.au	Pk	Scotland	al. ro.	Sk	p.l	Eng. bot. 1585
7563	<i>chamæmorus W.</i>	Cloud-berry	☉ Δ fr	½	my.jn	W	Britain	moun.	Sk	p.l	Eng. bot. 716
1150.	<i>DALIBARDA. Mich.</i>	<i>DALIBARDA.</i>					<i>Rosaceæ.</i>	<i>Sp. 2—5.</i>			
7564	<i>violaeoides Mi.</i>	Violet-leaved	☉ Δ cu	½	my.jn	W	N. Amer.	1768.	D	l p	Mich.ame.1.t.27
	<i>repens Ph.</i>										
7565	<i>fragarioides Mi.</i>	Strawberry-lvd.	☉ Δ cu	½	my.jn	W	N. Amer.	1803.	D	l p	Mich.ame.1.t.28
1151.	<i>FRAGA'RIA. W.</i>	<i>STRAWBERRY.</i>					<i>Rosaceæ.</i>	<i>Sp. 9.</i>			
7566	<i>vesca W.</i>	wood	☉ Δ fr	1	ap.my	W	Britain	woods.	S	s.l	Eng. bot. 1524
7567	<i>monophylla W.</i>	one-leaved	☉ Δ fr	1	my.jn	W	.....	1773.	Rs	s.l	Bot. mag. 63
7568	<i>collina W.</i>	Green Pine	☉ Δ fr	½	ap.n	W	Germany	1768.	Rs	r.l	
7569	<i>elatiör W.</i>	Hautboij	☉ Δ fr	1½	ap.my	W	Britain	woods.	Rs	r.l	Eng. bot. 2197
7570	<i>canadensis Mich.</i>	Canada	☉ Δ fr	1½	ap.my	W	N. Amer.	.....	Rs	r.l	
7571	<i>virginiana Ph.</i>	scarlet	☉ Δ fr	1	ap.my	W	N. Amer.	1629.	Rs	r.l	Duha. arb.1. t. 5
7572	<i>grandiflora W.</i>	Pine	☉ Δ fr	1	ap.my	W	Surinam	1759.	Rs	r.l	Mill. ic. 2. t. 288
7573	<i>chiloensis W.</i>	Chili	☉ Δ fr	1	my.jn	W	S. Amer.	1727.	Rs	r.l	Duha. arb.1. t. 3
7574	<i>indica H. K.</i>	yellow-flower'd	☉ Δ or	1	my.o	Y	India	1805.	Rs	s.p	Bot. reg. 61
1152.	<i>CO'MARUM. W.</i>	<i>COMARUM.</i>					<i>Rosaceæ.</i>	<i>Sp. 2.</i>			
7575	<i>palüstre W.</i>	Marsh Cinquef.	☉ Δ cu	2	jn.jl	Pu	Britain	sp. bo.	D	p	Eng. bot. 172
7576	<i>fragarioides W. en.</i>	Strawberry-like	☉ Δ w	1	mr.my	W	Britain	banks.	D	l p	Eng. bot. 1785
	<i>Fragaria sterilis E. B.</i>										
1153.	<i>POTENTIL'LA. W.</i>	<i>CINQUEFOIL.</i>					<i>Rosaceæ.</i>	<i>Sp. 40—74.</i>			
7577	<i>fruticosa W.</i>	shrubby	☉ or	4	jn.au	Y	England	m.b.pl	L	co	Eng. bot. 88
7578	<i>horibanda Ph.</i>	cluster-flower.	☉ or	4	jn.o	Y	N. Amer.	1811.	L	co	Dend. brit. 70
7579	<i>Anserina W.</i>	Wild Tansey	☉ Δ w	1	my.s	Y	Britain	m. me.	D	co	Eng. bot. 861
7580	<i>atrosanguinea Lodd.</i>	crimson	☉ Δ or	1½	my.s	Pu	Nepal	1822.	D	co	Bot. cab. 786
7581	<i>nepalensis Hook.</i>	Nepal	☉ Δ or	1½	jn.jl	Pu	Nepal	1822.	D	co	Hook. ex. fl. 88
7582	<i>Salesövíi W. en.</i>	white-shrubby	☉ Δ or	2	jn.au	W	Siberia	1823.	L	p.l	Bot. cab. 914
	<i>P. glabra Lodd.</i>										
7583	<i>splendens Wall.</i>	fine	☉ Δ or	1	...	Y	Nepal	1822.	D	co	
7584	<i>hispid W. en.</i>	hispid	☉ Δ pr	½	jl.au	Y	Dauria	1797.	D	co	
7585	<i>sericea W.</i>	silky	☉ Δ pr	½	my.jn	Y	Siberia	1780.	D	co	
7586	<i>multifida W.</i>	cut-leaved	☉ Δ pr	½	my.jn	Y	Siberia	1759.	D	co	
7587	<i>fragarioides W.</i>	Strawberry-lvd.	☉ Δ pr	½	my.jn	Y	Siberia	1773.	D	co	Gm. si. 3. t. 34. f. 2
7588	<i>ruthénica W.</i>	Russian	☉ Δ pr	½	my.jn	Y	Siberia	1799.	D	co	Mor. s. 2. t. 20. f. 2
7589	<i>rupëstris W.</i>	rock	☉ Δ pr	1	my.s	W	England	al. roc.	D	co	Eng. bot. 2058
7590	<i>bifurca W.</i>	bifid-leaved	☉ Δ pr	1	jn.jl	L, Y	Siberia	1773.	D	co	Gm. it. 1. t. 27. f. 1
7591	<i>pimpinelloides W.</i>	Burnet-leaved	☉ Δ pr	1	jn.au	Y	Levant	1758.	D	co	Jac. cen. 1. t. 48
7592	<i>pensylvanica W.</i>	Pensylvanian	☉ Δ pr	½	jn.au	Y	N. Amer.	1725.	D	co	Bux. vin. 2. t. 189
7593	<i>supina W.</i>	trailing	☉ Δ pr	½	jl.au	Y	Siberia	1696.	D	co	Jac. aus. 5. t. 406
7594	<i>recta W.</i>	upright	☉ Δ pr	1	jn.jl	Y	S. Europe	1648.	D	co	Jac. aus. 4. t. 383
7595	<i>argentea W.</i>	silvery	☉ Δ pr	1	jn.au	Y	Britain	gra.pa.	D	co	Eng. bot. 89
7596	<i>intermedia W.</i>	various-leaved	☉ Δ pr	1	my.s	Y	Switzerl.	1786.	D	co	
7597	<i>ascendens W. en.</i>	ascending	☉ Δ pr	1	jn.jl	Y	Hungary	1806.	D	co	



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large fruit is the object, no suckers should be left at all: on the contrary, when the strongest suckers are wanted, the fruit-bearing shoots should be cut down.

R. occidentalis is a showy plant for large shrubberies. The fruit of *R. cæsius* is blue, edible, and it continues till frost. *R. corylifolius* and *fruticosus* are both common in our hedges; the shoots of the latter are much tougher than those of the former, and are preferred by thatchers for binding their roofs, and by straw-hive and mat makers. The berries, eaten at the moment they are ripe, are cooling and grateful; a little before, they are coarse and astringent; and a little after, disagreeably flavored or putrid. They are sometimes made into pies; but great care is requisite in gathering the fruit, for one berry of the last sort will spoil a whole pie. The double-flowering variety is considered very ornamental.

The fruit of *R. arcticus* and *chamæmorus* is eaten in the north of Scotland and Sweden. In the latter country, Dr. Clarke informs us, it is much prized in soups, sauces, and for making vinegar; and Dr. Clarke was cured of a bilious fever by eating great quantities. The plant is rather difficult to preserve in gardens, but by raising successive generations from the seed it might perhaps be subjected to the same culture as the cranberry. The fruit of *R. pauciflorus*, the Nepal raspberry, is very agreeable.

1150. *Dalibarda.* Denis Dalibard was a French botanist, who published, in 1749, a catalogue of the plants in the neighbourhood of Paris. Small plants, resembling the little species of *Rubus*.

- 7556 Leaves simple cordate somewhat lobed downy beneath, Stem prickly decumbent
 7557 Branches round villous, Lvs. cordate obl. 5-lobed : the middle lobe elongated, Stip. and bracts pectinate
 7558 Leaves 3-5 downy beneath, Stem peduncles and petioles with recurved prickles
 ** *Herbaceous.*
 7559 Leaves tern. naked, Runners creeping herbaceous, Panic. few-flowered
 7560 Leaves tern. naked, Leaf. rhomboid acute cut serrate : the odd one stalked, Flowers about 3
 7561 Stem unarmed 1-flowered, Leaves tern. smooth finely serrate, Pet. obl. entire, Styles approximating
 7562 Leaves ternate, Stem unarmed 1-flowered
 7563 Leaves simple lobed, Stem unarmed 1-flowered
 7564 Leaves simple cordate crenate, Peduncles 1-flowered
 7565 Leaves ternate, Leaf. cuneate serrate-cut, Tube of cal. obconical
 7566 Cal. of fruit reflexed, Pubescence of petioles spreading, of the peduncles appressed
 7567 Leaves simple
 7568 Cal. of fruit erect, Pubescence of pedunc. erect, of petioles much spreading, Leaves downy on each side
 7569 Cal. of fruit reflexed, Pubescence of pedunc. and petioles much spreading
 7570 Large, Leaves broad oval, Pedic. long recurved pendulous, Recept. much excavated globose villous.
 7571 Cal. of fruit spreading, Pubescence of petioles erect, of peduncles appressed, Leaves smoothish above
 7572 Cal. of fruit erect, Pubescence of peduncles and petioles erect, Lvs. smoothish above
 7573 Cal. of fruit erect, Pubescence of peduncles and petioles much spreading, Lvs. villous on each side
 7574 Outer sepals larger than the rest obovate 3-toothed
 7575 Leaves pinn. Petals smaller than calyx
 7576 Leaves tern. Petals larger than calyx

- 7577 Leaves pinnate, Leaf. lin. obl. flat, Petioles long, Branches 1-2-fl.
 7578 Leaves pinnate, Leaf. lin. obl. revolute at edge, Petioles short, Corymbs terminal
 7579 Leaves interruptedly pinnate silky, Leaflets finely serrate, Stem creeping, Pedunc. 1-fl.
 7580 Leaves ternate stalked, Leaf. obovate cut serrate white with down beneath, Sepals ellipt. Pet. orbicordate
 7581 Rad. lvs. quinate cauline tern. Leaf. cuneate obl. serrate, Stipules large adnate entire
 7582 Leaves pinnate white with down beneath, Leaf. serrate, Stem shrubby
 7583 All over silky, Lvs. interruptedly pinn. Fl. dichoto. corymb. Sepals ov. acute, Stem erect nearly simple
 7584 Lvs. interruptedly pinn. with spread. hairs, Leaf. lanc. cut toothed, Stip. cut, Pet. orbord. larger than cal.
 7585 Lvs. bipinnatifid in many pairs downy on each side : segments parallel approximating, Stem decumbent
 7586 Lvs. bipinnatifid in four pairs smooth above downy beneath : segments distant, Stem decumbent
 7587 Leaves pinnate : the outer largest, Runners creeping
 7588 Rad. leaves subpinn. cauline tern. Leaf. lanc. unequally coarsely serrate hairy on each side
 7589 Leaves pinnate alternate, Leaf. 5 ovate crenate, Stem erect
 7590 Leaves pinnate nearly equal, Leaf. oblong subbifid : the outer confluent
 7591 Leaves pinnate, Leaf. roundish toothed equal, Stem erect
 7592 Leaves pinnate upper ternate, Leaf. deeply toothed, Stem erect pubescent
 7593 Leaves pinnate, Leaf. oblong deeply toothed, Stem decumbent dichotomous, Pedun. axill. solitary
 7594 Leaf. 7-5 lanceolate coarsely toothed, Petals orbicordate larger than calyx, Stem erect
 7595 Leaf. 5 cuneiform cut downy beneath, Stem erect
 7596 Radic. leaves 5-nate, Cauline ternate, Stem nearly erect much branched
 7597 Lvs. 5-nate with adpressed hairs : of the branches ternate, Leaf. obl. cuneate deeply toothed, Stem ascend.



and Miscellaneous Particulars.

1151. *Fragaria*. From *fragrans*, in allusion to the perfumed fruit. *Fraisier*, Fr., *Erdbeere*, Ger., and *Tragolo*, Ital. This is a genus of fruit-bearing herbaceous plants, of which there are few in the vegetable kingdom, and none to equal the strawberry in wholesomeness and excellence. This fruit is universally grateful, alone, or with sugar, cream or wine; and has the property, so valuable for acid stomachs, of not undergoing the acetous fermentation. Besides the species or subspecies enumerated, there are upwards of sixty mongrel varieties or different names, some of which, recently produced from seed, are of great excellence. The strawberry is not only a valuable and easily cultivated out-door fruit, but forces well, and with a little trouble in choosing a succession of sorts, they may be had at the dessert every month in the year, though during the three winter months they are without flavor.

In cultivating the strawberry an open situation and rich loamy soil, rather strong, is required for most varieties; and from their large mass of foliage and flowers, they must, till the fruit is set, have copious supplies of water. The row culture is most convenient, and frequent renewal insures vigorous plants and large fruit.

1152. *Comarum*. A name given by the Greeks to the *Arbutus*. The *Comarum* of the moderns produces a fruit not unlike that of the *Arbutus*.

1153. *Potentilla*. In allusion to its supposed *potential* virtues in medicine. These, however, appear to con-

7598 hirta <i>W.</i>	hairy	Δ	pr	1	my.s	Y	S. Europe	1725.	D	co	
7599 stipularis <i>W.</i>	stipular	Δ	pr	1	jl.au	Y	Siberia	1797.	D	co	Gm. si. 3. t. 37. f. 2
7600 opaca <i>W.</i>	small-rough	Δ	pr	1	my.jn	Y	S. Europe	1680.	D	co	Jac. ic. 1. t. 91
7601 verna <i>W.</i>	spring	Δ	pr	1	mr.my	Y	Britain	hghl.p.	D	co	Eng. bot. 37
7602 aurea <i>W.</i>	golden	Δ	pr	1	my.jl	Y	Scotland	sc.alp.	D	co	Eng. bot. 561
7603 astracanea <i>W.</i>	Astracan	Δ	pr	1	jn.au	Y	Siberia	1787.	D	co	Jac. ic. 1. t. 92
7604 alba <i>W.</i>	white	Δ	pr	1	f.au	W	Wales	w. alp.	D	co	Eng. bot. 1384
7605 caulescens <i>W.</i>	Alpine	Δ	pr	1	my.jn	Y	Austria	1759.	D	co	Jac. aus. 3. t. 220
7606 Clusiana <i>W.</i>	Clusius's	Δ	pr	1	jl.au	Y	Austria	1806.	D	co	Eng. bot. 1384
7607 lupinoides <i>W.</i>	close-flowered	Δ	pr	1	jn.jl	Y	Al. of Eur.	1739.	D	co	Bot. cab. 654
7608 nitida <i>W.</i>	shining	Δ	pr	1	jn.jl	Y	Austria	1798.	D	co	Jac. au. 5. t. ap. 25
7609 reptans <i>W.</i>	common	Δ	pr	1	jn.s	Y	Britain	me. pa.	D	co	Eng. bot. 862
7610 sarmentosa <i>W. en.</i>	sarmentose	Δ	pr	1	jl	Y	N. Amer.	1804.	D	co	
7611 diffusa <i>W. en.</i>	various-leaved	Δ	pr	1	jn.au	Y	.....	1817.	D	co	
7612 monspeliensis <i>W.</i>	Montpelier	Δ	pr	1	jl.au	Y	France	1800.	D	co	M. h. s. 2. t. 20f. 2
7613 nivea <i>W.</i>	snowy	Δ	pr	1	jn.au	W	Siberia	1816.	D	co	Bot. cab. 460
7614 norvegica <i>W.</i>	Norwegian	Δ	pr	1	jn.jl	Y	N. Europe	1764.	D	co	FL. dan. 171
7615 tridentata <i>W.</i>	trifid-leaved	Δ	cu	1	jn.jl	Y	Scotland	sc. alp. S.	D	co	Eng. bot. 2389
7616 grandiflora <i>W.</i>	great-flowered	Δ	cu	1	jn.jl	W	Siberia	1640.	D	co	Bot. mag. 75

1154. TORMENTIL/LA. <i>L. SEPTFOIL.</i>							<i>Rosaceae.</i>	<i>Sp. 2.</i>			
7617 reptans <i>W.</i>	large-flowered	Δ	w	1	jn.jl	Y	Britain	me. pa.	Rs	co	Eng. bot. 864
7618 erecta <i>W.</i>	common	Δ	w	1	my.o	Y	Britain	bar. pa.	D	co	Eng. bot. 863

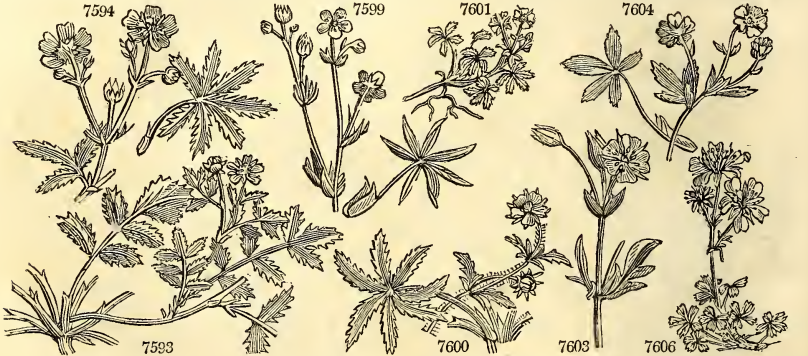
1155. GE'UM. <i>W.</i>							<i>Rosaceae.</i>	<i>Sp. 10-20.</i>			
7619 strictum <i>Ph.</i>	upright	Δ	or	1	my.jn	St	N. Amer.	1778.	D	p.l	Jac. ic. 1. t. 93
7620 agrimonoides <i>Ph.</i>	Agrimony-lyd.	Δ	or	1	jn.jl	W	N. Amer.	1811.	D	p.l	
7621 album <i>Ph.</i>	white-flowered	Δ	or	1	jl.au	W	N. Amer.	1730.	D	p.l	Jac. vin. 2. t. 175
7622 virginianum <i>Ph.</i>	small white-fl.	Δ	or	1	jl.au	W	N. Amer.	....	D	p.l	
7623 macrophyllum <i>W. en.</i>	large-leaved	Δ	or	2	jn.jl	Y	Kamtsch.	1804.	D	p.l	
7624 urbanum <i>W.</i>	common	Δ	or	1	my.au	Y	Britain	woods.	D	p.l	Eng. bot. 1400
7625 intermedium <i>W. en.</i>	wood	Δ	or	1	my.au	Y	.....	1794.	D	p.l	W. ho. b. 1. t. 69
7626 rivale <i>W.</i>	water	Δ	or	1	jn.jl	R.Br	Britain	m. mea.	D	p.l	Eng. bot. 106
7627 hybridum <i>Jac.</i>	hybrid	Δ	or	1	jn.jl	R.Br	Europe	...	D	p.l	Jac. ic. 1. t. 94
7628 pyrenaicum <i>W.</i>	Pyrenean	Δ	or	1	jn.jl	Y	Pyrenees	1804.	D	p.l	Lam. ill. t. 443

1156. KER'RIA. <i>Dec.</i>							<i>Rosaceae.</i>	<i>Sp. 1.</i>			
7629 japonica <i>Dec.</i>	Japan	Δ	or	3	ja.d	Y	Japan	1804.	C	co	Bot. mag. 1296

1157. CALYCAN'THUS. <i>L. ALLSPICE.</i>							<i>Calycantheae.</i>	<i>Sp. 3-5.</i>			
7630 floridus <i>W.</i>	Carolina	Δ	ft	6	my.au	Br	Carolina	1726.	L	lp	Bot. mag. 503
7631 fertilis <i>W.</i>	glaucous-lyd.	Δ	ft	3	my.au	Br	Carolina	...	L	lp	Bot. reg. 404
7632 laevigatus <i>W. en.</i>	smooth-leaved	Δ	ft	3	my.jl	Br	N. Amer.	1806.	L	lp	Bot. reg. 481

1158. CHIMONAN'THUS. <i>Lindl. CHIMONANTHUS.</i>							<i>Calycantheae.</i>	<i>Sp. 1.</i>			
7633 fragrans <i>Lindl.</i>	Japan	Δ	ft	6	f.d	Y.R	Japan	1766.	L	lp	Bot. mag. 466
<i>Calycanthus praecox</i> <i>W.</i>											
<i>β grandiflorus</i> <i>Lindl. large-flowered</i>		Δ	ft	8	f.d	Y.R	China	...	L	co	Bot. reg. 451

1159. DRY'AS. <i>W.</i>							<i>Rosaceae.</i>	<i>Sp. 1-3.</i>			
7634 octopetala <i>W.</i>	mountain	Δ	cu	1	jn.au	W	Britain	al. roc.	D	s.p	Eng. bot. 451



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sist of nothing beyond a slight vulnerary quality. *P. fruticosa* and *floribunda* are showy shrubs. *P. anserina* is remarkable for the silvery whiteness of its foliage, which is eaten by geese, as the roots were once by the country people in some places. All the species are pretty, and deserving cultivation.

1154. *Tormentilla*. From *tormina*, the dysentery, which this plant was formerly employed for curing. *T. erecta* was once a plant of some importance in oeconomy and medicine. The roots are still used in most of the Western Isles of Scotland and in the Orkneys for tanning leather, for which they are superior even to oak-bark. They are first boiled in water, and the leather is then steeped in the cold liquor. In the islands of Tirey and Col, the inhabitants have destroyed so much ground by digging them up, that they have been prohibited the use of them. They are also used for dyeing of a red color. And Mr. Young informs us, that many swine are reared with them on the mountains of Killarney.

In the London *Materia Medica* it is employed in intermittents, and as a local application in the form of gargle and lotion, in ulcerations of the tongue and mouth, against spongy gums, and as an application to fetid ill conditioned sores; but it is seldom used. (*London Dispensatory*, 538.)

1155. *Geum*. From *γεωμ*, to taste well. The roots of *G. urbanum* have a mildly astringent aromatic taste, somewhat like that of cloves, whence this plant has the name of *Caryophyllata*. They should be gathered in dry warm situations, for in shady moist places they have little virtue. Gathered in the spring, and put fresh into ale, they give it a pleasant flavor, and prevent its turning sour. Infused in wine, it is esteemed a good

- 7598 Leaf. 5-7 cuneiform cut pilose, Stem erect hairy
 7599 Leaf. 7 sessile seated upon a dilated stipule
 7600 Rad. lvs. 5-7 lin. cuneiform toothed, Petals retuse the length of calyx, Stems filiform decumbent hairy
 7601 Leaves 5-nate obovate toothed pubescent, Pet. obcord. larger than calyx, Stems declinate
 7602 Rad. lvs. 5-nate, Leaf. cuneif. ciliate 5-toothed at end, Caul. 3-nate subsess. Pet. obcord. larger than calyx
 7603 Rad. lvs. 5-nate oblong toothed; upper 3-parted, Cor. larger than calyx, Stem ascending
 7604 Leaves 5-nate with connivent serratures at end, Stems filiform procumbent, Recept. hairy
 7605 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. obovate
 7606 Leaves 5-nate with connivent serratures at end, Stems many-fl. decumbent, Recept. hairy, Pet. roundish
 7607 Leaves 5-nate silky on each side, Leaf. obovate bluntly toothed at end, Pet. length of cal. Recept. woolly
 7608 Leaves subtern. downy with 3 connivent teeth, Stems 1-fl. Recept. woolly
 7609 Leaves 5-nate, Stem creeping, Pedunc. 1-flowered
 7610 Leaves 5-nate obovate coarsely serr. Stip. cut bifid, Pedunc. 1-fl. axill. Stem producing runners
 7611 Rad. lvs. subpinnate: cauline ternate, Leaf. lanc. unequally and coarsely serrated with spreading hairs on
 7612 Leaves ternate, Stem branched erect, Peduncles with a knee at base [each side
 7613 Leaves ternate cut downy beneath, Stem ascending
 7614 Leaves ternate, Stem dichotomous, Pedunc. axillary
 7615 Leaves ternate cuneiform 3-fid at end
 7616 Leaves ternate toothed hairy on both sides, Stem decumbent longer than leaves

- 7617 Stem creeping, Leaves stalked
 7618 Stem nearly erect, Leaves sessile

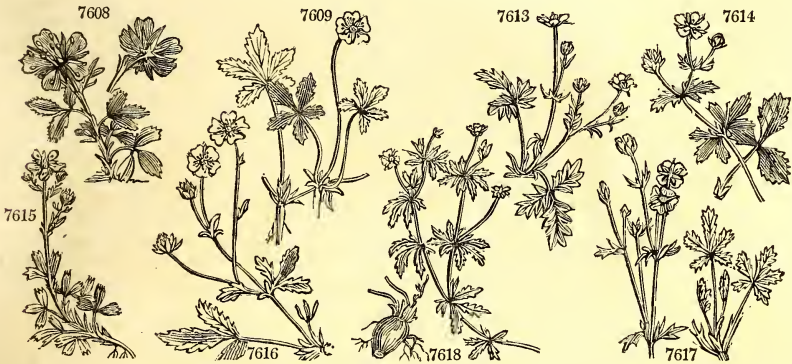
- 7619 Fl. erect, Awns hooked naked, Caul. lvs. pinn. Leaf. and stipules split, Petals longer than calyx
 7620 Fl. erect, Lvs. pinn. Leaf. nearly equal irregularly cut toothed, Stip. ovate nearly entire, Pet. oval length of
 7621 Fl. erect, Rad. lvs. pinn.: cauline tern. upper simple, Lower stip. cut, Pet. length of calyx [calyx
 7622 Fl. erect, Awns hooked naked, Caul. lvs. tern.: upper lanc. Petals shorter than calyx
 7623 Fl. erect, Awns hooked naked hairy at end, Rad. lvs. lyrate pinnate: terminal pinnate cordate
 7624 Fl. erect, Awns hooked naked, Caul. lvs. tern.: radical lyrate pinnate
 7625 Fl. nodd. Pet. length of cal. Awns hooked naked, Grains hairy, Rad. lvs. lyrate pinn.: cauline ternate
 7626 Fl. nodd. Pet. length of cal. Awns feathery twisted in the middle
 7627 Fl. nodd. Cal. leafy longer than the polypetalous corolla
 7628 Fl. nodd. Pet. longer than cal. Awns hairy twisted at base, Rad. lvs. lyrate pinnate: cauline simple trifid

7629 The only species

- 7630 Leaves oblong downy beneath
 7631 Leaves lanceolate smooth on each side glaucous beneath
 7632 Sepals lanc. Lvs. obl. acute by degrees somewhat rugose smooth and green on each side, Branches very
 [straight and erect

7633 The only species. Fl. small very fragrant pale yellow appearing in the winter

7634 Leaves toothed



and Miscellaneous Particulars.

stomachic; but in water, Haller affirms it to have been attended with bad effects, when given in malignant fevers, producing delirium. Chewed in the mouth, the roots take off from a disagreeable breath.

1156. *Kerria*. So named after Mr. William Ker, a botanical collector, who was sent some years since to China, whence he sent many curious plants. The plant named after him is the common *Corchorus japonica* of the gardens.

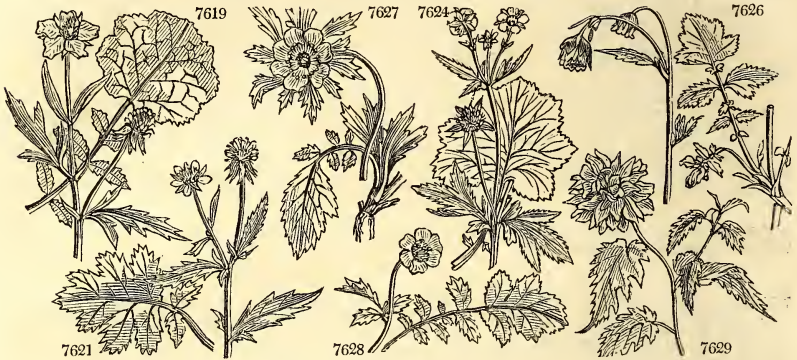
1157. *Calycanthus*. From *καλυξ*, and *ανθος*, a flower; the calyx being colored and similar to petals, which are not present in the genus. Small North American shrubs, with chocolate-colored blossoms. The flowers of *C. floridus* have an agreeable scent like those of allspice, and is so called in Carolina.

1158. *Chimonanthus*. From *χιμων*, winter, and *ανθος*, a flower, in allusion to the period of the year when its blossoms are produced. *C. fragrans* is highly odoriferous, and though hardy, deserves a place in the front border of a conservatory, on account of the odor it disperses early in spring.

1159. *Dryas*. A name poetically applied to this little plant, from the resemblance of its leaves to those of the oak, which was sacred to the Dryads. This is a delicate evergreen plant, and with its snow-white blossoms is a great ornament to alpine heights. The stalk and branches are woody and perennial, lying flat upon the ground, and spreading wide about the root in tufts.

It requires some care to preserve it in gardens, and grows better in a shaded bed of peat than in pots.

1160. COLU'RIA. <i>R. Br.</i>	COLURIA.			<i>Rosaceæ.</i>	<i>Sp. 1-3.</i>			
7635 <i>potentilloides R. Br.</i>	Siberian	♂ Δ pr	½	jn	O	Siberia	1780.	D p.l Jac. vin. 3. t. 68
1161. SIEVER'SIA. <i>Willd.</i>	SIEVER'SIA.			<i>Rosaceæ.</i>	<i>Sp. 2-4.</i>			
7636 <i>montána R. Br.</i>	mountain	♂ Δ pr	¼	mys	Y	Austria	1597.	D co Jac. aus. 4. t. 373
7637 <i>réptans R. Br.</i>	creeping	♂ Δ pr	½	jn.au	Y	Switzerl.	1775.	D p.l Jac. au. 5. t. ap. 22



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1160. *Coluria*. From *κολυρος*, deprived of the tail; or, as we usually say in English, bob-tailed. Distinguished by Mr. Brown from *Geum*, principally on account of the deciduous nature of the style or tail of the grains.



CLASS XIII. — POLYANDRIA. STAMENS many, hypogynous, or inserted under the Ovary.

THIS class agrees with the last in having hermaphrodite flowers, with an indefinite number of stamens, which neither cohere in any part of their length, nor are distributed in distinct parcels; but it is distinguished by the stamens being inserted distinctly from the floral envelopes, immediately under the ovary, into what has been called the *receptacle* by Linnæus and his followers; *torus*, by Mr. Salisbury; and *thalamus*, by some other botanists. The class consists of the greater part of several extensive natural orders, such as Ranunculaceæ, Magnoliaceæ, Cistineæ, &c.; and, like the last, is replete with subjects of interest to gardeners and florists. The various kinds of *Clematis* form the most valuable portion of the hardy climbing plants of the verandah. The brilliant varieties of the ranunculus and anemone constitute the most attractive part of the flower garden. *Pæonia*, well known for the richness of its coloring, and the robustness of its constitution, is the ornament of every cottage; and the noble varieties of *Magnolia*, the pride of the North American forest, are the finest exotics of the shrubbery. *Nymphæa* and *Nelumbium* are beautiful genera of aquatic plants. *Annona*, or the custard apple, is one of the most important of the fruit trees of tropical countries; and the celebrated water vine of Sierra Leone is a species of *Tetracera*. Nor must *Sarracenia*, with its curious pitcher-like leaves; *Papaver*, from which opium is extracted; *Cimicifuga*, whence is obtained the antidote to the dangerous bite of the rattle-snake; *Bixa*, or the arnotta tree, from the fruit of which the coloring matter for the red cheese of England is procured; nor *Hepatica*, with its modest beauties, be omitted.

The commencement of M. Decandolle's laborious *Systema Vegetabilium* has included nearly every thing contained in the class, and is followed in the discrimination of the species, as being the best authority which can be taken.

Order 1. MONOGYNIA.



Stamens many, hypogynous. Style 1.

1162. *Capparis*. Cal. 4-leaved, coriaceous, deciduous. Petals 4. Stamens long. Stigma capitate. Berry with a rind, 1-celled, stalked, subglobose, or like a pod.

1163. *Marcgraavia*. Cal. 6-leaved, imbricated. Corolla monopetalous, calyptriformis. Berry many-celled, many-seeded. Style O.

1164. *Actæa*. Cal. 4-leaved, deciduous. Petals 4. Berry 1-celled. Seeds half orbicular.

1165. *Sanguinaria*. Cal. 2-leaved. Petals 8. Pod ovate, 1-celled.

1166. *Podophyllum*. Cal. 3-leaved. Petals 9. Berry 1-celled, crowned with the stigma.

1167. *Cheledonium*. Cal. 2-leaved. Petals 4. Pod 1-celled, linear. Dissepiment O. Seeds several, crested.

1168. *Romeria*. Petals 4. Caps. long, 2-3-4-valved; the valves opening from the vertex to the base. Seeds reniform, scurfy, without a glandular crest.

1169. *Glaucium*. Cal. 2-leaved. Petals 4. Pod 2-celled, linear, 2-3-valved. Seeds several, dotted.

1170. *Papaver*. Cal. 2-leaved. Petals 4. Capsule 1-celled, opening by pores under the persistent stigma.

1171. *Meconopsis*. Petals 4. Style short. Stigmas 4-6, radiating, convex, distinct. Capsule opening with 4-6 valves.

1172. *Argemone*. Cal. 3-leaved. Petals 6. Capsule half valved.

1173. *Sarracenia*. Cal. double, 3-5-leaved. Petals 5. Caps. 5-celled. Style with a clypeate stigma.

1174. *Nymphæa*. Sepals at the base of the discus. Petals and stamens connected with the whole of the discus, which covers the carpella.

1175. *Limncharis*. Sepals 3. Petals 3, very delicate, withering. Plant monocotyledonous.

7635 Stem about 2-flowered, Awns straight naked, Cal. of fruit erect, Lvs. pinnate toothed

7636 Leaves pinnate: the outer leaflet very large round, lower smaller by degrees

7637 Leaves pinnate cut, Runners creeping



and Miscellaneous Particulars.

1161. *Sieversia*. Named by Willdenow, after M. Sievers, a well known Russian botanical collector. Plants resembling *Geum* in habit.

1176. *Nuphar*. Sepals, petals, and stamens inserted at the base of the discus.
 1177. *Euryale*. Sepals, petals, and stamens united with the discus, which covers the carpella.
 1178. *Bixa*. Cal. 5-toothed. Petals 10. Capsule hispid, 2-valved.
 1179. *Prockia*. Cal. 3-leaved, besides two extra leaves at base. Cor. O. Berry 5-angled, many-seeded.
 1180. *Stoanea*. Cal. 1-leaved, 5-9-fid. Cor. O. Anthers united to filaments beneath the end. Caps. echinate, 3-6-celled, 3-6-valved. Seeds 2, with a berried arillus.
 1181. *Apiciba*. Cal. 5-leaved. Petals 5. Caps. echinate, many-celled.
 1182. *Sparmannia*. Cal. 4-leaved. Petals 4. Filaments cohering at base, torulose. Capsule echinate, 5-angled, 5-celled. Cells 2-seeded.
 1183. *Entelea*. Sepals 4-5. Petals 4. Stamens indefinite, uniform. Anthers roundish, incumbent. Stigma denticulate. Caps. roundish, echinate, 6-celled, half 6-valved, many-seeded.
 1184. *Muntingia*. Cal. 5-parted. Petals 5. Berry 5-celled, 1-5-many-seeded.
 1185. *Grewia*. Cal. 5-leaved, coriaceous, colored inside. Petals 5. Scales 5. Ovary usually stalked. Drupe 4-lobed, 4-celled. Nut 1-2-seeded.
 1186. *Tilia*. Cal. 5-parted. Petals 5. Capsule coriaceous, globose, 5-celled, 4-valved, opening at base, 1-seeded.
 1187. *Corchorus*. Cal. 5-leaved, deciduous. Petals 5. Style scarcely any. Stigma 1-3. Capsule pod-shaped, 2-celled, 2-5-valved, many-seeded.
 1188. *Grias*. Cal. 4-cleft. Petals 4. Stigma sessile, cruciate. Drupe with an 8-furrowed nut
 1189. *Calophyllum*. Cal. 4-leaved, colored. Petals 4. Drupe globose.
 1190. *Mammia*. Cal. 2-leaved. Petals 4. Berry very large, 4-seeded.
 1191. *Ochna*. Cal. 5-leaved. Petals 5. Berries 1-seeded, with a large roundish receptacle.
 1192. *Elæocarpus*. Cal. 5-leaved. Petals 5, torn. Anthers 2-valved at end. Drupe with a curly nut.
 1193. *Atangium*. Cal. 6-10-toothed, superior. Petals 6-10, linear. Berry coated, 1-3-seeded.
 1194. *Mentzelia*. Cal. 5-leaved. Petals 5. Capsule inferior, cylindrical, many-seeded.
 1195. *Lagerstromia*. Cal. 6-cleft, campanulate. Petals 6. Stamens many, of which the six outer are thickest. Caps. 4-6-celled, many-seeded.
 1196. *Ægle*. Cal. 1-leaved, 5-lobed. Petals 5, spreading. Style short, thick. Berry coated, turbinate, globose, finally woody, with 12-16 cells.
 1197. *Cistus*. Cal. 5-leaved, with two small leaflets. Petals 5. Caps. 5-celled; the valves bearing the dissepiments in the middle.
 1198. *Helianthemum*. Divisions of the calyx often unequal: the two outer the smallest. Caps. 1-celled, 3-valved, with the dissepiment in the middle of the valves.

Order 2. DI-TRIGYNIA.



Stamens many, hypogynous. Styles 2-3.

1199. *Bauera*. Cal. 7-9-leaved, persistent. Petals 7-9, deciduous. Caps. inflated, 2-celled, many-seeded.
 1200. *Fothergilla*. Cal. truncate, entire. Cor. O. Filaments very long, clavate. Ovary bifid. Caps. 2-celled, 2-horned. Seeds solitary, bony.
 1201. *Curatella*. Cal. 5-leaved. Petals 4. Styles 2. Caps. 2-parted. Cells 2-seeded.
 1202. *Pecunia*. Cal. 5-leaved. Petals 5. Style O. Caps. many-seeded, like a pod.
 1203. *Hibbertia*. Stamens distinct, filiform, equal. Anthers oval, oblong. Ovaries 1-15. Styles filiform, inflexed. Carpella membranous, generally 1-2-seeded.
 1204. *Delphinium*. Cal. O. Petals 5. Nectary bifid, cornute behind. Siliques 3-1.
 1205. *Aconitum*. Cal. O. Petals 5; the upper vaulted. Nectaries 2, hooded, stalked, recurved. Siliques 3-5.
 1206. *Trachytella*. Carpella 1-2, berried, many-seeded; otherwise Tetracera.


Order 3. PENTAGYNIA.



Stamens many, hypogynous. Styles 5.

1207. *Cimicifuga*. Cal. 4-leaved. Cor. with four urceolate nectaries. Caps. 4. Seeds scaly.
 1208. *Aquilegia*. Cal. O. Petals 5. Nectaries 5, horned between the petals. Caps. 5, distinct.

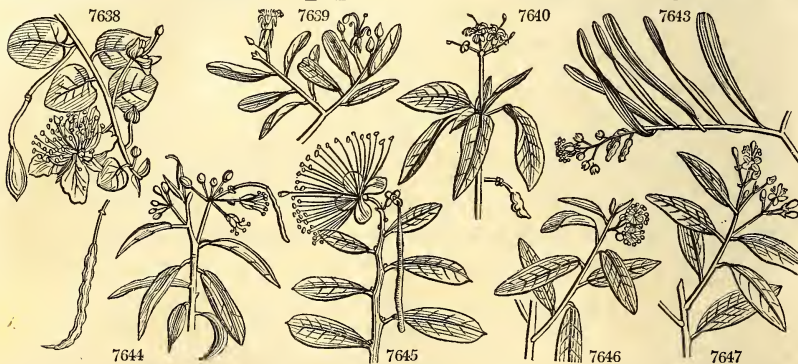
1209. *Nigella*. Cal. O. Petals 5. Nectaries 5, trifold between the corolla.
 1210. *Reaumuria*. Cal. 5-leaved. Petals reflexed, 5. Caps. 5-celled, 5-valved, many-seeded. Seeds woolly.
 1211. *Colbertia*. Ten stamens much longer than the others. Carpella 5, united? Stigma capitate. Seeds several in each cell, reniform, inclosed in a pellucid pulp.
 1212. *Tetracera*. Flowers often dioecious or polygamous. Carpella 3-5, capsular, surrounded by the imbricated sepals. Seeds 1-2, shining, ovate, with an arillus.

Order 4. POLYGYNIA.  Styles many. Stamens many, hypogynous.

1213. *Nelumbium*. Cal. 4-5-leaved. Petals many. Fruit turbinate, in a truncate discus, with several seeded hollows. Nuts ovate, crowned with the persistent style.
 1214. *Dillenia*. Cal. 5-leaved. Petals 5. Capsules many-seeded, connate, replete with pulp.
 1215. *Illicium*. Cal. 6-leaved. Petals 27. Caps. many, placed in a circle, 2-valved, 1-seeded.
 1216. *Liriodendron*. Cal. 3-leaved. Petals 6. Samaras imbricated in a cone. Caps. 1-2-seeded, not opening, 2-tuited.
 1217. *Magnolia*. Cal. 5-leaved. Petals 6-9. Caps. 2-valved, 1-seeded, imbricated in a cone. Seeds pendulous.
 1218. *Michelia*. Cal. 3-leaved. Petals 15. Berries many, 4-seeded.
 1219. *Uvaria*. Cal. 3-leaved. Petals 6. Berries numerous, pendulous, 4-seeded.
 1220. *Annona*. Sepals 3, united at base, concave, cordate, acute. Petals 6, thick; the interior thicker or none. Anthers subsessile, with a dilated angular end. Berry pulpy, many-celled towards the outside.
 1221. *Artobotrys*. Cal. 3-parted. Petals 6. Stamens hypogynous. Ovaries distinct, 2-seeded. Berries 2-seeded. Seeds collateral erect, without arillus.
 1222. *Guatteria*. Sepals 3, united at base, ovate, subcordate, acute. Petals 6, ovate or obovate. Berries dry, coriaceous, ovate or subglobose, stalked, 1-seeded.
 1223. *Asimina*. Cal. 3-parted. Petals 6, spreading, ovate-oblong; the inner smallest. Anthers subsessile. Berries usually 3, sessile. Seeds several.

MONOGYNIA.

1162. CAPPARIS. W. CAPER-TREE.		<i>Capparidæ.</i>		Sp. 10-116.	
7638 spinosa W.	common	cul	3	my.au W	S. Europe 1596. C s.l Bot. mag. 291
7639 jamaicensis W.	Jamaica	or	4	... W	Jamaica 1793. C r.m Jac. am. e.p.t. 101
7640 frondosa W.	large-leaved	or	7	... G	Carthag. 1800. C s.l Jac. amer. t. 103
7641 ovata W.	acute-leaved	or	3	my.au W	S. Europe ... C s.l Boc. sic. t. 42. f. 3
7642 saligna P. S.	Willow-leaved	or	8	... W	Sant. Cruz 1807. C r.m
7643 linearis W.	linear-leaved	or	15	... W	W. Indies 1793. C r.m Jac. amer. t. 102
7644 Bréynia W.	Oleaster-leav'd	or	11	... W	W. Indies 1752. L p Jac. amer. t. 103
7645 cynophallophora W.	Bay-leaved	or	8	... G, W	W. Indies 1752. C r.m Jac. amer. t. 98
7646 odoratissima W.	sweet-scented	or	6	... W	Caraccas 1814. C r.m Jac. schæ. t. 110
7647 ferruginea W.	ferrugineous	or	4	... W	Jamaica ... C s.l Bro. jam. t. 28. f. 1
1163. MARCGRAAVIA. W. MARCGRAAVIA.		<i>Capparidæ.</i>		Sp. 1-2.	
7648 umbellata W.	umbelled	cu	20	... W	W. Indies 1792. C s.l.p Jac. amer. t. 96



History, Use, Propagation, Culture,

1162. *Capparis*. From its Arabic name *Kabar*, from which the Greeks made *καππαρις*. *Caprier*, Fr., *Capriolo*, Ital. and *Kapernstrauch*, Ger. This is a genus of low shrubs, some of which produce berries and others pods. *C. spinosa* has the habit of the common bramble; it grows in similar situations in the south of Europe, and especially on rocks and ruins. The chief supply of caper buds is from Sicily; but the plant is cultivated in the neighbourhood of Toulon in orchards, in the intervals between fig and olive trees, and in the neighbourhood of Paris, where it is trained on low walls, and the shoots during winter laid down and covered with soil to protect them from the frost. In this country it is generally treated as a stove plant; though it has stood the winter in the open air in some situations, and by raising from the seed for several generations might probably be naturalized. A plant stood near a century against the wall of the garden of Camden House, Kensington; it produced many flowers annually, though the young shoots were frequently killed to the stump during winter.

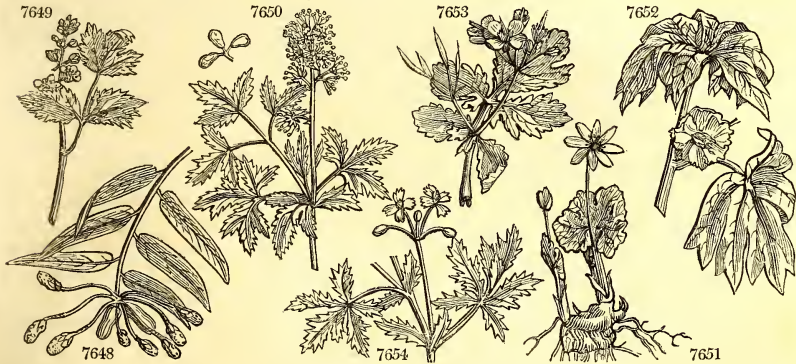
As a pickle, the flower buds of the caper are in great esteem throughout Europe. In Italy, the unripe fruit is prepared in the same way as the flower buds; both are highly acrid and burning to the taste. In the isles of the Mediterranean, and near Toulon, the flower buds of the caper are gathered just before they begin to expand, which forms a daily occupation during six months, when the plants are in a flowering state. As the buds are gathered they are thrown into a cask among as much salt and vinegar as is sufficient to cover

1224. *Xylopia*. Cal. 3-5-lobed. Petals 6; the exterior largest. Stamens usually inserted in a globose receptacle. Berries 2-15, on short stalks, compressed, frequently dry and opening. Seeds shining.
1225. *Hepatica*. Invol. 3-leaved, 1-flowered, resembling a calyx, entire. Sepals petaloid, 6-9, arranged in 2 or 3 rows. Ovaries many. Grains without an awn.
1226. *Anemone*. Invol. 3-leaved, distant from the flower, cut. Sepals 5-15, petaloid. Petals O.
1227. *Clematis*. Invol. O, or like a calyx under the flower. Sepals 4-8, colored. Petals O, or shorter than the sepals. Grains terminating in a feathery awn.
1228. *Naravelia*. Petals 6-12, longer than calyx. Grains seated on a thick hollow stalk.
1229. *Thalictrum*. Invol. O. Petals O. Grains dry, not awned, sometimes stalked, sometimes with a longitudinal furrow.
1230. *Adonis*. Sepals 5, appressed. Petals 5-15, with a naked claw. Grains many, 1-seeded, spiked, ovate, pointed with the persistent hardened style.
1231. *Knouttonia*. Sepals 5. Petals 5-15, with a naked claw. Ovaries upon a globose receptacle. Grains 1-seeded, berried, with a deciduous style.
1232. *Picaria*. Sepals 3, deciduous. Petals 9, with a honey-pore at base. Grains obtuse.
1233. *Ranunculus*. Sepals 5, not deciduous. Petals 5, rarely 10, with a honey-scale at base. Grains pointed.
1234. *Trollius*. Sepals colored, 5-10-15, deciduous, petaloid. Capsules many, subcylindrical, many-seeded.
1235. *Isopyrum*. Sepals 5, deciduous. Petals 5, equal, tubular, 2-lipped. Ovaries 2-20. Capsules compressed, membranous, many-seeded. Seeds minute, dotted.
1236. *Eranthis*. Involucre under the flower, cut into many divisions. Sepals 5-8, colored, oblong, deciduous. Petals 6-8, tubular. Capsules stalked. Seeds globose.
1237. *Helleborus*. Sepals 5, persistent, roundish, obtuse, large, usually green. Petals 8-10, tubular, nectariferous. Stigmas orbicular. Capsules coriaceous.
1238. *Coptis*. Sepals 5-6, colored, petaloid, deciduous. Petals small, cucullate. Stamens 20-25. Caps. 6-10, on long stalks, membranous, 4-6-seeded.
1239. *Caltha*. Sepals 5, colored, round. Petals O. Stamens many. Capsule spreading, 1-celled, many-seeded.
1240. *Hydropeltis*. Sepals 3-4. Petals 3-4. Ovaries 6-18. Seeds in a pendulous ovate globose capsule.
1241. *Hydrastis*. Sepals 3, ovate. Petals O. Cariopsides berried, many in a head, terminated by the style, 1-celled, 1-2-seeded.

MONOGYNIA.

- 7638 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish obtuse smooth, Caps. oval
- 7639 Pedunc. many-fl. Leaves obl. obt. emarginate downy beneath, Cor. campanulate
- 7640 Pedunc. umbelled, Leaves clustered in parcels
- 7641 Pedunc. 1-fl. solitary, Stipules spiny, Leaves roundish ovate acute smooth, Capsules oval
- 7642 Leaves linear lanceolate dilated downwards obtuse at each end smooth, Fruit round torulose
- 7643 Pedunc. racemose, Leaves linear
- 7644 Pedunc. racemose, Leaves perennial oblong, Cal. and pedunc. downy, Fl. octandrous
- 7645 Pedunc. many-fl. terminal, Leaves elliptical blunt smooth, Glands axillary, Fruit cylindrical torulose
- 7646 Pedunc. many-fl. Leaves obl. lanceolate acute dotted with scales beneath
- 7647 Pedunc. umbelled, Leaves persistent lanceolate downy beneath, Flowers octandrous

7648 Leaves ovate-oblong acuminate veiny



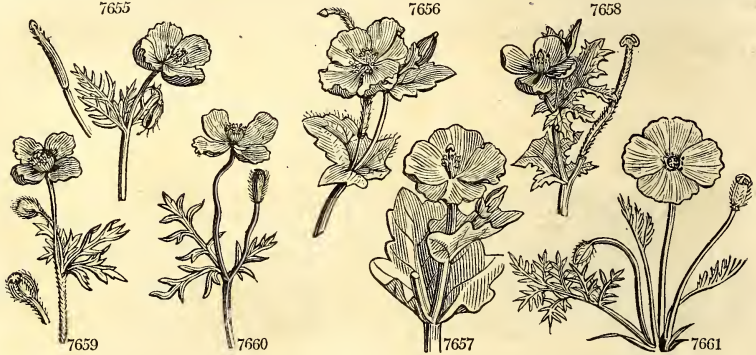
and Miscellaneous Particulars.

them, and as the supply of capers is increased more vinegar is added. When the caper season closes, the casks are emptied, and the buds sorted according to their size and color, the smallest and greenest being reckoned the best, and put into small casks of fresh vinegar for commerce. They will in this state keep fit for use for five or six years. It is said to be a common practice to put filings of copper in the first pickle to save vinegar, and give the buds a green color. The best capers are called nonpareilles, and the second best capucines. (*N. Cours complet d'Agr.*; art. *Caprier*.)

Most of the species are very showy when in flower: *C. cynophallophora* has large petals, and stamens upwards of four inches long. Ripe cuttings of all the species grow readily in sand.

1163. *Marcgraavia*. In memory of George Marcgraaf, of Leibstadt, author of a voyage to Brazil in 1648. A sub-parasitical creeping shrub: at first it is radicate like some ferns, but as it advances, the stem becomes shrubby, adhering still by its fibres to the trunk of some tree, to the top of which it frequently runs, at length dividing into several subdivided loose pendulous branches, commonly terminated by flowering umbels. It is frequent in the cool wooded mountains of Jamaica, and, according to Browne, appears in such various forms, that it has been mistaken for different plants in the different stages of its growth. It grows freely in British stoves, and cuttings root in sand under a glass. The genus is remarkable for the transformation of part of the bracteae into fistular bodies, resembling the pitchers of some other plants.

1164. <i>ACTÆA</i> . Ph.	ACTÆA.				<i>Ranunculaceæ.</i> Sp. 2.					
7649 <i>spicata</i> W. en.	Bane-berry	½ Δ or	3	ap.jn	W	Britain	m. wo.	R	s.1	Eng. bot. 918
7650 <i>americana</i> Ph.	American	½ Δ or	3	ap.jn	W	N. Amer.	...	R	p.1	Corn.canad. t.77
α <i>alba</i>	white-berried	½ Δ or	3	ap.jn	W	N. Amer.	...	R	p.1	
β <i>rubra</i>	red-berried	½ Δ or	3	ap.jn	R	N. Amer.	...	R	p.1	
1165. <i>SANGUINARIA</i> . W.	PUCCOON.				<i>Papaveraceæ.</i> Sp. 1.					
7651 <i>canadensis</i> W.	Bloodwort	¼ Δ pr	½	mr.ap	W	N. Amer.	1680.	R	s.p	Bot. mag. 162
1166. <i>PODOPHYLLUM</i> . W.	DUCK'S-FOOT.				<i>Podophyllaceæ.</i> Sp. 1-2.					
7652 <i>pentatum</i> W.	May-Apple	½ Δ cu	½	my	W	N. Amer.	1664.	D	s.p	Bot. mag. 1819
1167. <i>CHELIDONIUM</i> . W.	CELANDINE.				<i>Papaveraceæ.</i> Sp. 2-5.					
7653 <i>majus</i> W.	common	½ Δ w	2	ap.o	Y	Britain	sh.ba.	D	co	Eng. bot. 1581
7654 <i>laciniatum</i> W. en.	jagged	½ Δ or	2	ap.o	Y	S. Europe	...	D	co	Mill.ic. t. 92. f.2
1168. <i>RÖMERIA</i> . Med.	RÖMERIA				<i>Papaveraceæ.</i> Sp. 1-3.					
7655 <i>hybrida</i> Dec.	hybrid	○ or	2	my.jn	Pu	Britain	hed.	S	co	Eng. bot. t. 201
<i>Chelidonium hybridum</i> L.										
1169. <i>GLAUCIUM</i> . J.	HORN-POPPY.				<i>Papaveraceæ.</i> Sp. 3-5.					
7656 <i>luteum</i> H. K.	yellow	○ or	2	jn.o	Y	Britain	san.sh.	S	co	Eng. bot. 8
7657 <i>fölvum</i> H. K.	orange	○ or	2	au.s	Or	S. Europe	1802.	S	co	Sweet fl. gard. 35
7658 <i>phœniceum</i> H. K.	red	○ or	2	jn.jl	R	England	san. fi.	S	co	Eng. bot. 1433
1170. <i>PAPAVER</i> . W.	POPPY.				<i>Papaveraceæ.</i> Sp. 11-26.					
7659 <i>hybridum</i> W.	mongrel	○ or	1½	jn.jl	S	England	chal. fi.	S	co	Eng. bot. 43
7660 <i>Argemone</i> W.	rough	○ or	1½	jn.jl	S	Britain	corn fi.	R	co	Eng. bot. 643
7661 <i>alpinum</i> W.	Alpine	½ Δ or	¾	jn.jl	Y	Austria	1759.	S	co	Jac. aus. i. t. 83
7662 <i>nudicaule</i> W.	naked-stalked	½ Δ or	1½	ju.au	Or	Siberia	1730.	S	s.1	Bot. mag. 2344
β <i>luteum</i>	yellow-flowered	○ or	1½	jn.au	Y	Siberia	1730.	S	s.1	Bot. mag. 1633



History, Use, Propagation, Culture,

1164. *Actæa*. *Άκρη* was the Greek name of the elder, which this plant resembles in foliage and fruit. Weed-like plants seldom seen in gardens. The berries of *A. spicata* are poisonous, and with alum yield a black dye. The tubers of *A. racemosa* are called snake root, and much used in North America by self-practitioners, and as an antidote against poison and the bite of the rattlesnake.

1165. *Sanguinaria*. From *sanguis*, blood. All parts of the plant on being wounded discharge a blood-colored fluid. This is a singular and very delicate looking plant. It has a tuberous fleshy root with red fibres and a reddish juice: from each bud of the root there springs only a single fig-like glaucous leaf, with a one-flowered scape; the flower has no smell, and is very fugacious. It abounds in the woods of Canada, and in the back settlements, where the Indians stain themselves with its red juice.

1166. *Podophyllum*. From *πους* *ποδος*, a foot, and *φυλλον*, a leaf; in allusion to the long firm stalk on which the leaves are placed. Low neat herbaceous plants, with white flowers hidden by the overshadowing broad leaves.

1167. *Chelidonium*. From *χελιδων*, the swallow, because it was thought to flower with the arrival of that bird, and to perish with its departure. The English word celandine appears to be a corruption of chelidonium. The juice of *C. majus* is of an orange color and very acrimonious. It cures tetters and ringworms. Diluted with milk it consumes white opake spots on the eyes. It destroys warts, and cures the itch. There is no doubt but a medicine of such activity will one day be converted to more important purposes. (*Withering.*) The root, according to Loureiro, is extremely bitter, and greatly esteemed among the natives of Cochín-China, for a variety of uses in medicine.

1168. *Römeria*. Named after J. J. Römer, professor of botany at Landshut, and the collaborator of Schultz in an edition of the Species Plantarum of Willdenow. He died in 1820. A genus intermediate between *Chelidonium*, *Glaucium*, and *Papaver*.

1169. *Glaucium*. All the parts of the species appear covered with a glaucous bloom. Handsome sea-coast plants. *G. luteum* has large and numerous flowers, which, although of short duration, succeed one another in great abundance during most part of the summer, make a fine contrast with the sea-green dew-bespangled leaves, and are a great ornament to our sandy shores. The whole plant abounds in a yellow juice, is fetid, and of a poisonous quality, and said to occasion madness.

1170. *Papaver*. Said by De Theis to have been so called from the Celtic *papa*, which signifies *pop*, or the soft food given to children, in which the seeds were formerly boiled to make the infants sleep. Opium is derived from *opos*, juice; it is supposed to have been the Nephenthes of Homer. *Rheas*, the name of one of the species, is from *ρῆα*, to flow or fall, in allusion to the quickly perishable nature of the flowers. The poppy produces a great quantity of seeds, for which reason Cybele, the mother of the gods, is represented crowned with poppy-heads as a symbol of fecundity.

The species of this genus are all shewy, with large, brilliant, but fugacious flowers. They are all easy of culture in almost any soil; and one species affords that singular medicine opium. *P. Rheas* is one of the commonest weeds among corn on gravelly soils; but in its double and semidouble variegated varieties, it is also one of the handsomest of garden annuals. The capsules, as in *P. somniferum*, contain a milky juice of a narcotic quality: an extract from them has been successfully employed as a sedative; and some foreign practitioners are said to prefer this extract to opium.

P. somniferum, although it is found growing wild in the southern parts of Europe, and even in England, yet there is every reason for thinking that its seed must have been carried to these parts from Asia. It was very early cultivated in Greece, perhaps at first solely for the sake of its seed, which was used as food. It is extensively cultivated in most of the states of Europe in the present age, not only on account of the opium,

- 7649 Berries roundish, Petals length of stamens, Raceme ovate, Leaves 2-3 ternate
 7650 Berries ovate-oblong, Petals shorter than stamens, Raceme ovate, Leaves bi-trinervate

7651 The only species

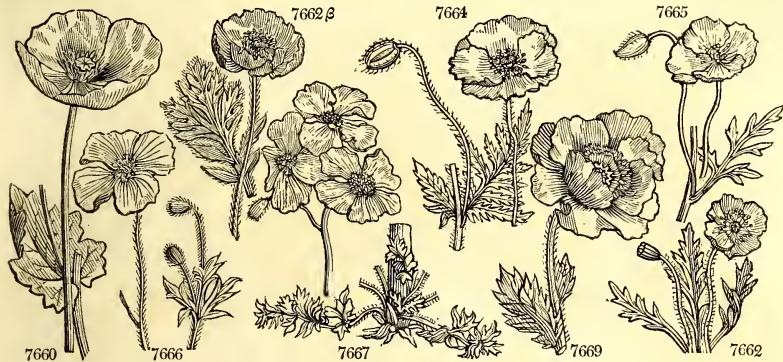
7652 Stem erect 2-leaved 1-flowered, Fruit ovate

- 7653 Peduncles umbelled, Leaves pinnated with roundish toothed lobed segments, Petals elliptical entire
 7654 Peduncles umbelled, Leaves pinnated with finely cut segments, Petals serrated or cut

7655 Pods 3-4-valved erect with rigid bristles at end

- 7656 Stem smooth, Cauline leaves repand, Pod warted roughish
 7657 Stem smooth, Cauline leaves roundish sinuated, Pods rough, Flowers subsessile
 7658 Stem hairy, Cauline leaves pinnatifid cut, Pod bristly

- 7659 Caps. subglobose torose hispid, Stem leafy many-flowered
 7660 Caps. clavate hispid, Stem leafy many-flowered
 7661 Caps. hispid, Scape 1-fl. naked hispid, Leaves bipinnate
 7662 Caps. hispid, Scape 1-fl. naked hispid, Leaves simple pinnate sinuated



and Miscellaneous Particulars.

for which it is reared in Turkey, Persia, and India, but also on account of the capsules, and of the bland oil obtained from the seeds. All the parts of the poppy contain a white, opaque, narcotic juice; but it abounds more in the capsules: hence these are the only officinal parts of the plant, and for them chiefly is the plant cultivated in this country. They are gathered as they ripen; and as this happens at different times, there are annually three or four gatherings. They are brought to market in bags, each containing about 3000 capsules, and sold to the druggists. The London market is chiefly supplied from Mitcham in Surrey.

The milky juice of the poppy, in its more perfect state, which is the case in warm climates only, is extracted by incisions made in the capsules, and inspissated; and in this state forms the opium of commerce. The mode of obtaining it appears to have been nearly the same in the time of Dioscorides as is at this day adopted. The plants, during their growth, are carefully watered and manured, the watering being more profuse as the period of flowering approaches, and until the capsules are half grown, when it is discontinued, and the collection of the opium commences. At sunset, longitudinal incisions are made upon each half-ripe capsule, passing from below upwards, and not penetrating to the internal cavity. The night dews favor the exudation of the juice, which is collected in the morning by women and children, who scrape it from off the wounds with a small iron scoop, and deposit the whole in an earthen pot, where it is worked by wooden spatules in the sunshine, until it attains a considerable degree of thickness. It is then formed by the hand into cakes, which are laid in earthen basins to be further exsiccated, when it is covered over with poppy or tobacco leaves. Such is the mode followed in India, and according to Kamper's account, nearly the same is practised in Persia; and when the juice is drawn in a similar manner in this country and inspissated, it has all the characters of pure opium.

Opium is brought to this country in chests from Turkey and India. The Turkey opium is in flat pieces, covered with leaves. East Indian opium is in round masses, covered with the petals of the poppy in successive layers, to the thickness nearly of one-fourth of an inch. Mr. Kerr relates, that at Balar, it is frequently adulterated with cow-dung, the extract of the poppy procured by boiling, and various other substances. In Malava it is mixed with oil of sesamum, which is often one half of the mass; ashes and the dried leaves of the plant are also used. It is also adulterated with the aqueous extract of the capsules, the extracts of *Chelidonium glaucum*, *Lactuca virosa*, and *Glycyrrhiza glabra*, and sometimes with gum arabic, tragacanth, aloes, and many other articles.

Poppy heads or capsules possess anodyne properties; they are chiefly employed, boiled in water, as fomentations to inflamed and ulcerated surfaces; and a syrup, prepared with the inspissated decoction, is used as an anodyne for children, and to allay the tickling cough in chronic catarrh and phthisis.

Opium operates as a powerful and very diffusible stimulus, but its primary operation is followed by narcotic and sedative effects in a degree much greater than could be expected from the previous excitement it induces. It acts directly on the nervous system, and when taken into the stomach destroys irritability, and allays pain in the most distant parts of the body, independent of the circulation, and without inducing any change on the composition of the blood. As the principle, therefore, on which opium acts is the same over all the body, the topical application of it is capable of producing similar effects, only in a diminished degree, to those resulting from it when it is taken into the stomach.

In moderate doses, opium increases the fulness, the force, and the frequency of the pulse, augments the heat of the body, quickens respiration, and invigorates both the corporeal and mental functions, exhilarating even to intoxication; but by degrees these effects are succeeded by languour, lassitude, and sleep; and in many instances headach, sickness, thirst, tremors, and other symptoms of debility such as follow the excessive use

7663 armeniácum Lam.	Armenian	○ or	1½ jn.s	Y	Armenia	1815.	S	s.p	
7664 Rhoëas W.	common-corn	○ or	2 jn.jl	Sc	Britain	corn fl.	S	co	Eng. bot. 645
7665 dúbias W.	smooth	○ or	2 jn.jl	Sc	Britain	san. fl.	S	co	Eng. bot. 644
7666 caucásicum M. B.	Caucasian	○ or	1½ jn.jl	Y	Caucasus	1813.	S	co	Bot. mag. 1675
7667 floribúndum Desf.	many-flowered	↘ ○ or	1½ jn.jl	Sc	Levant	1815.	S	co	Bot. reg. 134
7668 somníferum W.	garden	○ m	4 jl.au	W	England	corn fl.	R	co	Eng. bot. 2145
7669 orientále W.	oriental	↘ △ or	3 my.jn	R	Levant	1714.	R	co	Bot. mag. 57
7670 bractéatum Lindl.	bracted	↘ △ or	3 my.jn	R	Siberia	1818.	R	co	Lindl. coll. 23
1171. MECONOP'SIS. <i>Fig.</i> MECONOPSIS.									
7671 cámbrica <i>Fig.</i>	Welsh	↘ △ or	1 my.au	Y	England	al.roc.	R	s.p	Eng. bot. 66
1172. ARGEMONE. <i>W.</i> ARGEMONE.									
7672 mexicána W.	Mexican	○ or	2 jl.au	Y	Mexico	1592.	S	s.p	Bot. mag. 243
β albiflóra Sims.	white-flowered	○ or	2 jl.au	W	Mexico	1821.	S	s.p	Bot. mag. 2342
1173. SARRACE'NIA. <i>W.</i> SIDE-SADDLE-FLOWER.									
7673 fláva W.	yellow	≡ △ cu	2 jn.jl	Y	N. Amer.	1752.	R	m.s	Bot. mag. 780
7674 varioláris Ph.	hook-leaved	≡ △ cu	1 jn.jl	Y	N. Amer.	1803.	R	m.s	Bot. mag. 1710
adúnea Ex. bot. t. 53									
7675 róbra W.	red	≡ △ cu	1 jn.jl	Pu	N. Amer.	1786.	R	m.s	Hook. ex. fl. 13
psittac'na Ph.									
7676 purpúrea W.	purple	≡ △ cu	1 jn.jl	Pu	N. Amer.	1740.	R	m.s	Bot. mag. 849
1174. NYMPHÆA. <i>W.</i> WATER-LILY.									
7677 álba W.	white	≡ △ or	jn.jl	W	Britain	riv., &c.	R	m.s	Eng. bot. 160
7678 odoráta W.	sweet-scented	≡ △ or	jl	W	N. Amer.	1786.	R	m.s	Bot. mag. 819
β minor	small. sweet-sc.	≡ △ or	jl	W	N. Amer.	1812.	R	m.s	Bot. mag. 1652
7679 nitída B. M.	cup-flowered	≡ △ or	jl.au	W	Siberia	1809.	R	m.s	Bot. mag. 1359
7680 pygmæa H. K.	pigmy	≡ △ or	my.s	W	China	1805.	R	m.s	Bot. mag. 1525
7681 Lotus W.	Egyptian Lotus	≡ △ or	jn.s	Pk	Egypt	1802.	R	m.s	Bot. mag. 797
7682 pubéscens W.	Indian Lotus	≡ △ or	my.au	Pk	E. Indies	1803.	R	m.s	Bot. rep. 391
7683 róbra B. M.	red-flowered	≡ △ or	jl.au	R	E. Indies	1803.	R	m.s	Bot. mag. 1280
β rósea B. M.	rose-colored	≡ △ or	jl.au	Pk	E. Indies	1803.	R	m.s	Bot. mag. 1364



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of ardent spirits, supervene. In very large doses the primary excitement is scarcely apparent, but the pulse seems to be at once diminished, drowsiness and stupor immediately come on, and are followed by delirium, sighing, deep and stertorous breathing, cold sweats, convulsions, apoplexy, and death. The appearances on dissection are those which indicate the previous existence of violent inflammation of the stomach and bowels; but notwithstanding the symptoms of apoplexy which an overdose, when it proves fatal, occasions, no particular appearance of an inflammatory state or fullness of the vessels of the brain are perceived.

The Turks call opium *afioni*; and in the *teriakhana*, or opium shops of Constantinople, they take it in graduated doses from ten grains to one hundred grains in a day. It is mixed with rich syrup and the inspissated juices of fruit, to render it more palatable and less intoxicating; and is taken with a spoon, or made up into small lozenges stamped with the words, Mash Allah, literally, "The work of God." The Tartar couriers, who travel great distances, and with astonishing rapidity, take nothing else to support them during their journeys. (*Dallaway's Constantinople*, quarto, 78.) There is, however, some reason for supposing that the Mash Allah, or Maslach of the Turks, contains other narcotics, as those of hemp and of lolium, as well as opium.

The use of opium for the purpose of exhilarating the spirits has long been known in Turkey, Syria, and China; and of late years it has been unfortunately adopted by many, particularly females, in this country. Russell says, that in Syria, when combined with spices and aromatics, he has known it taken to the amount of three drachms in twenty-four hours. Its habitual use cannot be too much reprobated. It impairs the digestive organs, consequently the vigour of the whole body, and destroys also gradually the mental energies. The effects of opium on those addicted to its use, says Russell, are at first obstinate costiveness, succeeded by diarrhoea and flatulence, with the loss of appetite and a sottish appearance. The memories of those who take it soon fail, they become prematurely old, and then sink into the grave, objects of scorn and pity. Mustapha Shatoor, an opium eater in Smyrna, took daily three drachms of crude opium. The visible effects at the time, were the sparkling of his eyes, and great exhilaration of spirits. He found the desire of increasing his dose growing upon him. He seemed twenty years older than he really was; his complexion was very sallow, his legs small, his gums eaten away, and the teeth laid bare to the sockets. He could not rise without first swallowing half a drachm of opium. (*Phil. Trans.* xix. 289.)

When opium has been taken in an overdose, the first thing to be done for counteracting its bad effect, is the exhibition of a powerful emetic; and for this purpose sulphate of zinc, or sulphate of copper dissolved in water, should be immediately swallowed, and the vomiting kept up for a considerable time, and urged by irritation of the fauces. Large draughts of vinegar and water, or other acidulated fluids, should afterwards be frequently taken; and the powers of the habit supported by brandy, coffee, and cordials. The sufferer should be kept awake, and, if possible, in continued gentle motion. Currie recommends the affusion of warm water at 106 degrees or 108 degrees for removing the drowsiness. (*London Dispensatory*, 426.)

Medical men have of late sought to discover the sedative principle of opium, and have found it in the extractive, from which a crystallized salt called morphia is obtained. Some foreign physicians, and Mr.

- 7663 Caps. ellipt. obl. and calyxes smooth, Stem much branch. smoothish, Lvs. pinnated, Lobes lin. terminated
 7664 Caps. smooth globose, Stem hairy many-fl. Leaves pinnatifid cut [by a bristle
 7665 Caps. oblong smooth, Stem many-fl. with appressed bristles, Leaves pinnatifid cut
 7666 Caps. ov.-obl. smooth, Stem much branched and pedunc. covered with decid. setae, Lvs. glauc. pinnatifid
 7667 Caps. smooth obl. Sepals hairy, Stem many-fl. hispid, Leaves pilose: the lower pinnate
 7668 Calyxes and caps. smooth, Leaves stem-clasping cut
 7669 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate
 7670 Caps. smooth, Stems 1-fl. rough, Leaves scabrous pinnate serrate, Flowers subtended by leafy bractes

7671 Caps. smooth obl. Stem many-fl. smooth, Leaves pinnate cut

7672 Caps. 6-valved, Leaves spiny

7673 Leaves erect tubular, Valve with a contracted neck, at the end flat erect

7674 Leaves long, their tube dotted at back, Appendage short vaulted incurved

7675 Lvs. short colored upwards with netted veins, Tube of leaf ending in a recurv. vaulted mucron. appendix

7676 Leaves cucullate ventricose spreading arcuate

7677 Leaves cordate entire, Lobes imbricated round, Calyx 4-leaved

7678 Leaves cordate entire emarginate, Lobes divaricating, Point obtuse, Calyx 4-leaved

7679 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 12-20

7680 Leaves cordate entire, Lateral nerves beneath level, Petioles smooth, Pet. acute, Rays of stigma 8

7681 Leaves cordate toothed very smooth, Lobes approximating, Calyx 4-leaved

7682 Leaves reniform toothed downy beneath, Lobes round, Calyx 4-leaved

7683 Leaves peltate finely toothed, beneath downy without spots



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Thomson, the author of *The London Dispensatory*, have found that a quarter of a grain of the acetate of morphia produces the most beneficial effects that can be expected from an anodyne, allaying pain, and procuring sleep without in any degree affecting the central functions. (*London Dispensatory*, 420.)

A variety of *P. somniferum*, known as the black poppy, from the color of its seeds, is cultivated for these to some extent; they are called maw seed, and generally stained of a light blue color.

P. Rhœas (*willotte*, Fr.) and also *somniferum* are cultivated in Flanders and Germany for their seeds, which are bruised for an oil used in cookery as a substitute for that of olives. In Poland and some parts of Russia, the seeds are used as a seasoning to soups, gruels, and porridge.

Professor Martyn, in his edition of *Miller's Dictionary*, has collected a body of facts, which clearly prove that opium may be produced to any extent in Britain, and of equal quality to that procured from abroad; the value of labor in this country, however, does not admit of such a thing. We have seen samples of opium made in the south of England quite equal to that of foreign growth, but we understood that the labor of collecting it was greater than could be afforded for its market price.

P. cambricum is admired for its yellow petals, and orientale and bracteatum are very splendid plants.

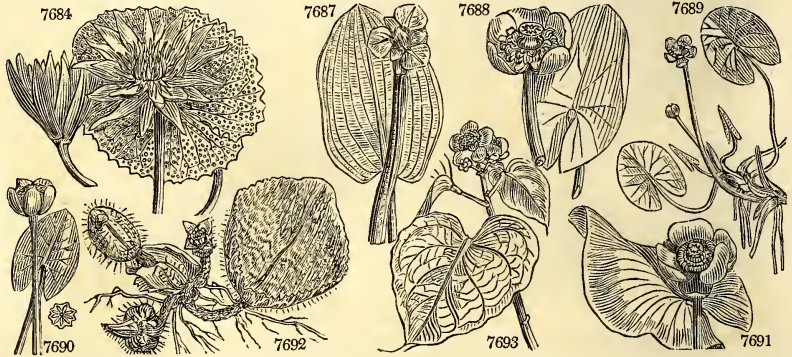
1171. *Meconopsis*. From *μικρον*, a poppy, and *opsis*, resemblance. A genus of herbaceous shade-loving plants, just intermediate between *Papaver* and *Argemone*. The flowers are yellow.

1172. *Argemone*. From *argema*, the name by which the cataract of the eye was known, and which was thought to be cured by this plant. *A. mexicana* is a troublesome weed in the West Indies, with a fig-like fruit, armed with prickles, and thence, by the Spaniards, called *Figo del inferno*. The whole plant abounds with a milky glutinous juice, which turns in the air to a fine bright yellow, and when reduced to consistence is not distinguishable from gamboge. In very small doses it is probably of equal efficacy, given in dropsies, jaundice, and cutaneous eruptions. It is esteemed very detersive, and generally used in diseases of the eyes; but the infusion is looked upon as a sudorific and resolutive, which may be used with success on many occasions. The seeds are said to be a much stronger narcotic than opium.

1173. *Sarracenia*. So named by Tournefort in honor of Dr. Sarrazin, a French physician of rank residing in Quebec, who sent this genus to him from Canada: it is called side-saddle flower from the resemblance of the stigma to a woman's pillion. These plants are remarkable for the singular form of the leaves, which are tubular and hold water, and some species have lids or covers, which it is alleged shrink and close over the mouth of the tube in dry weather, so as to prevent the exhalation of the water. In great drought birds and other animals resort to them. They grow in bogs in Carolina and Virginia, and in British gardens thrive very well in pots with turfy peat at the bottom, and the upper part filled with sphagnum, or water-moss, in which the plants must be set, and then placed in pans of water; they succeed best in frames in a shady situation. (*Bot. Cult.* 417.)

1174. *Nymphaea*. The *Nymph*, or Naiad of the streams. The species are beautiful aquatics, especially *N. alba*, which has a large flower filled with petals, so as almost to appear double: it raises itself out of the water and expands about seven o'clock in the morning, and closes again, reposing upon the surface, about

7684	versicolor H. K.	changeable	≡	△	or	au	Pk	E. Indies	1807.	R	m.s	Bot. mag.	1189	
7685	carulea H. K.	blue	≡	△	or	jn.s	B	C. G. H.	1792.	R	m.s	Bot. mag.	552	
7686	stellata W.	star-flowered	≡	△	or	jn.s	B	E. Indies	1803.	R	m.s	Bot. rep.	330	
1175.	LIMNOCHARIS. Rich.	LIMNOCHARIS.												
7687	Plumieri Rich.	Plumier's	≡	△	or	1 1/2 jn	Y	Brazil	1822.	S	m.s	Bot. mag.	2525	
1176.	NUPHAR. H. K.	NUPHAR.												
7688	lutea H. K.	common-yellow	≡	△	or	jn.jl	Y	Brit. pools,&c.	R	m.s	Eng. bot.	159		
7689	Kalmiana H. K.	Canadian	≡	△	or	jl.au	Y	Canada	1807.	R	m.s	Bot. mag.	1243	
7690	minima E. B.	least yellow	≡	△	or	jl.au	Y	Scotland al.lak.	R	m.s	Eng. bot.	2292		
7691	advena H. K.	three-colored	≡	△	or	jl.au	Y	N. Amer.	1772.	R	m.s	Bot. mag.	684	
1177.	EURYALE. H. K.	EURYALE.												
7692	ferox H. K.	prickly	≡	△	or	jl.s	R	India	1809.	R	m.s	Bot. mag.	1447	
1178.	BIXA. W.	ARNOTTA.												
7693	Orellana W.	heart-leaved	♀	□	m	20	my.au	Pk	W. Indies	1690.	S	s.p	Bot. mag.	1456
1179.	PROCKIA. L.	PROCKIA.												
7694	Crucis L.	ovate	≡	□	cu	3	jl.au	Y	W. Indies	1822.	C	s.p	Vah.symb.3.t.64	
1180.	SLO'ANEA. W.	SLOANEA.												
7695	dentata W.	Chestnut-leaf'd	♀	□	tm	40	...	W	S. Amer.	1752.	S	p.l	Plum. ic.	244
1181.	APEI'BA. W.	APEIBA.												
7696	Tiburbou W.	hairy	♀	□	or	7	...	Y	S. Amer.	1756.	C	p.l	Aub. gui.1. t.213	
7697	Petoumo W.	hoary	♀	□	tm	40	...	Y	S. Amer.	1817.	C	p.l	Aub. gui.1. t.215	
7698	aspera W.	prickly-capsul'd	♀	□	tm	30	...	Y	Cayenne	1792.	C	p.l	Aub. gui.1. t.216	
7699	le'vis W.	smooth-leaved	♀	□	or	30	...	G	Cayenne	1817.	C	p.l	Aub. gui.1. t.214	
1182.	SPARRMAN'NIA. W.	SPARRMANNIA.												
7700	africana W.	African	♀	□	or	10	mr.jl	W	C. G. H.	1790.	C	p.l	Bot. mag.	516
1183.	ENTELE'A. R. Br.	ENTELEA.												
7701	arborescens R. Br.	arborescent	♀	□	or	20	my	W	N. Zeal.	1820.	C	p.l	Bot. mag.	2480
1184.	MUNTIN'GIA. W.	MUNTINGIA.												
7702	Calabura W.	Jamaica	♀	□	cu	3	jn.jl	W	Jamaica	1690.	C	p.l	Jac. amer. t. 107	



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four in the afternoon. The roots have an astringent bitter taste; they are used in Ireland, in the Highlands of Scotland, in the island of Jura, &c. to dye a dark brown or chestnut color. Swine are said to eat it, goats not to be fond of it, kine and horses to refuse it. The flowers, the herb, and the root were formerly used in medicine, but are all now obsolete.

N. lotus resembles our common white species very much in the form of the flower and leaves, but the latter are toothed about the edge. It is native of the hot parts of the East Indies, Africa, and America. It is very common in ponds, lakes, and rivers in Jamaica; and grows in vast quantities in the plains of Lower Egypt near Cairo, during the time they are under water. It flowers there about the middle of September, and ripens towards the end of October. The Arabians call it Nuphar. The ancient Egyptians made a bread of the seed of the Lotus dried and ground.

All the species grow well in large pots of water with a few inches of rich soil at the bottom: they are propagated by dividing the root, and some sorts which produce bulbs are increased by offsets from these. Mr. Kent, of Clapton, who cultivated exotic aquatics to great perfection, found that the bulbous rooted Nymphaeas, if checked in their growth for want of water, from cold, or excessive heat, were apt to form bulbs at the roots and cease growing for the season. Hence the necessity of a regular and powerful moist heat to make them flower freely.

1175. *Limnocharis*. From *λῆμος*, a marsh, and *χαεῖς*, dear, so called because the species are marsh plants. They have beautiful umbels of yellow flowers, and are very easily cultivated in a stove. They are increased by seeds.

1176. *Nuphar*. The Arabic name is *naufar*, according to Forskahl. The species are showy plants closely resembling *Nymphaea*. *N. lutea* is a native of most parts of Europe, and also of America. Linnaeus states, that swine are fond both of the leaves and root; that goats are not fond of it; and that kine, sheep, and horses refuse it: also that crickets are driven out of houses by the smoke in burning it, and that both they and cock-roaches are destroyed by the roots rubbed or bruised with milk. Ray observes, that the flowers smell like brandy.

1177. *Euryale*. From *ευρυαλος*, broad, in allusion to the enormous broad floating leaves of the plant. A noble aquatic, easily cultivated in a good stove.

1178. *Bixa*. The American name of the tree. The drug called Terra Orellana, or Orleansa, Roucon or Arnotto, is prepared from the red pulp which covers the seeds of this plant. By maceration in hot water, the seeds are separated from the pulp, the latter is then made into balls or cakes, which when dry are fit for use. Arnotto of a good quality is of the color of fire, bright within, soft to the touch, and dissolves entirely in water. It is reputed to be cooling and cordial, and is much used by the Spaniards in their chocolate and soups, both to heighten the flavor and to give them an agreeable color. It is esteemed good in bloody fluxes

7684 Leaves peltate at the edge and within the fissure sinuate toothed blistered smooth on each side [end
 7685 Leaves peltate nearly entire not dotted smooth on each side 2-lobed at base, Anthers with appendages at
 7686 Leaves cordate entire, Lobes divaricating acute, Calyx acute 4-leaved longer than the acute petals

7687 Leaves oblong very blunt at each end, Flowers in umbels

7688 Leaves cordate entire, Lobes approximating, Cal. 5-leaved longer than petals

7689 Sepals 5, Stigma cut with 8-10 rays, Leaves cordate a little out of the water, Petioles roundish

7890 Sepals 5, Stigma lobed with 10 rays, Lvs. obl. cord. dott. sub-pubesc. Petioles at base $\frac{1}{2}$ round, at end nearly

7691 Leaves cordate entire half erect, Lobes divaricating, Cal. 6-leaved longer than petals [3-cornered

7692 Petioles and calyxes covered over with stiff prickles, Leaves sometimes 3 feet across

7693 Leaves smooth on each side

7694 Leaves cordate ovate toothed, Peduncles terminal racemose

7695 Leaves ovate, Stipules cordate triangular serrated

7696 Leaves cordate lanceol. serrate hirsute beneath, Capsules bristly

7697 Leaves obl. subcordate serrulate hoary beneath, Caps. bristly

7698 Leaves obl. subcordate entire pubescent beneath, Caps. muricated

7699 Leaves obl. obovate acuminate entire smooth, Petals obtuse, Caps. scabrous

7700 The only species

7701 The only species

7702 Leaves serrated oblong oblique



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and disorders of the kidneys. Mixed with lemon-juice and a gum, it makes the crimson paint with which the Indians adorn their persons. It was formerly used by dyers to form the color called aurora; but at present it is not held in much estimation as a dye, though it still maintains its ground with painters. Arnotto is well known to be the drug which is used for dyeing cheese in Gloucestershire, under the name of cheese-coloring. It is used in Holland for coloring their butter. The bark makes good ropes for the common plantation uses in the West Indies; and pieces of the wood are used by the Indians to procure fire by friction.

1179. *Prockia*. A name of unknown meaning. American or Isle of France plants with alternate entire or toothed leaves, and yellow flowers, which are occasionally unisexual.

1180. *Sloanea*. Named by Plumier, in memory of the famous Sir Hans Sloane, Bart., physician to the king, and president to the Royal Society; author of the Natural History of Jamaica, and founder of Chelsea garden and hospital. The leaves are like those of the chesnut; the flowers very large, and the fruit as big as a tennis ball, armed all over with strong spines, and divided regularly into four cells, each containing one small chesnut. It grows freely in our stoves, and ripened cuttings root in sand under a hand-glass.

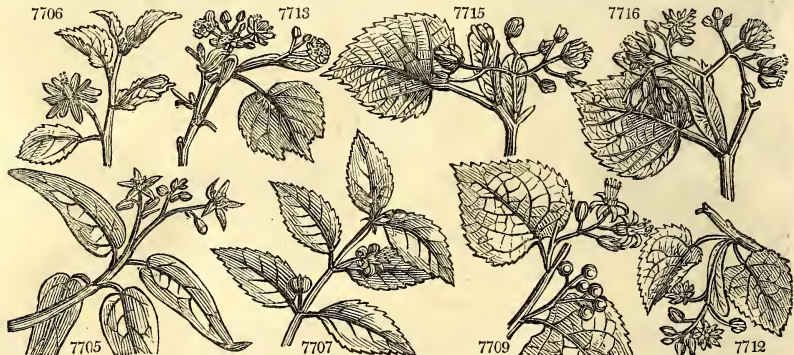
1181. *Apeiba*. The vernacular name of the plant in Guiana. Tibourbou and Petoumo are vernacular names among the Caribs. The species grow freely in light loamy soil. Cuttings must be well ripened, and the glass they are put under should have a little air given it occasionally, or they will damp off. The best way of flowering it, is to cut a ring round the bark of a large branch, which stagnates it and throws it into flower. (*Bot. Cult.* 20.)

1182. *Sparmannia*. In memory of Anders or Andrew Sparman, a Swede, fellow of the Academy of Sciences at Stockholm, who travelled into China, the Cape of Good Hope, and the islands of the South Sea. His travels were published in London, 1785, quarto, and there are many descriptions by him in the Philosophical and other transactions. It is a beautiful shrub with snowy white petals, and singular nectaries. It grows freely in loam and peat, and cuttings root in sand under a hand-glass.

1183. *Entelea*. From $\epsilon\nu\tau\epsilon\lambda\eta\varsigma$, perfect. So named by Mr. Brown, because all its filaments are fertile; by which character, among others, it is distinguished from *Sparmannia*. A fine New Zealand plant, discovered originally by the botanists with Sir Joseph Banks in Cook's second voyage.

1184. *Muntingia*. Named by Plumier, after Abraham Munting, professor of botany at Groeningen, died in 1682. *Calabura* is an American name. The flowers resemble those of the bramble, and the fruit cherries. It grows in Jamaica on calcareous subalpine hills, flowering in spring; and in St. Domingo in the wet parts of woods, flowering in August and September. In our stoves it grows freely in light loam, and cuttings root in sand under a hand-glass.

1185. GREWIA. <i>W.</i>	GREWIA.	♂	□	or	10	...	Pu	E. Indies	1816.	C	p.l	
7703 <i>hirsuta W.</i>	soft-leaved	♂	□	or	10	...	Pa.pa	E. Indies	1792.	C	c.p	
7704 <i>Mallacocca W.</i>	rough-fruited	♂	□	or	7	...	G	E. Indies	1779.	C	c.p	Rhec. mal. 1. t. 56
7705 <i>Microcos H. K.</i>	panicled	♂	□	or	10	...	Pu	C. G. H.	1690.	C	p.l	Bot. mag. 422
7706 <i>occidentalis W.</i>	Elm-leaved	♂	□	or	10	...	Pu	E. Indies	1767.	C	p.l	Rhec. mal. 5. t. 46
7707 <i>orientalis W.</i>	oriental	♂	□	or	10	...	...	E. Indies	1804.	C	p.l	
7708 <i>pilosa P. S.</i>	pilose	♂	□	or	12	...	Pu	E. Indies	1792.	C	p.l	Sonn. it. 2. t. 138
7709 <i>asiatica W.</i>	Asiatic	♂	□	or	12	...	...	E. Indies	1812.	C	p.l	
7710 <i>tiliaefolia W.</i>	Lime-tree-leav.	♂	□	or	12	...	...	E. Indies	1812.	C	p.l	
1186. TYLIA. <i>W.</i>	LIME-TREE.	♂	□	or	12	...	...	E. Indies	1812.	C	p.l	
7711 <i>rubra Dec.</i>	common	♂	tm	50	jn.au	Y.g	Britain	woods.	L	co		
7712 <i>intermedia Hayne.</i>	intermediate	♂	tm	50	jn.au	Y.g	Britain	woods.	L	co		Fl. dan. 533
7713 <i>parvifolia Ehr.</i>	small-leaved	♂	tm	50	au.s	Y.g	Britain	woods.	L	co		Eng. bot. 1705
7714 <i>platyphylla Scop.</i>	broad-leaved	♂	tm	50	au.s	Y.g	Britain	woods.	L	co		Vent. diss. t. 1. f. 2
7715 <i>americana W.</i>	broad-leaved	♂	tm	30	jn.jl	Y.g	N. Amer.	1752.	L	co		Dend. brit. 134
	<i>T. glabra Vent.</i>											
7716 <i>pubescens W.</i>	pubescent	♂	tm	20	jl.au	Y.g	N. Amer.	1726.	L	co		Dend. brit. 135
	<i>β leptophylla Vent.</i>											
7717 <i>alba W. & K.</i>	thin-leaved	♂	tm	20	jl.au	Y.g	N. Amer.	...	L	co		
	<i>T. argentea Dec.</i>											
7718 <i>heterophylla Vent.</i>	various-leaved	♂	tm	30	jn.au	Y.g	N. Amer.	1811.	L	co		Vent. diss. t. 5
1187. COR'CHORUS. <i>W.</i>	CORCHORUS.	♂	□	or	10	...	...	...	...	...	...
7719 <i>olitarius W.</i>	bristly-leaved	♂	w	2	jn.au	Y	India	1640.	S	co		Camer. hort. t. 12
7720 <i>trilocularis W.</i>	three-celled	♂	w	1	jl.au	Y	Arabia	1790.	S	co		Jac. vind. 2. t. 173
7721 <i>æstuans W.</i>	Hornbeam-lvd.	♂	w	2	jn.jl	Y	S. Amer.	1731.	S	co		Jac. vind. 1. t. 85
7722 <i>acutangulus W.</i>	acute-angled	♂	w	3	jn.jl	Y	E. Indies	1816.	C	co		Plu. phyt. t. 4. f. 1
7723 <i>capsularis W.</i>	heart-leaved	♂	w	1 1/2	jn.jl	Y	E. Indies	1725.	C	lp		Ru. ann. 5. t. 78. f. 1
7724 <i>hirsutus W.</i>	woolly-capsul'd	♂	w	1 1/2	jn.jl	Y	S. Amer.	1752.	S	p.l		Jac. vind. 3. t. 57
7725 <i>siliquosus W.</i>	Germander-lv.	♂	un	3	jn.au	R	W. Indies	1732.	C	lp		Jac. vind. 3. t. 59
1188. GRIVAS. <i>W.</i>	ANCHOVY-PEAR.	♂	□	or	10	...	...	...	...	...	...
7726 <i>cauliflora W.</i>	stem-flowering	♂	fr	50	...	...	W	Jamaica	1768.	C	lm	Sl. hi. 2. L. 217. f. 1, 2
1189. CALOPHYLLUM. <i>W.</i>	CALOPHYLLUM.	♂	□	or	10	...	...	...	...	...	...
7727 <i>Inophyllum W.</i>	sweet-scented	♂	tm	90	...	...	W	E. Indies	1793.	C	s.l	Rhec. mal. 4. t. 38
7728 <i>Calaba W.</i>	Calaba-tree	♂	tm	30	...	...	W	India	1780.	C	s.l	Jac. amer. t. 165
1190. MAMME'A. <i>W.</i>	MAMMEE-TREE.	♂	□	or	10	...	...	...	...	...	...
7729 <i>americana W.</i>	American	♂	fr	60	...	...	W	S. Amer.	1737.	C	s.l	Ja. am. t. 182. f. 82



History, Use, Propagation, Culture.

1185. *Grewia*. So named by Linnæus, in honor of Nehemiah Grew, M. D, F. R. S., famous for his work on the Anatomy of Vegetables. The species are shrubs with elm-looking leaves, generally deciduous, and of no great beauty. Cuttings root in sand under a hand-glass in heat. Some of the kinds produce a sort of berry which is esteemed by the natives of the country where they grow.

1186. *Tilia*. A name the meaning of which is unexplained. *Tilleul*, Fr., *Linden*, Ger., and *Tiglio*, Ital. The species are graceful trees with highly odoriferous flowers, all the soft parts abounding in mucilage.

T. intermedia is wild in Sweden, and will in some degree bear the smoke of London. It is a favorite avenue tree in Holland and Germany, and at Evelyn's suggestions (*Sylva*) was a good deal employed in this way in England. He describes some enormous lime trees in Switzerland, Germany, and Hungary, and speaks of its esteem in these countries, and by the Romans. "It is a shameful negligence," he says, "that we are no better provided of nurseries, for a tree so choice and universally acceptable;" for in his time they sent into Holland and Flanders, to our excessive cost, whilst our own woods spontaneously produce them, and though of somewhat a smaller leaf, yet altogether as good, apt to be civilized, and made more florid.

Lime-tree wood is turned into light bowls and dishes, and into boxes for the apothecaries. With the twigs they make baskets and cradles. Formerly the bark was used for writing tablets. Shoemakers make dressers of the plank to cut leather on. The truncheons make a far better coal for gunpowder than that of alder itself, and also scribbles for painters' first draughts. The wood is soft, light, and smooth, close grained, and not subject to the worm. The most elegant use to which it is applied is for carving. Many of Gibbon's beautiful works in lime-tree are dispersed about the kingdom in our churches and palaces; as in the choir of St. Paul's, the Duke of Devonshire's at Chatsworth, Trinity College Library at Cambridge, &c. Evelyn first recommended him to King Charles II. The sap inspissated affords a quantity of sugar. Butcher remarks, that the timber is stronger and lighter than any sort of willow; and makes a proper lining for rooms, and when painted will last long.

In Lincolnshire, in the forest of Dean, and in various parts of the borders of South Wales they make ropes of the bark. This, by maceration, separates into thin rough layers, and is used for making the mats used by gardeners, and called in the north of Europe bast. They form a considerable part of the exports from Russia. This quality in the bark, and a great degree of viscidty in the whole tree, evince its acknowledged affinity to the mallow tribe.

- 7703 Leaves lanc. ovate soft, Cal. very hairy, Pedunc. 3-flowered
 7704 Leaves cordate ovate oblong crenated scabrous, Pedic. axillary 3-flowered, Fruit of 4 pieces
 7705 Leaves ovate obl. acum. smooth nearly entire, Fl. terminal paniced
 7706 Leaves roundish ovate blunt toothed smooth, Peduncles solitary 1-flowered
 7707 Leaves ovate crenate rough on each side, Peduncles axillary 3-flowered
 7708 Leaves ovate crenate rough thickish, Pedunc. 2-6-fl. axill. and term. Fruit pilose
 7709 Leaves cordate roundish hoary beneath, Peduncles axillary about 4, longer than petiole
 7710 Leaves cordate roundish smooth on each side, Peduncles shorter than petiole

* *Petals naked.*

- 7711 Lvs. cord. uneq. at base, Petioles and suckers hairy, Axill. of veins beneath beard. Fruit globose smooth
 7712 Lvs. cord. acum. ser. smth. twice as long as stalks, Axill. of veins beard. ben. Fr. membr. obl. deform. 2-seed.
 7713 Lvs. cord. round. acum. finely serr. smth. scarcely longer than stks. Ax. of veins ben. beard. Fr. round very
 7714 Lvs. cord. round. acum. finely serr. a little downy ben. Fr. turb. woody with prominent ribs [thin & brittle

** *Petals with a scale at base.*

- 7715 Lvs. deeply cord. abruptly acum. finely serrated coriaceous smooth, Pet. trunc. at end cren. Fruit ov. ribbed
 7716 Lvs. trunc. at base subcord. oblique dent, serr. pubescent beneath, Pet. emarginate, Fruit globose smooth
 β Leaves thin deeply and rarely cut
 7717 Lvs. cord. subacum. unequal at base serrated snow-white beneath smooth above, Fruit round with 5 ribs
 7718 Lvs. ov. downy beneath, at base either cordate or obliquely or equally truncate, Fruit round with 5 ribs

- 7719 Caps. obl. ventricose, Lowest serratures of leaves setaceous
 7720 Caps. 3-celled 3-valved 3-cornered, Angles bifid scabrous, Leaves obl. Lowest serratures setaceous
 7721 Caps. obl. 3-celled 3-valved 6-furrowed 6-pointed, Leaves cordate, Lowest serratures setaceous
 7722 Caps. prismatical cuneate acutangular 3-toothed, Lvs. ovate with about 1 seta at the base, Petioles hispid
 7723 Caps. roundish depressed rugose, Lowest serratures of leaves setaceous
 7724 Caps. roundish woolly, Leaves ovate obtuse downy equally serrated
 7725 Caps. linear compressed 2-valved, Leaves lanceolate equally serrate

- 7726 Leaves 3 feet long obovate, Flowers growing out of the stem and old branches

- 7727 Leaves oval
 7728 Leaves ovate obtuse

- 7729 Leaves very blunt striated, Peduncles short, Berries 4-seeded



and *Miscellaneous Particulars.*

The honey made from the flowers of the lime tree is reckoned the finest in the world. Near Kowno in Lithuania, there are large forests chiefly of this tree, and probably a distinct variety or species. The honey produced in these forests sells at more than double the price of any other, and is used exclusively in medicine and for mixing with liqueurs. (*Encyc. of Agric. ; Poland and Hungary.*)

1187. *Corchorus*. Κορχορος, the Greek name of a culinary vegetable, supposed to be the same as that now known as *C. olitorius*. *C. olitorius* is sown in great plenty about Aleppo as a pot herb, the Jews boiling the leaves to eat with their meat, whence in French it is called *Mauve-de-Julf*. The other species are weeds.

1188. *Grias*. From γρια, to eat. The fruit is eaten in the West Indies under the name of the Anchovy pear. The uprightness of the growth and the largeness of the leaves give this tree a very elegant appearance. The fruit is about the size of an alligator's egg, and much like it in shape, only a little more acute at one end, and of a brown russet color. It is frequent in many parts of Jamaica, and grows generally in low moist bottoms or shallow water, where the fruit is pickled and eaten in the same manner with the East Indian mango, which it exactly resembles in taste. It grows in a loamy soil, and large cuttings, Sweet observes, succeed best in the same soil under a hand-glass in heat.

1189. *Calophyllum*. From καλος, beautiful, and φυλλον, a leaf, on account of its large beautifully veined leaves. *C. Inophyllum* (*is ivos*, fibre, because the middle nerve of the leaf seems to ramify into a multitude of fibres) is a very large tree, with leaves like a water lily, snow-white fragrant flowers, and fruit like a walnut. The trunk when wounded exudes a viscid yellowish juice, frequently hardening to a gum. It is common in Malabar, in sandy soils, and bears fruit twice a year, in March and September, frequently to the age of three hundred years. An oil is expressed from the nuts to burn in lamps, to assuage pains, and to make ointments. The bark and gum is also used for medical purposes. In Java, &c. they plant this tree about their houses, for the elegance of the shade and the sweetness of the flowers.

C. Calaba (the name among the Caribs) branches from the ground upwards, and is therefore well adapted for tree hedges. It has a green fruit not unlike our cornelian cherry, which is eaten by the natives, and an oil is expressed from it for lamps. Both species grow freely in a light loamy soil, and ripe cuttings are readily struck in sand under a glass and plunged in heat. (*Sweet.*)

1190. *Mammea*. An alteration of its American name, *Mamey*. The name having some resemblance to the Latin word *mamma*, a teat, Linnaeus attributed the derivation to that word, on account of the large fleshy pointed nature of its fruit. *Abricot-sauvage*, Fr. A handsome tree with a spreading elegant head, like those

1191. OCH'NA. W.	OCHNA.				<i>Ochnaceæ.</i>	Sp. 2—11.					
7730 obtusata Dec.	squarrose	■	□	or	4	fl.au	Y	E. Indies	1790.	C l.p	Roxb. cor. 1. t. 89
7731 atropurpurea Dec.	purple-flower'd	■	□	or	4	...	Pu	C. G. H.	1816.	C l.p	Plu. al. 263. f. 1, 2
1192. ELÆOCARPUS. W.	ELÆOCARPUS.										
7732 serratus W.	saw-leaved	●	□	or	20	...	W	E. Indies	1774.	C p.l	Burm. zeyl. t. 40
7733 cyaneus B. M.	blue-fruited	♂	□	or	10	jn.au	W	N. Holl.	1803.	C p.l	Bot. mag. 1737
	<i>E. reticulata</i> Smith.										
1193. ALANGIUM. J.	ALANGIUM.										
7734 decapetalum W.	Sage-leaved	♂	□	or	10	...	Pa.pu	E. Indies	1779.	C p.l	Rhee. mal. 4. t. 17
1194. MENTZELIA. W.	MENTZELIA.										
7735 aspera W.	rough	□	□	or	3	jl.au	Y	America	1733.	S co	Plum. ic. 174. f. 1
7736 oligosperma Nutt.	few-seeded	♂	△	or	2	my.jn	Y	Louisiana	1812.	D s.l	Bot. mag. 1760
1195. LAGERSTRÆMIA. W.	LAGERSTRÆMIA.										
7737 indica W.	Indian	■	□	or	6	au.o	Pu	E. Indies	1759.	C s.l	Bot. mag. 405
7738 Regina W.	oblong-leaved	■	□	or	12	...	R	E. Indies	1792.	C p.l	Roxb. cor. 1. t. 65
1196. ÆGLE. Correa.	BENGAL-QUINCE.										
7739 Marmelos H. K.	thorny	■	□	fr	6	E. Indies	1759.	C 1	Rox. cor. 2. t. 143
1197. CISTUS. J.	ROCK-ROSE.										
7740 ladaniferus W.	Gum-Cistus	■	or	4	jn.jl	W	Spain	1629.	C s.p	Bot. mag. 112	
	<i>Flat-leav.-Gum</i>	■	or	4	jn.jl	W	Spain	...	C s.p		
7741 monspeliensis W.	Montpelier	■	or	2	jn.jl	W	S. Europe	1656.	S s.p	Jacq. coll. 2. t. 8	
7742 laxus W. cn.	waved-leaved	■	or	2	jn.jl	W	Spain	1656.	S s.p		
7743 hirsutus W. cn.	hairy	■	or	2	jn.jl	W	Portugal	1656.	S s.p		
7744 villosus W.	villous	■	or	3	jn.jl	Pu	S. Europe	1640.	C p.l	Duha. arb. 1. t. 64	
7745 populifolius W.	Poplar-leaved	■	or	3	my.jn	W	Spain	1656.	C s.p	Cav. ic. 3. t. 215	
7746 Corboriensis P. S.	small Poplar-lv.	■	or	1½	my.jn	W	Spain	1656.	C s.p		
7747 undulatus Dun.	wavy	■	or	2	my.jn	Pu	.....	...	C s.p	
7748 virginatus W.	oblong-leaved	■	or	2	ap.jn	Pa.pu	Teneriffe	1779.	C p.l	Bot. reg. 225	
7749 crispus W.	curled-leaved	■	or	2	jn.jl	Pu	Portugal	1656.	S s.p	Cav. ic. 2. t. 174	
7750 salvifolius W.	Sage-leaved	■	or	2	jn.jl	W	S. Europe	1548.	S s.p	Jac. col. 2. t. 8	
7751 laurifolius W.	Laurel-leaved	■	or	4	jn.jl	W	Spain	1731.	C s.p	Clus. 1. p. 78. f. 1	
7752 heterophyllus P. S.	various-leaved	■	or	2	jn.jl	Pu	Algiers	.....	S s.p	Desf. atl. 1. t. 104
7753 incanus W.	hoary	■	or	2	jn.au	Pu	S. Europe	1596.	S s.p	Bot. mag. 43	
7754 purpureus P. S.	purple	■	or	2	my.jl	Pu	.....	...	C p.l	Bot. reg. 408
7755 creticus W.	Cretan	■	or	1½	jn.au	Pu	Levant	1731.	C p.l	Jac. ic. 1. t. 95	
7756 albidus W.	white-leaved	■	or	2	jn.jl	Pa.pu	Spain	1640.	S s.p	Park. theat. f. 1	
7757 Lédon W.	many-fl.-Gum	■	or	1	jl.au	W	France	1730.	C s.p	Duha. arb. 1. t. 66	



History, Use, Propagation, Culture.

of *Magnolia grandiflora*, and odoriferous white flowers on peduncles. The fruit is roundish, with a leathery rind, inclosing one thinner, containing a firm bright yellow pulp, having a pleasant singular taste, and a sweet aromatic smell; but the skin and seeds are very bitter and resinous. It is eaten raw alone, or cut in slices with wine or sugar, or preserved in sugar. In Martinico they distil the flowers with spirit, and make a liquor which they call Eau créole.

Some horticulturists are now attempting its culture in our stoves as a fruit tree. It grows freely in sandy loam, and ripened cuttings, with the leaves not shortened, root in sand under a hand-glass in heat. (*Sweet.*)

1191. *Ochna*. The Greek name of the wild pear tree, to which the genus so distinguished by Linnaeus has no kind of resemblance. The species are pretty free-flowering plants, with shining serrated leaves, and long racemes of beautiful yellow flowers. They grow freely in loam and peat, and cuttings root readily in sand under a hand-glass.

1192. *Elæocarpus*. From *ελαιον*, the olive, and *καρπος*, fruit, in allusion to the shape of its fruit. The stones cleaned from the pulp, and set in gold, are formed into necklaces. The species thrive in loam and peat, and cuttings root in sand under a hand-glass.

1193. *Alangium*. So denominated by Lamarck, from a slight alteration of one of its Malabar names, *Alangi*. It grows in light sandy soil, and cuttings root in sand under a hand-glass in moist heat. (*Sweet.*)

1194. *Mentzelia*. Named after Christian Mentzel, a Prussian, physician to the Elector of Brandenburg; he died in 1701. Curious plants related to *Loasa*.

1195. *Lagerstræmia*. So named by Linnaeus from Magnus Lagerstroem, of Gottenburgh, director of the Swedish East India Company, who procured many curiosities from China, and gave them to the public. *L. Regina* is a very handsome shrub: the flowers are in panicles, a span long, pale rose-colored in the morning, growing deeper through the day, and becoming purple in the evening. According to *Sweet*, this species is rather difficult to preserve through the winter; it requires a good heat, and but little water in winter; if it happens to have too much wet, it is a great chance if it survives; in summer it grows very fast, and requires plenty of room and water. Cuttings of both kinds root readily in sand, under a hand-glass. (*Bot. Cult.* 73.)

1196. *Ægle*. *Αγλη* was one of the Hesperides. *Correa de Serra* named the genus *Ægle* from the fruit having some resemblance to the orange. *Sweet* observes, that this plant likes a rich loamy soil. The wood

7730 Stigma capitate, Petals 8-10, Leaves obovate very blunt serrated

7731 Flowers solitary, Leaves ovate acutely toothed, Sepals ovate

7732 Leaves lanceolate ellipt. serrated, Racemes axillary

7733 Leaves obl. lanc. serrated netted, Racemes axillary clustered, Drupes blue

7734 Petals 10, Branches spiny

7735 Stem branched, Peduncles axillary, Petals crenate obtuse

7736 Stem branched, Peduncles axillary solitary, Petals acuminate, Fruit reflexed

7737 Petals crisp, Panicle terminal, Leaves roundish ovate acute smooth

7738 Petals wavy, Panicle terminal, Leaves oblong smooth

7739 Middle leaflet stalked, Fruit with 12 cells

7740 Leaves subsessile connate at base lin. lanc. smooth above downy beneath, Caps. 10-cc

7741 Leaves lin. lanc. sessile 3-nerved villous on each side, Pedunc. cymose 1-sided

7742 Leaves on short stalks ovate lanceolate acum. wavy at edge: the upper hairy, Cymes hirsute

7743 Lvs. sessile obl. obt. hirsute, Pedunc. short 1-fl. or cymose, Caps. small in a large hairy pyramidal calyx

7744 Leaves roundish ovate rugose tomentose hairy stalked, Pedunc. 1-fl. 1-5 together, Calyx villous

7745 Leaves stalked cordate acuminate smooth, Fl. cymose, Pedunc. with long bracts

7746 Leaves stalked cordate ovate acuminate fringed at edge rugose and a little glutinous on each side

7747 Leaves sessile linear oblong acute wavy at edge 3-nerved at base, Sepals villous with long points

7748 Lvs. lanc. acute 3-nerv. hairy reticul. beneath stalked, Stalks sheathing the stem with their connate bases

7749 Leaves sessile linear lanceolate waved crisp 3-nerved rugose pubescent, Fl. sessile umbelled

7750 Leaves stalked ovate blunt rugose downy beneath, Pedunc. long hoary 1-flowered

7751 Leaves stalked ovate lanc. 3-nerved smooth above downy beneath, Petioles dilated and united at base

7752 Lvs. ovate lanc. on short stalks sheathing at base revolute at edge, Pedunc. hirsute leafy 1-flowered

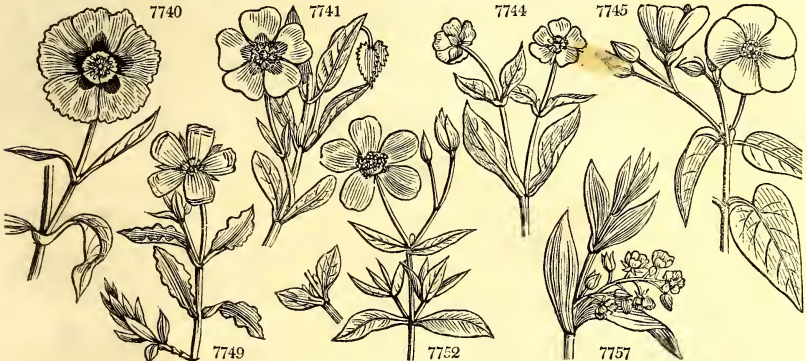
7753 Leaves spatulate toment. rugose 3-nerved sessile subconnate: the upper narrower, Pedunc. 1-flowered

7754 Leaves obl. lanc. acuminate at each end rugose, Stalks short hairy sheathing, Pedunc. short 1-2-3

7755 Leaves spatulate ovate downy hairy narrowed into a short stalk wavy at edge, Pedunc. short 1-flowered

7756 Leaves sessile obl. ellipt. hoary downy about 3-nerved, Fl. 3-8 in terminal umbels, Outer sepals largest

7757 Lvs. conn. obl. lanc. nerv. above smooth and shin. beneath silky, Fl. in corymb. cymes, Ped. and cal. vill.



and Miscellaneous Particulars.

requires to be ripened before the cuttings are taken off; then to be planted in a pot of sand without shortening the leaves, and to be plunged under a hand-glass in heat.

1197. *Cistus*. *Κιστος*, in Greek; derived from *κυστις*, a box, or capsule. The capsules of the genus are remarkable. All these words have been formed from the Anglo Saxon, *cyst*, which signifies a hollow vessel.

The species are for the most part shewy and free-flowering plants; the colors brilliant, and the petals very fugacious. In gardens they are rather difficult to keep in a neat shape, getting naked below, and often dying wholly or in part during severe winters. They succeed best in glass cases, which can be entirely removed in summer, or in a dry soil under a warm wall.

C. villosus has a strong woody stem, the flowers are produced at the ends of the branches, four or five together, almost in form of an umbel, but it rarely happens that more than one is open at the same time. The petals are large, purple, and spread open like a rose; they are but of short duration, generally falling off the same day they expand; but there is a succession of fresh flowers every day for a considerable time in May and June; generally again in September and October, if the autumn be favorable, and even in the winter if the plants be protected from frosts.

C. ledon and *ladaniferus* produce the gum ladanum, but not in such quantities as *C. creticus*. The resin, which is secreted from the leaves and other parts of the shrub, is scraped off by means of a kind of rake, to which numerous leathern thongs are appended instead of teeth. This instrument being drawn backwards and forwards over the plant from time to time, collects the resin. The chief use of this gum in modern practice is in fumigations, its fragrant smell having made it a constant ingredient in such preparations. *C. ladaniferus* is the most popular species for warm situations in ornamental scenery.

"Most of the species," Sweet observes, "will survive through the winter in the open air, if the weather be not too severe; but it is safest to keep some of all the kinds in pots, that they may be sheltered from severe frosts; and they can be turned out in the borders in spring, when they will thrive and flower well. They will succeed in any common soil, or a mixture of loam and peat will suit them very well. They may be increased by layers; or young cuttings, as soon as ripened, taken off at a joint, and planted under a hand-glass, will root readily: they may be also raised from seeds, which are produced in abundance." (*Bot. Cult.* 168.)

1198. HELIANTHEMUM. J. SUN-ROSE.		<i>Cistineæ. Sp. 48—124.</i>			
7758 Libanôtis <i>W.</i>	Rosemary-lvd.	or	1 jn	Y	Spain 1752. C p.l
7759 umbellatum <i>P. S.</i>	umbel-flower'd	or	2 jn.au	W	S. Europe 1731. C p.l
7760 scabrosum <i>P. S.</i>	rough	or	3 jn.jl	Y	Italy 1775. C p.l
7761 algarvense <i>Dun.</i>	Algarvine	or	3 jl.au	Y	Portugal 1800. C p.l
7762 formosum <i>Dun.</i>	beautiful	or	3 my.jl	Y	Portugal 1780. C p.l
7763 atriplicifolium <i>P. S.</i>	Orache-leaved	or	6 jn.jl	Y	Spain 1656. C p.l
7764 halimifolium <i>P. S.</i>	Sea-Pursl.-lvd.	or	4 jn.jl	Y	Spain 1656. C p.l
7765 canadense <i>P. S.</i>	Canadian	or	1 jn.jl	Y	N. Amer. 1799. S s.l
7766 Tuberária <i>P. S.</i>	Plantain-leav'd	or	3 jn.jl	W	S. Europe 1752. S s.p
7767 guttatum <i>P. S.</i>	spotted-flower.	or	3 jn.jl	Y	England san.pa. D s.l
7768 ledifolium <i>P. S.</i>	Ledum-leaved	or	3 jn.jl	Y	England san.pa. S s.l
7769 ægyptiacum <i>P. S.</i>	Egyptian	or	3 jn.jl	Y	Egypt 1764. C s.p
7770 salicifolium <i>P. S.</i>	Willow-leaved	or	4 jn.au	Y	S. Europe 1759. S s.l
7771 punctatum <i>P. S.</i>	punctated	or	3 jn.jl	Y	France 1816. C s.l
7772 canariense <i>P. S.</i>	Canary	or	1 jn.jl	Y	Canaries 1790. C p.l
7773 Fumana <i>P. S.</i>	Heath-leaved	or	1 jn.jl	Y	France 1752. S s.p
7774 lævipes <i>P. S.</i>	cluster-leaved	or	13 jn.au	Y	France 1690. S s.p
7775 Barrelieri <i>Tenore</i>	Barrelier's	or	1 jn.au	Y	Italy 1820. S s.p
7776 glutinosum <i>P. S.</i>	clammy	or	2 my.s	Y	S. Europe 1790. C p.l
7777 origanifolium <i>P. S.</i>	Majoram-lvd.	or	2 jn.jl	Y	Spain 1795. C s.p
7778 celandicum <i>P. S.</i>	smooth-leaved	or	2 jn.jl	Y	Germany 1816. S s.p
7779 italicum <i>P. S.</i>	Italian	or	2 jls	Y	Italy 1799. C s.p
7781 canum <i>W. en.</i>	hoary	or	3 jn.jl	Y	S. Europe 1772. C p.l
7781 marifolium <i>P. S.</i>	Marum-leaved	or	3 my.jn	Y	Britain a.loc. C s.p
7782 squamatum <i>P. S.</i>	scaly	or	2 jn.jl	Y	Spain 1815. C s.l
7783 glaucum <i>P. S.</i>	glaucous-leav'd	or	2 jn.au	Y	Spain 1815. C s.l
7784 tomentosum <i>Smith.</i>	tomentose	or	3 jl.au	Y	Scotland sc.alp. C s.l
7785 serpyllifolium <i>P. S.</i>	Wild Thyme-lv.	or	3 my.s	Y	Austria 1731. C p.l
7786 vulgare <i>P. S.</i>	common-dwarf	or	3 my.s	Y	Britain gran.ban. C s.l
	<i>β flore pleno</i>				..... C s.l
7787 nummularium <i>P. S.</i>	Money-wort-lv.	or	3 jn.au	Y	Spain 1752. C s.l
7788 surrejanum <i>P. S.</i>	double-leaved	or	3 jlo	W	England ch.hil. C s.l
7789 sampsucifolium <i>Cav.</i>	bristly-stalked	or	3 jn.jl	Y	France 1800. C p.l
7790 elongatum <i>P. S.</i>	wild-peduncul'd	or	2 jl	Y	Spain 1800. C p.l
7791 serratum <i>P. S.</i>	saw-petalled	or	3 jn.jl	Y	Spain 1804. D p.l
7792 hirtum <i>P. S.</i>	bristly-calxyed	or	1 jn.jl	Y	Spain 1759. C s.l
7793 pulverulentum <i>P. S.</i>	powdered	or	3 jn.jl	W	France C s.l
7794 aureum <i>P. S.</i>	golden	or	3 jn.au	Y	Montpelier C s.l
7795 thymifolium <i>P. S.</i>	Thyme-leaved	or	3 jn.jl	Y	Spain 1659. C s.l
7796 lavandulæfolium <i>P. S.</i>	Lavender-leav.	or	2 jn.jl	Y	Levant 1739. C s.l
7797 angustifolium <i>P. S.</i>	narrow-leaved	or	3 jn.jl	Y	..... 1800. C s.l
7798 mutabile <i>P. S.</i>	changeable	or	3 jn.jl	R.v	France 1795. C s.l
7799 polifolium <i>P. S.</i>	white-mount.	or	3 my.jl	W	England downs. C s.p
7800 appenninum <i>P. S.</i>	Apennine	or	2 jn.au	W	Italy 1731. C s.p
7801 pilosum <i>P. S.</i>	hairy	or	13 jn.au	W	S. Europe 1731. C s.l
7802 grandiflorum <i>P. S.</i>	large-flowered	or	1 jn.jl	Y	Italy 1800. C s.p
7803 roseum <i>P. S.</i>	Rose-colored	or	1 jn.au	Pk	S. Europe C s.p
7804 crœcum <i>P. S.</i>	Saffron-colored	or	3 jn.au	Y	Spain C s.l
7805 sulph'ureum <i>W. en.</i>	Sulphur-color'd	or	3 jn.jl	P.v	Spain 1815. C s.l

DIGYNIA.

1199. BAUERA. H. K.		<i>Cunoniaceæ. Sp. 1.</i>			
7806 rubrifolia <i>H. K.</i>	Madder-leaved	pr	1½ jl.d	Pk	N. S. W. 1793. C s.p

1200. FOTHERGILLIA. W. FOTHERGILLA.		<i>Hamamelideæ. Sp. 4.</i>			
7807 alnifolia <i>W.</i>	obtus-leaved	or	4 ap.jn	W	N. Amer. 1765. L s.p
7808 major <i>B. M.</i>	large-leaved	or	4 my.jn	W	N. Amer. 1765. L s.p
7809 Gardeni <i>Jac.</i>	acute-leaved	or	4 my.jn	W	N. Amer. 1765. L s.p
7810 serotina <i>B. M.</i>	green-leaved	or	4 au	W	N. Amer. 1765. L s.p



History, Use, Propagation, Culture,

1198. *Helianthemum*. From *ἥλιος*, the sun, and *ἄνθος*, flower, in allusion to the bright golden radiance of the blossoms. This is a showy free-flowering genus of little trailing plants, mostly ligneous, and well adapted for rock-work. A number of them answer best kept in pots, and sheltered by frames during winter; but some are quite hardy, and none are more ornamental than the *H. vulgare*, and its varieties with orange, yellow, straw-colored, red, and double flowers. It is one of the handsomest plants in cultivation for rock-work. All the species are of easy culture in light soil, and cuttings root freely under a hand-glass.

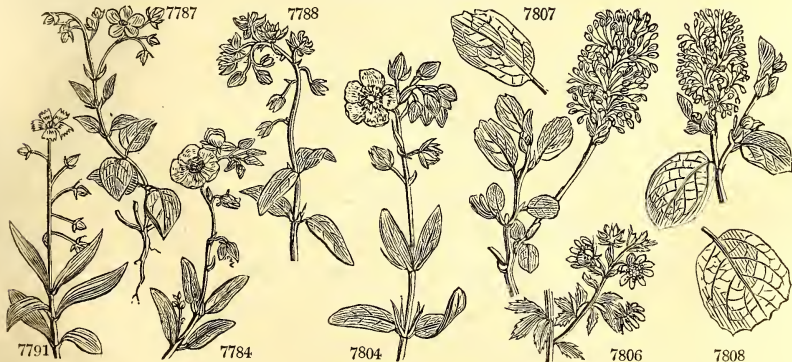
1199. *Bauera*. Named after Francis and Ferdinand Bauer, German botanical draughtsmen of the highest

- 7758 Stem nearly smooth, Lvs. sess. lin. revol. at edge brownish green above hoary beneath, Fl. sol. Sep. shining
 7759 Young shoots visc. with downy hairs, Lvs. sess. lin. obl. viscid downy beneath, Fl. in term. umb. Sep. villous
 7760 Branches hoary rough hoary, Lvs. sess. atten. at base green above ash-colored beneath, Ped. shorter than
 7761 Leaves sessile hoary ovate-lanc. Pedunc. panic. hairy, Sepals 3 acute hairy [Leaves, Cal. hairy
 7762 Branches villous, Leaves obov. lanc. hoary, Pedunc. and cal. villous, Sepals 3
 7763 Branches white with scales, Leaves broad ovate blunt wavy at base silvery on each side, Cal. hairy
 7764 Branches white with scales upwards, Lvs. stalked ovate-obl. Pedunc. long brached panicl. Sepals 5 scaly
 7765 Branches hairy, Lvs. obl. lanc. acute hairy pale beneath, Pedunc. hairy 1-fl. Capsule shorter than calyx
 7766 Stems nearly simple, Radical leaves stalked ov. obl. 3-nerved hairy, Ped. panic. few, Cal. smooth shining
 7767 Stem hairy, Leaves sess. obl. lin. 3-nerved villous, Racemes lax without bractes, Ped. filiform naked
 7768 Stem nearly smooth, Lvs. obl. ellipt. toothl. Fl. opp. with stipules, Ped. erect smooth shorter than calyx
 7769 Lvs. on short stalks lin. obl. narr. rev. at edge, Stip. lin. subulate, Pedunc. filif. pubescent, Calyx inflated
 7770 Branches hairy, Leaves obov. obl. acute toothletted, Stip. lin. obl. Pedunc. and cal. hairy
 7771 Leaves obl. 3-5-nerved rough with short stellate hairs, Racemes long pubescent cinereous few-flowered
 7772 Branches hoary, Leaves stalked opp. and alternate blunt glauc. Stipules subulate, Raceme term. erect
 7773 Stem tortuose, Leaves altern. lin. rough at edge subinvolute, Pedunc. sol. 1-fl. Caps naked
 7774 Leaves setaceous glaucous nearly smooth, Stip. filiform long, Pedunc. racemose, Calyx hairy
 7775 Branches villous, Leaves lin. obl. pubesc. Stip. lin. subul. mucron. erect, Pedunc. racemose glutinous
 7776 Branches villous glutinous, Leaves lin. vill. glut. ash-colored, Stipules long lax, Pedunc. and cal. villous
 7777 Leaves stalked ovate hairy on each side, Racemes short term. Pet. scarcely larger than calyx
 7778 Leaves lanc. ellipt. blunt green on each side, Racemes simple few-fl. Cal. subglobose ovate
 7779 Branches simple long, Leaves pilose hispid: lower ovate; upper lanc. Racemes simple hairy hoary
 7780 Leaves oblong hairy green above hoary beneath, Racemes simple, Pedic. and cal. hoary
 7781 Leaves without stipules stalked ovate cordate, Racemes simple solitary few-flowered terminal
 7782 Branches silvery with scales, Leaves stalked obl. blunt silvery with small stipules, Cal. scaly
 7783 Branches ascend. hoary, Leaves downy glaucous: the lower round; upper ellipt. Stip. and bractes green
 7784 Leaves lanc. ovate hoary beneath green above, Calyx furrowed with elevated hairy nerves
 7785 Leaves obl. ellipt. hoary beneath deep green shining above, Calyx hoary: its nerves with a few hairs
 7786 Leaves scarcely revol. at edge hoary beneath, green and hairy above: lower round; upper obl. Rac. lax
 7787 Lower leaves round: upper obl. lin. hairy green beneath, Racemes and calyxes hairy
 7788 Leaves obov. obl. somewhat hairy, Racemes few-fl. term. Pet. narrow lanceolate
 7789 Leaves ovate-obl. keeled sessile, Peduncles long branched panicled, Stipules 0
 7790 Stipules 0, Leaves lanc. hoary hairy beneath, Pedunc. long 2-leaved and racemose, Calyxes hairy
 7791 Leaves opp. lanc. 3-nerved hairy viscid, Radical obovate, Racemes without bractes, Petals serrated
 7792 Leaves obovate obl. revolute at edge downy hairy hoary beneath, Calyx very hirsute white
 7793 Leaves obl. linear glaucous above hoary beneath, Cal. hoary minutely pubescent, Branches hoary
 7794 Leaves lin. obl. revolute at edge hoary on each side, Calyxes very hirsute white
 7795 Leaves lin. very short pubescent opp. Stip. mucronate erect, Pedunc. villous few-flowered
 7796 Leaves oblong lin. revolute at edge the younger hoary on each side, Calyxes glaucous, Sepals ciliated
 7797 Leaves short stalked lin. oblong hispid above, Racemes lax, Calyx with deciduous hairs
 7798 Leaves flat ovate obl. acute smooth above beneath finely downy, Cal. striated smoothish
 7799 Leaves obl. ovate obt. flat beneath hoary above smooth green, Cal. striated smooth shining
 7800 Leaves stalked obl. lin. downy beneath glaucous above, Cal. shortly hairy striated glaucous obtuse
 7801 Leaves linear hoary on each side setose at end, Stipules subulate, Cal. hairy nerved striated
 7802 Upper leaves flat obl. hairy, Stipules ciliated longer than stalk, Fl. large, Calyxes hairy
 7803 Leaves ovate lanc. a little downy on each side, Stipules linear, Ped. and cal. pilose hirsute
 7804 Leaves downy hoary beneath glaucous above revolute at edge, Calyxes yellowish glaucous
 7805 Leaves narrow lanc. flat with stellate pubescence on each side, Raceme terminal few-flowered

DIGYNIA.

7806 The only species

- 7807 Leaves cuneate obovate upwards crenate toothed
 7808 Leaves ovate-oblong cordate at base, upwards crenate toothed
 7809 Leaves ovate acute nearly entire
 7810 Leaves oblong acute crenate-toothed upwards, green beneath



and Miscellaneous Particulars.

celebrity. Nothing comparable to their works has ever appeared from any other hand. The species is a hardy free-flowering plant, of easy culture in sandy loam and peat, and cuttings root in the same soil under a glass.

120. *Fothergilla*. In memory of John Fothergill, M. D., an eminent physician and patron of botany, who cultivated a variety of the most curious plants in his garden near London. The species are dwarf deciduous shrubs, of easy culture in light soil or peat, and generally increased by layers.

1201. CURATEL/LA. W.	CURATELLA.				<i>Dilleniaceae.</i>	<i>Sp. 1-2.</i>					
7811 americana W.	American	☼	□	or	8	...	W	S. Amer.	...	L s.p	Aub. gui. 1. t.232
1202. PÆONIA. W.	PÆONY.							<i>Ranunculaceae.</i>	<i>Sp. 15-17.</i>		
7812 Moután H. K.	Chinese tree	☼		or	3	ap.jn	Pu	China	1789.	C p.l	
α papaveræcea	Poppy-flowered	☼		or	3	ap.jn	W	China	1789.	C p.l	Bot. cab. 547
β Banksiæ	common	☼		or	3	ap.jn	Pu	China	1789.	C p.l	Bot. mag. 1154
γ rósea	Rose-colored	☼		or	3	ap.jn	Pk	China	...	C p.l	
7813 albiflora Pall.	eatable-rooted	☼	△	or	2	my.jn	W	Siberia	1784.	R s.l	
β tatárica	Tartarian	☼	△	or	2	my.jn	W	Siberia	...	R s.l	
γ sibirica	Siberian	☼	△	or	2	my.jn	W	Siberia	...	R s.l	
δ rubescens	single-colored	☼	△	or	2	my.jn	Pk	Siberia	1784.	R s.l	Bot. reg. 42
ε unijflora	blush-colored	☼	△	or	2	my.jn	W	Siberia	...	R s.l	
ζ Whitleji	double-white	☼	△	or	2	my.jn	W	China	1784.	R s.l	Bot. rep. 612
η Hunei	double-crimson	☼	△	or	2	my.jn	R	China	1784.	R s.l	Bot. mag. 1768
θ frágrans	Rose-scented	☼	△	or	2	my.jn	R	China	1784.	R s.l	Hort. trans. c. ic
7814 daúrica H. K.	Daurian	☼	△	or	3	my.jn	Pu	Siberia	1790.	R s.l	Bot. mag. 1441
7815 corállina W.	entire-leaved	☼	△	or	4	my.jn	R	England	...	R s.l	Eng. bot. 1513
7816 officinális W.	common	☼	△	or	3	my.jn	R	Switzerl.	1548.	R s.l	Bot. mag. 1784
β rósea	Rose-colored	☼	△	or	3	my.jn	R	.....	...	R s.l	
γ blánda	blush	☼	△	or	3	my.jn	Pk	.....	...	R s.l	
δ rábra	double-red	☼	△	or	3	my.jn	R	.....	...	R s.l	
ε carnescens	flesh-colored	☼	△	or	3	my.jn	W	.....	...	R s.l	
ξ álbicans	whitish	☼	△	or	3	my.jn	W	.....	...	R s.l	
η lobáta Dec.	lobed	☼	△	or	3	my.jn	R	.....	1823.	R s.l	
7817 peregrína H. K.	Turkish	☼	△	or	2	my.jn	D. Pu	Levant	1629.	R s.l	Bot. mag. 1050
α compacta	compact	☼	△	or	2	my.jn	Pu	.....	...	R s.l	
γ Greவில்	Greville's	☼	△	or	2	my.jn	Pu	.....	...	R s.l	
7818 crética Lindl.	early pink	☼	△	or	2	my.jn	Pk	Candia	...	R s.l	Bot. reg. 819
7819 paradóxa And.	paradoxical	☼	△	or	2	my.jn	Pu	Levant	...	R s.l	
β fimbríata	double-fringed	☼	△	or	3	my.jn	Pu	.....	...	R s.l	Sweet fl. gard. 19
7820 móllis And.	soft	☼	△	or	1½	my.jn	Pu	.....	...	R	
7821 arictina And.	Anderson's	☼	△	or	2	my.jn	Pu	.....	...	R	
7822 decóra And.	comely	☼	△	or	2	my.jn	Pu	.....	...	R	
α Pallási	Pallas's	☼	△	or	2	my.jn	Pu	.....	...	R s.l	
β elátior	tall	☼	△	or	2	my.jn	Pu	.....	...	R s.l	
7823 húmílis W.	dwarf	☼	△	or	2	my	Pu	Spain	1633.	R s.l	Bot. mag. 1422
7824 anqmalá W.	jagged-leaved	☼	△	or	2	my.jn	Pk	Siberia	1788.	R s.l	Bot. mag. 1754
laciniata Pall. ross. 2. t. 85.	mule	☼	△	or	2	my.jn	R	Siberia	1788.	R s.l	Pall. ross. 2. t.86
7825 híbrida W.	fine-leaved	☼	△	or	3	my.jn	R	Siberia	1765.	R s.l	Bot. mag. 926

TRIGYNIA.

1203. HIBBERTIA. H. K.	HIBBERTIA.							<i>Dilleniaceae.</i>	<i>Sp. 3-19.</i>		
7827 volúbilis B. Rep.	twining	☼	□	or	4	my.o	Y	N. S. W.	1790.	C s.p	Bot. rep. 126
7828 grossulariæfólia Sal.	Gooseberry-lvd.	☼	□	or	2	mr.au	Y	N. Holl.	1803.	C s.p	Bot. mag. 1218
7829 dentáta R. B.	toothed	☼	□	or	3	...	Y	N. Holl.	1816.	C s.p	Bot. reg. 282
1204. DELPHINIUM. W.	LARKSPUR.							<i>Ranunculaceae.</i>	<i>Sp. 26-53.</i>		
7830 chinéne Fisch.	Chinese	☼	△	or	2	s.o	Pu	Tartary	1819.	S p.l	Bot. cab. 71
7831 ambígnum W.	doubtful	☼	△	or	3	jl.au	B	Barbary	1759.	S p.l	
7832 consólda W.	field	☼	△	or	4	jn.jl	B	England	san. fi.	S r.m	Eng. bot. 1839
7833 cuneátum Stev.	wedge-shaped	☼	△	or	4	jn.jl	B	Siberia	1816.	D c.o	Bot. reg. 327
7834 Ajácis W.	Rocket	☼	△	or	2	jn.jl	Pk	Switzerl.	1573.	S r.m	
7835 acóniti W.	Acouite-like	☼	△	or	1	jn.jl	Pu	Levant	1801.	S p.l	Vahl. sym. t. 1. 13
7836 peregrínium W.	broad-lvd.-ann.	☼	△	or	1	jn.jl	B	Italy	1629.	S p.l	Al. ped. 2. t. 25. f. 3
D. junceum Dec.											
7837 grandifórum W.	great-flowered	☼	△	or	1½	jn.s	D.B	Siberia	1741.	D p.l	Bot. mag. 1686
γ flore-pléno	double-flowered	☼	△	or	2	jn.s	D.B	.....	...	D p.l	



History, Use, Propagation, Culture,

1201. *Curatella*. From *curatus*, worked; a name given by Aublet to the genus, because the leaves, which have a rough surface, are used in Guyana for polishing bows, sabres, and other weapons. A small tree with rough leaves, which grows well in sandy loam; cuttings root in sand under a glass.

1202. *Peonia*. The physician Pæon was the first to use this in medicine. The Greek legend adds, that he used it to cure Pluto of a wound inflicted by Hercules. The species are magnificent flowering plants, especially *P. officinalis* and *moutan*, with their numerous varieties. *P. moutan* and its different varieties are hardy enough to bear our winters in the open air; but they do not flower in such perfection as when planted out in a conservatory, or in a pit where they may be protected from the severe frost under glass: they will thrive well in any rich light soil; and ripened cuttings, slipped off, and planted in the ground, in a shady place, without cover, will root freely. (*Bot. Cult.* 234.)

P. edulis has a more slender stem than the common Peony. The Daurians and Mongols boil the root in

7811 Leaves ovate subrepand toothletted rough

7812 Segments of leaves ovate obl. glaucous beneath

7813 Capsules smooth recurved, Segm. of leaves smooth shining 3-parted with ovate lanceolate lobes

7814 Capsules downy erect, Segm. of leaves glaucous beneath smooth somewhat lobed with blunt obovate lobes

7815 Capsules downy, Segm. of leaves ovate entire smooth

7816 Capsules downy nearly straight, Segments of leaves unequally cut smooth, Lobes ovate-lanceolate

7817 Caps. downy erect, Segm. of leaves 3-parted cut and entire ovate-lanc. flat hairy beneath

7818 Leaves somewhat shining blistered coriaceous glaucous and downy beneath, Ovaries woolly spreading

7819 Caps. downy straight, Segm. of leaves many-parted blunt somewhat wavy glaucous beneath hairy

7820 Caps. downy straight, Segm. of leaves oval-lanc. flat lobed imbricated beneath caesious hairy

7821 Caps. downy arcuate spreading, Segm. of lvs. 3-lobed and pinnatifid decurrent ovate-obl. flat hairy beneath

7822 Caps. pubescent spreading, Segm. of leaves 3-parted oblong blunt hairy beneath

7823 Caps. somewhat pilose nearly erect, Segm. of leaves 3-5-parted villous beneath, Lobes obl. entire

7824 Caps. 5 smooth depressed blunt, Segm. of leaves smooth pinnate, Lobes lanc. acuminat

7825 Caps. pubescent, Segments of leaves smooth many-parted, Lobes linear

7826 Caps. downy spreading, Segm. of leaves smooth many parted, Lobes linear

TRIGYNIA.

7827 Leaves obovate lanc. nearly entire mucronate pubescent beneath, Flowers sessile, Stem twining

7828 Leaves roundish crenate toothed, Fl. stalked opp. to the leaves, Stems procumbent

7829 Leaves obl. acum. smooth with awned serratures, Fl. stalked trigynous

7830 Like *D. grandiflorum*, from which it differs in having a more rigid stem, and a later time for flowering

7831 Stem erect velvety, Lvs. 3-5-part. Lobes pinnatifid, Racemes lax, Spur straight pubesc. shorter than cal.

7832 Stem suberect smth. with spread. branches, Fls. few loosely racem. Ped. long. than bractes, Caps. smooth

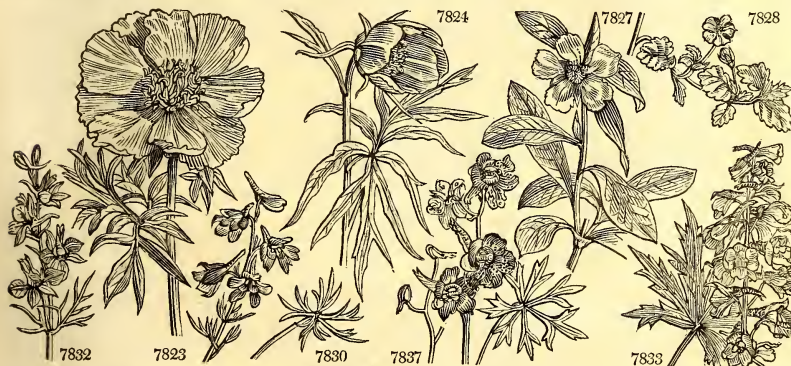
7833 Petioles not dilated at base, Lvs. cum. at base 5-7-lob. Lobes cut acute, Raceme lax branch. Calyxes smooth

7834 Stem erect smoothish nearly simple, Branches much covered with fis. Ped. length of bractes, Caps. pubesc.

7835 Stem erect branch. subpub. Lvs. pedate multifid, Ped. very long, Spur incurv. at end horiz. divid. upwards

7836 Stem erect much branch. Lvs. smooth rigid: low. multifid, Branc. and bractes lin. ent. Rac. lax. Pet. stalk.

7837 Leaves palmate many-parted, Lobes linear distant, Pedicels longer than bract, Pet. shorter than calyx



and Miscellaneous Particulars.

their broth, and grind the seeds and put them into their tea. *P. officinalis* was by old authors said to be of two sorts, male and female, the flowers of the former being smaller and lighter colored than those of the latter. These distinctions, however, were not indicative of sexual difference, the pæony being hermaphrodite, but merely of stronger and weaker growing varieties, according to the practice of the age. Now they are laid aside, the varieties reduced to seven or eight, of which a full account is given in the Horticultural Transactions (vol. ii. 273.). Of these, the double red, the most common, when introduced at Antwerp about the end of the sixteenth century, sold for twelve crowns a root. A useful account of the species and varieties has been published by Messrs. Anderson and Sabine, in the transactions of the Linnean Society.

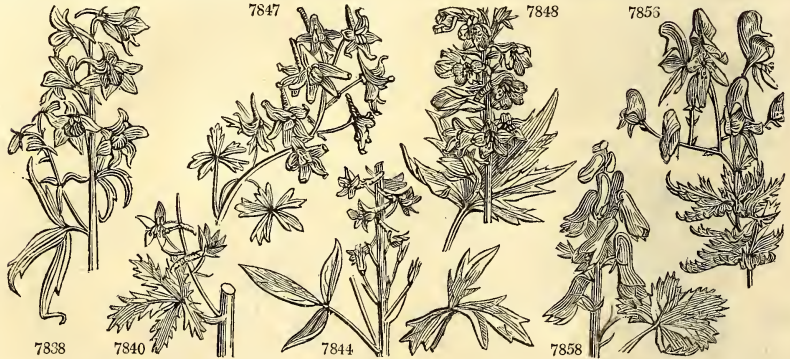
1203. *Hibbertia*. Named after George Hibbert, Esq. who was once a distinguished English collector of plants. Twining or trailing plants of New Holland, with bright yellow flowers.

1204. *Delphinium*. From *δέλφιον*, a dolphin, on account of the resemblance between the nectary of the

7838 cheilánthum <i>Fisch.</i>	Doroninsk	Δ	or	2	jn	D.B	Siberia	1819.	D	p.l	Bot. reg. 473
7839 intermédiúm <i>W.</i>	palmedated Bee	Δ	or	8	jl	B	Silesia	1710.	D	p.l	Mill. ic. t. 119
7840 elátum <i>W.</i>	common Bee	Δ	or	6	jn.s	B	Siberia	1597.	D	p.l	Sch. han.2. t.145
7841 revolótum <i>Desf.</i>	revolute	Δ	or	6	jn.s	P.B	.....	...	D	p.l	
7842 híbrídum <i>W.</i>	hairy	Δ	or	3	jn.s	B	Siberia	1794.	D	p.l	
<i>hirsútum P. S.</i>											
7843 mesoleúcum <i>Link.</i>	white-eyed	Δ	or	3	jn.jl	B.v	.....	1822.	D	p.l	
7844 exaltátum <i>W.</i>	American	Δ	or	3	jl.au	B	N. Amer.	1758.	D	p.l	Mill. ic. t.250. f.2
7845 azúreum <i>Ph.</i>	azure	Δ	or	6	jl.au	L.B	Carolina	1805.	D	p.l	
7846 dictyocárpum <i>Dec.</i>	netted-capsuled	Δ	or	4	jn.jl	B	Siberia	1817.	D	p.l	
7847 tricórne <i>Ph.</i>	three-horned	Δ	or	3	jl.au	B	N. Amer.	1806.	D	p.l	Bot. cab. 306
7848 urceolátum <i>W.</i>	hollow-leaved	Δ	or	2	jl.au	B	.....	1801.	D	p.l	Bot. mag. 1791
7849 flexuósum <i>Bieb.</i>	wavy	Δ	or	2	jl.au	B	Caucasus	1820.	D	p.l	
7850 ochroléucum <i>Stev.</i>	pale-yellow	Δ	or	2	jn.jl	W	Iberia	1823.	D	p.l	
7851 laxiflórum <i>Dec.</i>	loose-flowered	Δ	or	3	jn.jl	B	Siberia	...	D	p.l	
7852 puniceum <i>W.</i>	scarlet-flowered	Δ	or	4	jl	R	Siberia	1785.	D	p.l	
7853 staphiságría <i>W. en.</i>	Stavesacre	○	or	2	ap.au	L.B	S. Europe	1596.	S	s.p	
7854 píctum <i>W. en.</i>	panicked	Δ	or	1½	ap.au	L.B	S. Europe	1816.	S	s.p	
7855 Requíenií <i>Dec.</i>	Requien's	○	or	4	my.jn	L.B	Majorca	1824.	S	co	
1205. ACONITUM. W. WOLF'S-BANE.											
7856 paniculátum <i>Lam.</i>	panicked	Δ	or	3	jn.s	P.a	France	1815.	D	co	Bot. cab. 810
7857 ochroléucum <i>W.</i>	pale-white	Δ	or	3	jn.s	L.Y	Caucasus	1794.	D	co	Bot. mag.
7858 lycóctonum <i>W.</i>	great-yellow	Δ	or	3	jl.au	Y	Al. of Eur.	1596.	D	co	Jac. aust. 4. t.380
7859 japónicum <i>W.</i>	Japan	Δ	or	6	jn.s	B	Japan	1790.	D	co	
7860 variegátum <i>W.</i>	variegated	Δ	or	5	jn.au	P.W	S. Europe	1597.	D	co	
7861 An'thóra <i>W.</i>	wholesome	Δ	or	1½	jn.au	P.Y	Pyrenees	1596.	D	co	Jac. aust. 4. t.382
7862 pyrenáicum <i>W.</i>	Pyrenean	Δ	or	4	jn.jl	Y	Pyrenees	1739.	D	co	
7863 vésicolor <i>Stev.</i>	purple-colored	Δ	or	3	jn.s	B.v	Siberia	1820.	D	co	Bot. cab. 794
7864 septentrionále <i>W.</i>	northern	Δ	or	4	jl.au	B	N. Europe	1800.	D	co	Bot. mag. 2196
7865 álbum <i>W.</i>	white	Δ	or	4	jl.au	W	Levant	1752.	D	co	
7866 cam'marum <i>W.</i>	rostrate	Δ	or	3	jn.s	Pu	Switzerl.	1752.	D	co	Bot. cab. 203
<i>rostrátum Bernh.</i>											
7867 tortuósum <i>W. en.</i>	twisting	Δ	or	6	jl.au	P.B	.....	1812.	D	co	
7868 neomontánium <i>W.</i>	mountain	Δ	or	3	jl.au	B	Europe	1799.	D	co	Barr. ic. t. 610
7869 speciósum <i>Otto.</i>	shewy	Δ	or	3	jl.au	B	.....	1823.	D	co	
7870 barbátum <i>P. S.</i>	hairy	Δ	or	2	jn.jl	P.Y	Siberia	1807.	D	co	
7871 biflórum <i>Fisch.</i>	two-flowered	Δ	or	½	jn.jl	P.B	Siberia	1817.	D	co	
7872 Napéllus <i>W.</i>	Monk's-hood	Δ	or	4	my.jl	B	Europe	1596.	D	co	
7873 táuricum <i>W.</i>	Taurian	Δ	or	4	jn.jl	B	Tauria	1752.	D	co	Jac. ic. 3. t. 492
7874 volúbile <i>W.</i>	twining	Δ	or	6	jl.au	B	Siberia	1799	D	co	
7875 uncinátum <i>W.</i>	American	Δ	or	2	jl.au	B	N. Amer.	1768.	D	co	Bot. mag. 1119

PENTAGYNIA.

1206. TRACHYTEL/LA. <i>Dec.</i>	TRACHYTELLA.	<i>Dilleniacæ.</i>		<i>Sp. 1—2.</i>						
7876 Actæ'a <i>Dec.</i>	rough-leaved	□	cu	6	...	W	China	1823.	C	p.l



History, Use, Propagation, Culture,

plant and the imaginary figures of the dolphin. The species are shewy annuals or perennials, valuable as border flowers. The leaves are generally much divided, and the flowers in terminal spikes, blue, purple, or red; never yellow or any shade of that color.

D. consolida, (from *consolidare*, to unite; it being formerly reputed as a most powerful vulnerary), *Pied d'Alouette*, Fr., *Rittersporn*, Ger., is a shewy annual, with blue, pink, purple, and white flowers, and semi-double and double. *D. Ajacis*, so called because some traces may be perceived in the flower of what may be likened to the letters AIA, is by some considered as only a variety of this species; both are universally grown as border annuals. *D. elatum* is well adapted for shrubberies. All the species are of the easiest culture. The species are extremely difficult to distinguish from each other, and are probably in many cases mere varieties.

1205. Aconitum. So called from growing about Acona, a town of Bithynia. The species are robust flowering plants of some beauty and consequence. The stems rise from two to six feet in height, upright, strong, furnished with many digitate or palmate leaves, and terminated by panicles or loose spikes of blue or yellow flowers.

A. Napellus, from *napus*, a turnip, its grumous roots resembling little turnips, is a well known poisonous plant. Linnæus says, that it is fatal to kine and goats, especially when they come fresh to it, and are not acquainted with the plant; but that it does no injury to horses, who eat it only when dry. He also relates (from the Stockholm Acts) that an ignorant surgeon prescribed the leaves, and on the patient refusing to take them, he took them himself and died. The ancients, who were acquainted with chemical poisons, regarded the Aconite as the most violent of all poisons. Some persons, only by taking in the effluvia of the herb in full flower by the nostrils, have been seized with swooning fits, and have lost their sight for two or three days.

- 7838 Stem erect branch, Lvs. 5-part. Lobes obl. acumin. Pet. shorter than cal. Caps. netted with color pubescent
 7839 Petioles not dilat. at base, Lvs. cord. 5-7-fid : up. 3-lobed, Lobes cut serr. Ped. bract. cal. and ovaries smooth
 7840 Petioles not dilated at base, Leaves downy 5-lobed, Lobes cuneate at base trifid cut, Spur inflexed
- 7841 Petioles not dilated at base, Lvs. orbicular cord. 5-fid, Lobes cut acute deflexed, Bractes 3, Ovaries smooth
 7842 Petioles sheathing at base, Lvs. many-part. with lin. lobes, Raceme close, Spur straight longer than flower
- 7843 Lvs. somewhat dilated at base, Segm. cuneiform serr. cut in front, Stem upwards and peduncles pubescent
 7844 Petioles not dilated at base, Lvs. flat trifid beyond the middle, Lobes cuneiform trifid at the end acuminate
 7845 Pet. scar. dilat. at base, Lvs. 3-5-part. multif. with lin. lobes, Rac. straight, Pet. beard. at end : low. very vill.
 7846 Pet. scar. dilat. at base, Lvs. 3-7-lob. Lobes obl. ac. cut pinnatifid : up. 3-part. Caps. nett. at keel and edge cil.
 7847 Pet. smth. but scar. sheath. at base, Lvs. 5-par. Lobes 3-5-fid lin. Pet. sh. than cal. Caps. refl. from their base
 7848 Petioles not dilated at base, Leaves concave beyond the middle trifid, Lobes cuneiform cut acuminate at end
 7849 Petio. not dilat. at base, Lvs. 5-lob. with cut lobes, Stem flexu. and petioles hairy, Bractes lin. Caps. smooth
 7850 Petioles sheathing at base, Lvs. many-par. with lin. subul. segm. Fl. pubesc. Spur acute longer than flowers
 7851 Pet. not dilat. at base, Lvs. 3-7-lob. with obl. ac. cut pinnat. lobes, Rac. lax branch. Bractes and ovaries pub.
 7852 Petioles sheathing at base, Lvs. many-parted in lin. lobes, Rac. long, Spur straight blunt longer than pedicel
 7853 Spur very short, Bracteoles inserted at base of pedicel, Petioles hairy, Pedicels twice as long as flower
 7854 Spur scarcely shorter than cal. Bracteoles inserted at base of pedicel, Petioles pubesc. Pedic. scarcely longer
 7855 Spur nearly as long as calyx, Bractes inserted in the middle of pedicel, Petioles hairy [than flower
- 7856 Pan. divaricating, Branches tortuose, Helmet conical half circular, Spur short thick spiral [at end
 7857 Fl. spiked or panic. numerous, Lvs. deeply 3-5-lobed with cuneate trifid lobes, Spur slender straight curv.
 7858 Helmet conical cylindrical. Spur slender spirally twisted, Lip divaricating, Lvs. palm. 3-5-lob. beyond middle
 7859 Veiny smooth, Pan. smoothish with ascend. branches, Bag of hoods very large ventric. Spur thick subinvol.
 7860 Pan. divaricating very smooth, Branches tortuose, Spur thick somewhat spiral, Lobes of leaves rhomboid
 7861 Fls. panic. Sep. and pet. persist. Bag of hoods scarcely any, Spur thick spiral, Lvs. multif. with lin. ac. segm.
 7862 All over densely pubesc. Lvs. very large palmate 3-5-lobed beyond middle pubesc. Helmet conical cylindr.
 7863 Like Anthera, but flowers smoothish variegated with a low subconical helmet [compressed
 7864 Like Lycoctonum, but flowers paniced, Stem peduncles and flowers villous, Ovaries smooth or hairy
 7865 Ovaries 4-5, Helmet conical with a long claw, Rac. lax simple, Lvs. 3-5-parted with trifid toothed lobes
 7866 Pan. lax, Helmet conical elongated abruptly mucronate in front, Spur thick spiral, Ovaries 3-5
- 7867 Pan. lax, Branches 1-4-fl. Spur thick long abruptly kneed, Bags of hoods inflated, Ovaries 3-5 smooth
 7868 Ovaries 3 smooth, Raceme lax corymbose, Ped. smooth, Helmet very convex subconical
 7869 Pan. lax, Helmet exactly conical, Spur very thick blunt very short, Bag of the hoods very large
 7870 Fl. panic. Helmet conical, Spur thick blunt very short. Lvs. deeply lobed with narrow diverging segments
 7871 Stem very short, Low. lvs. few on long stalks 5-part. with palm. segm. Hoods hook. blunt, Ovaries 3 villous
 7872 Ovaries 3 smooth, Raceme cylindrical. long, Leaves divided down to petiole with linear acute furrowed lobes
 7873 Ovaries 3 smooth, Rac. cylindr. long very compact, Pedicels smooth shorter than bractes, Lvs. subpedate
 7874 Stem twining with spreading hairs, Petioles ciliated, Leaves 3-5-parted with pinnatifid lobes, Ovaries 5-7
 7875 Pan. lax, Branches diverging, Helmet exactly conical, Leaves 3-lobed with entire lobes, Ovaries villous

PENTAGYNIA.

7876 Leaves very rough toothed



and Miscellaneous Particulars.

But the root is unquestionably the most powerful part of the plant. Matthiolus relates, that a criminal was put to death by taking one dram of it. Dodonæus gives us an instance, recent in his time, of five persons at Antwerp, who ate the root by mistake, and all died. Dr. Turner also mentions, that some Frenchmen at the same place, eating the shoots of this plant for those of masterwort, all died in the course of two days, except two players, who quickly evacuated all that they had taken by vomit. We have an account, in the Philosophical Transactions, of a man who was poisoned, in the year 1732, by eating some of this plant in a salad, instead of celery. Dr. Willis also, in his work De Anima Brutorum, gives an instance of a man who died in a few hours, by eating the tender leaves of this plant also in a salad. He was seized with all the symptoms of mania. The Aconite, thus invested with terrors, has, however, been so far subdued, as to become a powerful remedy in some of the most troublesome disorders incident to the human frame. Baron Stoerck led the way by administering it in violent pains of the side and joints, in glandulous scirrhi, tumours, ulcerous tubercles of the breast, &c. to the quantity of from ten to thirty grains in a dose, of an extract, the method of making which he describes.

Willdenow and the Dublin College consider that the plant used by Stoerck was the *A. neomontanum*, in which opinion Mr. Thomson agrees in his London Dispensatory.

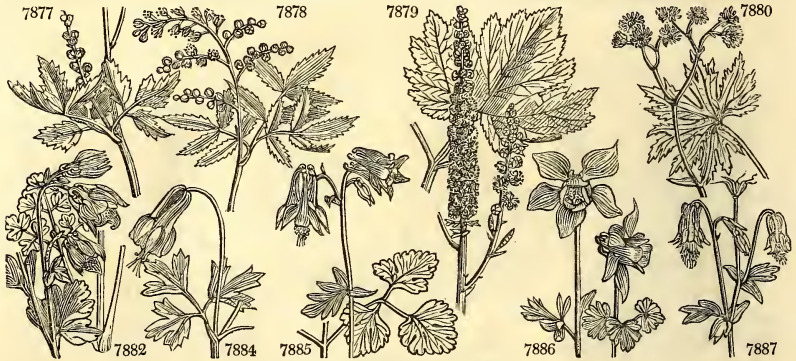
All the species are poisonous in a high degree. The limits of the species are extremely obscure, and in a very unsettled state; Decandolle in his Systema, increased the number at that time known, but in his Prodrômus many of the species of the Systema are considered mere varieties. Dr. Reichenbach has, however, multiplied the species prodigiously, but with little reason.

1206. *Trachytella*. From *τραχυτός*, roughness. These are climbing shrubs with racemose white flowers, and hard rough leaves, which are used in China for polishing metals and hard wood.

1207. CIMICIFUGA. Ph. BUGWORT.					<i>Ranunculaceæ.</i>	<i>Sp. 4—6.</i>			
7877 Serpentaria Ph.	Black Snakeroot	☿ △ m	3	jn.jl	W.y	N. Amer.	1732.	D lp	Dill.elt.t.67.f.78
<i>Actæa racemosa</i> W.									
7878 fœtida W.	stinking	☿ △ m	4	jn.jl	L.Y	Siberia	1777.	D p.1	Lam. ill. 487
7879 cordifolia Ph.	heart-leaved	☿ △ cu	3	jn.jl	W.y	N. Amer.	1812.	D p.1	Bot. mag. 2069
7880 palmata Ph.	palmated	☿ △ cu	4	jl.au	W.y	N. Amer.	1812.	D p.1	Bot. mag. 1630
1208. AQUILEGIA. W. COLUMBINE.					<i>Ranunculaceæ.</i>	<i>Sp. 8—13.</i>			
7881 viscosa W.	clammy	☿ △ or	1½	my.jn	Pu	Montpel.	1752.	D co	Goua. ill.t.19.f.1
7882 vulgaris W.	common	☿ △ or	2	my.jl	B	Britain	fields.	D co	Eng. bot. 297
<i>β flore pleno</i>									
	double-flowered	☿ △ or	2	my.jl	B	.....	...	D co	
7883 glandulosa Fisch.	glandular	☿ △ or	1½	my.jl	W.B	Siberia	1822.	D co	
7884 viridiflora Pall.	green-flowered	☿ △ or	1½	my.jl	G.y	Siberia	1780.	D co	Jacq. ic. 1. t. 102
7885 bicolor P. S.	two-colored	☿ △ or	2	my.jl	Pu	Siberia	...	D co	Bot. mag. 1221
<i>hybrida</i> B. M.									
7886 alpina W.	Alpine	☿ △ or	1	my.jn	B.g	Switzerl.	1731.	D co	Bot. cab. 657
7887 canadensis W.	Canadian	☿ △ or	1	ap.my	R.o	N. Amer.	1640.	D s.p	Bot. mag. 246
7888 atropurpurea W.en.	dark-purple	☿ △ or	1	my.jn	Pu	Siberia	...	D s.p	
1209. NIGELLA. W. FENNEL-FLOWER.					<i>Ranunculaceæ.</i>	<i>Sp. 6—11.</i>			
7889 damascena W.	common	○ or	2	jn.s	L.B	S. Europe	1570.	S co	Bot. mag. 52
7890 coarctata	dwarf	○ or	2	jn.s	W.g	S. Europe	1793.	S co	
7891 sativa W.	small	○ or	1½	jn.s	L.B	Egypt	1548.	S s.1	Zorn. ic. 119
7892 arvensis W.	field	○ w	1½	jn.s	W.g	Germany	1683.	S s.1	Sch. han. 2. t.146
7893 hispânica W.	Spanish	○ or	1½	jn.s	B.w	Spain	1629.	S s.1	Bot. mag. 1265
7894 orientalis W.	yellow	○ or	1½	jn.s	Y	Syria	1699.	S s.1	Bot. mag. 1264
1210. REAUMURIA. W. REAUMURIA.					<i>Ficoideæ.</i>	<i>Sp. 1.</i>			
7895 hypericoides W.	Hypericum-like.	┘ pr	2	jl.o	Pu	Syria	1800.	L s.p	Bot. reg. 845
<i>linifolia</i> P. L.									
1211. COLBERTIA. Salisb. COLBERTIA.					<i>Dilleniaceæ.</i>	<i>Sp. 1.</i>			
7896 coromandeliana Sal.	Coromandel	┘ or	15	mr.ap	Y	Coroman.	1803.	L p.1	Roxb. cor. t. 20
1212. TETRACERA. L. TETRACERA.					<i>Dilleniaceæ.</i>	<i>Sp. 1—23.</i>			
7897 potatoria Afz.	Water Vine	┘ or	20	...	...	S. Leone	1822.	L p.1	

POLYGYNIA.

1213. NELUMBIUM. J. SACRED-BEAN.					<i>Nymphæacæ.</i>	<i>Sp. 2.</i>			
7898 speciosum W.	Indian	☿ △ or		jn.au	Pk	India	1787.	R m.s	Bot. mag. 903
<i>β caspicum</i> Fisch. Caspian									
		☿ △ or		...	Pk	Casp. Sea	1822.	R m.s	
7899 luteum W.	yellow-flowered	☿ △ or		...	Y	Carolina	1810.	R m.s	



History, Use, Propagation, Culture,

1207. *Cimicifuga*. From *cimex*, a bug, and *fuga*, to drive away, indicating certain virtues a species is supposed to possess. The *C. serpentaria* is used with success by the native practitioners in North America, for curing the dangerous bite of the rattlesnake. Tall, leafy, herbaceous plants, with the appearance of *Actæa*.

1208. *Aquilegia*. From *aquila*, an eagle; the inverted spurs of the flower have been likened to the talons of a bird of prey. The species are smooth-leaved, handsome-flowered plants. *A. vulgaris* is an old inhabitant of the flower border: the whole plant has been recommended to be used medicinally, but it belongs to a suspicious natural order, and Linnaeus affirms, that children have lost their lives by it. *A. alpina* is the handsomest species.

1209. *Nigella*. From *niger*, black, because of the color of the seeds, which are the part of the plant known in cookery. The species are curious or neat little plants, with fine cut leaves like fennel. *N. damascena* and *sativa* are sown as hardy annual flowers; and on the continent, the leaves and seeds of the latter species and *N. arvensis*, are used in cookery instead of more expensive aromatics. They are also said to be extensively used in the adulteration of pepper.

1210. *Reaumuria*. So named by Hasselquist, in honor of René A. F. de Reaumur, author of several entomological works; *Histoire des Insectes*, &c. He died in 1757. A small caesious plant, bearing an abundance of bright lilac flowers.

1211. *Colbertia*. Named by Mr. Salisbury after the famous Colbert, a patron of the Paris garden, who destroyed with his own hands the vines which had been planted therein in lieu of more curious objects. A fine plant, with leaves like those of *Dillenia speciosa*.

1212. *Tetracera*. From *tetrax*, four, and *keras*, a horn, because of its four capsules recurved like as many horns. Shrubs or small trees, which are often climbers with alternate stalked naked leaves, often rough above. The flowers are panicled or racemose. The leaves are remarkable as an exemplification of that mode of nervation which M. Decandolle calls feather-nerve.

1213. *Nelumbium*. This is called in Ceylon *Netumbo*. Sir James Smith proposed to call the genus by the more classical name of *Cyamus*, but it has been remarked, that it remains to be proved that the holy *kyamos*, was this plant. *N. speciosum* is a native both of the East and West Indies, China, Cochinchina, and Japan,

7877 Monogynous, Racemes very long, Caps. dry dehiscent, Leaves biternate with serrate or cut segments

7878 Ovaries 4 subsessile very vill. Racemes paniced, Lvs. ternate or biternate, Segm. ovate-lanc. cut toothed

7879 Ovaries 2-3 smooth sessile, Racemes paniced, Leaves biternate, Segments cordate at base

7880 Ovaries 12-15 in a roundish head, Racemes dichotomous paniced, Leaves palmate

7881 Spurs incurved, Caps. vill. Stem few or 1-fl. Lvs. covered with viscid down, Styles not longer than stamens

7882 Spurs incurved, Caps. villous, Stem leafy many-fl. Leaves nearly smooth, Styles not longer than stamens

7883 Spurs incurved twice as short as petals, Upper part of the plant and capsules covered with glandular hairs

7884 Spurs straight longer than limb, Stam. as long as petals, Styles long, Petals oval obl. shorter than petals

7885 Spurs straight longer than very blunt limb, Styles scarcely longer than stamens and petals, Sepals acute the length of petals

7886 Spurs straight somewhat incurved at end twice as short as limb of petals, Stem 2-3-fl. leafy, Lvs. finely cut

7887 Spurs straight, Styles and stamens exerted, Sepals acute a little longer than petals, Segm. of leaves 3-parted

7888 Spurs straight as long as limb, Styles and stamens as long as sepals, Sepals the length of petals

7889 Anthers blunt, Caps. 5 smooth 2-cell. united as far as end into an ovate globose one, Fls. in a leafy involucre

7890 Anthers blunt, Flowers in an involucre, Sepals erect conniving

7891 Anthers blunt, Caps. muricate, Stem erect hairy, Flowers naked

7892 Anthers pointed, Styles 5-7 revolute, Capsules and stem smooth, Branches diverging

7893 Anthers pointed, Styles 8-10 erect, Caps. smooth 1-nerved at back, Stem erect smooth, Branches erect

7894 Caps. 5-10 smooth erect, Styles straight

7895 A low shrub, with narrow glaucous leaves

7896 Leaves smooth 10-nerved 1-1½ foot long 6 inches broad

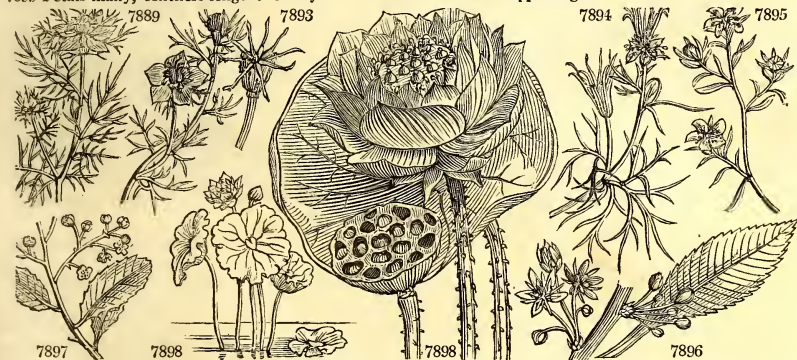
7897 Lvs. oval-obl. blunt or nearly acute smooth roughish above somewhat toothed at end, Pedunc. paniced [pubescent]

POLYGYNIA.

7898 Petals many, Anthers lengthened beyond the cells into a clavate appendage

β Inner petals scarcely smaller than the outer, blunt

7899 Petals many, Anthers lengthened beyond the cells into a linear appendage



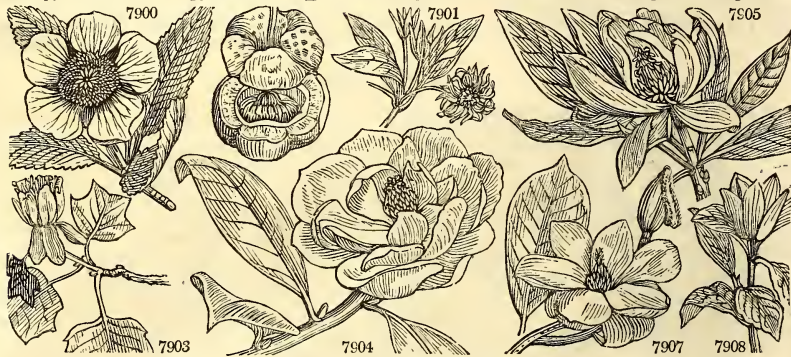
and Miscellaneous Particulars.

Persia, and some parts of the Russian empire. Thunberg informs us, that it is considered as a sacred plant in Japan, and pleasing to their deities, and that the images of their idols were often drawn sitting on its large leaves. The long stalks are there eaten among other potherbs. Loureiro relates, that it abounds in muddy marshes in India and China, and is cultivated in large handsome pots in the gardens and houses of the mandarins; that there is a variety with the flower of a pure white, and another with a very beautiful luxuriant flower, having about one hundred large petals, white or rose-colored. Both root and seeds are esulent, sapid and wholesome. In China it is called Lien-wha, and the seeds and slices of the hairy root, with the kernels of apricots and walnuts, and alternate layers of ice, were frequently presented to the British ambassador and his suite at breakfasts given by some of the principal mandarins. The Chinese have always held this plant in such high value, that at length they regarded it as sacred. That character, however, has not limited it to merely ornamental purposes; for the roots are not only served up in summer with ice, but they are also laid up in salt and vinegar for the winter. The seeds are somewhat of the size and form of an acorn, and of a taste more delicate than that of almonds. The ponds are generally covered with it, and exhibit a very beautiful appearance, when it is in flower; and the flowers are no less fragrant than handsome.

Sir George Staunton remarks, that the leaf, besides its common uses, has, from its structure, growing entirely round the stalk, the advantage of defending the flower and fruit arising from its centre from contact with the water, which might injure them. He also remarks, that the stem never fails to ascend in the water from whatever depth, unless in case of a sudden inundation, until it attains the surface, when its leaf expands, rests, and swims upon it, and sometimes rises above it. This plant bears the rigorous cold of the Pekin winter, though it is reared with difficulty in European stoves. It often grows spontaneously in China, and is propagated in the open air with ease both by the seed and root. The Chinese distinguish many varieties of it.

From the root of the Nelumbo, Sir George Staunton says, the Egyptians are supposed to have prepared their Colocasia, but the plant is now no longer found in that country; from which circumstance some naturalists infer, that it never was indigenous there, but cultivated by the inhabitants with extreme care. The ancient Romans made repeated efforts to raise it among them, from seeds brought out of Egypt; and the

1214. DILLE'NIA. <i>W.</i>	DILLENIA.				<i>Dilleniaceae.</i>	<i>Sp. 1—9.</i>			
7900 speciosa <i>W.</i>	large-flowered	♀	□	tm	30	...	Y	E. Indies	1800. C p.l Ex. bot. 1. t. 2, 3
1215. ILLY'Cium. <i>W.</i>	ANISEED-TREE.					<i>Magnoliaceae.</i>	<i>Sp. 2—3.</i>		
7901 floridanum <i>W.</i>	red-flowered	♂	┘	or	8	ap.jn	R	Florida	1766. L s.p Bot. mag. 439
7902 parviflorum <i>W.</i>	yellow-flowered	♂	┘	or	6	my.jn	Y	Florida	1790. L p.l Vent. cels. 22
1216. LIRIODEN'DRON. <i>W.</i>	TULIP-TREE.					<i>Magnoliaceae.</i>	<i>Sp. 1.</i>		
7903 tulipifera <i>W.</i>	common	♂	┘	or	60	jn.jl	Y.R	N. Amer.	1663. S s.l Bot. mag. 275
β obtusiloba	obtuse-lobed	♂	┘	or	60	jn.jl	Y.R	Pensylv.	1663. S s.l
1217. MAGNO'LIA. <i>W.</i>	MAGNOLIA.					<i>Magnoliaceae.</i>	<i>Sp. 14—17.</i>		
7904 grandiflora <i>W.</i>	Laurel-leaved	♀	┘	spl	20	jn.o	W	Carolina	1734. L l.p Bot. rep. 518
α ciliolata	ferruginous	♀	┘	spl	20	jn.o	W	Carolina	1734. L l.p
β obovata	broad-leaved	♀	┘	spl	20	jn.o	W	Carolina	1734. L l.p
γ lanceolata	long-leaved	♀	┘	spl	20	jn.o	W	Carolina	1734. L l.p Mich. arb. t. 1
7905 glauca <i>Ph.</i>	decidu. swamp	♀	┘	or	20	jn.s	W	N. Amer.	1688. S p.l Bot. mag. 2164
7906 longifolia <i>Ph.</i>	evergr. swamp	♀	┘	or	20	jn.s	W	N. Amer.	...
7907 conspicua <i>H. K.</i>	Yulan	♂	┘	or	30	f.ap	W	China	1789. G p.l Bot. mag. 1621
<i>M. Yulan</i> Dec.									
7908 obovata <i>W.</i>	purple	♂	┘	or	6	ap.jn	Pu	China	1790. L p.l Bot. mag. 390
7909 tomentosa <i>Thunb.</i>	slender	♂	┘	or	20	mr.ap	Pu	China	1804. L p.l Par. lond. 87
<i>M. gracilis</i> Thunb.									
<i>M. Kobus</i> Dec.									
7910 pumila <i>W.</i>	dwarf	♂	┘	or	4	ja.d	W	China	1786. C p.l Bot. mag. 977
7911 fuscata <i>H. K.</i>	brown-stalked	♂	┘	or	3	ap.my	Br	China	1789. L p.l Bot. mag. 1008
β anconzofolia <i>P. L.</i>	small-flowered	♂	┘	or	3	ap.my	Br	China	1804. L p.l Par. lond. 5
7912 cordata <i>Ph.</i>	heart-leaved	♂	┘	or	40	jn.jl	Y.W	N. Amer.	1801. L s.l Bot. cab. 474
7913 acuminata <i>W.</i>	bluish-flowered	♂	┘	or	60	my.jl	Y.G	N. Amer.	1736. L s.l Bot. cab. 418
7914 tripetala <i>W.</i>	umbrella	♂	┘	or	30	my.jn	W	N. Amer.	1752. L s.l Mich. arb. t. 5
<i>M. umbrelta</i> Lam.									
7915 macrophylla <i>Ph.</i>	long-leaved	♀	┘	or	30	jn.jl	W	N. Amer.	1800. S p.l Bot. mag. 2189
7916 auriculata <i>W.</i>	ear-leaved	♀	┘	or	40	ap.my	W	Carolina	1786. L p.l Bot. mag. 1206
7917 pyramidata <i>Ph.</i>	pyramidal	♀	┘	or	20	ap.my	W	Carolina	1811. G p.l Bot. reg. 407



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modern attempts to cultivate it in Europe, though with the assistance of artificial heat, seldom have succeeded.

Dr. Patrick Browne is of opinion that the ancients confounded two plants under the name of Lotus or Egyptian bean, and that under these titles they described the upper parts of the *Nymphaea Nelumbo*, and the roots of the lesser *Colocasia*, now commonly called *cocos* in Jamaica, *Arum Colocasia*. (*Jam.* 243, 332.)

In our stoves the *Nelumbium* should be grown in a tub or large pot, in a rich loamy soil, and requires a strong heat to flower in perfection. The pot or tub should be kept full of water all the time the plants are growing, but may be allowed to get dry when the flowering season is over. The plants may be increased by dividing at the root, but it is obtained more readily from seeds, which vegetate freely. (*Bot. Cult.* 83.)

Kent of Clapton says, that the seeds will keep forty years, vegetate freely, and flower the first year. (*Hort. Trans.* iii. 36.)

1214. *Dillenia*. So named by Linnæus, in honor of John James Dillenius, the famous professor of botany at Oxford, author of *Historia Muscorum, Hortus Elthamensis, &c.* The species are beautiful trees, with large leathery leaves, and axillary or terminating flowers often also large. They thrive best in a light loamy soil. Ripened cuttings, not deprived of their leaves, strike root freely, in a pot of sand plunged under a hand-glass in heat. Good seeds sometimes arrive from India, when the sooner they are sown the better; placed in a moderate hot-bed frame, they will succeed well. (*Bot. Cult.* 50.)

1215. *Illicium*. From *illicio*, to attract, on account of its agreeable perfume. *I. floridanum* has very fragrant leaves, and capsules having a strong smell of anise when rubbed. This species, and more especially *anisatum* is powerfully carminative and stomachic. In China it is in frequent use for seasoning dishes, especially such as are sweet. In Japan they place bundles and garlands of the aniseed-tree in their temples before their idols, and on the tombs of their friends. They also use the powdered bark as incense to their idols. A branch put into the decoction of *Tetraodon hispidum* is supposed to increase the virulence of that poison. The bark, finely powdered, is used by the public watchmen to make a chronometer or instrument for measuring the hours, by slowly sparkling at certain intervals in a box, in order to direct when the public bells are to sound.

Ripened cuttings will root in sand, but the plant is most readily increased by layers.

1216. *Liriodendron*. From *λεϊριον*, a lily, and *δενδρον*, a tree. The flowers, which may be likened to a lily or tulip, grow upon one of the loftiest trees of the forest. A smooth tree, not less admired for its fiddle-shaped leaves, than its tulip-like flowers, which are produced at the end of the branches; they are composed of six petals, three without and three within, which form a sort of bell-shaped flower, whence the inhabitants of North America gave it the title of tulip. These petals are marked with green, yellow, and red spots, making a fine appearance when the trees are well charged with flowers. When the flowers drop the germ swells, and forms a kind of cone, but it does not ripen in England.

The timber is used in America for canoes, but is unfit for boards or planks, as it contracts and expands more than the wood of any other tree.

The tulip tree is now very common in Europe; in the south of France and Italy, it is frequent in public avenues, and flowers when twenty or thirty feet high, and of six or seven years growth. In Britain it requires a

7900 Leaves elliptic oblong simply serrated, Peduncles 1-flowered

7901 Petals 27-30 purple : outer oblong ; inner lanceolate

7902 Petals 9-12 yellowish ovate roundish

7903 Leaves truncate at end with two broad opposite stipules

7904 Leaves evergreen oval-obl. coriaceous shining above ferruginous beneath, Flowers erect with 9-12 petals

7905 Leaves elliptical blunt glaucous beneath, Flowers with 9-12 contracted petals which are ovate concave

7906 Like the last, but leaves evergreen elliptical acute at each end

7907 Lvs. deciduous obovate abruptly acuminate the younger pubescent, Flowers naked erect with 6-9 petals

7908 Lvs. deciduous obov. acute netted nearly smooth, Fls. erect, Sepals 3, Petals 6 obovate, Styles very short

7909 Lvs. decid. obov. point. at each end, younger downy ben., old ones smooth, Fls. erect, Sep. 3, Pet. 6, Styles [very short

7910 Leaves evergreen smooth netted ellipt. acuminate at each end subglaucous, Flowers cernuous

7911 Leaves evergreen elliptical obl. : the old smooth ; younger and branches fuscous downy, Flowers erect

7912 Lvs. deciduous heart-shaped subovate acute, above smooth, beneath somewhat tomentose, Pet. 6-9. obl.

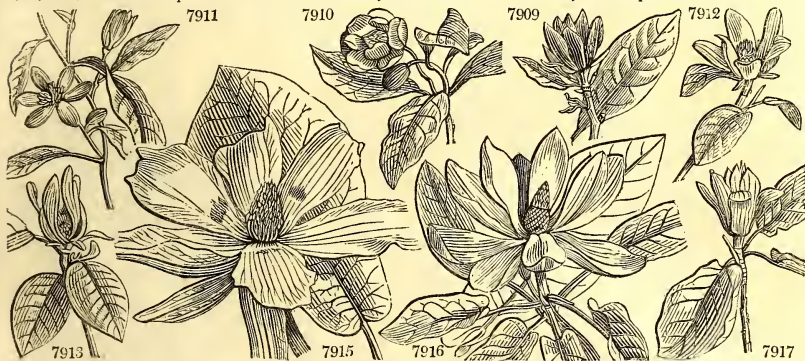
7913 Leaves deciduous oval acuminate pubescent beneath, Petals 6-9

7914 Leaves deciduous lanc. much spreading, younger downy beneath, Petals 9-12, the outer hanging down

7915 Lvs. deciduous very large obl. obov. subuncinate cordate at base, beneath whitish glaucous, Pet. 6-9 ovate

7916 Lvs. decid. smooth spatulate obov. subcord. at base, Auricles blunt close, Sep. 3 much spread, Pet. 9 oblong

7917 Lvs. decid. smth spatul. obov. subcord. at base, of same color on both sides, Auric. spread, Pet. 9 lanc. acum.



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greater age, though ringing might probably be successfully applied to throwing this and other ornamental trees into a flowering state. There are many fine old trees round London, in the parishes of Fulham, Walham-green, Kew, &c., and a very fine one even so far north as Pitcaithly wells in Fifeshire.

1217. *Magnolia*. In honor of Pierre Magnol, professor of medicine, and prefect of the botanic garden at Montpellier ; author of *Botanicum Monspeliense*, 1676, and other works. The species are chiefly large trees with large leaves, and axillary flowers, also very large and highly odorous.

M. grandiflora is the noblest species ; the leaves, which are persistent, are nine or ten inches long, and not unlike those of a common laurel. The flowers are produced at the ends of the branches : they are very large, and composed of eight or ten petals, narrow at their base, but broad, rounded, and a little waved at their extremities ; they spread open very wide, are of a pure white color, and have an agreeable scent.

The variety *g. elliptica* or Exmouth (having been raised from the seed of an old tree in Sir John Collington's garden of that place) flowers earliest and most freely : it is also the hardiest.

M. glauca is deciduous. In America it is known by the names of *white laurel*, *swamp sassafras*, and *beaver tree*. It has the last name, because the root is eaten as a great dainty by beavers ; and this animal is caught by means of it. Kalm says, these trees may be discovered by the scent of the blossoms at the distance of three quarters of a mile, if the wind be favorable. It is beyond description pleasant to travel in the woods at the flowering season, especially in the evening. They retain their flowers for three weeks, and even longer. The berries also look very handsome when they are ripe, being of a rich red color, and hanging in bunches on slender threads. They cure coughs and other pectoral diseases by putting these berries into brandy, and giving a draught of the liquor every morning. The wood is made use of for joiners' planes. Dillenius remarks, that the flowers never open in a morning, that the calyx falls off at the second opening of the flower, but that the petals dry on, and that the scent resembles that of the lily of the valley, with a mixture of aromatic.

M. conspicua is much valued as a free flowerer, and on account of the early appearance of its white odoriferous blossoms. *Yulan* is the vernacular name in Japan.

M. acuminata bears a fruit about three inches long, like a small cucumber, and is thence called cucumber tree in America.

M. tripetala has leaves twelve or fifteen inches long and five or six inches wide, narrowing to a point at each extremity, and placed at the ends of the branches in a circular manner like an umbrella, whence its name. The flowers are composed of ten, eleven, or twelve large oblong white petals ; the wood is soft and spongy, and the leaves drop off earlier than in the other deciduous sorts.

The different species, Sweet observes, are generally increased by layers or seeds : when the layers are first taken off they should be potted in a mixture of loam and peat, and placed in a close frame till they have taken fresh root. None of the leaves should be taken off or shortened, nor any shoots be cut off ; or their tops shortened, as they will not succeed so well ; for the more branches and leaves are on them, the sooner they will strike fresh root. Most cultivators cut off many of the leaves and shoots of layers, when they are first taken off, thinking the roots will not have so much to nourish, which is the very reason

1218. MICHELIA. W.	MICHELIA.	sweet-scented	♂	□	tm	20	Magnoliaceæ.	Sp. 1-7.	...	Y	E. Indies	1779.	C	s.l	Rhe. mal. l. t. 19	
7918 Champaca W.																
1219. UVA'RIA. W.	UVARIA.		♂	□	or	20	Annonaceæ.	Sp. 1-9.	...	R.G	E. Indies	1794.	C	p.l	Rhe. mal. 2. t. 10	
7919 Zeylanica W.	Ceylon															
1220. ANNO'NA. P. S.	CUSTARD APPLE.		♂	□	fr	10	Annonaceæ.	Sp. 7-36.	...	G.Y	W. Indies	1656.	C	r.m	Jac. obs. 1. t. 5	
7990 muricata W.	Sour-sop		♂	□	fr	10	...	...	...	...	...	...	C	r.m	Rh. m. 3. t. 30, 31
7921 Cherimolia Mill.	Cherimoyer		♂	□	fr	18	...	...	...	...	...	...	C	r.m	Trew. ehr. t. 49
7922 squamosa W.	Sweet-sop		♂	□	fr	20	...	...	...	W.G	S. Amer.	1731.	C	r.m	Rhe. mal. 3. t. 29
7923 paludosa W.	marsh		♂	□	or	4	...	...	...	G	Guiana	1803.	C	r.m	Aub. gui. 1. t. 246
7924 reticulata W.	netted		♂	□	fr	20	...	...	...	W.G	S. Amer.	1690.	C	r.m	Pl. alm. t. 240, f. 6
7925 palustris W.	Cork-wood		♂	□	or	6	...	...	...	Y	W. Indies	1731.	C	r.m	Cat. car. 2. t. 64
7926 glabra W.	smooth-fruited		♂	□	or	16	jl.au	Br	Carolina	1774.	C	r.m	Cat. car. 2. t. 64
1221. ARTABO'TRYS. R. Br.	ARTABOTRYS.		♂	□	or	6	Annonaceæ.	Sp. 1.	...	G	China	1758.	S	r.m	Bot. reg. 423	
7927 odoratis'sima R.Br.	sweet-scented		♂	□	or	6	...	...	...	...	...	...
U. hexapetala W.																
1222. GUATTE'RIA. R.&P.	GUATTERIA.		♂	□	or	3	Annonaceæ.	Sp. 2-22.	...	...	China	1822.	C	r.m	Bot. reg. 836
7928 rufa Dun.	rufous		♂	□	or	3	jl.au	Br	China	1822.	C	r.m	Bot. reg. 836
7929 virgata Dun.	Lancewood		♂	□	tm	30	W	Jamaica	1793.	C	p.l	Dun. mon. t. 31
Uvaria lanceolata Swz.																
1223. ASIMINA. Ad.	ASIMINA.		♂	□	or	3	Annonaceæ.	Sp. 3-5.	Pa.pu	N. Amer.	1736.	S	p.l	Cat. car. 2. t. 83
7930 triloba Ph.	trifid-fruited		♂	□	or	3	...	...	...	...	...	...
7931 parviflora Ph.	small-flowered		♂	□	or	2	ap.my	Br	N. Amer.	1806.	L	p.l	Dun. mon. t. 9
7932 pygmaea Ph.	dwarf		♂	□	or	1	W	N. Amer.	1812.	L	p.l	Bartr. trav. t. 1
1224. XYLO'PIA. W.	XYLOPIA.		♂	□	or	4	Annonaceæ.	Sp. 2-9.	...	...	W. Indies	1793.	C	p.l	Br. jam. t. 5. f. 2
7933 muricata W.	rough-fruited		♂	□	or	4	...	...	...	...	...	...
7934 glabra W.	smooth-fruited		♂	□	tm	20	...	...	...	...	Jamaica	...	C	p.l	Pl. al. t. 238. f. 4
1225. HEPATICA. W. en.	HEPATICA.		♂	△	or	1/2	Ranunculaceæ.	Sp. 1-3.	...	...	Europe	1573.	D	s.l	Bot. mag. 10
7935 triloba W.	common		♂	△	or	1/2	...	...	...	...	...	...
α cœrulea	blue		♂	△	or	1/2	...	...	...	...	...	...
β cœruleo-plena	double-blue		♂	△	or	1/2	...	...	...	...	...	...
γ rubra	red		♂	△	or	1/2	...	...	...	...	...	...
δ rubro-plena	double-red		♂	△	or	1/2				
ε alba	red-anth. white		♂	△	or	1/2				
ξ nivea	snowy-white		♂	△	or	1/2				



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they often lose great part of their crop; layers of any kind of shrub whatever, when first taken off, should not have a single leaf taken off till they have made fresh root: supposing their tops flag ever so much, as long as there is life it will draw up the sap, and help the plant to root afresh. The Chinese kinds are often inarched or budded on *M. obovata*, which takes readily. (*Bot. Cult.* 306.)

1218. *Michelia*. Named by Linnæus, in honor of Pietro Antonio Micheli, of Florence, author of *Nova Plantarum Genera*, Flor. 1729, fol. A lofty tree, with fragrant flowers, and fruit edible, but not agreeable. In our stoves it grows well in light loam, and cuttings root in sand under a glass and plunged in heat.

1219. *Uvaria*. The fruit grows in bunches like a small bunch of grapes, whence it has been called *Uvaria* from *Uva*. The berries are considered a specific for gonorrhœa, and are used under the name of *cubeba*. These are trees or shrubs with erect or trailing stems, and 1-4-flowered axillary peduncles.

1220. *Anona*. This is called by the Malays, *manoa*, and at Banda, *menona*, which it is presumed that the Europeans have corrupted into *Anona*. As the word signifies in Latin food, it has been adopted by Linnæus in this sense, because of the habitual use made of the fruit by the Americans. The species are for the most part fruit trees, with soft pulpy subacid berries, sometimes as large as an orange, but generally more like a plum.

A. muricata is common in every savannah of Jamaica, flowering in the spring. The large succulent fruit is agreeable to new-comers and over-heated habits; but it is so common, and so much in use among the negroes, that it is now hardly ever used among the better sort of people. The smell and taste of the fruit, flowers, and whole plant, resemble very much those of black currants.

A. tripetala is a large tree with large bright green leaves. The fruit is oblong, scaly on the outside, and of a dark purple color when ripe; the flesh is soft and sweet, and has many brown seeds intermixed with it which are very smooth and shining. It is esteemed by the Peruvians as one of their most delicate sorts.

A. palustris grows wild in soft marshy places in Jamaica, and bears a fine sweet-scented fruit, of no disagreeable flavour; but it is said to be a strong narcotic, and is not eaten on that account. It is called alligator apple. The wood of this tree is so very soft, even after it is dried, that it is frequently used by the country people instead of corks, to stop up their jugs and calabashes; and whence it has now universally obtained the name of cork-wood in Jamaica. (*Browne*.)

To bear fruit in our stoves, these trees require a rich loamy soil, rather moist, and to be trained on a wall or trellis close under the glass. Ringing would also be useful. They are propagated by ripened cuttings, of a good size, with their leaves on, planted in sand, and plunged in heat.

7918 Leaves lanceolate smooth

7919 Leaves lanc. acuminate, Pedunc. lateral solitary 1-flowered

7920 Leaves ovate lanceolate smooth somewhat shining, Pedunc. solitary 1-flowered

7921 Leaves ovate lanceolate not dotted very finely silky beneath, Outer petal downy outside

7922 Leaves lanceolate smooth with pellucid dots, Outer petals smooth

7923 Leaves obl. acute somewhat downy above, silky and rufous beneath, Flowers on short stalks

7924 Leaves obl. lanc. acute smooth somewhat dotted, Outer petals obl. somewhat closed

7925 Leaves ovate obl. coriaceous very smooth, Fl. solitary stalked

7926 Leaves ovate lanc. smooth, Pedunc. opposite the leaves 2-flowered

7927 Leaves obl. lanc. acuminate smooth shining

7928 Leaves oval acuminate cordate covered beneath, as on the branches, with brown down

7929 Leaves ovate acuminate very smooth nearly sessile, Pedunc. axillary 1-flowered

7930 Leaves obl. cuneate acuminate, Branches quite smooth

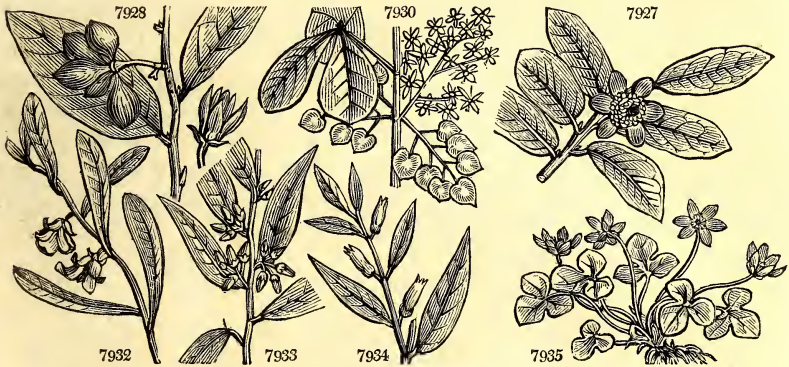
7931 Leaves cuneate obovate mucronate beneath, as on the branches, rufous with down

7932 Leaves obl. linear long-cuneate, Branches quite smooth

7933 Leaves lanc. acuminate strigose beneath bearded at end

7934 Leaves obl. ovate smooth, Pedunc. 1-fl. solitary

7935 Leaves cordate 3-lobed, Lobes entire



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1221. *Artabotrys*. This name was suggested by the curious grapple or tendril belonging to the peduncle, by which the growing fruit is conveniently suspended on the nearest support. A beautiful Chinese plant, cultivated as an ornamental covering to walls, as well as on account of the fragrance of the blossom, which diffuses an odor like that proceeding from the finer kinds of ripe fruit. The genus is intermediate, between *Kadsura* and *Guatteria*.

1222. *Guatteria*. Named by the authors of the *Flora Peruviana*, after John Baptist Guatteri, an Italian professor of botany at Parma. *G. virgata* is one of the best timber trees in Jamaica for strength and elasticity; it is imported under the name of lance-wood, and much used by coachmakers for shafts to light carriages.

1223. *Asimina*. A name coined by Adanson, without any meaning. Shrubs with deciduous, oblong, often cuneate leaves, and axillary flowers, which often appear before the leaves. The species are natives of shady woods in the more southern provinces of North America.

1224. *Xylopia*. Named by syncope from *ξύλον πικρόν*, bitter wood, in allusion to the properties of the wood. Fruit-bearing trees, but not in much esteem as such. *X. glabra* is the most useful species. The wood, bark, and berries have an agreeable bitter taste, not unlike that of the orange seed. The wild pigeons feed much upon the latter, and owe that delicate bitterish flavor, so peculiar to them in the season, wholly to this part of their food. Fresh gathered from the tree, they are agreeable to the palate and grateful to the stomach. The bark is also richly impregnated with this juice as well as the wood, and both yield a very agreeable bitter in the mouth while fresh; but that delicacy diminishes greatly after they are dried. The wood is easily wrought, and esteemed a good timber where it is not much exposed to the weather. The bitter quality of this tree is communicated with great facility. A handful of the shavings immersed in water and instantly taken out again, will render it of a very bitter taste. Sugar sent over in hogsheads made of this wood was so bitter that no person would purchase it. Bedsteads and presses made of it, are proof against cockroaches and other insects. Carpenters who work the wood, perceive a bitter taste in their mouths and throats. A decoction of it is said to be of service in cholics, and to create appetite.

1225. *Hepatica*. From *ἥπατις*, of or relating to the liver. The three lobes of the leaves have been compared to the three lobes of the liver. A great favorite of the flower border, both as being evergreen in its foliage, and for its abundant blossoms and great variety of colors and shades.

1226. ANEMONE. <i>W. en.</i> ANEMONE.		<i>Ranunculaceæ. Sp. 27—40.</i>							
7936 coronária <i>W.</i>	Poppy	Δ	or	ap.my	St	Levant	1596	R l.p	Bot. mag. 841
β plena	double-flowered	Δ	or	ap.my	St	.....	...	R r.l	
7937 hortensis <i>W.</i>	star	Δ	or	ap.my	St	Italy	1597.	R s.p	Bot. mag. 123
<i>A. stellata</i> Dec.									
7938 palmata <i>W.</i>	palmated	Δ	or	my.jn	Y	Portugal	1597.	R s.p	Bot. reg. 200
7939 sibirica <i>W.</i>	Siberian	Δ	or	jn	W	Siberia	1804.	R s.p	
7940 álba <i>Juss.</i>	white	Δ	or	jn	W	Siberia	1820.	R s.p	Bot. mag. 2167
7941 baldensis <i>W.</i>	Strawberry-like	Δ	or	my	W	Switzerl.	1792.	R s.p	Jac. ic. 1. t. 103
7942 sylvêstris <i>W.</i>	Snow-drop	Δ	or	ap.my	W	Germany	1596.	R s.p	Bot. mag. 54
7943 pavonina <i>Dec.</i>	Peacock-eye	Δ	or	1 ap.my	R	France	...	R s.p	Clus. ic. f. 1, 2
7944 virginiana <i>W.</i>	Virginian	Δ	or	my.jn	W	N. Amer.	1732.	R s.p	Herm. par. t. 18
7945 uralensis <i>Dec.</i>	Ural	Δ	or	my	B	Siberia	1824.	R s.p	
7946 pensylvanica <i>Ph.</i>	Pensylvanian	Δ	or	1 my.jn	W	N. Amer.	1766.	R s.p	
7947 dichotoma <i>Ph.</i>	forked	Δ	or	1 my.jn	Pa.w	N. Amer.	1768.	R s.p	
7948 trifolia <i>W.</i>	three-leaved	Δ	or	ap.my	W	France	1597.	R s.p	Mor. s. 4. t. 25. f. 1
7949 nemorosa <i>W.</i>	wood	Δ	or	mr.my	W	Britain woods.	R s.p	R s.p	Eng. bot. 355
7950 apennina <i>W.</i>	blue mountain	Δ	or	mr.ap	B	England woods.	R s.p	R s.p	Eng. bot. 1062
7951 ranunculoides <i>W.</i>	yellow wood	Δ	or	mr.ap	Y	England woods.	R s.p	R s.p	Eng. bot. 1484
7952 narcissiflora <i>W.</i>	Narcissus-flow.	Δ	or	1 my	W	Siberia	1773.	R s.p	Bot. mag. 1120
7953 thalictroides <i>W.</i>	Meadow-rue-iv.	Δ	or	ap.my	W	N. Amer.	1768.	R s.p	Bot. mag. 866
7954 alpina <i>W. en.</i>	Alpine	Δ	or	jl	W	Austria	1658.	R s.p	Jac. aus. 1. t. 85
7955 pratensis <i>W. en.</i>	meadow	Δ	or	my	D. Pu	Germany	1731.	R s.p	Fl. dan. t. 611
7956 obsolêta <i>Szms.</i>	pale-flowered	Δ	or	my	Pu	Germany	...	R s.p	Bot. mag. 1863
7957 Pulsatilla <i>L.</i>	com. Pasque fl.	Δ	or	ap.my	Y	England	ch. pa.	R s.p	Eng. bot. 51
7958 Halleri <i>W. en.</i>	Haller's P. fl.	Δ	or	ap.my	Pu	Switzerl.	1816.	R s.p	All ped. t. 80. f. 2
7959 vernalis <i>W. en.</i>	spring P. fl.	Δ	or	ap	Pa.w	Switzerl.	1752.	R s.p	Fl. dan. t. 29
7960 cernua <i>W.</i>	drooping P. fl.	Δ	or	my.jn	R.w	Japan	1806.	R s.p	
7961 patens <i>W. en.</i>	spreading P. fl.	Δ	or	1 jn.jl	Li.Y	Siberia	1752.	R s.p	Bot. mag. 1994
7962 capensis <i>Dec.</i>	Cape	Δ	or	1 mr.ap	Pu	C. G. H.	1795.	S pl	Bot. mag. 716
<i>Atragene capensis</i> L.									
1227. CLEMATIS. <i>L.</i>		<i>Ranunculaceæ. Sp. 26—90.</i>							
7963 austriaca <i>H. K.</i>	Alpine	R	or	12 my.jl	B	Austria	1792.	C co	Bot. rep. 180
7964 sibirica <i>H. K.</i>	Siberian	R	or	12 jn.jl	W	Siberia	1753.	L co	Pall. ross. 2. t. 76
7965 verticillaris <i>Dec.</i>	American	R	or	15 my.jn	Pu	N. Amer.	1797.	L sp	Bot. mag. 887
<i>A. Americana</i> H.K.									
7966 glauca <i>W.</i>	glaucous	R	or	12 ap	Pa.Y	Siberia	...	L co	Dend. brit. 73
7967 hedyсарifolia <i>Dec.</i>	hedysarum-iv.	R	or	12 o	W	E. Indies	1819.	L co	Bot. reg. 599
7968 chinensis <i>Retz.</i>	Chinese	R	or	12 ...	W.G	China	1820.	L co	Retz. obs. t. 2
7969 cirrhosa <i>W.</i>	evergreen	R	or	12 mr.ap	W.G	Spain	1596.	C co	Bot. mag. 1070
7970 florida <i>W.</i>	large-flowered	R	or	10 ap.s	W.y	Japan	1776.	L s.l	Bot. mag. 834
β flore pleno	double-flowered	R	or	10 ap.s	W.y	.....	...	L s.l	
7971 viticella <i>W.</i>	purple	R	or	20 jn.s	Pu	Spain	1569.	S co	Bot. mag. 565
β plena	double-purple	R	or	20 jn.s	Pu	.....	...	L co	
7972 Viorna <i>W.</i>	leathery-flower.	R	or	12 jn.s	Pu	N. Amer.	1730.	S co	Di. el. t. 118. f. 144
7973 reticulata <i>Ph.</i>	netted	R	or	8 jn.s	Pu	N. Amer.	1812.	L s.p	Dend. brit. 72
7974 cylindrica <i>H. K.</i>	long-flowered	R	or	8 jls	B	N. Amer.	1802.	L pl	Bot. mag. 1160
7975 crispa <i>B. M.</i>	curled-flowered	R	or	6 jls	Pa.pu	N. Amer.	1725.	L pl	Bot. mag. 1892
7976 balearica <i>Rich.</i>	Minorca	R	or	12 f.mr	Y.w	Minorca	1783.	C co	Bot. mag. 959
<i>calycina</i> W.									
7977 orientalis <i>W.</i>	oriental	R	or	8 jlo	Y.w	Levant	1731.	Sk co	Di. el. t. 119. f. 145
7978 virginiana <i>W.</i>	Virginian	R	or	15 jn.au	G	N. Amer.	1767.	L s.p	Dend. brit. 74
7979 dioica <i>W.</i>	Jamaica	R	or	15 my.jn	G.y	W. Indies	1733.	L s.p	Slo. ja. 1. t. 128. f. 1
7980 aristata <i>B. Reg.</i>	armed-anther.	R	or	15 my.au	G.y	N. Holl.	1812.	L s.p	Bot. reg. 238
7981 brachiata <i>B. Reg.</i>	armed	R	or	12 o.d	Y.g	C. G. H.	...	L s.p	Bot. reg. 97



History, Use, Propagation, Culture,

1226. *Anemone*. From *ανεμος*, wind, because the greater part of the species grow in elevated places much exposed to the wind. The species are shewy flowering plants, and *A. coronaria* and *hortensis* are well known florists' flowers, valued for their hardy nature, and also because they will flower at almost any season, according to the time the roots are kept out of the ground, and the season when they are replanted. The prevailing colors are red, white, and blue, and semidouble flowers are in nearly as much repute as double ones. Many new varieties have been raised from seed; but they are not named by the florists, as in the case of tulips and pinks. The roots of anemones are solid flattened masses like those of ginger, and like them are multiplied by division. A root which has remained in the soil two or three years, if it has room to extend, attains a great breadth, but is still only one root; and hence the mode of sale is by weight, and the roots are divided when planted.

The soil preferred by the anemone is a fresh loam, rather heavy or light. The usual time of planting is the end of October, covering the roots three inches; but to have an early bloom they may be planted in the beginning of September, and to have a bloom every month in the year, plant every month. The finer sorts

- 7936 Leaves ternate with multifid segments and linear mucronate lobes, Sep. 6 oval close
 7937 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile obl. entire or cut, Sepals 10-12 oblong
 7938 Leaves cordate roundish bluntly 3-5-lobed toothed, Invol. sessile trifid, Sepals 10-12 oblong
 7939 Leaves ternate with cut-toothed ciliated segments, Invol. on short stalks 5 cut, Sepals 6 round
 7940 Leaves ternate or quinate, Segments cut-toothed at the end, Invol. stalked similar, Sepals 5 obovate
 7941 Lvs. binate with a branch, stalk, Segm. many-part. with lin. lobes, Inv. shortly stalk. multifid, Sep. obl.
 7942 Leaves ternate or quinate, Segm. cut-toothed at end, Invol. stalked similar, Sepals 6 elliptical
 7943 Leaves 3-parted with cuneate cut-toothed lobes, Invol. sessile oblong entire or a little cut, Sep. very acute
 7944 Leaves ternate with trifid acuminate cut-toothed segments, Invol. stalked similar, Sepals 5 elliptical
 7945 Invol. leaves on short stalks thrice cut with linear cut-toothed segments, Sepals 5-6 oval-oblong
 7946 Leaves 3-parted with cut-toothed acuminate lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit hairy
 7947 Leaves 3-parted with cut-toothed oblong lobes, Invol. sessile similar, Sepals 5 elliptical, Fruit smooth
 7948 Leaves all stalked ternate with ovate lanc. acute-toothed segments, Sepals 5 elliptical obtuse
 7949 Leaves ternate with trifid cut-toothed lanc. acute segments, Invol. stalked similar, Sepals 6 elliptical
 7950 Leaves 3-ternate with a branched stalk, Sepals 12-14 oblong obtuse, Leaves of invol. stalked
 7951 Radical lvs. 3-5 cut with subtrifid cut-toothed segments, Invol. stalk. 3-parted toothed, Sep. 5-6 elliptical
 7952 Radical leaves villous palmate 3-5-parted with cut-toothed lobes, Lobes lin. acute, Fl. umbelled
 7953 Flowers umbelled, Floral leaves stalked binate forming a sort of involucre
 7954 Leaves binate with a branched petiole, Segm. pinnated cut serrate, Sepals 6 spreading
 7955 Leaves pinnated with multifid segments, Lobes linear, Flowers pendulous, Sepals 6 erect reflexed at end
 7956 Like the last, but the flower larger and paler, and the lobes of the pinnae broader and awned
 7957 Leaves pinnated with multifid segments, Lobes linear, Flower somewhat nodding, Sepals 6 spreading
 7958 Leaves pinnated very villous with 3-parted segments, Lobes lanc. lin. acum. Fl. erect, Sep. 6 oval lanceol.
 7959 Leaves pinnated with cuneate lanceolate trifid smoothish segments, Fl. erect, Invol. very villous
 7960 Leaves pinnated villous beneath, Segm. pinnatifid, Lobes cut oblong, Fl. subernuous, Sep. 6 spreading
 7961 Leaves pinnate coming after the flowers, Segm. 3-parted, Lobes toothed cut at end, Fl. erect spreading
 7962 Leaves binate rigid smooth, Segm. cuneiform toothed at end

- 7963 Pedunc. 1-fl. longer than leaf, Lvs. binate, Segm. ovate-lanc. acum. serrate, Pet. subpatulate obtuse
 7964 Pedunc. 1-fl. the length of leaf, Leaves binate with obl. lanc. acum. segments, Pet. emarginate at end
 7965 Pedunc. 1-fl. Leaves whorled in fours ternate, Segm. stalked cordate lanc. entire, Petals acute
 7966 Leaves pinnate, Segm. glaucous smooth cuneiform lobed, Lobes entire blunt, Pedunc. trifid
 7967 Fl. paniced, Leaves ternate, Segm. ovate lanc. acum. nearly entire smooth 5-nerved at base
 7968 Leaves pinnated, Segm. ovate lanc. entire, Pedunc. few-fl. longer than leaf, Ovaries about 4, Tails almost
 7969 Pedunc. 1-fl. with an involucre, Leaves ovate subcordate toothed fasciated [naked
 7970 Pedunc. 1-fl. longer than leaf, Leaves tern. decomposed, Segm. ovate acute entire, Sepals much pointed

- 7971 Pedunc. 1-fl. longer than leaf, Leaves entire or ternate decomp. Lobes or segm. entire, Sepals obovate
 7972 Pedunc. 1-fl. Sep. connivent thick reflexed at end acuminate, Lvs. smooth with ent. or 3-lob. ov. acute segm.
 7973 Pedunc. 1-fl. Sep. connivent, Lvs. coriaceous netted 5-nerved smooth with stalked 3-lobed or entire segments
 7974 Pedunc. 1-fl. Sep. acum. wavy at edge thin, Lvs. smooth thin decomposed with stalked ov. or obl. segm.
 7975 Pedunc. 1-fl. shorter than leaf, Leaves entire 3-lobed very acute, Sepals conniving at base spreading at end
 7976 Pedunc. 1-fl. with an involucre under the leaf, Leaves ternate with stalked ternate cut-toothed segments

- 7977 Leaves pinnate with glaucous smooth wedge-shaped 3-lobed segments, Lobes toothed acuminate
 7978 Fl. paniced dicocious, Leaves ternate, Segm. cordate acute coarsely toothed and lobed
 7979 Fl. paniced dicocious, Lvs. tern. Segm. smooth ovate cordate acuminate 3-nerved ent. Pedicels pubescent
 7980 Fl. paniced dicec. Sep. 4. Lvs. tern. Segm. ovate subcord. acute coarsely toothed 3-nerv. Anth. awned at end
 7981 Ped. 3-1-fl. or 3-fid or panic. long. than lvs. Lvs. tern. or pinn. Segm. ovate coarsely toothed, Fl.-buds globose

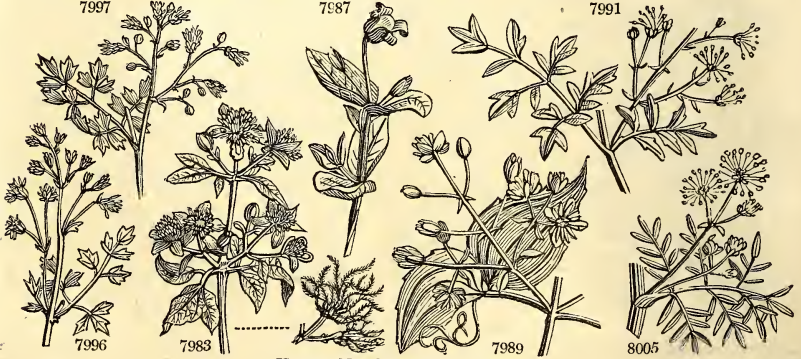


and Miscellaneous Particulars.

require protection from violent storms and excessive light and heat; but many varieties do exceeding well in borders. A very severe winter will destroy the roots if the surface is not mulched; but the anemone is considerably harder than the ranunculus. Anemone pulsatilla is common in borders. The roots are mostly tuberous, and when taken up should not be long kept out of ground. Like most tuberous plants, they thrive best in a sandy loam.

1327. *Clematis*. From κλημα, a tendril; the climbing habit of this genus is well known. The species are mostly climbing shrubs of rapid growth, free-flowerers, very ornamental, and some are highly odoriferous. *C. florida*, *viticella*, and *flammula* are admired species. The plants formerly called *Atragene*, but now properly united to *Clematis*, are shewy climbers, especially *C. austriaca*, which grows and flowers freely. Any common garden soil will suit them, and they are readily increased by layers; or young cuttings, planted under a common hand-glass, will root freely. Seeds are often ripened in abundance, by which any quantity may be raised; they are best sown in pans, or wide-mouthed pots, and placed in a shady situation, where they will

7982	Massóniana Dec.	Masson's	h	l	or	12	...	...	C. G. H.	...	L	s p	
7983	Vitalba W.	Traveller's Joy	h	l	or	20	jl.s	W	England	hed.	S	co	Eng. bot. 612
7984	Flammula W.	sweet-scented	h	l	or	20	jl.o	W	France	1596.	S	co	Kn. th. 2. t. c. 9
	<i>a rotundifolia</i>	round-leaved	h	l	or	20	jl.o	W	France	1596.	L	co	
	<i>C. fragrans</i> Tenore.												
	<i>β vulgaris</i>	broad-leaved	h	l	or	20	jl.o	W	France	...	L	co	
	<i>γ maritima</i> W.	narrow-leaved	h	Δ	or	20	jn.s	W	S. Europe	...	D	p l	
7985	erecta W.	upright	h	Δ	or	4	jn.au	W	Austria	1537.	D	p l	Jac. aus. 3. t. 291
7983	angustifolia W.	narrow-leaved	h	Δ	or	4	my.s	W	Austria	1787.	D	p l	Dend. brit. 112
7987	ochroleuca W.	silky	h	Δ	or	2	jn.jl	L.Y	N. Amer.	1767.	D	p l	Bot. cab. 651
7988	integrifolia W.	entire-leaved	h	Δ	or	2	jn.au	B	Hungary	1596.	D	p l	Bot. mag. 65
	<i>β angustifolia</i>	narr.-entire-ly.	h	Δ	or	2	jn.au	B	Hungary	...	D	p l	
1228.	NARAVELIA. Dec.	NARAVELIA.							<i>Ranunculacea. Sp. 1.</i>				
7989	zeylanica W.	Ceylon	h	□	or	12	...	Y	Ceylon	1796.	L	s p	Rox.cor.2. t. 188
1229.	THALICTRUM. W.	MEADOW-RUE.							<i>Ranunculacea. Sp. 26-52.</i>				
7990	alpinum W.	Alpine	h	Δ	or	1	my.jl	W	Britain	bgs. m.	D	co	Eng. bot. 262
7991	foetidum W.	fetid	h	Δ	or	1	my.jl	W	France	1640.	D	co	Pl. ra. h. 2. t. 174
7992	tuberosum W.	tuberous-rooted	h	Δ	or	2	jn	W	Spain	1713.	D	co	M. ic. 2. t. 265. f. 2
7993	Cornuti W.	Canadian	h	Δ	or	3	my.jl	W	N. Amer.	1640.	D	co	Corn. can. t. 187
	<i>T. corynellum</i> Dec.												
7994	dioicum W.	dioecious	h	Δ	or	1	jn.jl	L.Y	N. Amer.	1759.	D	co	
7995	elatum W.	tall	h	Δ	or	2	jn.au	L.Y	Hungary	1794.	D	co	Jac. vind. 3. t. 95
7996	majus W.	greater	h	Δ	or	3	jn.jl	G.v	England	m.thi.	D	co	Eng. bot. 611
7997	medium W.	middle	h	Δ	or	1	jn.au	G.v	Hungary	1789.	D	co	Jac. vind. 3. t. 96
7998	minus W.	lesser	h	Δ	or	1	jn.jl	Pu	Britain	ch. pa.	D	co	Eng. bot. 11
7999	concinnum W. en.	neat	h	Δ	or	3	jn.jl	W.G	.....	...	D	co	
8000	rugosum W.	rough	h	Δ	or	2	jl	W	N. Amer.	1774.	D	co	
8001	sibiricum W.	Siberian	h	Δ	or	1	jn.jl	L.Y	Siberia	1775.	D	co	
8002	squarrosum W.	squarrose	h	Δ	or	1	jn.jl	L.Y	Siberia	1806.	D	co	
8003	pubescens Ph.	pubescent	h	Δ	or	1	jn.jl	L.Y	N. Amer.	1806.	D	co	
8004	purpurascens W.	purple	h	Δ	or	3	jn.jl	L.P	N. Amer.	1699.	D	co	
8005	angustifolium W.	narrow-leaved	h	Δ	or	3	jn.jl	W	Germany	1739.	D	co	Jac. vind. 3. t. 43
8006	lucidum W.	shining	h	Δ	or	4	my.jl	Li.Y	Spain	1739.	D	co	Pl. alm. t. 65. f. 5
8007	flavum W.	common	h	Δ	or	4	my.jl	O	Britain	m.me.	D	co	Eng. bot. 367
8008	nigricans W.	black	h	Δ	or	2	my.jl	P	Austria	1798.	D	co	Jac. aus. 5. t. 421
8009	glaucum Desf. speciosum W. en.	glaucous-leav'd	h	Δ	or	5	jn.jl	Y	Spain	1798.	D	co	Mo. his. t. 20. f. 1
8010	ranunculinum W. en.	Ranuncul. lvd.	h	Δ	or	1	jn.jl	Pa.Y	N. Amer.	1806.	D	co	
8011	simplex W.	simple-stalked	h	Δ	or	1	my.jn	L.Y	Sweden	1778.	D	co	Fl. dan. 244
8012	aquilegifolium W.	Columbine-lvd.	h	Δ	or	3	my.jl	L.Pu	Austria	1731.	D	co	Bot. mag. 2025
	<i>β atro-purpureum</i>	dark-purple	h	Δ	or	3	my.jl	D.Pu	Austria	1731.	D	co	Bot. mag. 118
8013	galoides W. en.	sweet-scented	h	Δ	or	1	my.jl	Y	Alsace	1816.	D	co	Mo. his. t. 20. f. 810
8014	contortum W.	crook-seeded	h	Δ	or	2	jn.jl	W	Siberia	1796.	D	co	
8015	petaloides W.	Daurian	h	Δ	or	3	jn.jl	W	Dauria	1799.	D	co	Bot. cab. 891
1230.	ADONIS. L.	ADONIS.							<i>Ranunculacea. Sp. 6-14.</i>				
8016	estivális W.	tall	o	pr	1	jn.jl	Sc	S. Europe	1629.	S	co	Kn. th. 2. t. A. 12	
8017	autumnális W.	Pheasant's-eye	o	pr	1	my.o	Cr	Britain	cor. fi.	S	co	Eng. bot. 308	
8018	flammea W.	flame-colored	o	pr	1	jn.jl	Y	Austria	1800.	S	co	Jac. aus. 4. t. 355	
8019	vernális W.	perennial	h	Δ	or	1	mr.ap	Y	Europe	1629.	D	s p	Bot. mag. 134
8020	fiava Vill.	yellow	h	o	pr	1	jn.jl	Y	S. Europe	...	S	co	Wein. phy. t. 28
8021	pyrenáica Dec.	Pyrenean	h	Δ	or	1	jl	Y	Pyrenees	1817.	D	co	
1231.	KNOWLTONIA. H. K.	KNOWLTONIA.							<i>Ranunculacea. Sp. 2-5.</i>				
8022	rigida H. K.	thick-leaved	h	Δ	cu	1	mr.my	Y.g	C. G. H.	1780.	S	p l	Bot. cab. 850
8023	vesicatoria H. K.	blistering	h	Δ	cu	1	f.ap	Y.g	C. G. H.	1691.	S	p l	Bot. mag. 775
1232.	FICA'RIA. Pers.	PILEWORT.							<i>Ranunculacea. Sp. 1-2.</i>				
8024	ranunculoides Mön.	vernal	h	Δ	w	1	mr.my	Y	Britain	he. ba.	D	p l	Eng. bot. 584
	<i>β plena</i>	double-flowered	h	Δ	or	1	mr.my	Y	Britain	he. ba.	D	p l	



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remain some time before they come up; they may then be potted off, or planted out in the ground, when they will require to be shaded a little if the weather be warm, till they have taken fresh root. (*Bot. Cult.* 281.)

1228. *Naravelia*. An alteration of *naravel*, the name by which the plant is known in Ceylon. A plant with the habit of Clematis, but bearing leaves of only one opposite many-nerved pair, like Lathyrus.

1229. *Thalictrum*. This name is said to be derived from *θαλλω*, to grow green; from the bright color of the young shoots. The species are vigorous growing plants, with ramose roots and smooth finely divided leaves; they grow in any soil and situation, and *T. tuberosum*, *cornuti*, and *aquilegifolium*, are reckoned handsome ornaments in a border or shrubbery.

1230. *Adonis*. The plant which sprang from the blood of Adonis when wounded by the boar. Handsome border flowers, especially *A. vernalis* and *autumnalis*, and of the easiest culture in any common soil.

- 7982 Leaves pinnate with smooth subglaucescous acute cut-toothed 3-lobed segments
 7983 Lvs. pinn. Segm. ovate-lanc. cut-toothed acuminate truncate cordate at base, Pedunc. shorter than leaf
 7984 Leaves pinnate, Segments smooth entire or 3-lobed round oval oblong or linear rather acute
 α Segments nearly round

β Segments oval or oblong lanceolate
 γ Segments linear

- 7985 Leaves pinnate with stalked ovate-lanc. entire segments
 7986 Pedunc. 1-fl. Sepals 6-8 blunt, Leaves pinnate, Segm. lanc. lin. acute or 3-lobed, Stems erect
 7987 Pedunc. 1-fl. Fl. suberect, Leaves entire ovate; young ones silky
 7988 Pedunc. 1-fl. Fl. nodding, Leaves entire ovate lanc. smooth
 7989 The only species

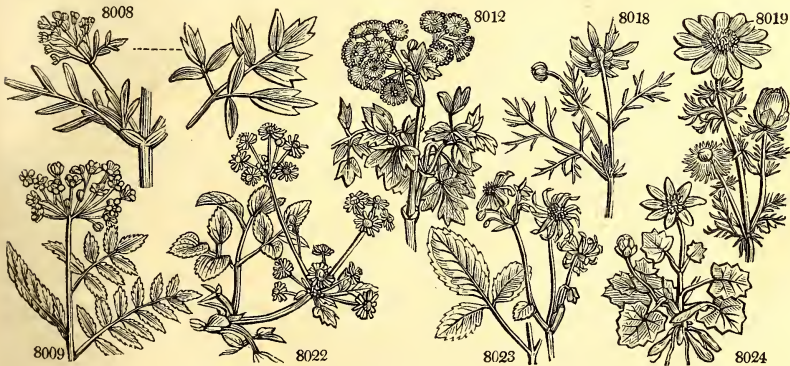
- 7990 Stem simple almost naked, Raceme simple terminal, Fl. nodding, Segm. smooth
 7991 Stem simple naked at base: leafy in middle; paniced at end, Lvs. pubescent viscid, Segm. blunt toothed
 7992 Fl. loosely corymbose or subsolitary, Invol. none, Bract subsessile
 7993 Fl. diceious, Filam. clavate at end, Pericarp obl. sessile striated, Segm. of leaves bluntly 3-lobed
 7994 Fl. diceious, Fil. filiform, Segm. of leaves roundish cordate bluntly lobed smooth
 7995 Stem round without bloom, Fl. paniced erect, Segm. of leaves smooth ovate or subcordate subtrifid
 7996 Stem round without bloom, Fl. loosely panic. Segm. of leaves smooth glauc. ben. Peric. obliq. round. at base
 7997 Stem round without bloom, Fl. loosely paniced, Segm. of lvs. obl. cuneiform sharply trifid: upper entire
 7998 St. round cover. with a glauc. bloom, Fl. loose. pan. cern. Segm. of lvs. roundish tooth. at end, glauc. beneath
 7999 Stem round upright, Fl. cernu. in a very large spreading panic. Segm. of lvs. smooth cuneif. trifid acute
 8000 St. erect round striat. green, Pan. erect comp. Fl. clust. Segm. of lvs. ov. subcord. coarsely cren. shin. above
 8001 Stem roundish, Fl. panic. cernuous, Segm. of lvs. smooth ov. cuneate trifid, Lobes acute entire or finely cut
 8002 Stem round, Fl. paniced cernuous, Petioles stem-clasping winged
 8003 Stem simple covered with scattered leaves paniced at end, Stem downy viscid
 8004 Fl. diceious or monœc. Filam. filif. colored, Segm. of lvs. roundish coarsely tooth. smooth glauc. beneath
 8005 Stem upright round somewhat furrowed, Root fibrous, Panic. multiple erect, Segm. of lvs. lin. lanc. entire
 8006 St. branch. round somew. furrow. Root fibr. Pan. multiple erect, Segm. of lvs. lin. lanc. ent. cuneate at base
 8007 Stem branch. erect somewhat furrowed, Root fibr. Pan. multiple erect, Segm. of lvs. cuneiform trifid acute
 8008 St. branch. erect somew. furrow. Root fibr. Pan. multiple erect, Segm. of rad. lvs. cuneif. trif. Caul. obl. lin.
 8009 Stem erect round striat. glauc. Pan. multip. erect close, Seg. of lvs. subcord. ov. bluntly trifid glauc. beneath

- 8010 Leaves simple 5-lobed serrated
 8011 Stem erect simple angular, Root creeping, Panic. erect racemose few-flowered, Segm. of leaves linear
 8012 Stipules ovate, two at the base of the ramifications of the petiole, Panic. corymb. Fruit 3-cornered
 8013 Stem round upright somewhat furrowed, Root creeping, Panic. erect, Segm. of lvs. lin. very narrow entire
 8014 Stipules O, Fl. loosely corymbose racemose, Fruit 3-cornered pendulous
 8015 Stem round nearly naked, Fl. corymb. Filam. dilated at end, Segm. of lvs. smooth ovate entire or 3-lobed

- 8016 Cal. hispid at base, Pet. flat obl. blunt, Fruit netted in a long lax spike
 8017 Cal. smooth, Pet. conc. conniving scarcely longer than cal. Fruit netted in an ovate head
 8018 Cal. hispid at base, Pet. flat acute longer than cal. Flower large, Fruit in a cylindrical head
 8019 Lower leaves abortive, Upper sessile, Fruit velvety, Pet. 10-12 oblong somewhat toothed
 8020 Cal. smooth distinct at base, Pet. flat obl. twice as long as cal. Fruit smooth in an oblong head
 8021 Rad. leaves on long stalks, Stalks trifid, Fruit smooth, Pet. 8-10 obl. cuneate entire

- 8022 Umb. supradecomound much spreading
 8023 Umb. simple few-flowered

- 8024 Root grumous, Stem leafy, Leaves cordate



and Miscellaneous Particulars.

1231. *Knowltonia*. Named after Thomas Knowlton, once the curator of the botanic garden at Eltham. The species grow freely in loam and peat, and are increased by dividing at the root, and by seeds.

1232. *Ficaria*. So named because the grumous roots bear tubercles like little figs. A common wood plant, remarkable for its shining leaves and bright yellow flowers. The young leaves are sometimes used as greens in Sweden, and the roots were formerly applied in poultices to piles in England, probably from their resemblance to that disease. These roots or tubercles lie near the surface, and are sometimes laid bare by the rains, and in this state have induced the ignorant, under the influence of superstition, to fancy that it rained wheat. The plant is injurious in moist grass lands, but is effectually destroyed by a dressing of coal or wood ashes.

1233. RANUNCULUS. W. Crow-Foot.		lesser-Spearw.		Ranunculaceae. Sp. 49-160.						
8025	Flammula W.	Δ	cu	1	jn.s	Y	Britain	wa. pl.	D co	Eng. bot. 387
8026	réptans W.	Δ	cu	1	jn.s	Y	Britain	wa. pl.	D co	Fl. dan. 108
8027	Lingua W.	Δ	cu	2	jn.au	Y	Britain	mud.d.	D co	Jac. aus. 100
8028	nodiflorus W.	Δ	o	1	my.jl	Y	Sicily	1714.	S co	Bot. mag. 2171
8029	gramineus W.	Δ	o	1	ap.jn	Y	Wales	al. me.	D co	Eng. bot. 2306
8030	parnassifolius W.	Δ	o	1	jn.jl	St	S. Europe	1769.	D co	Bot. mag. 386
8031	amplexicaulis W.	Δ	o	1	ap.my	Y	Pyrenees	1633.	D co	Bot. mag. 266
8032	bullatus W.	Δ	o	1	my.jn	Y	S. Europe	1640.	D co	M. his. t. 31. f. 50
8033	Thóra W.	Δ	o	1	my.jn	Y	Austria	1710.	D co	Jac. aus. 5. t. 442
8034	monspeiiacus Gouan.	Δ	o	1	ap.my	Y	S. France	...	D co	M. his. t. 30. f. 43
8035	lancerus Dec.	Δ	o	1	my.jn	Y	S. France	1821.	D co	Bell. taur. 5. t. 8
8036	ophioglossifolius Dec.	Δ	o	1	jn	Y	S. Europe	1823.	S co	
8037	salsuginosus Pall.	Δ	o	1	ap.my	Y	Siberia	1822.	D co	Jac. vind. t. 31
8038	fumarifolius Desf.	Δ	o	1	my.jn	Y	.....	...	D co	
8039	créticus W.	Δ	o	1	ap.my	Y	Candia	1658.	D co	Mo. his. t. 31. f. 43
8040	casubicus IV.	Δ	o	2	jn.jl	Y	Siberia	1794.	D co	Bot. mag. 2267
8041	aucicomus W.	Δ	o	1 1/2	ap.my	Y	Britain	woods.	D co	Eng. bot. 624
8042	arbitortus W.	Δ	o	1	my.au	Y	N. Amer.	1713.	D co	
8043	sceleratus W.	Δ	o	1	my.jn	Y	Britain	wa. pl.	S co	Eng. bot. 681
8044	aconitifolius W.	Δ	o	1	my.jn	W	A. of Eur.	1596.	D co	
	— flore pleno	Δ	o	1	my.jn	W	A. of Eur.	1596.	D co	Bot. mag. 204
	β platanifolius W.	Δ	o	2	jn.jl	W	Germany	1769.	D co	Fl. dan. 111
8045	pedatus W. en.	Δ	o	1	my.jn	Y	Hungary	1806.	D co	Bot. mag. 2229
8046	illyricus W.	Δ	o	1 1/2	my.jn	Y	S. Europe	1596.	D co	Jac. aus. 3. t. 222
	R. sericeus W.									
8047	asiaticus W.	Δ	o	1	my.jn	Va	Levant	1596.	D r.m	Mill. ic. 2. t. 216
8048	chærophyllus L.	Δ	o	1	my.jn	Y	Portugal	...	D r.m	Mo. h. t. 30. f. 44
8049	rutæfolius W.	Δ	o	1	my.jl	Y	Austria	1759.	D r.m	Jac. col. 1. t. 6, 7
8050	glaciális W.	Δ	o	1	jn.au	Y	Lapland	1775.	D s.l	Fl. dan. 19
8051	nivális W.	Δ	o	1	jn.au	Y	Lapland	1775.	D s.l	Fl. lap. t. 3. f. 2
8052	montanus W.	Δ	o	1	jn.au	Y	Lapland	1775.	D s.l	Jac. aus. t. 325, 6
8053	alpestris W.	Δ	o	1	jn.au	W	Scotland	al. riv.	S co	Eng. bot. 2390
8054	pensylvanicus W.	Δ	o	1	jn.jl	Y	N. Amer.	1785.	D p.l	Jac. aus. t. 1. t. 105
8055	bulbosus W.	Δ	o	1	my.jn	Y	Britain	me. pa.	S co	Eng. bot. 515
8056	hirsutus H. K.	Δ	o	1	jn.o	Y	England	rubble.	D co	Eng. bot. 1504
8057	marylandicus Ph.	Δ	o	1	my.jl	Pa. Y	N. Amer.	1811.	D co	
8058	repens IV.	Δ	o	1	my.au	Y	Britain	me. pa.	D co	Eng. bot. 516
	β flore pleno	Δ	o	1	my.au	Y	.....	...	D co	
8059	polyanthemos W.	Δ	o	1	my.jn	Y	N. Europe	1596.	D co	Lob. ic. 666
8060	acris W.	Δ	o	1	jn.jl	Y	Britain	me. pa.	D co	Eng. bot. 652
	β flore pleno	Δ	o	1 1/2	jn.jl	Y	Britain	...	D co	Bot. mag. 215



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1233. *Ranunculus*. Said to be so called from *rana*, a frog, because the species inhabit humid places frequented by that reptile. *Renoncule*, Fr., *Ranunkel*, Ger., and *Ranuncolo*, Ital. Some of the species are weeds, one or two border flowers, and *R. asiaticus* is one of our most esteemed florists' flowers. Some of the species are tuberous and others bulbous rooted, but the most part are tuberous. *R. sceleratus* is one of the most virulent of our native plants. Bruised and applied to the skin it soon raises a blister, and makes a sore by no means easy to heal. Strolling beggars have been said to use it for that purpose, in order to excite compassion. When chewed, it inflames the tongue; and when taken into the stomach, it produces violent effects. It is suspected to have proved poisonous to sheep.

R. aconitifolius is a handsome plant, with branching stems, deep green leaves, and pure white flowers; the double variety is an old and much admired border flower.

Of *R. asiaticus* the varieties raised from seed are endless. Maddock, in the end of the last century, had nearly eight hundred, all with proper names, and ranged as purple, gray, crimson, red, rosy, orange, yellow, white, olive, coffee, striped, spotted, &c. No plant is more prolific in new varieties from seeds; no two plants, as Maddock observes, producing flowers alike, or the same as the original. Established sorts are propagated by offsets, which generally flower the first year: rare sorts may be multiplied by dividing the crown of the tuber with a sharp penknife into as many parts as there are buds: these will not flower till the second year, but will diminish the risk of losing a very rare variety.

The *ranunculus* prefers a fresh loamy soil, rather than otherwise inclined to clay: it should be well manured; and it is customary, in forming the beds, to place a stratum of well rotted cow-dung six or nine inches below the surface, which both retains moisture and supplies nourishment. The roots may either be planted in November or earlier, in which case, to prevent their being destroyed by the frost, they should be mulched, or they need not be planted till March. The former mode gives much the strongest bloom, as the roots, when kept in air all the winter, are apt to be over dried, and kept in sand they sometimes get mouldy; and in this and similar cases, the progress of vegetation from the planting to the blossoming period, is more rapid than is natural to the species. *Ranunculus* roots will retain their vegetative properties two and sometimes three years; a thing not common among bulbs and tubers, unless preserved dormant in an ice cold room.

R. bulbosus has a solid white bulb about the size of that of the common *Crocus*. The flowers are some-

- 8025 Leaves smooth lin. lanc. : lower stalked, Stem declinate solid rooting at base, Fruit smooth
 8026 Leaves lin. entire smooth, Stem creeping and rooting at every joint
 8027 Leaves lanc. subserrate sessile half stem-clasping, Stem erect smooth
 8028 Rad. leaves stalked oval-obl. Fl. sess. opposite the leaves, Fruit granular scarcely crowned with the style
 8029 Leaves lanc. or lin. entire, Stem erect very smooth, Scales of the petals tubular
 8030 Rad. leaves stalked subcordate ovate-roundish : cauline sessile ovate-lanc. Pedunc. hirsute
 8031 Leaves oval-lanceolate acuminate stem-clasping, Scape and peduncles smooth
 8032 All the leaves radical-stalked ovate toothed, Scapes naked 1-flowered
 8033 Leaves smooth reniform crenate, Floral cut, Stem 2-3-fl. smooth
 8034 Lvs. woolly 3-lobed with trifid toothed cuneate lobes : upper 3-parted with entire lin. lobes, Cal. reflexed
 8035 Leaves cuneiform irregularly cut at the end, Stem smooth branched many-fl. Cal. appressed
 8036 Lower leaves stalked cordate blunt : upper obl. sessile, Stem erect hollow, Fruit granular
 8037 Rad. lvs. stalked oval or subcord. 3-5-tooth. at end, Runners from neck of plant, Scapes naked 1-fl. erect
 8038 Lvs. very smooth many-parted, Lobes obl. Scapes many 1-fl. with appressed hairs, Cal. spreading smooth
 8039 Covered with soft hairs, Rad. lvs. stalk. cord. orbic. somewhat cut-tooth. Stem branched, Cal. appressed
 8040 Lvs. smooth : radic. stalked reniform crenate; caul. in linear lobes, Cal. pubescent shorter than petals
 8041 Leaves smooth : radic. stalked cordate generally 3-parted or lobed, Calyx pubescent shorter than petals
 8042 Lvs. smooth : radic. stalk. cordate-roundish crenate some 3-parted or cut, Cal. smooth longer than petals
 8043 Lvs. smooth : radic. stalk. 3-part. Lobes 3-lob. bluntly cut, Cal. smooth, Fruit very small in an obl. spike
 8044 Lvs. palm. 3-7-parted cut-toothed : upper sessile with lin. lanc. lobes, Stem branch. many-fl. Cal. appressed

β Radic. leaves 5-7-lobed with acuminate lobes, Bractes lin. entire

- 8045 Leaves smooth : radic. stalked 3-parted or pedate; upper linear, Stem erect few-fl. Calyx appressed
 8046 Lvs. silky: first ent. lin. lanc.; rest 3-part. with entire or 3-part. lobes, Stem many-fl. Cal. somewhat reflexed
 8047 Leaves tern. or bitern. Segm. toothed or cut trifid, Stem erect simple or branched, Fruit in a cylindr. spike
 8048 Rad. lvs. stalked villous 3 cut : first ovate toothed or 3-lobed, Stem erect 1-2-fl. Cal. spreading subreflexed
 8049 Leaves pinnate with 3-lobed cut multifid lobes, Stem about 1-fl. Cal. smooth, Pet. 8-10
 8050 Radical leaves stalked palmate 3-parted with trifid blunt thick lobes, Calyx very hirsute
 8051 Leaves smooth : radical stalked 5-fid with entire ovate lobes, Calyx very hirsute twice as short as petals
 8052 Rad. lvs. smooth 3-parted round with trifid blunt segments : cauline sess. linear-lobed, Cal. nearly smooth
 8053 Leaves round 3-lobed, Lobes blunt crenate at end, Stem about 1-fl. Cal. smooth, Pet. orbcd. or 3-lobed
 8054 Stem and petioles cover. with stiff hairs, Lvs. 3-fid with stalk. acutely 3-lob. segm. Cal. reflex. Style smooth
 8055 Rad. lvs. stalked 3-cut with trifid cut segm., of which the middle one is stalked, Stem erect, Cal. reflexed
 8056 Lvs. 3-lob. with blunt cut lobes, of which the mid. is stalk. Cal. refl. Grains with a single row of minute warts
 8057 Stem and petioles with soft hairs at base, Lvs. smooth. trif. with 3-lob. ac. cut segm. Cal. smooth spreading
 8058 Lvs. pinnate 3-fid with cuneate 3-lobed cut segm. Runners creeping, Cal. erect, Grains with an acute point

- 8059 Lvs. 3-5-lob. with lin. divisions, Stem erect and petioles with spreading hairs, Pedunc. furrowed, Cal. hairy
 8060 Lvs. pubesc. or smooth, Lobes cut-tooth. acute : upper lin. Stem many-fl. pubesc. Cal. vill. Grains mucron.



and Miscellaneous Particulars.

times double, but not so frequently as *R. acris*. It is distinguished from the repens, with which it has been confounded by some authors, by its roots, by its never throwing out runners, and by its reflexed calyx; this last character arises from its particular structure, the lower half being thin and almost transparent, and therefore not having a sufficient degree of solidity to support itself upright. It is the second flower which, next to the Dandelion, covers the meadows with dazzling yellow. Like most of the Crow-foots, it possesses the property of inflaming and blistering the skin; particularly the root, which is said to raise blisters with less pain and more safety than Spanish flies; hence these roots have been applied for that purpose, particularly to the joints in cases of the gout. According to Hoffman, beggars make use of them to blister their skins, with a view of exciting compassion. The juice of the herb is said to be more acrid than that of *R. sceleratus*, and if applied to the nostrils, it provokes sneezing. The roots, on being kept, lose their stimulating quality, and are even eatable when boiled. Hogs are fond of them, and frequently dig them up. The herb is too acrid to be eaten unmixed by cattle; accordingly the flowering-stalks are left to perfect the seed in pastures: some of it, however, is consumed, and it is not improbable that this and other pungent plants, mixed with the grasses, may act as a powerful stimulus to some animals, as salt does to others. It abounds in dry pastures, and flowers in May. Besides the name of round-rooted or bulbous Crowfoot, it is called by the common people butter-flower, butter-cups, king-cups, gold-cups; and it is the cuckoo-buds of yellow hue, of Shakspeare. The repens, hirsutus, and acris, however, are all confounded with this under one name by the vulgar.

R. repens is an obnoxious plant in every description of gardening and agriculture. From the great variety of soil and situation in which it is found, it assumes many varieties; by a river's side, or in marshes, it will grow three or four feet high, with a stem nearly as large as the human thumb; in barren gravelly fields it is entirely procumbent, with a stem not larger than a small wheat-straw; but in all states it retains the character of the creeping stem, and it does not lose it in cultivation. Its principal time of flowering is in June, but it may be found in blossom during most of the ensuing summer months in meadows and pastures, under hedges, in shady waste places, church-yards, and gardens. The qualities of this and bulbosus are similar: both blister the skin, and are very acrid in taste. Like the acris and bulbosus, it is sometimes found double, but more rarely.

R. acris is supposed to possess the blistering property in a considerable degree, whence Linnæus gave it the

8061 lanuginósus <i>W.</i>	woolly-leaved	♂ Δ or	1	jn.jl	Y	S. Europe	1688.	D	co	Fl. dan. 397
8062 parvulus <i>W.</i>	lively-upright	○ w	½	jl.au	Y	England	...	S	co	Col. ec. t. 316. f.1
8063 hederaceus <i>W.</i>	ivy-leaved	♂ Δ pr	1	my.au	W	Britain	wat. pl.	D	co	Eng. bot. 2003
8064 aquatilis <i>W.</i>	various-leaved	♂ Δ pr	1	ap.au	W	Britain	dit.	D	co	Eng. bot. 101
8065 tripartitus <i>Dec.</i>	three-parted	♂ Δ pr	1	ap.au	W	Europe	dit.	D	co	
8066 pan/tothrix <i>Dec.</i>	rigid-leaved	♂ Δ pr	1	ap.au	W	Britain	...	D	co	
β <i>fluviatilis W.</i>	long-ldv.-water	♂ Δ or	1	ap.au	W	Britain	...	D	co	Fl. dan. 376
8067 arvénis <i>W.</i>	corn	♂ Δ w	1	jn.au	Y	Britain	cor. fi.	D	co	Eng. bot. 135
8068 oxyspérmus <i>W.</i>	sharp-grained	♂ Δ or	1	my	Pa.Y	Caucasus	1822.	D	co	
8069 hyperbóreus <i>L.</i>	northern	♂ Δ cu	½	ap.my	Y	N. Europe	1820.	D	co	Fl. dan. t. 331
8070 Gouáni <i>W.</i>	Gouan's	♂ Δ or	1	my.au	Y	Pyrenees	1818.	D	co	Go. ill. t. 17. f.1,2
8071 nemorósus <i>Dec.</i>	wood	♂ Δ or	1	my.au	Y	Switzerl.	1810.	D	co	
8072 muricátus <i>W.</i>	prickly-seeded	♂ Δ w	½	jl.au	Y	S. Europe	1683.	S	co	Vent. cels. t. 73
8073 parviflorus <i>W.</i>	small-flowered	○ w	¾	my.jn	Y	England	gra. pl.	S	co	Eng. bot. 120
1234. TROL'LIIUS. <i>W.</i>	GLOBE-FLOWER.					<i>Ranunculacææ.</i>	<i>Sp. 3—5.</i>			
8074 americanus <i>Muhl.</i>	American	♂ Δ or	¾	my.jl	Y	N. Amer.	1805.	D	co	Bot. mag. 1988
8075 europæus <i>W.</i>	European	♂ Δ or	2	my.jn	Y	Britain	groves.	D	pl	Eng. bot. 28
8076 asiáticus <i>W.</i>	Asiatic	♂ Δ or	1	my.jn	D.O	Siberia	1759.	D	pl	Bot. mag. 235
β <i>intermedius</i>	intermediate	♂ Δ or	1	my.jn	Y	.....	...	D	pl	
γ <i>hybridus</i>	hybrid	♂ Δ or	1	my.jn	Y	.....	...	D	pl	
1235. ISOPY'RUM. <i>W.</i>	ISOPYRUM.					<i>Ranunculacææ.</i>	<i>Sp. 2—4.</i>			
8077 fumarioides <i>W.</i>	Fumitory-ldv.	○ pr	1	jn	W.G	Siberia	1741.	S	s.1	Am. rut. 74. t. 12
8078 thalictroides <i>W.</i>	meadow-rue-ldv.	♂ Δ pr	¾	mr.ap	W.G	Italy	1759.	D	s.1	Jac. aust. 2.t.105
1236. ERAN'THIS. <i>Sal.</i>	WINTER-ACONITE.					<i>Ranunculacææ.</i>	<i>Sp. 1—2.</i>			
8079 hyemális <i>Sal.</i>	common	♂ Δ or	½	ja.mr	Y	Italy	1596.	O	co	Bot. mag. 3
1237. HELLE'BORUS. <i>W.</i>	HELLEBORE.					<i>Ranunculacææ.</i>	<i>Sp. 7—9.</i>			
8080 niger <i>W.</i>	Christmas Rose	♂ Δ or	1	ja.mr	Pk	Austria	1596.	D	r.m	Bot. mag. 8
8081 viridis <i>W.</i>	green	♂ Δ or	2	mr.ap	G	Britain	woods.	D	co	Eng. bot. 200
8082 purpurásens <i>Pers.</i>	purplish	♂ Δ or	1½	mr.ap	Pu.G	Hungary	1817.	D	s.1	Pl. ra. h. 2. t. 101
8083 odórus <i>W. en.</i>	sweet-scented	♂ Δ or	1½	mr.ap	G	Hungary	1817.	D	s.1	
8084 dumetórum <i>W. en.</i>	bushy	♂ Δ or	1½	mr.ap	G	Hungary	1817.	D	s.1	
8085 fœ'tidus <i>W.</i>	Bear's-foot	♂ Δ or	1½	f.ap	G	England	cha.pa.	D	co	Eng. bot. 613
8086 lividus <i>W.</i>	three-leaved	♂ Δ or	1	ja.my	Pu	Corsica	1710.	D	pl	Bot. mag. 72
1238. COP'TIS. <i>Sal.</i>	COPTIS.					<i>Ranunculacææ.</i>	<i>Sp. 1—2.</i>			
8087 trifólia <i>Ph.</i>	three-leaved	♂ Δ pr	¼	ap.my	Br	N. Amer.	1782.	D	pl	Bot. cab. 173
8061		8063		8064		8066				



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name of acris. Curtis says, that even pulling up the plant, and carrying it to some little distance, has produced a considerable inflammation in the palm of the hand: that cattle, in general, will not eat it; yet that sometimes, when they are turned hungry into a new field of grass, or have but a small spot to range in, they will feed on it, and hence their mouths have become sore and blistered. According to Linnæus, sheep and goats eat it; but kine, horses, and swine refuse it. When made into hay it loses its acrid quality, but then it seems to be too stalky and hard to afford much nourishment: if it be of any use it must be to correct, by its warmth, the insipidity of the grasses. In many pastures the flowering stems are left standing in vast abundance to disseminate their seeds: before they do that, they might easily be cut down with the scythe, or pulled up by women and children after a shower, which would more effectually destroy the plants; they should be gathered into heaps and burnt. It flowers in June and July, and is confounded vulgarly with the repens and bulbosus, under the name of butter-flower or butter-cups, under a notion that the yellow color of butter is owing to these plants. It is the richness and exuberance of the pasture that communicates this color, and not these flowers, which the cattle seldom or ever touch. It is frequent in gardens with a double flower, among other herbaceous perennials, under the name of yellow bachelor's buttons.

R. aquatilis produces flowers which are sometimes very large, and make a handsome show in ponds and ditches: the curious variety in the floating and immersed leaves, occasioned by the depth and velocity of the stream, adds to the beauty of this common aquatic plant. Dr. Pulteney (*Linn. Trans.* vol. 5. p. 19.) contradicts the assertions of its deleterious qualities, and proves that it is not merely innocuous, but nutritive to cattle, and capable of being converted to useful purposes in agricultural economy. In the neighbourhood of Ringwood, on the borders of the Avon, some of the cottagers support their cows, and even horses, almost wholly by this plant. A man collects a quantity every morning, and brings it in a boat to the edge of the water, from which the cows eat it with great avidity, insomuch that they stint them, and allow only about twenty-five or thirty pounds to each cow daily. One man kept five cows and one horse so much on this plant with the little which the heath afforded, that they had not consumed more than half a ton of hay throughout the whole year, none being used except when the river is frozen over. Hogs also are fed with this plant, and improve so well on it, that it is not necessary to give them any other sustenance till they are put up to fatten. This property of water-crowfoot is the more remarkable, as all the species have been deemed acrimonious, and some of them are, without doubt, highly so. It is probable this species is rendered inert as a poison by growing in the water; although it must be confessed, that in other instances moisture heightens the deleterious property of vegetables, especially in the umbelliferous tribe.

8061 Leaves trifid silky, Lobes broad toothed cut, Stem and petiole with reflexed hairs, Grains hooked
 8062 A small variety of *R. hirsutus*, with a dwarf 1-flowered stem
 8063 Lvs. reniform 3-5-lobed with broad entire blunt lobes, Pet. scarcely longer than cal. Petals 5-12 [bristles
 8064 The submersed lvs. capill. multifid : emerged 3-part. with cuneif. lobes tooth. at end, Grains hispid with stiff
 8065 The submersed lvs. capillary multifid : emerged 3-part. with cuneif. lobes toothed at end, Grains smooth
 8066 All the leaves capillary multifid, Pet. obovate larger than calyx, Grains smooth

8067 Leaves smooth : radical 3-parted ; cauline multifid with lin. lobes, Grains with long prickles on each side
 8068 Lvs. vill. : radic. stalk. ov. 3-part. cut ; floral 3-part. Stem erect dichotom. with spread. hairs, Grains muric.
 8069 Lvs. smooth stalk. bifid, Lobes oval obl. divaricat. : the mid. entire, Sheaths auricled at base, Stem filiform
 8070 Radical leaves round with 5 cut lobes : cauline sessile palmate, Stem pubescent, Cal. subhiskous
 8071 Rad. lvs. trifid beyond midd. with cuneif. trifid lobes, Stem with spread. hairs, Grains hooked with style
 8072 Lvs. smooth stalk. roundish 3-lob. coarsely tooth. Pedunc. opp. lvs. Cal. spreading, Grains muricate cornute
 8073 Lvs. vill. round 3-lob. coarsely tooth. Stems soft decumb. Cal. reflexed as long as pet. Grains tuberculate

8074 Sepals 5-10 spreading, Pet. 10-15 shorter than stamens

8075 Sepals 15 globose, Pet. 5-10 the length of stamens

8076 Sepals 10 spreading, Pet. 10 longer than stamens

8077 Caps. 10-20, Sepals acute, Root slender nearly simple perpendicular

8078 Caps. 1-3, Sepals blunt, Root creeping grumous

8079 Sepals 6-8-oblong

8080 Radical leaves pedate smooth, Scape leafless with 1-2-fl. and bractes
 8081 Radical leaves pedate smooth : cauline subsessile palmate, Sepals roundish ovate green
 8082 Radical leaves palmate downy beneath, Segm. cuneate at base 3-5-lobed at end, Sepals roundish colored
 8083 Radical leaves palmate downy beneath, Segm. obl. undivided serrate at end, Sepals ovate obl. acute green
 8084 Radical leaves very smooth pedate : cauline subsessile palmate, Sepals roundish green
 8085 Stem many-fl. leafy, Leaves pedate very smooth with obl. linear segments
 8086 Stem many-fl. leafy, Leaves 3 cut smooth glaucous beneath, Segments ovate-lanceolate

8087 Leaves trifid with obovate toothed blunt 3-lobed segments, Scape 1-flowered



and Miscellaneous Particulars.

This remark of Dr. Pulteney's is the more important, as in the Swedish experiments the *R. aquatilis* is recorded as the only one rejected by all the species of domestic cattle ; of the common sorts, there is no doubt but that *R. Flammula*, *bulbosus*, *acris*, *sceleratus*, and *arvensis* are acrimonious. Before the introduction of Cantharides they were used as vesicatories, and are said to act with less pain than flies, without any effect on the urinary passages ; but their action is related to be uncertain, and they are accused of frequently leaving ill-conditioned ulcers.

The acrimony, even of the most virulent, is wholly dissipated in drying ; so that in form of hay they appear to be harmless. It is also expelled in decoction ; accordingly, the shepherds of Morlachia boil the *R. sceleratus* and eat it ; and both *R. auricomus* and *repens* are said to be wholly inoffensive, and are ranked by some authors among oleraceous plants.

The Ranunculi give out their acrimony wholly in distillation. The distilled water of *R. sceleratus* is intensely acrimonious ; and when cold deposits crystals, which are scarcely soluble in any menstruum, and are of an inflammable nature.

1234. *Trollius*. A name given to this plant by Conrad Gesner. It is derived from *trol* or *trolen*, an old German word, signifying something round, in allusion to the form of the flowers. The species are showy flowers for the general border, and of the easiest possible culture.

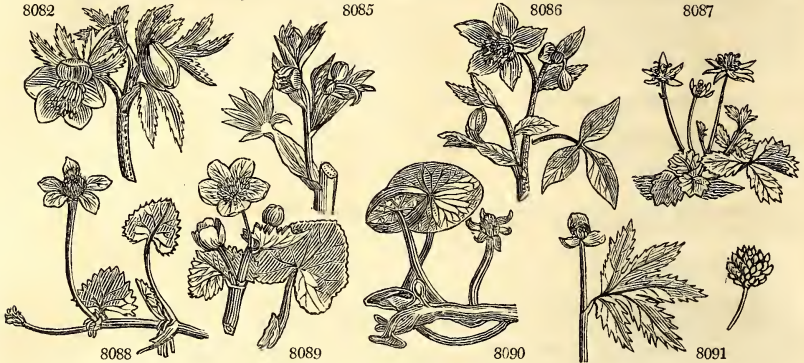
1235. *Isopyrum*. A name given by the Greeks to a plant resembling *Nigella*, the seeds of which had the same taste. These are small herbaceous plants related to *Nigella*, but with the habit of *Thalictrum*.

1236. *Eranthis*. From *ερα*, the earth, and *ανθος*, flower, because the bright yellow blossoms seem to lie upon the earth. A pretty little tuberous rooted plant, valuable for the early period at which it flowers.

1237. *Helleborus*. From *ελεειν*, to cause death, and *ερα*, food. The dangerous qualities of *Hellebore* are well known. Leathery leaved plants, most of which are evergreen, and flower in winter and early in spring. *H. niger* and *foetidus* have long been in use in popular medicine, especially the latter, as a vermifuge and cathartic. They are both admitted in the London *Materia Medica*, but being violent poisons, require caution in their application. *H. foetidus*, from its deep green and finely divided leaves, forms a most ornamental evergreen bush for the shrubbery.

1238. *Coptis*. From *κοπτα*, to cut, in reference to the numerous divisions of the leaves. Small plants, with the habit of *Trientalis*.

1239. CALTHA. W.	MARSH-MARYGOLD.	<i>Ranunculacæ.</i> Sp. 2-7.	
8088 rádicans L. T.	creeping common	½ ap.my Y	Scotland sc. ma. D m.s Linn. tr. 8. t. 17
8089 palústris W.	double-flower'd	1 ap.my Y	Britain mar. D m.s Eng. bot. 506
β flore pleno		1 ap.my Y	..... D m.s
1240. HYDROPEL/TIS. H. K.	HYDROPELTIS.	<i>Hydropeletidæ.</i> Sp. 1.	
8090 purpúrea H. K.	purple	jl.au R	N. Amer. 1798. D m.s Bot. mag. 1147
1241. HYDRAS/TIS. W.	HYDRASTIS.	<i>Ranunculacæ.</i> Sp. 1.	
8091 canadénsis W.	Canadian	½ my.jn G	Canada 1759. D m.l Mil. ic. 2. t. 285



History, Use, Propagation, Culture,

1239. *Caltha*. A syncope of *καλαθός*, a goblet, in allusion to the form of the corolla, which may be likened to a golden cup. The flower-buds of *C. palustris*, gathered before they expand, are said to be a good substitute for capers. The juice of the petals boiled with alum dyes paper yellow. The whole plant is acrid, and not eaten by cows, unless in case of extreme hunger.



CLASS XIV. — DIDYNAMIA. 4 STAMENS, of which two are shorter than the others.

This class, which, as its name applies, depends upon the presence of four stamens in the corolla, two of them being longer than the others, is, with the exception of Syngenesia and Gynandria, the most natural and best defined of all Linnæus's great groups, or, as he named them, classes. It is divided into two orders, called Gymnospermia and Angiospermia.

Gymnospermia contains all the genera with what are popularly but erroneously called by the Linnæan school of botany, naked seeds. It answers to the natural order of Labiatae of Jussieu's method, with the exception of some genera which are excluded on account of having only two stamens, and are found in Diandria. Nearly all the class consists of herbaceous plants, those which are called shrubs being for the most part herbaceous plants, whose stems, from the mildness of the climate in which they grow, become perennial. The most remarkable plants are the rosemary, hyssop, balm, thyme, mint, and marjoram, for the kitchen or laboratory; and the various species of *Teucrium*, *Lavandula*, *Phlomis*, and *Dracocephalum*, for the flower garden.

In Angiospermia are included the genera with numerous, or rarely a few, seeds, enclosed in a simple pericarpium. These would be combined in a manner not altogether unnatural, if some of the genera were excluded. For instance, the beautiful *Linnaea*, the emblem of the most highly gifted naturalist the world has ever produced, belongs to the Caprifoliaceæ, and stands alone in point of natural affinity; the same may be said of *Melanthus*. The greater part of Scrophularinæ, all Melampyracæ and Orobanchæ, and nearly the whole of Verbenacæ and Gesneriæ are found here. A considerable portion of Acanthaceæ also occupy a station in this order. Among these are many genera of much beauty, but few of interest as useful plants. Among the ornamental families every one will recognize the Bignonia, with its elegant orange or yellow trumpet flowers, and frequently twining stem; the *Jacaranda*, with its fern-like umbrageous foliage and magnificent diadem of blue; the *Acanthus*, consecrated to sculpture; the noble *Clerodendrum*, the pride of the Japanese; and the modest *Eyebrights* (*Euphrasia*) of our English meadows. In one part of the class we have the *Vervain*, surrounded by its mystic moonlight charms; in another, the *Antirrhinum* tribe, remarkable for the grotesque resemblance of its blossoms to the snouts of animals; and close behind it, imperial *Pedicularis*, proudly rearing her heraldic honours among the snows and deserts of the frozen north. These are succeeded by a long line of forms, principally European, and of various degrees of beauty. Among the useful plants, *Digitalis*, used in medicine, and *Sesamum* as oil seed, are all which can be particularized.

Order 1. GYMNOSPERMIA.



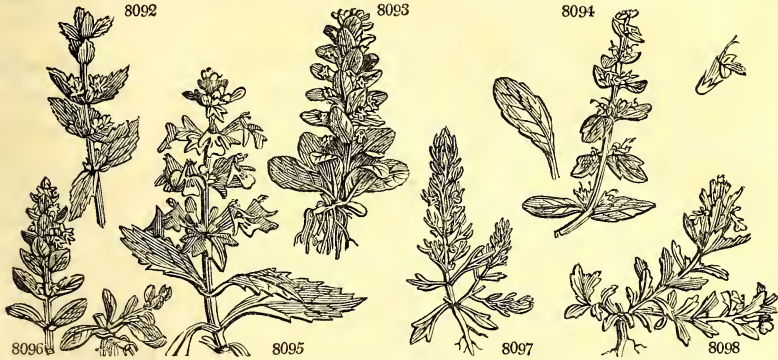
Pericarpium divided into four lobes resembling naked seeds.

- 1242. *Ajuga*. Upper lip of cor. very minute, 2-toothed. Stamens longer than upper lip.
- 1243. *Anisomeles*. Calyx tubular, 10-striated, 5-cleft. Upper lip of corolla small, entire; lower trifid, with the middle segment 2-lobed. Stamens exerted, ascending. Anthers of the short stamens 2-celled, with close cells; of the longer halved or dissimilar. Seeds smooth.
- 1244. *Teucrium*. Upper lip of cor. none, 2-parted beyond the base. Stamens exerted.
- 1245. *Westringia*. Cal. campanulate, 5-toothed. Corolla subrotate, with the upper segment bifid. Two of the anthers barren.
- 1246. *Satureja*. Cal. tubular, striated. Segments of corolla nearly equal. Stamens distant.

8088 Stem creeping, Leaves triangular cordate serrate crenate
 8089 Stem erect, Leaves cordate roundish crenate with round auricles

8090 An aquatic floating plant, covered all over with viscid slime, Roots fibrous

8091 The only species. A small plant with simple stems and a few 3-5-parted leaves



and Miscellaneous Particulars.

1240. *Hydropeltis*. From *υδωε*, water, and *πελτη*, a buckler; that is to say, a water-plant, with a leaf like a round shield. A curious little floater, with the aspect of *Hydrocharis*.

1241. *Hydrastis*. From *υδωε*, water, in reference to the humid places wherein it grows. The root of this plant is yellow, bitter, pungent, and tonic.

1247. *Thymbra*. Cal. subcylindrical, 2-lipped, with a villous furrowed line on each side. Segm. of cor. flat. Style half bifid.

1248. *Hyssopus*. Lower lip of cor. 3-parted, with the intermediate segm. subcrenate. Stamens straight, distant.

1249. *Nepeta*. Cal. dry, striated. Cor. with a longish tube; the middle segments of lower lip crenate. Orifice reflexed at edge. Stamens approximating.

1250. *Elsholtzia*. Cal. tubular, 5-toothed. Upper lip of corolla 4-toothed; lower longer, undivided, somewhat crenulate. Stamens distant.

1251. *Lavandula*. Cal. ovate, somewhat toothed, supported by a bractea. Corolla resupinate. Stamens within the tube.

1252. *Sideritis*. Cal. 5-fid. Cor. ringent or subregular: the upper lip bifid, lower 3-parted. Stamens within the tube. The short stigma wrapping over the other.

1253. *Bystropogon*. Cal. with 5 subulate teeth, closed at the orifice with hairs. Upper lip of cor. bifid; lower trifid. Stamens distant.

1254. *Mentha*. Cor. nearly equal, 4-fid, with the broadest segment emarginate. Stamens erect, distant.

1255. *Perilla*. Cal. with the upper segment very short. Stamens distant. Styles 2, united.

1256. *Hyptis*. Cal. 5-toothed, increasing in size. Corolla ringent: the upper lip bifid; the lower 3-parted, with the intermediate segment shaped like a little bag. Stamens inserted in the swollen part of the tube, and declinate.

1257. *Horminum*. Cal. 2-lipped, awned, smooth in the orifice; when past flower, having its upper teeth crossing each other. Upper lip of corolla 2-lobed; lower 3-lobed, with nearly equal segments. Leaves radical. Scape nearly naked.

1258. *Glechoma*. Cal. 5-fid. Each pair of anthers forming by their union the figure of a cross.

1259. *Lamium*. Upper lip of corolla entire, vaulted; lower 2-lobed; the orifice toothed at the edge on both sides.

1260. *Galeopsis*. Upper lip of corolla somewhat crenate, vaulted; lower 2-toothed above.

1261. *Galeobdolon*. Cal. 5-fid, unequal, awned. Upper lip of corolla vaulted, entire; lower trifid, with acute segments. Anthers smooth.

1262. *Betonica*. Calyx awned. Upper lip of cor. ascending, flattish. Tube cylindrical.

1263. *Stachys*. Upper lip of cor. vaulted; lower reflexed at edges, intermediate larger and emarginate. Stamens after flowering reflexed towards the sides.

1264. *Zietenia*. Cal. 5-parted, with subulate very long equal segments. Segments of lower lip of cor. reflexed; intermediate folded together and emarginate. Stamens after flowering reflexed towards the sides. Grain one.

1265. *Ballota*. Cal. hypocrateriform, 5-toothed, 10-lined. Upper lip of cor. crenate concave. Grains ovate 3-cornered.

1266. *Marrubium*. Cal. hypocrateriform, rigid, 10 lined. Upper lip of cor. bifid, linear, straight.

1267. *Leonurus*. Cal. 5-angled, 5-toothed. Upper lip of cor. villous, flat, entire; lower 3-parted, with the middle segment undivided. Anthers covered, with shining spots.

1268. *Phomis*. Calyx 5-angled, 5-toothed. Helmet compressed, keeled, emarginate. Seeds bearded at end.

1269. *Leucas*. Cal. tubular, 10-striated, 8-10-toothed, with an orifice, either equal or oblique. Corolla ringent. Helmet concave, entire, bearded; lower lip 3-fid, with the middle segment largest. Anthers twin, beardless, with divaricating lobes. Stigma 2-lipped, with the upper segment very short.

1270. *Leonotis*. Differs from the last in having an elongated helmet, and the lower lip small and withering: the middle segment scarcely larger than the others.

1271. *Moluccella*. Cal. campanulate, enlarged, wider than corolla, spiny.

1272. *Clinopodium*. Invol. of many bristles beneath the whorl. Corolla 2-lipped. Upper lip of corolla flat, obovate, straight.

1273. *Pycnanthemum*. involucre of many bractes beneath the little heads. Cal. tubular, striated. Upper lip of corolla nearly entire; lower trifid. Stamens nearly equal.
1274. *Origanum*. Cone 4-cornered, spiked, collecting the calyxes. Upper lip of corolla erect, flat; lower 3-parted, with nearly equal segments.
1275. *Thymus*. Orifice of bilabiate calyx closed with hairs. Upper limb of corolla flat, emarginate.
1276. *Acynos*. Cal. 2-lipped, furrowed, hispid, gibbous at base, villous at orifice. Cor. ringent, inflated at orifice, with the upper lip erect, emarginate; the lower 3-parted, spreading: intermediate segm. concave. All the stamens fertile.
1277. *Calamintha*. Cal. after flowering closed by hairs. Orifice of cor. inflated. Upper lip emarginate; lower 3-parted, with the intermediate segment entire, subemarginate or crenulate.
1278. *Melissa*. Cal. dry, flattish above, with the upper lip somewhat fastigiate. Upper lip of cor. somewhat vaulted, 2-fid: lower less, with middle lobe cordate.
1279. *Dracocephalum*. Cor. inflated at orifice, with the upper lip concave.
1280. *Melittis*. Cal. smooth, campanulate, blunt, oblique at orifice. Upper lip of cor. flat; lower crenate. Anthers cruciate.
1281. *Ocymum*. Cal. with the upper lip orbicular; lower 4-fid. Corolla resupinate, with one lip 4-cleft, the other undivided. Exterior filaments having a process at their base.
1282. *Plectranthus*. Upper lip of cal. largest. Corolla resupinate, ringent, with the tube gibbous upwards, or spurred.
1283. *Trichostema*. Upper lip of cor. falcate, Stamens very long.
1284. *Prostanthera*. Calyx 2-lipped, in fruit closed. Tube striated, lips undivided, blunt. Corolla ringent, with a half bifid helmet: middle segment of lower lip large, 2-lobed. Anthers spurred beneath.
1285. *Scutellaria*. Cal. entire, after flowering closed with a lid. Tube of the corolla elongated.
1286. *Prunella*. Upper lip of calyx dilated. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1287. *Cleonia*. Filaments forked, upon one point bearing their anthers. Stigma bifid.
1288. *Prasium*. Cal. campanulate, 2-lipped. Upper lip of cor. vaulted; lower trifid, with the middle segm. largest cordate. Grains berried.
1289. *Phryma*. Cal. 2-lipped, 5-toothed. Grain only one.

Order 2. ANGIOSPERMIA.



Seeds several, enclosed in an undivided pericarpium.

I. Ovary inferior, or nearly inferior.

1290. *Gesneria*. Cal. 5-fid. Corolla incurved and recurved. Capsule 2-celled.
1291. *Gloxinia*. Cal. 5-leaved. Cor. campanulate, with an oblique limb. Filaments with the rudiment of a fifth inserted upon the receptacle.
1292. *Linnaea*. Cal. double: of the fruit 2-leaved; of the flower 5-parted. Cor. campanulate. Berry dry, 3-celled.

II. Ovary superior, polypetalous.

1293. *Melianthus*. Cal. 5-leaved, with the lower leaflet gibbous. Petals 4, with the nectary below the lowest. Capsule 4-celled.

III. Ovary superior, monopetalous.

A. Filaments 5, the upper only rudimentary.

1294. *Bignonia*. Cal. 5-fid, cup-shaped. Cor. campanulate, 5-fid, ventricose beneath. Pod 2-celled. Seeds with membranous wings.
1295. *Jacaranda*. Cal. 5-toothed. Cor. tubular at base, with a dilated throat, and a 5-lobed unequal limb. Fifth filament sterile, long, villous at end. Stigma with two lips. Capsule large, round, woody, with the edge dividing into two valves.
1296. *Sesamum*. Cal. 5-parted. Cor. campanulate 5-fid, with the lower lobe largest. Stigma lanceolate. Capsule 2-celled, the cells divided in two by the inflexed edges of the valves.
1297. *Pentstemon*. Cal. 5-leaved. Cor. 2-lipped, ventricose. Fifth filament longer than the rest, and bearded at its upper end. Capsule compressed, 2-celled, 2-valved. Seeds numerous, subglobose.
1298. *Chelone*. Cal. 5-parted, with two bractes. Cor. ringent, ventricose. Fifth filament shorter than the others. Caps. 2-celled, 2-valved. Seeds numerous, with a membranous edge.
1299. *Tourretia*. Cal. 2-lipped. Corolla ringent: the upper lip galeate, large; lower 2-toothed, very small. Nectary annular, 4-lobed. Stigma truncate. Capsule 4-celled. Dissepiments with 4 wings. Seeds cordate.
1300. *Martynia*. Cal. 5-fid. Cor. ringent. Capsule woody, coated, with a hooked beak, 4-celled, 2-valved.

B. Filaments 4. Capsule many-seeded, opening with elasticity. Seeds large, flat.

* Calyx bifid.

1301. *Acanthus*. Cal. 4-parted: the two lateral inner segments short; the two outer long, with 3 bractes, of which the middle one is toothed, spiny. Cor. labiate, having the orifice closed with hairs. Lower lip very large, 3-lobed. Anthers villous. Stigma bifid. Caps. ovate, with 1-2-seeded cells.

** Calyx 4-fid.

1302. *Barleria*. Cal. 4-parted. Stamens 2, much smaller than the others. Capsule with 4 angles, 2-celled, 2-valved, elastic, without claws. Seeds 2.

*** Calyx 5-fid.

1303. *Phaylopsis*. Calyx unequal, with a large dorsal segment. Cells of the ovary 2-seeded, with the segments of the dissepiment spontaneously dividing in two. Otherwise like Blechnum.
1304. *Ruellia*. Cal. 5-parted, generally with two bractes. Corolla campanulate, with a 5-lobed limb. Stamens in pairs. Capsule narrowed to each end. Teeth opening elastically. Seeds not many.
1305. *Biechum*. Cal. 5-parted, equal. Cor. funnel-shaped. Capsule about 2-celled, 2-valved: the segments of the crosswise dissepiment finally becoming loose. Seeds many, with hooks.
1306. *Aphelandra*. Cal. 5-parted, unequal. Cal. 2-lipped. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.
1307. *Crossandra*. Cal. 5-parted, unequal. Cor. 1-lipped. Stamens included. Anthers 1-celled. Capsule 2-celled, 2-valved, with a dissepiment crosswise. Seeds with hooks.

**** Calyx multifid.

1308. *Thunbergia*. Cal. double: outer 2-leaved; inner about 12-toothed. Cor. campanulate. Capsule beaked, 2-celled.

C. Filaments 4. Capsule, drupa, or berry few seeded. Seeds erect.

* Calyx bifid.

1309. *Hebenstreitia*. Cal. spathaceous, opening lengthwise beneath. Cor. tubular, unequal, with one upper 4-fid lip. Stamens projecting from the lower cleft of the corolla. Caps. 2-seeded.

** Calyx 4-fid.

1310. *Hosta*. Cal. obsoletely 2-lipped, 4-toothed. Corolla ringent, with the middle segment of the lower lip large, emarginate. Drupe with a 4-celled, 4-seeded nut.
1311. *Gmelina*. Cal. about 4-toothed. Cor. 4-fid, campanulate. Two of the anthers 2-parted, 2-simple. Drupe baccate. Putamen bony, 4-celled. Cells 1-seeded, the lower sterile.
1312. *Lantana*. Flowers capitate. Cal. obsoletely 4-toothed. Limb of corolla 4-fid, with an open orifice. Stigma hooked backwards. Drupes heaped, with a 2-celled smooth nut.
1313. *Aloysia*. Calyx deeply 4-cleft. Corolla tubular, 4-lobed. Stigma emarginate. Stamens 4, perfect. Seeds two.
1314. *Lippia*. Flowers capitate. Cal. 4-toothed, roundish, erect, compressed, membranous. Corolla 4-fid, funnel-shaped. Drupe dry, 1-seeded, thin, covered by the calyx. Nuts two, 1-seeded.
1315. *Melampyrum*. Capsule 2-celled. Seeds 2, gibbous, polished.

*** Calyx 5-fid.

1316. *Selago*. Cal. 5-fid. Tube of corolla filiform. Limb nearly equal. Capsule simple or 2-lobed, each lobe with 1 seed.
1317. *Vitex*. Cal. 5-toothed. Limb of cor. 5-6-fid. Drupe 1-seeded, with a 4-celled nut.
1318. *Cornutia*. Cal. 5-toothed. Stamens longer than corolla. Style very long. Berry 1-seeded.
1319. *Zapania*. Flowers capitate. Cal. 5-toothed. Cor. 6-fid. Stigma peltate, capitate, oblique. Fruit covered, bladdery, enclosing two seeds.
1320. *Priva*. Cal. inflated, 5-toothed. Cor. a little longer than the tube of calyx, contracted at orifice. Drupe covered by the calyx. Nuts two, 2-celled, 2-seeded. Stamens 2-4.
1321. *Spelmannia*. Cal. 5-fid. Limb of cor. 5-fid, the orifice closed by hairs. Stigma hooked. Drupe with a 2-celled warted nut.
1322. *Verbena*. Cal. 5-fid. Cor. funnel-shaped, with an incurved tube, and an unequal 5-fid limb. Stamens 4, fertile. Fruit bladdery, covered, withering. Seeds 4.
1323. *Avicennia*. Cal. 5-parted. Cor. 2-lipped: the upper lip square. Caps. coriaceous, rhomboid, 1-seeded. Seed germinating within the capsule.
1324. *Caldasia*. Cal. tubular, 5-toothed. Cor. hypocrateriform, nearly equal. Filaments inserted in top of tube. Caps. 3-celled, 3-seeded, 3-valved. Seeds elliptical.
1325. *Clerodendrum*. Cal. 5-fid, campanulate. Corolla with a filiform tube and a 5-parted equal limb. Stamens very long, projecting from between the segments of corolla. Drupe 4-seeded, with a 1-celled nut.
1326. *Volkameria*. Cal. 5-fid. Cor. with 1-sided segments. Drupe 2-seeded. Nuts 2-celled, with 1-seeded cells.
1327. *Holmskioldia*. Cal. colored, very large, campanulate, spreading, with a nearly entire limb a little shorter than the ringent corolla.
1328. *Petræa*. Cal. 5-parted, very large, colored. Corolla rotate. Caps. 2-celled, 2-seeded in the bottom of the calyx. Seeds solitary.
1329. *Citharexylum*. Cal. 5-toothed, campanulate. Corolla funnel-shaped, rotate. Segments villous, above equal. Drupe 2-seeded. Nuts 2-celled.
1330. *Durania*. Cal. 5-fid, superior. Drupe 4-seeded, covered by the calyx. Nut 4-2-celled, 2-seeded.
1331. *Petalium*. Cal. 5-parted. Cor. tubular, ringent, with a 5-cleft limb. Filaments hairy at base. Anthers in pairs, forming a cross. Nut corky, with spiny angles. Seeds 2, with an arillus.
1332. *Myoporum*. Cal. 5-parted. Corolla campanulate, with a spreading nearly equal 5-parted limb. Drupe 1-2-seeded, with 2-celled nuts.
1333. *Stenochilus*. Cal. 5-parted. Cor. ringent: the upper lip erect, half 4-cleft: lower undivided, narrow, deflexed. Stamens didynamous, exserted. Ovary 4-celled, with 1-seeded cells. Stigma blunt, undivided. Drupe berried, 4-celled. Seeds solitary.
1334. *Bontia*. Cal. 5-parted. Cor. 2-lipped, with an oblong tube: the lower lip 3-parted, revolute. Drupe ovate, 1-seeded, oblique at end.

D. Filaments 4. Capsule or berry many-seeded. Seeds small, attached to a central receptacle.

* Calyx bifid.

1335. *Orobanche*. Cal. of 2-lobed lateral leaflets. Corolla ringent. Capsule 1-celled, 2-valved, many-seeded. Gland at the base of the ovary.
1336. *Crescentia*. Cal. 2-parted, equal. Corolla gibbous. Berry stalked, 1-celled, many-seeded. Seeds immersed in pulp.
1337. *Castilleija*. Cal. spathaceous; the upper lip bifid, lower none. Cor. 2-lipped: the lower lip very short, trifid, with 2 glands between the segments. Caps. 2-celled.

** Calyx trifid.

1338. *Halleria*. Cal. 3 or 5-leaved. Cor. 4-fid, somewhat inflated. Berry 2-celled, many-seeded.

*** Calyx 4-fid.

1339. *Lathræa*. Cal. 4-fid. A depressed gland at the base of the suture of the ovary. Capsule 1-celled.
1340. *Rhinanthus*. Cal. 4-fid, ventricose. Cor. ringent, with the upper lip generally compressed. Capsule 2-celled, blunt, compressed.
1341. *Bartsia*. Cal. 4-lobed, emarginate, colored. Cor. smaller than the calyx: the upper lip longest. Capsule 2-celled. Seeds angular.
1342. *Euphrasia*. Cal. cylindrical, 4-fid. Corolla 2-lipped: the upper lip bifid; the lower 3-lobed, with bifid lobes. Lower anthers with spiny lobes.

**** Calyx 5-fid.

1343. *Antirrhinum*. Cal. 5-leaved. Cor. not spurred, gibbous at base: the upper lip bifid, reflexed; lower trifid, closed by the prominent palate. Caps. oblique at base, without valves, opening at the end by three pores.
1344. *Linaria*. Cal. 5-parted, with the two lower segments remote. Cor. spurred, ringent: the orifice closed by the prominent palate. Caps. ovate 2-valved, opening at the end into 3-5 segments.
1345. *Anarrhinum*. Cal. 5-leaved. Cor. prominent at base, honey bearing: lower lip flat, without a prominent palate. Caps. 2-celled, many-valved.
1346. *Nemesia*. Cal. 5-parted. Cor. spurred, with a prominent palate. Caps. compressed, truncate, opening lengthwise in the middle, 2-celled, 2-valved. Seeds numerous, linear.
1347. *Mauvandyia*. Cal. 5-parted. Cor. campanulate, unequal. Filaments callous at base. Caps. 2, united, half 5-valved at end.
1348. *Gerardia*. Cal. 5-fid. Cor. 2-lipped, the lower lip 3-parted, with emarginate lobes: the middle 2-parted. Capsule 3-celled, splitting.
1349. *Pedicularis*. Cal. 5-fid. Cor. ringent. Capsule 2-celled, mucronate, oblique. Seeds truncated. Leaves multifid.
1350. *Erinus*. Cal. 5-leaved. Cor. with a 5-fid, equal limb. Lobes emarginate: the upper lip very short, reflexed. Caps. 2-celled.
1351. *Mimulus*. Cal. prismatical, 5-toothed. Cor. ringent, with the upper lip folded back at the sides. Stigma thick. Capsule 2-celled, many-seeded.

1352. *Hornemannia*. Cal. tubular, 5-toothed, plaited. Cor. with the upper lip emarginate : lower 3-lobed. Seeds minute, scurfy.
 1353. *Mazus*. Cal. large, campanulate, spreading. Cor. ringent, with a pimpled throat. Anthers connected. Stigma spatulate. Caps. 2-celled, many-seeded.
 1354. *Isoplexis*. Like *Digitalis*, but corolla campanulate, with the upper segment as long as the lip, and incumbent upon it before expansion.
 1355. *Digitalis*. Cal. 5-parted. Corolla campanulate, ventricose, 5-fid. Capsule ovate 2-celled.
 1356. *Scrophularia*. Cal. 5-fid. Cor. subglobose, resupinate. Caps. 2-celled.
 1357. *Vandellia*. Cal. 4-fid. Cor. ringent. Two outer filaments from the disk of the lip of cor. Anthers united in pairs. Caps. 1-celled, many-seeded.
 1358. *Sibthorpia*. Cal. 5-parted. Cor. 5-parted, equal. Stamens in remote pairs. Caps. orbicular, compressed, 2-celled, with a transverse dissepiment.
 1359. *Limosella*. Cal. 5-fid. Cor. 5-fid, equal. Stamens approximating in pairs. Caps. 1-celled, 2-valved, many-seeded.
 1360. *Browallia*. Cal. 5-toothed. Cor. closed by the prominent orifice. Two of the anthers larger than the others. Caps. 1-celled.
 1361. *Stemodia*. Cal. 5-parted. Cor. 2-lipped. Stamens 4: each filament bifid, and bearing two anthers. Capsule 2-celled.
 1362. *Trevirana*. Cal. 5-leaved. Cor. decinate funnel-shaped. Limb flat, 5-parted, nearly equal. Caps. half 2-celled.
 1363. *Columnea*. Cal. 5-parted, spreading. Corolla ringent : the upper lip 3-parted, with the intermediate segment arched, above the base gibbous. Capsule berried, 1-2-celled.
 1364. *Russelia*. Cal. 5-leaved. Cor. 2-lipped, with a hairy throat : upper lip broader, emarginate, lower trifid, with linear segments. Stigma globose. Caps. 1-celled, 2-valved, many seeded.
 1365. *Dodartia*. Cal. campanulate, angular, 5-toothed. Lower lip of cor. broad, 3-fid. Stigma bifid. Caps. globose, 2-celled, covered by the calyx.

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1242. A'JUGA. W.	BUGLE.			<i>Labiatae.</i>	Sp. 8—17.			
8092 orientalis W.	oriental	☿ Δ or	1 1/2 jl. au	B	Levant	1732.	D s p	Dill.elt. t.53. f.61
8093 pyramidalis W.	pyramidal	☿ Δ or	1 1/2 my. jn	Pu	Britain	sc.mo.	D s p	Eng. bot. 1270
8094 alpina W.	Alpine	☿ Δ or	1/2 my. jl	F	England	moun.	D co	Eng. bot. 477
8095 genevensis W.	Geneva	☿ Δ or	1/2 my. jn	B	Switzerl.	1656.	D s p	Bull. herb. t. 361
8096 reptans W.	common	☿ Δ or	1/2 my. jn	B	Britain	moi. w.	D s p	Eng. bot. 489
β alba	white-flowered	☿ Δ or	1/2 my. jn	W	Britain	moi. w.	D s p	
γ rubra	red-flowered	☿ Δ or	1/2 my. jn	R	Britain	moi. w.	D s p	
8097 Chamæpitys W.	Ground Pine	☉ or	1/2 ap. jl	Y	England	san. fi.	S s l	Eng. bot. 77
8098 I'va W.	musky	☉ or	1/2 jl. au	R	S. Europe	1759.	S s l	Fl. græca, 525
8099 furcata Link.	furcate	☿ Δ or	1/2 jl. au	B	Nepal	1824.	D co	
1243. ANISOMELES. R. Br.	ANISOMELES.			<i>Labiatae.</i>	Sp. 2—5.			
8100 malabarica R. Br.	Malabar	☿ □ or	1 1/2 jl. au	V	E. Indies	1817.	C co	Rheede, 10. t. 93
8101 ovata H. K.	broad-leaved	☉ or	1 1/2 jl. au	Pk	E. Indies	1783.	S l p	Bur. zeyl. t. 71. f. 1
1244. TEUCRIUM. W.	GERMANDER.			<i>Labiatae.</i>	Sp. 44—87.			
8102 campanulatum W.	small-flowered	☿ Δ or	1 jl. au	W	Levant	1728.	D co	
8103 orientale W.	great-flowered	☿ Δ or	1 jl. au	B	Levant	1752.	D co	Bot. mag. 1279
8104 Bötrys W.	cut-leaved	☿ Δ or	1/2 jls	R	S. Europe	1633.	S co	Ger. ema. 525. f. 2
8105 nissoliatum W.	Spanish	☿ Δ or	1 jn. jl	Pu	Spain	1752.	D co	Mor. his. t. 22. f. 19
8106 trifidum W.	trifid-leaved	☿ Δ or	1 1/2 jn. au	Pu	C. G. H.	1791.	C r m	
8107 fruticans W.	narrow-leav. tr.	☿ Δ or	3 jns	V	Spain	1640.	C r m	Dil. el. t. 284. f. 366
8108 latifolium B. M.	broad-leav. tree.	☿ Δ or	3 jns	V	Spain	1640.	C r m	Bot. mag. 245
8109 Mátum W.	Cat. thyme	☿ Δ or	1 1/2 jls	Pa. pu	Spain	1640.	C r m	Park. thea. 17. f. 2
8110 multiflorum W.	many-flowered	☿ Δ or	1 jls	L. R	Spain	1731.	C co	Bocc. mus. t. 117
8111 régium W.	royal	☿ Δ or	1 1/2 my. o	Pu	Spain	1699.	C r m	Flu. alm. t. 65. f. 1



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1242. *Ajuga*. Said to be an alteration of *abigo*, to expel or drive away. The Latins attributed emmenagogue qualities to a plant called *ajuga*, which is believed to be our *Teucrium chamæpitys*. Handsome flowering plants. A. reptans is vulgarly reputed vulnerary, cooling, and gently astringent. It is commonly called *bugle*, which appears to be a corruption of *bugula*, a contracted diminutive of *buglossum*, which the plant resembles in medical qualities.
 1243. *Anisomeles*. So named by Mr. Brown, from *α*, privative, *ισος*, equal, and *μειλος*, a member. Tropical downy herbaceous plants. Their leaves are crenate, flowers grow in whorls supported by minute bractæ; the calyxes are glandular, and the corolla of all the species purple.
 1244. *Teucrium*. Teucer, the Trojan prince, is said by Pliny to have been the first to employ this plant

1366. *Lindernia*. Cal. 5-parted. Cor. ringent: upper lip very short. Two lower stamens with a terminal tooth and lateral anther. Capsule 1-celled.
1367. *Herpestis*. Cal. 5-parted, unequal: 2 inner sepals smaller, covered by the others. Cor. tubular, somewhat 2-lipped. Stamens included. Lobes of anthers spreading. Stigma emarginate.
1368. *Capraria*. Cal. 5-parted. Cor. campanulate, 5-fid, acute. Caps. 2-valved, 2-celled, many-seeded.
1369. *Buchnera*. Cal. absolutely 5-toothed. Limb of corolla 5-fid, equal, with cordate lobes. Capsule 2-celled.
1370. *Manulea*. Cal. 5-parted. Cor. funnel-shaped. Limb 5-parted, with subulate segments; the four upper large, connected. Caps. 2-celled, many-seeded.
1371. *Angelonia*. Cal. 5-parted, nearly equal. Cor. irregular, spreading, 2-lipped, with a short tube, and arched orifice: upper lip 2-parted; lower much larger, 3-parted, with the middle segment slipper-shaped at base.
1372. *Schizanthus*. Cor. irregular: the upper lip 5-fid; lower 3-parted. Two filaments sterile. Capsule 2-celled.
1373. *Besleria*. Cal. 5-parted. Cor. tubular, gibbous on each side, with a 5-lobed unequal limb. Berry roundish, 1-celled, many-seeded. Seeds nidulant.
1374. *Tectia*. Cal. 5-parted. Cor. hypocrateriform, 5-fid, blunt. Style short, persistent. Berry 2-celled, many-seeded.
1375. *Brunfelsia*. Cal. 5-toothed, small. Tube of cor. very long, with a flat 5-lobed limb. Capsule berried, 1-celled, many-seeded, with a very large receptacle.
1376. *Celsia*. Cal. 5-parted. Cor. rotate. Filaments bearded. Capsule 2-celled.
1377. *Atonsoa*. Cal. 5-parted. Cor. subrotate, resupinate, 5-fid, with the upper segment largest. Stamens declinate. Filaments smooth. Anthers approximating, similar. Capsule 2-celled.
1378. *Anthocercis*. Cal. 5-fid. Cor. campanulate, regular. Rudiment of a 5th filament. Stigma capitate. Caps. 2-celled, 2-valved, many-seeded. The inflexed edges of valves inserted in the placenta.

***** *Calyx multifid.*

1379. *Cymbaria*. Cal. 10-toothed. Upper lip of cor. bifid, lower trifid. Capsule cordate, 2-celled.

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- 8092 Leaves ovate, Cor. pubescent resupinate
- 8093 Four-cornered pyramidal villous, Radical leaves very large
- 8094 Stem simple, Cauline leaves as long as radical leaves
- 8095 Radical leaves smaller than cauline leaves
- 8096 Stolones creeping
- 8097 Leaves trifid, Fl. axillary solitary shorter than leaf, Stem diffuse
- 8098 Leaves linear toothed forwards, Flowers axillary solitary
- 8099 Leaves stalked subcordate ovate acuminate acutely crenate hairy, Thyrses axillary stalked
- 8100 Bractes filiform, Leaves lanceolate entire downwards
- 8101 Leaves ovate subcordate crenate, Whorls many-fl. Bractes linear, Calyx hairy, Glands inconspicuous
- 8102 Leaves multifid, Flowers lateral solitary
- 8103 Leaves multifid linear, Raceme compound, Pedicels short
- 8104 Leaves multifid, Whorls halved
- 8105 Leaves trifid or 5-fid filiform, Flower stalked solitary opposite, Stem decumbent
- 8106 Leaves lanceolate trifid, Pedunc. axillary 3-flowered
- 8107 Leaves lanceolate entire white beneath, Flowers solitary
- 8108 Leaves entire rhomboid acute villous downy beneath, Flowers solitary
- 8109 Leaves quite entire ovate acute stalked downy beneath, Flowers racemose one-sided
- 8110 Leaves oval toothed forwards, floral entire stalked, Whorls racemose, Stem much branched
- 8111 Leaves ovate toothed forwards, floral entire sessile, Whorls racemose, Stems branched



and Miscellaneous Particulars.

medically. Under-shrubs or herbs of little beauty; but several of them aromatic. The leaves and younger branches of *T. marum* (*Mar*, Arabic, signifying bitter), when recent, on being rubbed between the fingers, emit a volatile aromatic smell, which readily excites sneezing, but to the taste they are bitterish, accompanied with a sensation of heat and acrimony. Cats are very fond of this plant, and where there are few will destroy them.

T. scorodonia (*σκαροδον*, garlic, the smell of which this plant possesses) in Jersey is used as a substitute for hops, and the beer is said sooner to become clear than when hops are made use of. Withering found on trial that it gave too much color to the liquor.

T. scordium, also from *σκαροδον*, garlic, was once in high esteem for destroying worms and for fomentations.

8112 Laxmánni W.	Laxmann's	△	or	1	jn.au	Var	Siberia	1800.	C	co	Pl. rar. hu. 1. t. 69
8113 sibiricum W.	Siberian	△	or	1	jl	Pu	Siberia	1804.	C	co	
8114 asiáticum W.	Asiatic	△	or	2	jn.o	Pu	.....	1777.	C	r.m	Jac. vind. 3. t. 41
8115 lusitánicum Lam.	Portuguese	△	or	1½	jn.o	Pu	Portugal	1822.	C	co	
8116 Arduini L.	Arduini's	△	or	1½	jn.o	Y	Candia	1823.	C	co	
8117 cubense W.	Cuba	△	or	1½	ny	Pu	Cuba	1733.	C	co	Jac. obs. 2. t. 30
8118 canadense W.	nettle-leaved	△	or	2	aus.	Pu	N. Amer.	1768.	D	co	
8119 virginicum W.	Virginian	△	or	2	my.jn	B	N. Amer.	1768.	D	co	Schk. hand. 160
8120 infátum W.	thick-spiked	△	or	2	au.o	Li	Jamaica	1777.	D	co	
8121 hyrcánicum W.	Betony-leaved	△	or	1½	au.o	P	Persia	1763.	D	co	Bot. mag. 2013
8122 Abutiloides W.	Mulberry-leav.	△	or	1½	ap.my	Y	Madeira	1777.	C	r.m	Jac. schæ. 3. t. 358
8123 Scorodónia W.	Wood Sage	△	or	1½	jl	Y	Britain woods.		C	co	Eng. bot. 1543
8124 betónicum W.	hoary	△	or	1½	my.au	Li	Madeira	1775.	C	r.m	Bot. mag. 1114
8125 resupinátum W.	resupinate	△	or	1	jl.au	Pa.Y	Barbary	1801.	C	r.m	Desf. atl. 2. t. 117
8126 massiliense W.	sweet-scented	△	or	2	jn.jl	Pu	France	1731.	C	r.m	Jac. vind. 1. t. 94
8127 Scórdium W.	water	△	or	½	jl.au	Pu	England mar.		C	co	Eng. bot. 828
8128 Chamædry's W.	wall	△	or	½	my.au	Pu	England old w.		C	co	Eng. bot. 680
8129 heterophýllum W.	various-leaved	△	or	2	jn.jl	Pu	Madeira	1759.	C	r.m	
8130 lócidium W.	shining	△	or	1½	jn.s	Br	S. Europe	1730.	C	r.m	Magn. hort. 52
8131 flávum W.	yellow-flower.	△	or	2	jl.s	Y	S. Europe	1640.	C	r.m	Park. the. 109. f. 1
8132 montánum W.	dwarf mount.	△	or	½	lo w	Y	S. Europe	1710.	C	co	
8133 supinum W.	procumbent	△	or	¾	jn.o	W	Austria	1752.	C	co	Jac. aust. 5. t. 417
8134 thymifólium P. S.	thyme-leaved	△	or	¾	jn.o	Pu	Spain	1816.	C	co	
8135 pyrenáicum W.	Pyrenean	△	or	¾	jn.au	Pa.w	Pyrenees	1731.	D	co	
8136 áureum W.	golden Poly	△	or	¾	S. Europe	Pu	S. Europe	1731.	D	co	Cav. ic. 2. t. 117
8137 Póllium W.	Poly	△	or	1	jl.s	Y	S. Europe	1562.	C	r.m	Barr. rar. t. 1074
8138 flavescens P. S.	yellow Poly	△	or	1	jl.s	Y	S. Europe	...	C	co	Barr. rar. t. 1073
8139 gnaphalódes P. S.	woolly-calyced	△	or	1½	jl.s	Pu	Spain	1816.	C	co	Barr. rar. t. 1083
8140 Pseudohyssópus W.	Hyssop-leaved	△	or	1½	jn.jl	W	Italy	1804.	C	co	Col. ecphr. 1. t. 67
8141 capitátum W.	round-headed	△	or	¾	jl.au	Pu	Spain	1731.	C	co	Cav. ic. 2. t. 119
8142 pycnophýllum P. S.	close-leaved	△	or	¾	jl.au	Pu	Spain	1816.	C	co	Barr. rar. 1096
8143 púmulum W.	small	△	or	¾	jl.au	Pu	Spain	1816.	C	co	Barr. rar. t. 1092
8144 spinósum W.	thorny	△	or	¾	my.jn	W	Spain	1640.	S	co	Cav. ic. 1. t. 31
8145 subspinósum W. en.	Minorca	△	or	1½	...	Pu	Minorca	1816.	C	co	
1245. WESTRINGIA. Sm.	WESTRINGIA.						<i>Labiatae. Sp. 2-8.</i>				
8146 rosmarinifórmis Sm.	Rosemary-lvd.	△	or	4	my.au	Pa.B	N. S. W.	1791.	C	s.p	Bot. rep. 214
8147 Dampieri B. P.	Dampier's	△	or		my.jl	N.	H. Holl.	1803.	C	s.p	
1246. SATUREJA. W.	SAVORY.						<i>Labiatae. Sp. 10-17.</i>				
8148 juliána W.	linear-leaved	△	un	1	my.s	Pk	Italy	1596.	D	co	Lam. ill. t. 504. f. 1
8149 Teneriffæ W. en.	Teneriffe	△	un	1		Pu	Teneriffe		D	co	
8150 Thymbra W.	whorl-flowered	△	un	1	my.jl	Pu	Candia	1640.	C	r.m	Barr. ic. t. 898
8151 græca W.	Grecian	△	un	¾	jn.jl	Pu.w	Greece	1759.	D	co	Alp. exot. t. 264
8152 montána W.	winter	△	un	1½	jn.jl	Pu	S. Europe	1562.	C	co	
8153 tenuifólia Tenore.	fine-leaved	△	un	1½	jn.jl	Pu	S. Europe	1822.	D	co	
8154 rupéstris W.	rock	△	un	1	jn.jl	Pu	Carniola	1798.	S	co	Jac. ic. 3. t. 494
8155 horténsis W.	summer	△	un	1½	jn.au	Pk	Italy	1652.	C	co	Lam. ill. t. 504. f. 2
8156 capitáta W.	ciliated	△	un	1	jn.o	Pu	Levant	1596.	C	r.m	Barr. ic. t. 897
8157 vimínea W.	Pennyroyal-tr.	△	un	1	...	Pu	Jamaica	1783.	C	r.m	
1247. THYMBRA. W.	THYMBRA.						<i>Labiatae. Sp. 2-6.</i>				
8158 spicáta W.	spike-flowered	△	un	1½	jn.jl	Pa.pu	Levant	1699.	C	co	Pluk. al. t. 116. f. 5
8159 verticilláta W.	whorl-flowered	△	un	1½	jn.jl	Pa.pu	Spain	1702.	C	co	
1248. HYSOPIUS. W.	HYSSOP.						<i>Labiatae. Sp. 5-7.</i>				
8160 officinális W.	common	△	or	2	jn.s	B	S. Europe	1548.	C	co	Jac. aust. 3. t. 254
8161 orientális W. en.	oriental	△	or	2	jn.s	B	Caucasus		C	co	
8162 Lophánthus W.	Mint-leaved	△	or	2	aus.	Y	Siberia	1752.	C	p.l	Jac. vind. 2. t. 182
8163 nepetóides W.	square-stalked	△	or	5	au.o	Y.w	N. Amer.	1692.	D	p.l	Jac. vind. 1. t. 69
8164 scrophularifólius W.	Figwort-leaved	△	or	5	jl.au	Pk	N. Amer.	1800.	D	co	Herm. par. t. 106



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Sheep and goats are said to eat this plant: horses, cows, and swine to refuse it. If cows, compelled by hunger, eat it, their milk gets a garlic flavor.

T. chamædry's, is said to have cured Charles V. of the gout, by a vinous decoction taken for sixty successive days. It is commonly called Germander, which seems to be a corruption of the word Chamædry's, for the French call it *germandrée*, an evident alteration of *gamandrè*, under which name it first appeared in the very rare *Herbier de Mayence*, printed in 1485.

1245. *Westringia*. Named by Sir J. E. Smith, in honor of Dr. John Peter Westring, physician to the king of Sweden, and author of several learned papers on the Lichen tribe. A genus of New Holland plants, chiefly from the colder parts of that country, and having the appearance of our Rosemary.

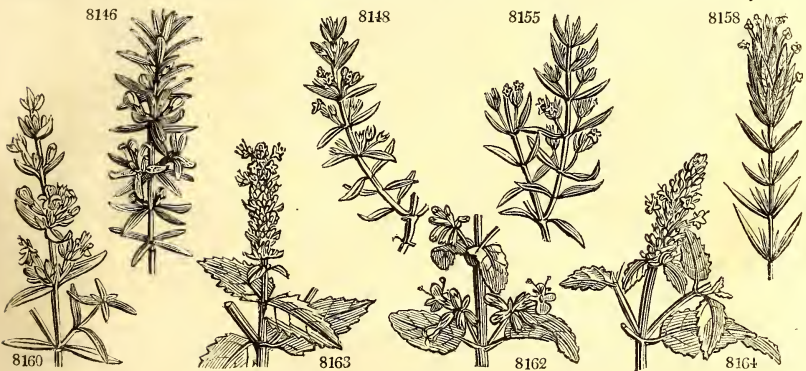
- 8112 Leaves ovate-oblong villous nearly entire, Flowers axillary solitary sessile
 8113 Leaves ovate serrate smooth, Pedunc. sol. 3-flowered; intermediate sessile, Bractes linear lanceolate
 8114 Leaves lanceolate repand-serrate rectangular at base, Fl. racemose one-sided, Calyx 2-lipped
 8115 Leaves lanceolate crenate rugose, Flower racemose one-sided, Calyx 2-lipped
 8116 Leaves ovate serrate, Raceme spiked round sessile terminal
 8117 Leaves cuncate serrate cut smooth narrowed into the stalk, Flower solitary stalked
 8118 Leaves ovate-lanceolate serrate hoary beneath, Stem erect round terminal, Whorls 6-leaved
 8119 Leaves ovate unequally serrate, Racemes terminal, Bractes shorter than flower-stalk
 8120 Leaves oblong acuminate unequally serrate pubescent, Spikes sessile terminal, Cal. inflated villous
 8121 Leaves cordate oblong obtuse, Stem brachiate dichotomous, Spikes very long terminal sessile spiral
 8122 Leaves cordate toothed acuminate, Racemes lateral nodding
 8123 Leaves cordate subpubescent toothed stalked, Racemes axillary one-sided, Stem erect herbaceous
 8124 Leaves lanceolate crenate tomentose hoary beneath, Racemes terminal, Flower stem brachiate
 8125 Leaves cuneiform lanc. serrated villous, Racemes axillary and terminal, Cor. resupinate
 8126 Leaves ovate rugose cut crenate hoary, Stems erect, Racemes straight one-sided
 8127 Leaves oblong sessile toothed nearly naked, Fl. axillary stalked in pairs, Stem diffuse pubescent
 8128 Leaves cuneiform ovate cut crenate stalked, Fl. ternary, Stems procumbent somewhat hairy
 8129 Leaves elliptical crenate, Fl. lateral solitary, Lip of cor. woolly outside, Leaves various in form
 8130 Leaves ovate cut serrate smooth, Whorls halved, Stems erect smooth
 8131 Leaves ovate crenate: floral entire, Whorls halved racemose, Stem bearded in two rows
 8132 Corymbs terminal, Cal. with acute unarmed teeth, Leaves lanceolate entire downy beneath
 8133 Corymbs terminal, Cal. with acute mucronate teeth, Lvs. linear entire revolute at edge downy beneath
 8134 Heads terminal few-flowered, Leaves stalked ovate blunt downy beneath, Stem procumbent
 8135 Corymbs terminal, Leaves cuneiform orbicular crenate hairy
 8136 Corymbs terminal hairy, Leaves ovate serrate and stems densely woolly at the ends yellow and shining
 8137 Heads roundish stalked, Leaves lanceolate blunt crenate revolute at edge downy, Stem decumbent
 8138 Heads roundish, and leaves, which are linear lanceolate crenate forwards, tomentose yellow at end
 8139 Fl. solitary clustered, Leaves linear revolute crenate, Calyxes woolly
 8140 Heads roundish lax, Leaves lanceolate crenate forwards downy hoary, Stem woolly corymbose
 8141 Heads stalked, Leaves lanceolate crenate tomentose, Stem erect
 8142 Heads roundish, Leaves linear revolute crenate forwards close and stem densely woolly
 8143 Heads terminal sessile, Leaves linear revol. at edge packed in four close rows, Stem procumbent downy
 8144 Spiny, Upper lip of calyx ovate, Corolla resupinate, Peduncles twin
 8145 Leaves entire ovate acute stalked revolute at edge pubescent downy beneath, Fl. racemose

- 8146 Leaves beneath and calyxes silvery, Teeth half as long again as tube
 8147 Leaves beneath and calyxes ash-colored opaque, Teeth half as short as tube

- 8148 Whorls fastigiate, Leaves linear lanceolate rough
 8149 Lvs. acute revolute at edge pubescent, Pedunc. axillary many-fl. Bractes much shorter than calyx
 8150 Whorls roundish hispid, Leaves obovate oblong acuminate veinless dotted hispid
 8151 Pedunc. axillary 3-6-flowered, Bractes shorter than calyx, Leaves ovate hispid veiny beneath
 8152 Pedunc. axillary cymose one-sided, Sepals acuminate mucronate, Leaves lin. lanc. entire mucronate
 8153 Stem erect branched with spreading hairs, Upper leaves hairy acute, Ped. 1-flowered axillary
 8154 Ped. axill. cymose one-sided, Sepals blunt unarmed, Lvs. roundish ovate atten. at base toothed bluntish
 8155 Pedunc. axillary cymose, Leaves lanceolate entire, Stem brachiate
 8156 Flowers spiked, Leaves keeled dotted ciliated
 8157 Fl. axillary 3 subsessile, Bractes linear, Leaves oblong entire attenuate at base smooth hispid beneath

- 8158 Flowers spiked, Bractes heaped linear ciliate
 8159 Flowers whorled, Leaves linear lanceolate entire

- 8160 Fl. whorled racemose 1-sided, Middle lobe of cor. 2-lobed entire, Leaves lanceolate, Teeth of calyx erect
 8161 Fl. whorled racemose 1-sided, Midd. lobe of cor. 2-lobed entire, Lvs. lin. lanc. Teeth of cal. spreading uneq.
 8162 Pedunc. axillary cymose, Cor. resupinate, Middle lobe crenate, Leaves oblong cordate toothed [tooth.
 8163 Spikes whorled cylind. Midd. lobe of cor. crenate, Style shorter than cor. Lvs. subcord. ov. acum. sharply
 8164 Spikes whorl. cylind. Midd. lobe of cor. crenate, Style longer than cor. Lvs. cord.-ov. acum. bluntly tooth.



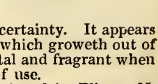
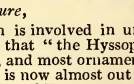
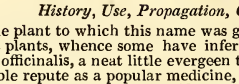
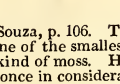
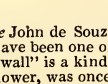
and Miscellaneous Particulars.

1246. *Satureja*. The Arabs call all labiate plants by the collective name of *ss'atar*, according to Bochart. Forskahl says, they call the wild Thyme *ss'atar*. *S. montana* and *hortensis* have been cultivated as culinary aromatics from time immemorial, and much more formerly than now, when almost all European species are superseded by those of the East Indies.

1247. *Thymbra*. A name of uncertain origin. The ancients gave it to a plant analogous to Thyme. Possibly it may have been so called after the name of a place. *Thymbraea*, a town in Lydia, was the spot where the famous battle was fought between Cyrus and Croesus, in which the fate of the latter was decided.

1248. *Hyssopus*. Latinized from the Hebrew name *ezob*. The Arabic name *azzof*, is evidently the same.

1249. NEPETA. W.		CAT-MINT.		Labiatae. Sp. 25-40.							
8165	catária W.	common	Δ	cu	2	jls	W	Britain	ro.sid. D co	Eng. bot. 137	
8166	angustifolia W.	narrow-leaved	Δ	cu	2	jn.jl	Pu	Spain	1798. D co		
8167	crispa W.	curl-leaved	Δ	cu	2	jl.au	Pa.B	Levant	1800. D co		
8168	pannónica W.	Hungarian	Δ	cu	4	au.o	R	Hungary	1683. D co	Jac. aust. 2. t. 129	
8169	cærúlea W.	blue	Δ	cu	1½	my.jn	B	.....	1771. D co	
8170	violácea W.	violet-colored	Δ	cu	2	jls	B	Spain	1723. D co	Boc. mus. t. 36	
8171	longiflora Vent.	long-flowered	Δ	cu	2	jn.au	V	Persia	1802. D co	Jent. cels. 56	
8172	Mussini Bieb.	scolloped-leav.	Δ	cu	2	my.au	V	Siberia	1804. D co	Bot. mag. 923	
8173	incána W.	hoary	Δ	cu	2	au	W	Levant	1723. D p.1		
8174	ucránica W.	Ukraine	Δ	cu	2	jl.au	W	Ukraine	1789. D co		
8175	Nepetella W.	small	Δ	cu	1	jl.au	R	S. Europe	1758. D co		
8176	gravólens W.	strong-smelling	Δ	cu	1	jl.au	Pu	S. Europe	1804. D co	All.ped. 2. t. f. 1	
8177	núda W.	naked	Δ	cu	1½	jl.au	Pu	S. Europe	1710. D co	Jac. aus. 1. t. 24	
8178	multibractea Desf.	many-bracted	Δ	cu	1	jl.au	Pu	Algiers	1710. D co	Desf. atl. t. 123	
8179	colorata W. en.	Nettle-leaved	Δ	un	2	jl.au	Pu	Caucasus	1806. D co		
8180	melissafolia W. en.	Balm-leaved	Δ	un	2	jl.au	W	Candia	1752. D p.1		
8181	italica W.	Italian	Δ	un	1	jn.au	Y.w	Italy	1640. D p.1	Jac.vind. 2. t. 112	
8182	marrubioides W. en.	Horhound-iv.	Δ	un	1	jn.au	R	.....	..... D co	
8183	reticulata W.	netted	Δ	un	2	jl.au	Pu	Morocco	1801. D co	Desf. atl. 2. t. 124	
8184	lamifolia W. en.	Lamium-leav'd	Δ	un	1½	jl.au	Pu	Armenia	1805. D co		
8185	teucrifolia W. en.	Teucurus-ivd.	Δ	un	1½	jl.au	Pu	Armenia	1816. D co		
8186	tuberosa W.	tuberous-root.	Δ	un	2	jn.au	V	Spain	1683. D co	Barr. ic. t. 602	
8187	lanata W.	woolly	Δ	un	1½	my.jn	Pu	S. Europe	1774. D co	Jac. obs. 3. t. 75	
8188	multifida W.	multifid	Δ	un	1	jl.au	W	Siberia	1796. D co	Gmel. sib. 3. t. 55	
8189	brotyoides W.	annual	○	un	1½	jn.jl	W	Siberia	1779. S co	Cav. ic. 1. t. 49	
1250.	ELSHOLTZIA. W.	ELSHOLTZIA.									
8190	ocymoides Pers.	Basil-like	∇	○	un	1	jl	Pu	E. Indies	1824. S co	
8191	crisata W.	crested	∇	○	un	1½	my.jl	Pk	Siberia	1789. S co	Lam.ill. t. 502. f. 2
1251.	LAVAN'DULA. W.	LAVENDER.									
8192	Spica W.	common	∇	clt	2	jls	Li	S. Europe	1568. C s.1	Sch. han. 2. t. 157	
	β alba	white-flowered	∇	clt	2	jls	W	.....	..... C s.1	
	γ latifolia W. en.	broad-leaved	∇	clt	2	jls	Li	S. Europe	1568. C s.1		
8193	Stæchas W.	French	∇	or	1½	my.jl	Li	S. Europe	1362. C s.1	Barrel. ic. t. 301	
8194	viridis W.	Madeira	∇	or	1½	my.jl	Pu	Madeira	1777. C p.1	Hofet. Llu. 1. t. 4	
8195	dentata W.	tooth-leaved	∇	or	1½	jn.s	Li	Spain	1597. C p.1	Bot. mag. 401	
8196	pinnata W.	pinnate	∇	or	1½	ap.au	Li	Madeira	1777. C p.1	Bot. mag. 400	
8197	multifida W.	cut-leaved	∇	or	1½	jls	Li	Canaries	1597. S p.1	Lob. ic. 432	
8198	abrotanoides W.	Southern-iv.	∇	or	1½	jn.s	Li	Canaries	1699. C co	Comm. rar. t. 27	
8199	carcosa W.	thick-leaved	∇	or	1½	jn.jl	Li	E. Indies	1788. C co	Lin.am.ac. 10. t. 3	
1252.	SIDEVITIS. W.	IRONWORT.									
8200	canariensis W.	Canary	∇	or	3	my.au	Y	Canaries	1697. C r.m	Jac. vind. 3. t. 30	
8201	candicans W.	Mullein-leaved	∇	cu	3	ap.jl	Y.Br	Madeira	1714. C r.m	Com.hort. 2. t. 99	
8202	montana W.	mountain	∇	or	1½	jl.au	Y.Br	Austria	1752. S co	Jac. aust. 5. t. 434	
8203	elegans W. en.	dark-flowered	∇	or	1½	jl	Y	.....	1787. S co	Mur.co.got. 1. t. 4
8204	romána W.	Roman	∇	or	1	jn.au	W	Italy	1740. S co	Cav. ic. 2. t. 187	
8205	syriaca W.	Syrian	∇	or	1½	jn.s	W.v	Levant	1597. C r.m	Sabb.hort. 3. t. 40	
8206	taurica W. en.	Taurian	∇	or	1½	jn.s	Pa.Y	Tauria	1822. C co		
8207	perfoliata W.	perfoliate	∇	or	2	au.n	Y	Levant	1731. C co		
8208	incána W.	Lavender-ivd.	∇	or	1½	jl.au	Y	Spain	1752. C co	Cav. ic. 2. t. 186	
8209	ilicifolia W. en.	Holly-leaved	∇	or	1½	jn.s	Y	Levant	..... C co	
8210	spinosa W. en.	spiny	∇	or	1½	jn.s	Y	Spain	..... C co	
8211	hyssopifolia W. en.	Hyssop-leaved	∇	or	1	jn.n	L.Y	Pyrenees	1597. C co	Sch. han. 2. t. 158	
8212	scordioides W.	scollop-leaved	∇	or	1	au.n	Y	France	1597. C co	Barr. ic. t. 343	



History, Use, Propagation, Culture,

Vide John de Souza, p. 106. The plant to which this name was given is involved in uncertainty. It appears to have been one of the smallest plants, whence some have inferred that "the Hyssop which groweth out of the wall" is a kind of moss. H. officinalis, a neat little evergreen tuft, and most oriental and fragrant when in flower, was once in considerable repute as a popular medicine, but is now almost out of use.

1249. *Nepeta*. Said by Linnæus to be derived from *Nepet*, a town of Tuscany, mentioned by Pliny. *N. cataria* is called *catmint*, because cats are very fond of it, especially when it is withered, when they will roll themselves on it, tear it to pieces, and chew it with great pleasure. Ray observes, that plants which he transplanted from the fields into his garden were always destroyed by the cats, unless he protected them with thorns till they had taken good root and came into flower; but that they never meddled with plants raised from seed. Miller has confirmed this by his own experience; having frequently set a plant from another part of the garden within two feet of others which came up from seeds, when the former was torn in pieces and destroyed by the cats, whilst the latter remained unharmed. The true reason of this difference is assigned by Ray; that the cat is fond of it in a languid withering state, or when the peculiar scent of the plant is excited by being handled or bruised in gathering or transplanting. Hence the English vulgar saying,

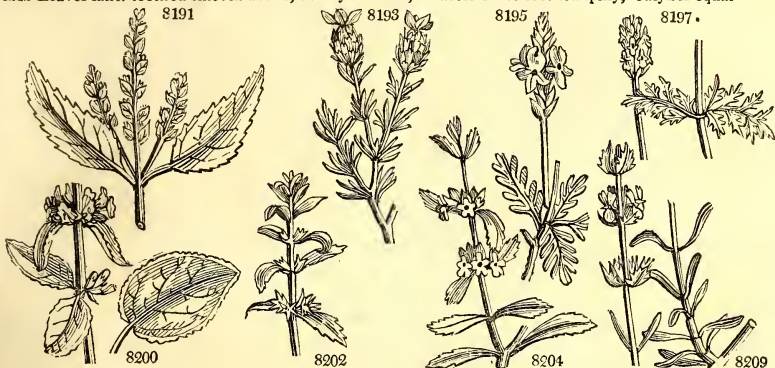
- 8165 Flowers spiked, Whorls somewhat stalked, Leaves stalked cordate tooth-serrated
 8166 Corymbs stalked spiked, Leaves lanceolate rugose tomentose bluntly serrated
 8167 Spike whorled interrupted, Leaves cordate toothed rugose waved crisp stalked hoary
 8168 Cymes stalked many-flowered, Leaves lanceolate oblong cordate naked, Lateral lobes of cor. reflexed
 8169 Cymes stalked many-fl. hairy, Lvs. oblong cordate villous subsessile, Lateral lobes of cor. reflexed
 8170 Cymes stalked many-fl. pilose, Leaves cordate stalked naked subsessile, Lateral lobes of cor. spreading
 8171 Cymes remote stalked 1-sided few-fl. Lvs. cordate blunt crenate glandular beneath: floral all sessile
 8172 Cymes stalk. 1-sid: lower rem. Lvs. cord. blunt cren. rug. downy without glands: floral generally stalked
 8173 Cymes stalked many-flowered, Leaves stalked oblong subcordate crenate downy
 8174 Flowers pinnated, Leaves lanceolate serrate sessile naked
 8175 Cymes stalked, Leaves cordate oblong lanceolate deeply serrate downy
 8176 Leaves cordate oblong serrated, Bractes linear, Whorls 8-12-flowered incurved nearly 1-sided
 8177 Racemes whorled naked, Leaves cordate oblong sessile naked
 8178 Flowers sessile in whorled spikes, Bractes lan. longer than calyx pubesc. Leaves stalked villous beneath
 8179 Cymes stalked racemose, Leaves obl. cordate serrate beneath hoary and rugose with veins
 8180 Leaves cordate oblong crenate stalked, Stem smooth angular, Flowers whorled capitate clustered
 8181 Fl. sessile in whorled spikes, Bractes lin. the length of calyx, Leaves stalked
 8182 Fl. sessile in whorled spikes, Whorls distant capitate, Bractes lan. length of cal. Leaves stalked entire
 8183 Leaves sessile lanceolate in approximated whorls, Bractes ovate with netted veins [at end
 8184 Cymes stalked many-fl. Tube of cor. filiform curved, Leaves ovate cordate blunt stalked serr. pubescent
 8185 Cymes stalked few-fl. racemose, Leaves ovate cordate blunt stalked toothed pubescent
 8186 Spikes term. Bractes obl. acum. nerved with colored lines, Lvs. cord. pubesc. Lateral lobes of cor. reflexed
 8187 Spikes term, Bractes ov. nerved rugose subscarioso, Lvs. obl. cord. villous, Lateral lobes of cor. spreading
 8188 Flowers spiked, Leaves pinnatifid entire
 8189 Flowers spiked, Lateral lobes of cor. spreading, Leaves pinnatifid with lin. nearly equal segments

- 8190 Stems prostrate, Leaves ovate subserrate, Spikes terminal, Calyx scarious at end
 8191 Spikes solitary unilateral erect, Bractes veiny

- 8192 Leaves sessile lin. lanc. revolute at edge, Spike interrupted naked

- 8193 Leaves sessile lin. downy revolute at edge, Spike contracted comose subsessile, Bractes 3-lobed
 8194 Leaves sessile lin. rugose villous revolute at edge, Spike comose, Bractes undivided
 8195 Leaves sessile linear pectinate-pinnate, Spike contracted comose
 8196 Lvs. stalked pinnate, Leaflets cuneate, Spike imbricated
 8197 Lvs. stalked hoary, Leaf. pinnatifid crosswise, Spike simple 4-corn. spiral, Bractes ovate nerved villous
 8198 Lvs. stalked pinnate nearly smooth, Leaf. pinnatifid crosswise, Spike branched interrupted 4-cornered
 8199 Lvs. stalked ovate cordate serrate fleshy, Spike 4-cornered, Calyxes curved

- 8200 Shrubby villous, Lvs. cordate oblong acute stalked, Spikes whorled before flowering nodding
 8201 Shrubby downy, Lvs. ovate lanc. cordate narrowed at end white beneath, Whorls about 8-fl. remote
 8202 Herbaceous without bractes, Cal. larger than cor. spiny, Upper lip trifid
 8203 Herbaceous without bractes villous, Stem diffuse, Segm. of calyx nearly equal spiny
 8204 Herbaceous decumbent without bractes, Leaves spatulate toothed at end, Cal. spiny, Upper lip ovate
 8205 Half-shrubby woolly, Leaves lanc. nearly entire, Fl. in whorled spikes, Bractes cordate acute downy
 8206 Half-shrubby downy, Lvs. lanc. cren. Fl. in whorled spikes, Bractes cord. acum. reticulated with nerves
 8207 Herbac. pilose-hispid, Upper lvs. lanc. amplexicaul. toothletted, Bractes cord. acum. netted hairy at edge
 8208 Half-shrubby downy, Lvs. linear lanceolate nearly entire, Flowers and bractes toothed
 8209 Hirsute, Lvs. lanc. spiny toothed, Bractes round. cord. shorter than cal. with spiny teeth, Whorls distant
 8210 Hirsute, Lvs. lanc. spiny toothed, Bractes cord. acum. longer than cal. with spiny teeth, Whorls close
 8211 Lvs. lanc. smooth entire, Bractes cord. toothed-spiny, Calyxes equal
 8212 Leaves lanc. toothed smooth above, downy beneath, Bractes ovate toothed spiny, Calyxes equal



and Miscellaneous Particulars.

"If you set it
 The cats will eat it;
 If you sow it
 The cats will not know it."

1250 *Elsholtzia*. Named by Willdenow, in memory of a Prussian botanist, John Sigismund Elsholtz, who lived in the middle of the seventeenth century. Inconspicuous hardy herbaceous plants of little merit.

1251. *Lavandula*. From *lavare*, to wash. The use of the distilled water of this plant is well known. The flowers of *L. spica* have an agreeable fragrant odour, and warm bitterish taste. Alcohol extracts their virtues completely, and elevates in distillation all their odorous parts; water acts less completely. The oil, however, on which their virtues depend, is obtained separate in distillation with water; in the proportion, according to Lewis, of one ounce of oil from sixty ounces of the flowers. Lavender is stimulant and tonic. The oil extracted by alcohol enters into several compositions. The dried leaves in powder were used formerly as a sternutatory; but they are now neglected. The flowers are cut in dry weather, when they begin to blow. (*London Dispensatory*, 862.)

1252. *Sideritis*. From *σιδηρος*, iron. A name given by the Greeks to a plant by which were cured all

8213	<i>hirsúta W.</i>	hairy	3/4	Δ	or	1 1/2	jn.jl	Y	S. Europe	1731.	C	co	Cav. ic. 4. t. 502
8214	<i>crispáta W. en.</i>	curled-leaved	3/4	Δ	or	1 1/2	jn.s	Y	Gibraltar	1815.	C	co	
8215	<i>crética L.</i>	Can dian	3/4	Δ	cu	1 1/2	jn.s	W	Candia	1823.	C	co	
8216	<i>foetida W.</i>	stinking	3/4	Δ	un	1	jn.n	Y	Spain	1822.	C	co	
1253.	BYSTROPOGON. <i>W. Bystropogon.</i>								<i>Labiatae. Sp. 4-7.</i>				
8217	<i>plumósus W.</i>	woolly-flower'd	3/4	Δ	or	1 1/2	jn.jl	Pa.pu	Canaries	1779.	C	p.l	L'her. sert. n. 4
8218	<i>organifólius W.</i>	entire-leaved	3/4	Δ	or	1 1/2	jn.au	Pa.pu	Canaries	1815.	C	p.l	L'her. sert. n. 5
8219	<i>canariénsis W.</i>	Canary	3/4	Δ	or	1 1/2	jn.au	Pa.pu	Canaries	1714.	C	p.l	Com.hort. 2. t. 65
8220	<i>punctátus W.</i>	cluster-flower'd	3/4	Δ	or	1 1/2	jl.s	Pa.pu	Madeira	1775.	C	p.l	L'her. sert. n. 7
1254.	MEN'THA. <i>W. Mint.</i>								<i>Labiatae. Sp. 35-43.</i>				
8221	<i>Auriculária W.</i>	Indian	3/4	Δ	or	1	jl.au	Pu	E. Indies	1796.	D	co	Rum.amb.6.t.16
8222	<i>laevigáta W. en.</i>	polished	3/4	Δ	or	1 1/2	jl	Ru	.....	.....	D	co	
8223	<i>rotundifólia W.</i>	round-leaved	3/4	Δ	or	2	au.s	R	England	moi.pl.	D	co	Eng. bot. 446
	<i>β variegáta</i>	variegated	3/4	Δ	or	2	au.s	R	.....	.....	D	co	
8224	<i>gratissima W.</i>	oblong-leaved	3/4	Δ	or	1 1/2	jl.au	Pu	Germany	1799.	D	co	
8225	<i>pubescens W. en.</i>	pubescent	3/4	Δ	or	1 1/2	jl.au	Pu	.....	.....	D	co	
8226	<i>pyramidális Tenore.</i>	pyramidal	3/4	Δ	or	1 1/2	jl.au	Pu	Naples	1824.	D	co	
8227	<i>viridís W.</i>	spear	3/4	Δ	cul	2	au	Pu	Britain	mar.	D	co	Eng. bot. 2424
8228	<i>incána W. en.</i>	hoary	3/4	Δ	or	1 1/2	jl.au	Pu	.....	1790.	D	co	
8229	<i>piperita W.</i>	pepper	3/4	Δ	m	2	au.s	Pu	England	wat.pl.	D	co	Eng. bot. 687
8230	<i>glabráta W.</i>	smooth	3/4	Δ	or	1	jl.au	Pu	Egypt	1802.	D	co	
8231	<i>crispa W.</i>	curled	3/4	Δ	or	2	jl.au	Pu	Siberia	1640.	D	co	
8232	<i>crispáta W. en.</i>	crumpled	3/4	Δ	or	1 1/2	jl.au	Pu	.....	1807.	D	co	
8233	<i>unduláta W. en.</i>	wave-leaved	3/4	Δ	or	1 1/2	jl.au	Pu	.....	1816.	D	co	
8234	<i>odoráta Smith.</i>	Bergamot	3/4	Δ	or	1	jl.au	Pu	England	wat.pl.	D	co	Eng. bot. 1025
	<i>M. citráta W.</i>												
8235	<i>balsamea W. en.</i>	Balsam-scented	3/4	Δ	or	1 1/2	jl.au	Pu	Italy	1804.	D	co	
8236	<i>nilíaca W.</i>	Egyptian	3/4	Δ	or	1	jl.au	Pu	Egypt	1796.	D	co	Jac. hort. 3. t. 87
8237	<i>memorósa W. en.</i>	wood	3/4	Δ	or	2	jl.au	Pu	Britain	.....	D	co	Fl. dan. t. 484
8238	<i>sylvéstris W.</i>	wild	3/4	Δ	or	2	jl.au	Li	Britain	wat.pl.	D	co	Eng. bot. 686
8239	<i>macrostáchya Ten.</i>	long-spiked	3/4	Δ	or	2	jl.au	Pu	S. Europe	...	D	co	
	<i>M. rotundifolia W. en.</i>												
8240	<i>lavandulácea W. en.</i>	Lavender-ld.	3/4	Δ	or	1	jl.au	Pu	Spain	1823.	D	co	
8241	<i>rúbra H. K.</i>	common-red	3/4	Δ	or	1 1/2	s	Pu	Britain	wat.pl.	D	co	Eng. bot. 1413
8242	<i>acutifólia H. K.</i>	sharp-leaved	3/4	Δ	or	1	s	Li	Britain	wat.pl.	D	co	Eng. bot. 2415
8243	<i>boreális Mich.</i>	northern	3/4	Δ	pr	3/4	s	Pu	N. Amer.	1824.	D	co	
8244	<i>hirsúta H. K.</i>	hairy-water	3/4	Δ	or	1 1/2	jl.s	Li	Britain	wat.pl.	D	co	Eng. bot. 447
8245	<i>capénsis W.</i>	Cape	3/4	Δ	or	1	jl.au	Pu	C. G. H.	1816.	D	co	
8246	<i>austriáca W. en.</i>	Austrian	3/4	Δ	or	1	jl.au	Pu	Germany	1809.	D	co	
8247	<i>satíva W.</i>	tall-red	3/4	Δ	or	2	au.s	Pu	England	...	D	co	Eng. bot. 448
8248	<i>hirta W. en.</i>	shaggy	3/4	Δ	or	1 1/2	au.s	Pu	.....	.....	D	co	
8249	<i>gracilis H. K.</i>	narrow-leaved	3/4	Δ	or	1	au	Pu	Britain	wat.pl.	D	co	Eng. bot. 449
8250	<i>arvénsis H. K.</i>	corn	3/4	Δ	or	3/4	jl.s	Li	Britain	corn fi.	D	co	Eng. bot. 2119
	<i>β præcox S. M.</i>	early-flowering	3/4	Δ	or	1 1/2	jn	Pu	Britain	...	D	co	Sole's Mints, c. ic
8251	<i>gentilis H. K.</i>	bushy-red	3/4	Δ	or	1 1/2	jn.au	Pu	Britain	pools.	D	co	Eng. bot. 2118
8252	<i>canadénsis W.</i>	Canadian	3/4	Δ	or	1	jl	Pu	N. Amer.	1801.	D	co	
8253	<i>dentáta W. en.</i>	toothed	3/4	Δ	or	1	jl.au	Pu	Germany	1816.	D	co	
8254	<i>Pulegium W.</i>	Pennyroyal	3/4	Δ	m	4	au.s	Pu	Britain	wet.co.	D	co	Eng. bot. 1026
8255	<i>Cerváta W.</i>	Hyssop-leaved	3/4	Δ	or	3	jn.au	W	France	1648.	D	co	Mor.his.3. t.7.f.7



History, Use, Propagation, Culture,

wounds by sword. The plants of the moderns do not possess any such properties. Their flowers, however, have frequently a ferruginous color.

1253. *Bystropogon.* A name elegantly contrived by L'Heritier, from βυσσ, to close, and πορρω, a beard, in allusion to the throat of the corolla being closed by hairs.

1254. *Mentha.* Μενθω or μινθω, in old Greek. The poets feign that Mintha was a daughter of Cocytus, transformed into the plant which bears her name; an allegorical description of the terrible effects ascribed to their plant by the ancients. *M. viridis* not being so hot to the taste as peppermint, and having a more agreeable flavor than most of the others, is generally preferred for culinary and some medicinal purposes. The leaves or tops are used in spring salads, and eaten dried as sauce with lamb and in soups.

The medical preparations of spearmint are more pleasant than those of peppermint, but perhaps less efficacious. This herb, as do the other sorts, contains much essential oil, but of an odor less agreeable than that of lavender or marjoram: it is therefore less employed as a cephalic; but it acts very powerfully on parts to which it is immediately applied, and therefore considerably on the stomach. It acts especially as an antispasmodic, and therefore relieves pains and cholick arising from spasm. It will also stop vomiting dependent on the same cause; but if it arise from an inflammatory irritation in the stomach itself, or in other parts of the body, it aggravates the disease. The infusion of mint in warm water agrees better with the stomach than the distilled water. The officinal preparations are an essential oil, a conserve, a simple water, and a spirit. The conserve is very grateful, and the distilled waters both simple and spirituous, are generally thought pleasant.

8213 Leaves lanc. toothed blunt pilose, Bractes toothed spiny, Stems hirsute decumbent
 8214 Hirsute, Lvs. obl. cuneate toothed wavy downy beneath, Bractes round with spiny teeth, Whorls distant
 8215 Shrubby downy, Lvs. cord. obl. crenate stalked downy on each side, Upper lip of cor. ovate entire
 8216 Like *hyssopifolia*, but leaves smooth on each side somewhat toothed lanccolate blunt

8217 Panicle dichotomous, Cal. feathery, Leaves ovate subserrate downy beneath
 8218 Panicle dichotomous, Cal. feathery, Leaves ovate entire very white beneath
 8219 Panicle dichotomous, Flowers capitate, Leaves ovate crenate most villous beneath
 8220 Panicle dichotomous, Flowers capitate, Leaves ovate toothed smooth dotted

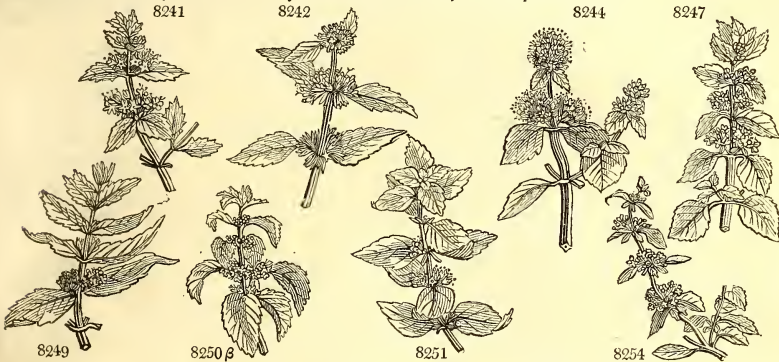
8221 Spikes oblong, Leaves oblong serrated hairy sessile, Stamens longer than cor.
 8222 Spikes cylindr. interrupted, Leaves ovate-obl. subsessile remotely serrate and calyxes smooth
 8223 Hoary, Spikes oblong interrupted, Leaves roundish rugose crenate sessile

8224 Spikes obl. Leaves sessile oval finely and equally serrate acum. hoary beneath, Stamens as long as cor.
 8225 Spikes obl. Lvs. ovate stalked serr. hoary beneath, Calyxes and peduncles hirsute, Stem much branched
 8226 Leaves stalked subcordate slightly pubescent, Spikes middle sized [somewhat hairy
 8227 Spikes cylindr. interrupted, Lvs. lanc. subsess. cun. at base finely serrated smth. on each side, Teeth of cal.
 8228 Spks. obl. Lvs. obl. comp. blunt serrat. ses. hoary and downy on each side, Cal. and ped. vill. Stem much br.
 8229 Spikes obl. blunt interrupted at base, Lvs. ov.-obl. acute serrat. stalked smooth, Cal. quite smooth at base
 8230 Flowers racemose whorled, Leaves stalked ovate lanc. serrated smooth
 8231 Spikes capitate, Leaves cordate cut-toothed wavy sessile, Stamens length of corolla [hirsute
 8232 Spikes cylindr. interrupt. Lvs. ov. obl. subsess. cuspid. ser. waved complicate hoary on each side, Cal. and ped.
 8233 Spikes cylindr. Lvs. ovate obl. subsess. cuspidate serr. wavy complicate hoary on each side
 8234 Flowers in heads, Lvs. ellipt. blunt serrated smooth stalked, Stamens shorter than corolla

8235 Spikes cylindr. interrupted, Lvs. ovate lanc. stalked finely serr. entire at base, Ped. hirsute, Cal. smooth
 8236 Spikes obl. interrupt. at base, Lvs. obl. lanc. subsess. remotely and finely serrat. entire at base hoary beneath
 8237 Spikes cylindr. contracted, Leaves obl. subcor. subsess. equally serrated hoary beneath, Cal. and ped. hirsute
 8238 Spks. cylindr. interrupt. at base, Lvs. ov. obl. subsess. finely and unequally serr. hoary, Cal. and ped. hirsute
 8239 Spikes cylindr. interrupted, Lvs. ovate-ellipt. rounded at end serrated subsessile hoary beneath

8240 Spks. cylindr. interrupt. at base, Lvs. lin. lanc. nearly entire complicate sess. hoary on each side, Ped. and
 8241 Flowers whorled, Lvs. ovate stalked serrated entire at base smooth, Teeth of calyx hairy
 8242 Fls. whorl. Lvs. ov.-lanc. narrowed at each end, Cal. tubular obl. hairy, Hairs of pedicels spreading, of stems
 8243 Low pubesc. Fl. whorled, Lvs. stalked with resinous dots acute at each end, Stamens exserted [deflexed
 8244 Flowers capitate or whorled, Lvs. stalked ovate, Calyx hairy on each side, Pedicels hispid backwards
 8245 Whorls spiked oblong, Leaves lanceolate entire downy
 8246 Fl. whorled, Lvs. ovate stalked serrate hairy, Cal. hairy, Ped. smooth, Stem erect
 8247 Flowers whorled, Lvs. ovate acutish serrated, Stamens longer than corolla
 8248 Spikes cylindr. interrupted at base, Lvs. ovate stalked serrate beneath hairy, Cal. and peduncle hirsute
 8249 Flowers whorled, Lvs. lanc. subsess. Stem much branched erect, Cal. at base and pedicels very smooth
 8250 Flowers whorled, Lvs. ovate stalked serrate hairy, Cal. and peduncles hirsute, Stem much branched

8251 Flowers whorled, Lvs. ovate, Stem much branched spreading, Calyxes and pedicels smooth at base
 8252 Flowers whorled, Lvs. lanc. serrate stalked hairy, Stam. as long as corolla
 8253 Flowers whorled, Lvs. ov. subsess. cuspidate serr. wavy nearly smooth, Pedunc. and calyx smooth at base
 8254 Flowers whorled, Lvs. ovate, Stem prostrate, Pedicels and cal. downy on each side, Teeth ciliated
 8255 Flowers whorled, Lvs. lanc. nearly entire sessile smooth, Bractes palmate



and Miscellaneous Particulars.

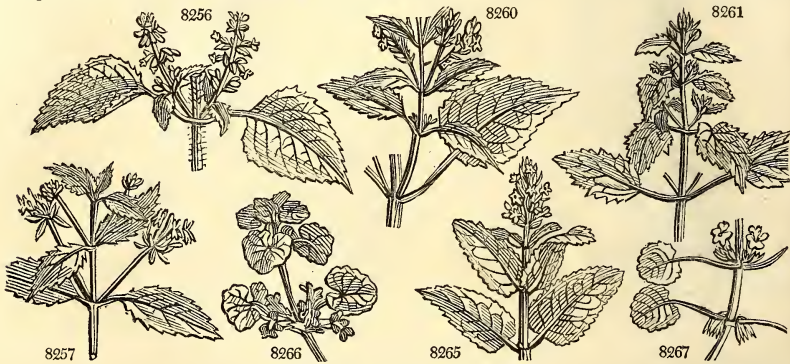
Lewis observes, that mint is said to prevent the coagulation of milk; and hence it has been recommended to be used with milk diets, and even in cataplasms and fomentations for resolving coagulated milk in the breasts: upon experiment, the curd of milk, digested in a strong infusion of mint, could not be perceived to be any otherwise affected than by common water; but milk, in which mint leaves were set to macerate, did not coagulate near so soon as an equal quantity of the same milk kept by itself. Dry mint digested in rectified spirits of wine, gives out a tincture which appears by day-light of a fine dark green, but by candle-light of a bright red color. The fact is, that a small quantity of this tincture is green, either by day-light or candle-light, but a large quantity seems impervious to common day-light; however, when held between the eye and a candle, or between the eye and the sun, it appears red; so that if put into a flat bottle it appears green, but when viewed edgewise red.

For medicinal use spearmint is generally cut just as the flowers appear; but for obtaining the essential oil, the flowering plant is preferred. It should be cut in very dry weather. (*London Dispensatory*, 384.)

M. piperita has a more penetrating smell than any of the other species, and a much stronger taste, pungent and glowing like pepper, sinking as it were into the tongue, and followed by a sensation of coldness. Its stomachic, anti-spasmodic and carminative qualities render it useful in flatulent colics, hysterical affections, retchings, and other dyspeptic symptoms, acting as a cordial, and often producing immediate relief. The official preparations are an essential oil, a simple water, and a spirit. The essence of peppermint is an elegant medicine, and seems to be the rectified oil dissolved in spirits of wine.

“The cultivators of the plant observe, that to keep up its quality, the roots must be transplanted every three

1255. PERIL'LA. W.	PERILLA.				<i>Labiatae. Sp. 1.</i>								
8256 ocymoides W.	Basil-leaved	○	cu	$\frac{1}{2}$ j.lau	W	India	1770.	S	s.l	Bot. mag.	2395		
1256. HYP'TIS. Poit.	HYPTIS.					<i>Labiatae. Sp. 8-27.</i>							
8257 capitata H. K.	Jamaica	✓	△	cu	$1\frac{1}{2}$ jn.jl	Pa.pu	W. Indies	1714.	S	s.l	P.an.m.7.t.27.f.1		
8258 radiata Poit.	Carolina	✓	△	cu	1 jn.jl	Pa.pu	Carolina	1690.	D	l.p	P.an.m.7.t.27.f.2		
8259 ebracteata H. K.	small-headed	✓	△	cu	$\frac{3}{4}$ ja.o	Pa.pu	W. Indies	1778.	S	l.p	P.an.m.7.t.29.f.2		
8260 pectinata Poit.	Balm-leaved	✓	△	cu	$1\frac{1}{2}$ ja.d	Pa.pu	W. Indies	1776.	D	l.p	Poi.an.mus.7.30		
8261 persica P. S.	Persian	✓	△	cu	$1\frac{1}{2}$ jl	Pa.pu	Persia	1800.	C	l.p	Lin. trans.6.t.12		
8262 stachyodes Link.	long-spiked	✓	△	cu	$1\frac{1}{2}$ jl	W	.....	1824.	S	co			
8253 recurvata Poit.	recurved	✓	△	cu	1 jl	Pa.pu	Cayenne	1820.	D	co			
8264 brevipes Poit.	short-stalked	✓	△	cu	1 jn.au	Li	S. Amer.	1822.	S	co			
1257. HORMIN'UM. Ort.	HORMINUM.					<i>Labiatae. Sp. 1-3.</i>							
8265 caulescens Ort.	spiked	✓	△	pr	1 jlau	Pa.R	Mexico	1800.	C	s.p	W. h. ber. t. 21		
1258. GLE'CHOMA. W.	GROUND IVY.					<i>Labiatae. Sp. 2.</i>							
8266 hederacea W.	common	✓	△	w	1 mr.my B	Britain	hed.b.	D	co	Eng. bot.	853		
8267 hirsuta P. S.	hairy	✓	△	cu	2 mr my Pk	Hungary	...	D	co	Pl.rar.hun.t.119			
1259. LA'MIUM. W.	ARCHANGEL.					<i>Labiatae. Sp. 11-19.</i>							
8268 Orvula W.	Balm-leaved	✓	or	w	$1\frac{1}{2}$ my.jl	D.P	Italy	1596.	D	co	Bot. mag.	172	
8269 laevigatum W.	smooth	✓	or	w	1 mr.o	Pu	Italy	1711.	D	co	Pluk.al.t.198.f.1		
8270 rugosum W.	rough	✓	w	w	1 jl.au	R	Italy	1766.	D	co	Bocc.mus.5.t.23		
8271 garganicum W.	woolly	✓	w	w	2 jl.au	Pu	Italy	1729.	D	co	Exot. bot. 1. t. 48		
8272 maculatum W.	spotted	✓	w	w	1 jn.jl	Pu	Italy	1683.	D	co	Col.ceph.1. t.185		
8273 album W.	white	✓	w	w	2 ap.s	W	Britain	was.gr.S	co		Eng. bot.	768	
8274 moschatum H. K.	musk-scented	○	w	w	1 ...	...	Levant	1739.	D	co			
8275 mollis W.	Pellitory-leav'd	✓	or	w	1 ap.my W	.....	.....	1683.	S	co			
8276 purpureum W.	purple	○	w	w	1 my.au	Pu	Britain	was.gr.S	co		Eng. bot.	769	
β incisum H. K.	cut-leaved	○	w	w	1 my.jl	Pk	Britain	san.fi.S	co		Eng. bot.	1933	
8277 amplexicaule W.	Henbit	○	w	w	$\frac{3}{4}$ mr.jn	Pk	Britain	san.fi.S	co		Eng. bot.	770	
8278 multifidum W.	multifid-leaved	○	cu	w	1 ap.my	Pu	Levant	1752.	S	co			
1260. GALEOP'SIS. W.	HEMP-NETTLE.					<i>Labiatae. Sp. 4.</i>							
8279 Ladanum W.	red	○	w	w	$\frac{3}{4}$ jls	Pk	Britain	chal.fi.S	co		Eng. bot.	884	
8280 villosa E. B.	downy	○	w	w	1 jl.au	Y	Britain	san.fi.S	co		Eng. bot.	2353	
8281 Tetrabit W.	common	○	w	w	$1\frac{1}{2}$ jl.au	W	Britain	corn.fi.S	co		Eng. bot.	207	
8282 versicolor H. K.	large-flowered	○	w	w	1 jl.au	Y	Britain	san.fi.S	co		Eng. bot.	667	
1261. GALEOB'DOLON. E. B.	DEAD-NETTLE.					<i>Labiatae. Sp. 1-2.</i>							
8283 luteum E. B.	yellow	✓	△	or	1 my.jn	Y	Britain	m.sh.pl	D	co	Eng. bot.	787	
1262. BETON'ICA. W.	BETONY.					<i>Labiatae. Sp. 7-12.</i>							
8284 officinalis W.	wood	✓	△	or	1 jl.au	Pu	Britain	woods.	D	co	Eng. bot.	1142	
8285 stricta W.	Danish	✓	△	or	$1\frac{1}{2}$ jn.jl	Pu	Denmark	1592.	D	co	Par.thea.615.f.4		
8286 incana W.	hoary	✓	△	or	$\frac{1}{2}$ jn.jl	F	Italy	1759.	D	s.p	Bot. mag.	2125	
8287 orientalis W.	oriental	✓	△	or	1 jn.jl	L.Pu	Levant	1737.	D	co	Lam.ill. t.507.f.2		
8288 alopecurus W.	fox-tail	✓	△	or	$1\frac{1}{2}$ jl	L.Y	S. Europe	1759.	D	co	Jac. aus. 1. t. 78		
8289 hirsuta W.	hairy	✓	△	or	$\frac{1}{2}$ jn.jl	Pu	Italy	1710.	D	s.p	Mur.co.got.2.t.3		
8290 grandiflora W.	great-flowered	✓	△	or	2 jn.jl	L.R	Siberia	1800.	D	co	Bot. mag.	700	



History, Use, Propagation, Culture,

years, otherwise it degenerates into the flavor of spearmint." (*Linnean Transactions*, v. 176.) If the plant be cut in wet weather it changes to black, and is little worth. (*London Dispensary*, 385.)

M. pulegium (from *pulex*, a louse, which animal it was thought to drive away) smells like spearmint, but less fragrant; the taste aromatic and pungent, with a slight flavor of camphor. These qualities reside in a very volatile essential oil, which rises in distillation with water. It was formerly regarded as emmenagogue, expectorant, and diaphoretic, and was in repute for promoting the uterine evacuation, and relieving hysteria, hooping-cough, asthma; but it is now justly considered of no value, and seldom used in regular practice. (*London Dispensary*, 386.)

1255. *Perilla*. A name the meaning of which has not been explained. An annual plant with a strong balmy fragrance.

1256. *Hyptis*. From *hypos*, reversed, because the corolla seems inverted, both as to its form and as to the insertion of stamens. Plants with densely whorled flowers, all natives of the western parts of the world, within, or nearly so, the limits of the tropics.

1257. *Horminum*. From *hormeo*, to excite, in allusion to its stimulant qualities. The Horminum of the ancients was reputed aphrodisiac.

1258. *Glechoma*. Γληχον was a sort of Thyme among the Greeks. Small trailing herbs. The leaves of *G. hederacea* are often deformed with red hairy tumours, which are the galls of the *Cynips Glechomæ*. Before

8256 Leaves ovate serrate, Bractes long leafy

- 8257 Heads stalked in an involucre, Invol. lanc. the length of flowers, Leaves ovate toothed
 8258 Heads stalked in an involucre, Invol. lanc. longer than flowers, Leaves oblong toothed narrowed at base
 8259 Heads opp. few-fl. without bractes, Pedunc. shorter than joints, Leaves cord. doubly serrate; upper oval
 8260 Flowers in spiked 1-sided panicles on a two-parted peduncle, Leaves ovate
 8261 Flowers in stalked capitate cymes, Leaves of invol. 2 longer than calyx in fruit, Leaves oblong
 8262 Leaves ovate subcordate attenuate acutely crenate pubesc. spiked whorled terminal, Cal. 5-toothed
 8263 Flowers capitate, Invol. filiform hispid shorter than calyx of fruit, Lower leaves cordate
 8264 Heads on a short peduncle, Leaves of invol. oblong lanc. Cal. pubescent not closed with hairs

8265 Stem leafy, Leaves ovate oblong crenat Bractes cordate, acuminate, Cal. pungent

- 8266 Smooth, Segment of calyx ovate acute
 8267 Hirsute, Segment of calyx lanceolate cuspidate

- 8268 Leaves cord. unequally finely serr. Orifice of cor. inflated, Lower lip 3-toothed on each side, Cal. colored
 8269 Leaves cord. rugose, Stem smooth, Cal. smooth the length of tube of corolla
 8270 Leaves cord. acute rugose and stems hairy, Whorls many-flowered, Tooth of orifice solitary setaceous
 8271 Leaves cord. concave somewhat hoary, Orifice of cor. inflated, Tube straight with two teeth on each side
 8272 Leaves cord. acuminate, Whorls 10-flowered
 8273 Leaves cord. acuminate serrate stalked, Whorls 20-flowered
 8274 Smooth, Leaves cordate crenate: floral subsessile, Teeth of calyx as long as cor.
 8275 Leaves stalked somewhat toothed: lower cordate; upper ovate
 8276 Leaves stalked cordate blunt toothed; upper close together, Stem naked below
 8277 β Leaves cut-toothed
 8277 Floral leaves sessile amplexicaul cut; radical lobed
 8278 Leaves many-parted

- 8279 Joints of stem equal, All the whorls remote, Leaves lanceolate
 8280 Joints of stem equal, Leaves ovate lanceolate serrate villous, Helmet crenate cut
 8281 Joints of stem thickened upwards, Upper whorls contiguous, Cal. pungent, Cor. little longer than calyx
 8282 Stem hispid, Joints thickened upwards, Cor. thrice as long as calyx, Helmet ventricose

8283 All the leaves ovate, Involucre 4-leaved

- 8284 Spike interrupted, Helmet entire, Middle segm. of lower lip emarg. Cal. smoothish
 8285 Spike oblong, Helmet entire, Middle segm. of lower lip crenate wavy, Cal. hairy, Bractes ciliated
 8286 Spike interrupted, Helmet bifid, Middle segm. of lower lip crenate, Tube downy incurved
 8287 Spike entire, Middle segm. of lower lip entire
 8288 Spike leafy at base, Helmet bifid
 8289 Spike leafy at base, Helmet entire
 8290 Spike leafy interrupted, Calyx villous at edge, Teeth subulate, Helmet orbicordate



and Miscellaneous Particulars.

the use of hops, the leaves were put in ale, and being bitter, aromatic, and having a peculiar and very strong smell, were much used in popular medicine. It is now, however, seldom used.

1259. *Lamium*. *Lamium* is a celebrated marine monster; the flowers of this genus have a considerable resemblance to the grotesque figure of some beast. *L. orvala* is the only species admitted into the garden. The others are mostly ugly weeds. *L. album*, *Ortie blanche*, Fr., *Taube Nessel*, Ger., and *Ortica montana* or *bianca*, Ital., has a disagreeable smell when bruised, and though no cattle whatever will touch it, yet Linnaeus says, the leaves are eaten in Sweden as a pot herb in spring.

1260. *Galeopsis*. From $\gamma\alpha\lambda\eta$, a weasel, and $\psi\iota\varsigma$, appearance. The flower has a grotesque figure, and may be likened to the form of a weasel, or, indeed, of any thing else.

1261. *Galeobdolon*. A word with the same meaning as *Galeopsis*, which see.

1262. *Betonica*. In Celtic botany is called *Bentonic*; wherefore it appears, that Pliny gave too much way to conjecture, when he wrote that *Betonica* or *Vetonica* was so called from the Vetones, a people who dwelt at the foot of the Pyrenees. *B. officinalis* was formerly much used in medicine, but it is discarded from modern practice. When fresh it intoxicates. The leaves when dry excite sneezing. Sheep eat it, but goats refuse it. The roots are bitter and very nauseous; in a small dose they vomit and purge violently. This plant dyes wool of a very fine dark yellow color.

1263. STA'CHYS. W.	HEDGE-NETTLE.	—			<i>Labiatae. Sp. 37—55.</i>				
8291 sylvatica W.	common	Δ w	2	jl.au	Bd	Britain	1822.	D	co
8292 sibirica Link.	Siberian	Δ un	1	jl.au	Pu	Siberia?	1806.	D	co
8293 mollissima W.en.	soft-leaved	Δ w	1½	jl.au	Pa.pu	Corfu	1823.	D	co
8294 cor'sica Pers.	Corsican	Δ un	3	jl.au	Pu	Corfu	1823.	D	co
8295 palustris W.	Clown's Allheal	Δ w	2	au.	Pu	Britain	1795.	D	co
8296 coccinea W.	scarlet	Δ or	3	jn.au	S	S. Amer.	1795.	C	p.l
8297 neptifolia Desf.	Catmint-leav'd	Δ w	1½	jn.au	Pu	.....	1805.	D	co
8298 decumbens Pers.	decumbent	Δ w	2	my.jl	Y	.....	1816.	D	co
8299 germanica W.	downy	Δ w	3	jl	Pu	England	chal. fi.	D	co
8300 intermedia H. K.	oblong-leaved	Δ or	2	jn.jl	Pu	Carolina	1762.	D	co
8301 lanata W.	woolly	Δ or	2	jn.s	St	Siberia	1782.	D	p.l
8302 Heraclea L.	broad-leaved	Δ or	3	jn.s	Pu	Italy	1822.	D	co
8303 ambigua Smith	ambiguous	Δ w	1½	jn.jl	Pu	Britain	al.mo.	D	co
8304 tenuifolia Bieb.	fine-leaved	Δ or	1½	jn.jl	Pk	Iberia	1822.	D	co
8305 salviaefolia Ten.	sage-leaved	Δ or	2	jn.jl	Pu	S. Europe	1824.	D	co
8306 alpina W.	Alpine	Δ w	2	jn.au	D.P	Germany	1597.	D	p.l
8307 circinata W.	blunt-leaved	Δ w	1	my.jl	Pu	Barbary	1777.	D	p.l
8308 Balbisis Link.	Balbis's	Δ or	1½	my.jl	Y	Italy	1823.	D	co
8309 ibérica Bieb.	Iberian	Δ or	1	my.jl	Pu	Iberia	1822.	D	co
8310 fœniculum Psh.	Fennel-scented	Δ cu	2	my.jn	B	N. Amer.	1824.	D	co
8311 arenaria Vahl.	sand	Δ or	1	jl	Pu	Levant	1804.	D	p.l
8312 cretica W.	Cretan	Δ w	2	jn.au	Pu	Candia	1640.	D	co
8313 glutinosa W.	clammy	Δ or	1	jn.jl	Pu	Candia	1729.	C	co
8314 spinosa W.	thorny	Δ un	1½	jl	Pu	Candia	1640.	D	co
8315 orientalis W.	oriental	Δ or	1½	jn.jl	Pu	Levant	1768.	D	s.l
8316 maritima W.	sea	Δ or	2	jl	Y	S. Europe	1714.	D	co
8317 obliqua Pers.	oblique-leaved	Δ or	2	jn.jl	Y	Hungary	1816.	D	co
8318 betonicafolia Pers.	Betony-leaved	Δ or	1½	jn.jl	Y	Rochelle	1812.	D	co
8319 æthiopica W.	Ethiopian	Δ or	1½	ap.jl	Pu	C. G. H.	1770.	C	p.l
8320 hirta W.	procumbent	Δ or	1	jn.au	Pu	Spain	1725.	D	co
8321 rugosa W.	rough	Δ or	2	jl.au	Pa.Y	C. G. H.	1774.	C	p.l
8322 scordifolia W.en.	wedge-leaved	Δ or	1	jl.au	Y	N. Amer.?	1816.	D	co
8323 recta W.en.	upright	Δ or	2	jn.au	Y	S. Europe	1683.	D	co
8324 annua W.	annual	Δ w	1	jn.au	w.Y.P	S. Europe	1713.	S	co
8325 arvënsis W.	corn	Δ w	1	jl.au	Pu	Britain	corn fi.	C	co
8326 latifolia W.	broad-leaved	Δ or	2	jn.jl	Pu	.....	1775.	D	co
8327 phlomisoides W.en.	Phlomis-leaved	Δ or	1½	jn.jl	Pu	.....	1816.	co	
1264. ZIETE'NIA. Pers.	ZIETENIA.				<i>Labiatae. Sp. 1.</i>				
8328 lavandulifolia W.	lavender-leav'd	Δ or	1½	jl.au	Pu	Levant	1824.	D	co
1265. BALLO'TA. W.	STINKING HOREHOUND.				<i>Labiatae. Sp. 4—7.</i>				
8329 nigra W.	black	Δ w	2	jl.s	Pu	Britain	hed.	D	co
8330 alba W.	white	Δ w	2	jl.s	W	Britain	...	D	co
8331 lanata W.	woolly	Δ or	2	jn.au	Y	Siberia	1752.	D	co
	<i>Panzèria multifida</i>								
8332 disticha W.	distichous	Δ w	1	jl	B	India	1823.	S	co
1266. MARRU'BIUM. W.	HOREHOUND.				<i>Labiatae. Sp. 16—20.</i>				
8333 Alyssum W.	plaited-leaved	Δ or	1½	jl.au	Pu	Spain	1597.	C	s.l
8334 astracanicum W.	Astracan	Δ or	1½	jl.au	Pa.pu	Levant	1816.	D	co
8335 peregrinum W.	Sicilian	Δ or	3	jl.s	W	Sicily	1640.	D	co
8336 creticum W.	Cretan	Δ or	1	jl.s	W	Levant	1596.	D	co
8337 candidissimum W.	woolly-white	Δ or	3	jl.s	W	Levant	1732.	D	s.p
8338 supinum W.	procumbent	Δ or	½	au.o	Pu	S. Europe	1714.	D	co
8339 africanum W.	African	Δ or	1	jl.s	Pu	C. G. H.	1710.	D	p.l
8340 vulgare W.	common-white	Δ m	2	jn.s	W	Britain	rubble.	D	co
8341 affine Horn.	kindred	Δ or	1½	jn.s	Pu	Siberia?	1822.	D	co
8342 hirsutum W.	hirsute	Δ or	1½	jn.jl	Pa.pu	.....	...	D	co
8343 cinereum W.en.	cinereous	Δ or	1½	jn.jl	Pa.pu	Spain	1823.	D	co
8344 crispum W.	curl-leaved	Δ or	1	jl.au	Pa.pu	S. Europe	1714.	C	co
8345 catariaefolium Lam.	Catmint-leaved	Δ or	1½	jl.au	Pu	Levant	1819.	D	co
8346 hispanicum W.	Spanish	Δ or	1	jl.au	Pu	Spain	1714.	C	co
8347 Pseu.-Dictamnus W.	shrubby-white	Δ or	1½	jl.au	Pu	Candia	1596.	C	p.l
8348 acetabulosum W.	saucer-leaved	Δ or	1	jn.au	Pu	Candia	1676.	C	p.l



History, Use, Propagation, Culture,

1263. *Stachys*. From *σταχυς*, a spike; the flowers of all the species grow in spikes. They are for the most part strong smelling weeds.
 1264. *Zietenia*. A genus divided by Gleditsch from *Stachys*, on account of the different structure of the corolla, and the single grain. It is a plant with lanceolate entire linear leaves, the lower of which are connate, and purple blossoms.

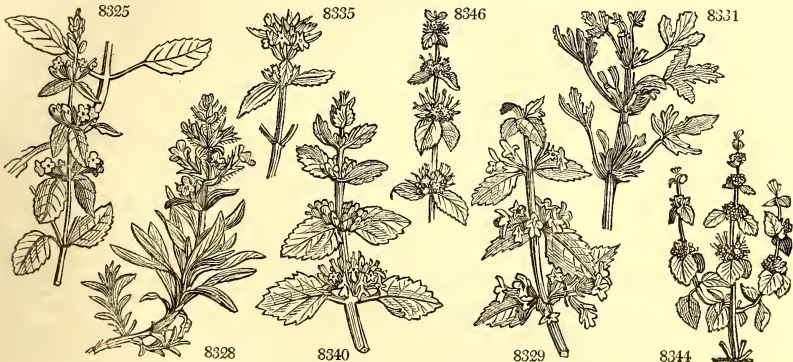
- 8291 Whorls 6-flowered, Leaves cordate stalked
 8292 Leaves ovate obl. acum. serrated hairy above with soft down beneath, Segm. of cal. linear mucronate
 8293 Whorls spiked 6-fl. Tube of cal. shorter than spread teeth, Helm. of cor. cmarg. Lvs. ov. serr. with soft down
 8294 Small, Stems much branched diffuse, Leaves cordate crenate, Cal. campanulate spiny
 8295 Whorls about 6-flowered, Leaves linear lanceolate $\frac{1}{2}$ stem-clasping sessile
 8296 Whorls 6-flowered, Leaves ovate cordate crenate, Petioles dilated
 8297 Leaves cordate cren. pubescent, Whorls 4-6-flowered, Stem erect smooth simple
 8298 Whorls many-fl. approximated, Bractes filiform, Leaves cordate toothed, Stem decumbent villous
 8299 Hoary, Whorls many-fl. Leaves ovate, Serratures imbricated, Stem woolly
 8300 Whorls many-fl. Calyxes subpungent, Leaves oblong subcordate crenate, Stem woolly
 8301 Whorls many-fl. Leaves woolly oblong, Stems procumbent at base and rooting
 8302 Whorls 10-fl. Calyxes unarmed, Leaves cordate: floral ovate entire sessile, Stem hairy
 8303 Whorls 6-fl. Leaves oblong cordate stalked, Stem hollow
 8304 Whorls 2-fl. Leaves linear naked; lower pinnatifid-toothed
 8305 Like *S. germanica*, but downy not woolly, Leaves narrower, Calyxes long spiny
 8306 Whorls many-fl. Leaves cordate thin, Serratures cartilaginous at end, Lips of cor. flat
 8307 Whorls spiked 6-flowered, Bractes cordate, Leaves cordate stalked blunt crenate toothed
 8308 Leaves ovate crenate pubescent: upper entire, Whorls 6-fl. Cal. hairy with filiform segments
 8309 Whorls spiked, Lvs. oblong attenuated at base serrated hairy: lower blunt, Cal. mucronate spiny
 8310 Erect pubescent, Leaves cord. ov. toothed: above smooth; beneath white with down, Whorls about 6-fl.
 8311 Whorls a little spiked hairy 6-fl. Cal. spiny, Leaves oblong serrate blunt, Helmet bifid
 8312 Hairy, Whorls 30-flowered, Calyx pungent, Stem hairy
 8313 Smooth much branched, Branches spiny, Pedunc. axillary solitary 1-fl. with two bractes
 8314 Hoary, Branches brachiately terminated by a spine, Flowers axillary in threes
 8315 Leaves downy ovate lanceolate: floral shorter than the whorl
 8316 Whorls 6-flowered, Radical leaves oval crenate: upper ovate entire, Cor. twice as long as calyx
 8317 Leaves obliquely cordate rugose crenate blunt hairy, Bractes entire shorter than calyx
 8318 Leaves cordate ellipt. the lower on long stalks, Stems and spinulose calyxes covered with wool
 8319 Whorls 2-flowered, Leaves cordate deeply serrated rugose, Tube of cor. curved
 8320 Whorls 6-flowered, Stems prostrate, Upper lip of cor. bifid spreading reflexed, Lvs. broad cord. crenate
 8321 Hoary, Whorls 6-fl. Leaves linear lanceolate narrowed at base downy rugose serrated, Calyxes pointless
 8322 Whorls 6-fl. Calyxes rather pungent, Lvs. cuneate lanceolate blunt serrate at end sessile, Stem decum.
 8323 Whorls subsipated, Leaves cordate ellipt. crenate rough, Stems ascending
 8324 Whorls 6-fl. Leaves ovate lanc. rugose 3-nerved stalked, Stem erect
 8325 Small, Whorls 6-fl. Leaves blunt nearly naked, Corolla the length of calyx, Stem weak
 8326 Whorls many-fl. spiked, Upper lip bifid, with acute divisions, Leaves broad cordate rugose hairy
 8327 Whorls 8-flowered, Leaves lanceolate cordate crenate rugose, Stem very hairy

8328 Whorls 6-flowered very hairy, Leaves lanceolate entire lined

- 8329 Leaves cordate undivided serrated, Cal. acuminate
 8330 Leaves cordate undivided serrated, Cal. subtruncate
 8331 Leaves palmate toothed, Stem woolly

8332 Leaves whorled halved 2-parted half-spiked

- 8333 Leaves cuneiform 5-toothed plaited, Whorls without involucrem
 8334 Leaves elliptical obtuse crenate downy rugose, Calyxes and bractes lanceolate
 8335 Leaves oblong hoary rugose toothed; the teeth towards the end largest, Cal. with small subulate teeth
 8336 Leaves lanceolate hoary rugose toothed at end, Cal. with setaceous teeth, Stem branched divaricating
 8337 Leaves ovate hoary bluntly toothed rugose, Cal. with subulate teeth, Stem branched at base
 8338 Leaves roundish subcordate crenate rugose, Cal. with straight villous setaceous teeth
 8339 Leaves cordate roundish emarginate crenate, Calyx 10-toothed spiny
 8340 Leaves roundish ovate toothed rugose, Teeth of calyx 10 setaceous hooked
 8341 Leaves cordate crenate downy green above, Teeth of calyx mucronate recurved
 8342 Leaves cordate ovate crenate, Teeth of cal. 10 spreading lanceolate, Bractes subulate
 8343 Leaves roundish cordate unequally crenate, Limb of calyx spreading, Teeth ovate mucronate
 8344 Leaves cordate roundish, crenate somewhat toothed, Teeth of calyx 10 unarmed
 8345 Leaves ovate greenish deeply crenate, Teeth of calyx subulate smooth spreading
 8346 Leaves cordate ovate crenate, Limb of calyx spreading, Teeth ovate mucronate, Bractes oblong
 8347 Hoary, Limb of calyx flat villous, Leaves cordate concave, Stem shrubby
 8348 Limb of calyx longer than tube membranous, Larger angles rounded



and Miscellaneous Particulars.

1965. *Bulicta*. So named on account of its offensive odor, from $\epsilon\alpha\lambda\lambda\omega\varsigma$, to reject.

1966. *Marrubium*. According to Linnaeus is derived from an ancient town of Italy called *Maria-urbs*, situated on the borders of the Fucine lake. *M. vulgare* dried, has an aromatic odor, which, however, is soon lost by keeping, and a bitter taste. Both water and alcohol extract its virtues. It is tonic, diuretic, and laxative; was formerly much used in pulmonary affections, and is still a popular remedy for asthma and obsti-

1267. LEONURUS. <i>R. Br.</i>	MOTHERWORT.				<i>Labiatae.</i>	Sp. 6—9.						
8349 crispus <i>W.</i>	curl-leaved	△	△	or	2	jl.au	W	Siberia	1658.	D	co	Mur. c. got. 8. t. 4
8350 cardiaca <i>W.</i>	common	△	△	or	3	jl.au	W	Britain	gra.ba.	S	co	Eng. bot. 285
8351 tataricus <i>W.</i>	Tartarian	△	○	or	2	au.o	F	Russia	1756.	S	p.l	Mill. ic. 1. t. 80
8352 sibiricus <i>W.</i>	Siberian	△	○	or	2	jn.au	R	Siberia	1759.	S	p.l	Exot. bot. 2. t. 94
8353 marrubiastrum <i>W.</i>	small-flowered	△	○	or	2	jn.au	Pu	Austria	1710.	S	co	Jac. aust. 5. t. 405
8354 supinus <i>W.</i>	procumbent	△	△	or	1	jn.au	W	Siberia	1816.	D	co	
1268. PHLOMIS. <i>R. Br.</i>	PHLOMIS.							<i>Labiatae.</i>	Sp. 14—30.			
8355 fruticosa <i>W. cn.</i>	Jerusalem Sage	△	△	or	3	jn.jl	Y	Spain	1596.	C	co	Bot. mag. 1843
8356 lanata <i>W. cn.</i>	small-shrubby	△	△	or	1½	jn.jl	Y	Spain	1596.	C	co	
8357 purpurea <i>W.</i>	purple	△	△	or	2	jn.au	Pu	S. Europe	1661.	C	co	Smith. spic. 6. t. 7
8358 italica <i>W.</i>	Italian	△	△	or	2	jn.au	Pu	Italy	1661.	C	co	
8359 Nissóli <i>W.</i>	Nissolle's	△	△	or	2	jn.jl	Y	Levant	1757.	D	co	Mill. ic. 2. t. 204
8360 Lychnitis <i>W.</i>	lamp-wick	△	△	or	2	jn.au	Y.Br	S. Europe	1658.	C	p.l	Bot. mag. 999
8361 Samia <i>W.</i>	Samian	△	△	or	3	ju.jl	Y.Br	N. Africa	1714.	D	p.l	Bot. mag. 1891
8362 Herba-venti <i>W.</i>	rough-leaved	△	△	or	2	jl.s	R	S. Europe	1596.	D	co	Bot. mag. 2449
8363 alpina <i>W.</i>	Alpine	△	△	or	1	jn.s	Pu	Siberia	1802.	D	s.l	Pal.ac.pet. 2. t. 13
8364 tuberosa <i>W.</i>	tuberous	△	△	or	4	jn.o	L.P	Siberia	1759.	D	co	Bot. mag. 1555
8365 laciniata <i>W.</i>	jagged-leaved	△	△	or	3	jl	Pu	Levant	1731.	D	co	Sweet fl. gard. 24
8366 pingens <i>W.</i>	pungent	△	△	or	3	jl	Br	Armenia	1820.	D	co	Sweet fl. gard. 33
8367 lunariifolia <i>Sm.</i>	Honesty-leaved	△	△	or	3	jn	Br	Levant	1818.	D	co	Bot. mag. 2542
8368 ferruginea <i>Tenore</i>	rusty	△	△	or	2	jn.jl	Y.Br	Naples	1823.	C	co	
1269. LEUCAS. <i>R. Br.</i>	LEUCAS.							<i>Labiatae.</i>	Sp. 5—6.			
8369 zeylanica <i>R. Br.</i>	Ceylon	○	un	1½	jn.o	Pu	E. Indies	1777.	S	s.l	Jac. ic. 1. t. 111	
8370 martimicensis <i>R. Br.</i>	West Indian	○	un	1½	jl.s	W	W. Indies	1781.	S	p.l	Jac. ic. 1. t. 110	
8371 urticifolia <i>R. Br.</i>	Nettle-leaved	○	un	1½	jl.s	W	E. Indies	1810.	S	s.l		
8372 indica <i>R. Br.</i>	Indian	○	un	1½	jl.au	W	E. Indies	1789.	S	s.l		
8373 aspera <i>Link.</i>	rough-leaved	○	un	1	jl.au	W	Caramania	1818.	S	s.l		
1270. LEONOTIS. <i>R. Br.</i>	LION'S-TAIL.							<i>Labiatae.</i>	Sp. 4.			
8374 nepetifolia <i>H. K.</i>	Catmint-leaved	△	△	or	3	s.o	Or	E. Indies	1778.	S	s.l	Bot. reg. 281
8375 Leonurus <i>H. K.</i>	narrow-leaved	△	△	or	3	o.d	Or	C. G. H.	1712.	C	p.l	Bot. mag. 478
8376 Leonitis <i>H. K.</i>	dwarf-shrubby	△	△	or	1½	jn.jl	Or	C. G. H.	1713.	C	p.l	Mill. ic. 2. t. 162. f. 1
8377 intermedia <i>Lindl.</i>	intermediate	△	△	or	3	s.o	Or	C. G. H.	1822.	C	p.l	Bot. reg. 850
1271. MOLUCCEL/LA. <i>W.</i>	MOLUCCA-BALM.							<i>Labiatae.</i>	Sp. 3—7.			
8378 spinosa <i>W.</i>	prickly	○	cu	1½	jl.au	Papu	Levant	1596.	S	co	Lam. ill. t. 510	
8379 laevis <i>W.</i>	smooth	○	cu	1½	jl.au	Papu	Syria	1570.	S	co	Bot. mag. 1852	
8380 tuberosa <i>W.</i>	tuberous-root.	△	△	or	2	jl	Papu	Tartary	1796.	D	lp	Pall. it. 3. t. T.
1272. CLINOPODIUM. <i>W.</i>	WILD-BASIL.							<i>Labiatae.</i>	Sp. 2—4.			
8381 vulgare <i>W.</i>	common	△	△	or	1	jn.au	Pk	Britain	gra.ba.	D	co	Eng. bot. 1401
8382 aegyptiacum <i>W.</i>	Egyptian	△	△	or	1	jn.au	Pu	Egypt	1759.	D	co	
1273. PYCNANTHEMUM. <i>Ph.</i>	PYCNANTHEMUM.							<i>Labiatae.</i>	Sp. 4—9.			
8383 incanum <i>Ph.</i>	hoary	△	△	or	3	jl.o	W	N. Amer.	1732.	D	co	Dill. elt. t. 74. f. 85
8384 aristatum <i>Ph.</i>	awned	△	△	or	2	au	W	N. Amer.	1752.	D	co	Mich. ame. 2. t. 33
8385 linifolium <i>Ph.</i>	Flax-leaved	△	△	or	1½	jl.au	W	N. Amer.	1739.	D	co	Herm. par. t. 218
<i>Thymus virginicus</i> <i>W.</i>	spear-leaved	△	△	or	1	jl.au	W	N. Amer.	1812.	D	co	
8386 lanceolatum <i>Ph.</i>												
1274. ORIGANUM. <i>W.</i>	MARJORAM.							<i>Labiatae.</i>	Sp. 14—24.			
8387 aegyptiacum <i>W.</i>	Egyptian	△	ft	or	1	jn.au	Pk	Egypt	1731.	C	co	Alp. aegypt. t. 95
8388 Dictamnus <i>W.</i>	Dittany of Crete	△	ft	or	1	jn.au	Pk	Candia	1551.	C	rm	Bot. taag. 298
8389 sipyleum <i>W.</i>	Mount Sipylus	△	ft	or	1	jn.s	Pk	Levant	1699.	C	rm	Herm. lug. t. 463
8390 Tourneforti <i>W.</i>	Tournefort's	△	ft	or	1	au.s	Pk	Amorgos	1788.	C	co	Bot. rep. 537
8391 creticum <i>W.</i>	Cretan	△	ft	or	1	jl.au	W	S. Europe	1596.	C	s.l	Sck. han. 2. t. 164



History, Use, Propagation, Culture,

nate coughs. It loosens the belly when taken in large doses, and was consequently recommended in jaundice, cachexies, menstrual obstructions, and hysteria; but its powers are not found by modern practitioners equal to the account ancients gave of them, and therefore it is very seldom prescribed. (*London Dispensatory*, 379.)

1267. *Leonurus*. From *λεων*, a lion, and *ουρα*, tail. The spikes of flowers were formerly used in medicine, but is now neglected. Tall herbaceous plants with cut leaves and whorls of flowers, of which the corolla is woolly.

1268. *Phlomis*. *Φλομης* was the Greek name of the Mullein, and so called from *φλαξ*, fire, because the thick cottony leaves were used as wicks for lamps. At this day, *P. Lychnitis* is so called, because the dried leaves, which are cottony and russet colored, are used in Spain for wicks. Fine shewy small shrubs or herbaceous plants, with corolla covered with down, and usually of a brownish yellow color.

1269. *Leucas*. A name used by Burmann, neglected by Linnaeus and others, and restored by Mr. Brown; derived from *λευκος*, white, in reference to the usual color of the flowers, which are covered all over with a thick covering of wool.

1270 *Leonotis* From *λεων*, a lion, and *ωτις*, an ear. A fanciful name applied to the fine scarlet-flowering

8349 Leaves cordate 3-lobed or 5-lobed cut toothed wavy, Cor. larger than pungent calyx
 8350 Leaves cuneiform ovate 3-lobed toothed, Cor. larger than pungent calyx, Middle lobe of lower lip acute
 8351 Leaves 3-parted cut, Calyxes villous
 8352 Leaves 3-parted multifid linear somewhat blunt
 8353 Lvs. obl. toothed, Cor. scarcely longer than somewhat pungent calyx, Middle lobe of lower lip roundish
 8354 Leaves about 5-lobed, Lobes blunt toothed at end, Cal. sessile spiny

8355 Leaves oblong blunt rugose and branches downy; floral ovate-lanceolate, Bractes ovate acuminate
 8356 Leaves elliptical blunt woolly rugose, Branches woolly, Bractes obovate twice as short as calyx
 8357 Bractes lanceolate acute pungent, Cal. 5-cornered acuminate, Leaves densely woolly beneath
 8358 Bractes lanceolate blunt unarmed, Cal. truncated pointless, Leaves woolly on each side
 8359 Lvs. downy on each side: rad. cord. sagitt.; cauline obl. Whorls without bractes, Cal. with obl. acute teeth
 8360 Leaves lanceolate downy: floral ovate, Bractes setaceous woolly length of bluntly toothed calyx
 8361 Stem hairy, Lvs. cordate crenate downy beneath, Bractes 3-parted subulate mucronate as long as calyx
 8362 Lvs. ovate obl. serrate hairy beneath, Teeth of calyx lanc. subulate erect, Bractes subul. and stem hairy
 8363 Radical leaves cordate pubescent; floral lanceolate, Bractes linear subulate villous, Stem pubescent
 8364 Radical leaves cordate rough; floral oblong lanceolate, Bractes subulate hispid, Stem smooth
 8365 Leaves alternately pinnate, Leaflets laciniolate, Calyx woolly
 8366 Leaves stalked obl. lanc. serr. at end, rough above downy beneath, Teeth of calyx subulate spreading
 8367 Leaves cordate crenate downy beneath, Bractes ovate-lanceolate mucronate
 8368 Like *P. fruticosa*, but the lower leaves are cordate stalked, Upper ovate

8369 Leaves lanceolate serrate, Heads terminal, Calyxes with 8 teeth
 8370 Leaves obl. toothed pubes. beneath, Whorls many-fl. globose, Cal. incurv. 8-toothed, upper tooth longest
 8371 Leaves ovate serrated hoary, Invol. subulate, Cal. obliquely truncate membranous 9-toothed
 8372 Invol. linear, Cal. 1-lipped oblique, Leaves ovate hairy
 8373 Lvs. lanc. smooth serrated at end, Stem 4-cornered rough, Whorls many-fl. Lip of cor. undivided

8374 Leaves cordate acute serrated somewhat downy, Calyx 7-toothed awned; upper tooth largest
 8375 Leaves lanceolate serrate, Calyxes 10-cornered 10-toothed unarmed
 8376 Leaves small ovate blunt somewhat downy crenate, Cal. 7-toothed awned
 8377 Leaves stalked ovate cordate acuminate cut-toothed, Cal. velvety 10-toothed

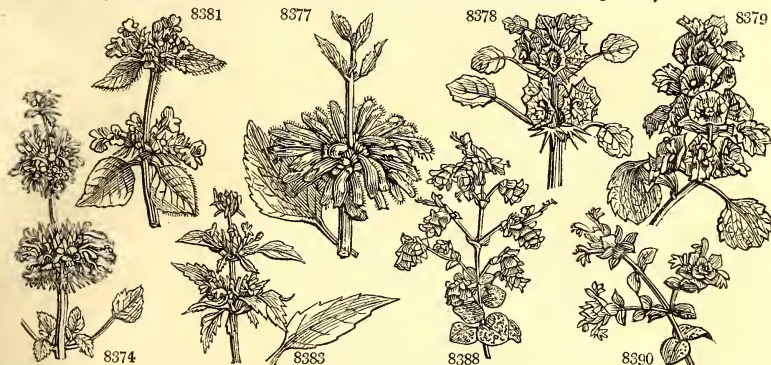
8378 Cal. 2-lipp. upper lip lanc. mucron. longest, lower round. 7-tooth. Teeth spiny, Lvs. stalk. ov. deeply tooth.
 8379 Cal. campanulate 5-toothed, Teeth equal pointless, Leaves stalked roundish ovate toothed
 8380 Cal. funnel-shaped 5-toothed: teeth equal mucronate, Leaves sessile wedge-shaped oblong toothed

8381 Heads whorled, Bractes setaceous hispid, Leaves hairy above remotely toothed, Stem simple
 8382 Heads terminal, Bractes setaceous hispid, Leaves smooth above nearly entire

8383 Leaves oblong-ovate acute subserrate hoary, Heads compound, Bractes setaceous, Stamens exserted
 8384 Leaves lanceolate ovate subserrate on short stalks somewhat hoary, Heads sessile, Bractes awned
 8385 Stem much branched rather rough, Leaves linear 3-nerved entire, Heads terminal fascicled

8386 Stem much branched roughish, Lv. lin. lanceolate veiny entire, Heads terminal fascicled corymbose

8387 Leaves concave downy, Spikes naked
 8388 Lower leaves downy, Spikes nodding
 8389 Leaves all smooth, Spikes nodding
 8390 Spikes 4-cornered, Bractes roundish very large
 8391 Spikes aggregate long prismatic upright, Bractes membranous twice as long as calyx



and Miscellaneous Particulars.

plants, known at the Cape by the name of lion's tail. They require a good greenhouse and plenty of air to secure their appearing in perfection. In places badly ventilated their leaves acquire a yellow color, and are apt to fall off.

1271. *Moluccella*. Brought from the Moluccas. Plants remarkable for the enlarged calyx in which the flower is seated.

1272. *Clinopodium*. From $\alpha\lambda\iota\nu\eta$, bed, and $\pi\upsilon\varsigma$, a foot. The tufted close whorls of flowers have been compared to the caster of a bed's foot.

1273. *Pycnanthemum*. From $\pi\upsilon\kappa\nu\omicron\varsigma$, dense, and $\alpha\nu\theta\omicron\varsigma$, a flower. The blossoms are in a close head. A North American genus of plants, some of which, as *P. verticillatum* and *incanum*, are occasionally seen in gardens.

1274. *Origanum*. From $\omicron\omicron\epsilon\omicron\varsigma$, a mountain, and $\gamma\alpha\nu\omicron\varsigma$, joy. These plants, with their pretty spikes of bracted flowers and agreeable perfume, may indeed be called the joy of the places where they grow naturally. *O. vulgare* is an aromatic and ornamental plant, growing wild in thickets and hedges, chiefly in a calcareous soil. The dried leaves used instead of tea, are said to be exceeding grateful; they are also used in fomentations: the essential oil is so acrid, that it may be considered as a caustic, and is much used with that intention by

8392 smyrnæum <i>W.</i>	Smyrna	Δ	or	1 1/2	jn.jl	W	Smyrna	1722.	C	r.m	
8393 heracleoticum <i>W.</i>	winter-sweet	Δ	cul	1	jn.w	W	S. Europe	1640.	D	s.l	Lob. ic. 492
8394 vulgare <i>W.</i>	common	Δ	cul	1	jn.o	Pk	Britain	ch.wo.	D	s.l	Eng. bot. 1143
8395 onites <i>W.</i>	pot	Δ	cul	1	jn.n	Pk	Sicily	1759.	D	co	Bocc. mus. t. 38
8396 megastachyum <i>Link.</i>	large-spiked	Δ	cul	1	jn.n	Pk	S. Europe	1823.	D	co	
8397 hirtum <i>Link.</i>	hairy	Δ	cul	1 1/2	jn.n	Pk	Levant	1823.	D	co	
8398 oblongatum <i>Link.</i>	oblong	Δ	cul	1	jn.n	W	.....	.....	D	co	
8399 Majorana <i>W.</i>	knotted	Δ	cul	1	jn.jl	Pk	Portugal	1573.	S	r.m	Moris.s.11.t.3.f1
8400 majoranoides <i>W.</i>	shrubby-sweet	Δ	cul	1	jn.jl	Pk	.....	.....	C	co	
1275. THYMUS. <i>L.</i>	THYME.						<i>Labiatae.</i>	<i>Sp. 20—32.</i>			
8401 serpyllum <i>W.</i>	wild	Δ	or	1 1/2	jn.au	Pu	Britain	heaths.	C	s.p	Eng. bot. 1514
8402 lanuginosus <i>W.</i>	woolly	Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8403 citridorosus <i>W.</i>	Lemon	Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8404 angustifolius <i>P. S.</i>	narrow-leaved	Δ	or	1 1/2	jn.au	Pu	.....	.....	C	co	
8405 vulgarius <i>W.</i>	garden	Δ	cul	1	my.au	Pu	S. Europe	1548.	C	r.m	
8406 pannonicus <i>W. en.</i>	Hungarian	Δ	or	1 1/2	jn.au	Pu	Hungary	1817.	C	co	
8407 Marschallinus <i>W.</i>	Marschall's	Δ	or	1 1/2	jn.au	Pu	Crimea	1817.	C	co	
8408 ericaefolius <i>Roth.</i>	Heath-leaved	Δ	or	1 1/2	jn.au	Pu	Spain	1806.	C	co	
8409 acicularis <i>P. S.</i>	needle-leaved	Δ	or	1 1/2	jn.au	Pu	Hungary	1806.	C	co	Pl.rar.hu.2.t.147
8410 loricatus <i>W. en.</i>	shining-leaved	Δ	or	1	jn.au	Pu	.....	1816.	C	co	
8411 Mastichina <i>W.</i>	Mastick	Δ	or	1	jl.s	Pa.pu	Spain	1596.	C	co	Blackw. t. 134
8412 montanus <i>W.</i>	mountain	Δ	or	1 1/2	jn.jl	St	Hungary	1800.	D	s.p	Pl. rar.hu.1. t.71
8413 nummularius <i>Bieb.</i>	round-leaved	Δ	or	1 1/2	jn.jl	Pu	Crimea	1822.	C	co	
8414 tomentosus <i>W. en.</i>	tomentose	Δ	or	1	jn.au	W	Spain	1816.	C	co	
8415 Zygis <i>W.</i>	Spanish	○	or	1	au	Pu	Spain	1771.	C	r.m	Barrel. ic. 777
8416 croaticus <i>P. S.</i>	oval-leaved	Δ	or	1	jl.au	Pu	Hungary	1802.	D	co	Pl.rar.hu.2.t.156
8417 cephalotes <i>W.</i>	great-headed	Δ	or	1	jl.au	Pu	Portugal	1759.	C	co	Hof.et L. lus.1.13
8418 villosus <i>W.</i>	hairy	Δ	or	1 1/2	jn.jl	Pu	Portugal	1759.	C	co	Hof.et L.in.1. t.14
8419 Tragoriganum <i>W.</i>	goat's	Δ	or	1	my.jn	Pu	Candia	1640.	C	co	Alp. exot. t. 78
8420 filiformis <i>W.</i>	Minorca	Δ	or	1 1/2	jn.jl	Pu	Minorca	1770.	C	co	
1276. A'CYNOS. <i>Pers.</i>	ACYNOS.						<i>Labiatae.</i>	<i>Sp. 5—7.</i>			
8421 vulgarius <i>Pers.</i>	Basil-leaved	○	or	1 1/2	jn.au	V	Britain	dry h.	S	co	Eng. bot. 411
	<i>Thymus A'cnos W.</i>										
8422 villosus <i>Pers.</i>	villous	○	or	1	jn.au	R	Germany	1817.	S	co	
8423 alpinus <i>Pers.</i>	Alpine	○	or	1 1/2	jn.s	R	Austria	1731.	S	s.l	Jac. aust. 1. t. 97
8424 patavinus <i>Pers.</i>	Marjoram-ld.	○	or	1	jn.au	F	S. Europe	1776.	C	s.l	Bot. mag. 2153
8425 graveolens <i>Bieb.</i>	strong-scented	○	or	1	jn.au	Pu	Crimea	.....	C	co	
1277. CALAMINTHA. <i>Ph.</i>	CALAMINT.						<i>Labiatae.</i>	<i>Sp. 7—9.</i>			
8426 grandiflora <i>Pers.</i>	great-flowered	Δ	or	1	jn.s	Pu	Italy	1596.	D	co	Bot. mag. 208
8427 caroliniana <i>Sweet.</i>	Carolina	Δ	or	1	jn.jl	F	Carolina	1804.	D	co	Bot. mag. 997
	<i>Thymus grandiflorus B. M.</i>										
8428 vulgarius <i>Sweet.</i>	common	Δ	or	2	jl.au	V	England	bor.fi.	D	s.l	Eng. bot. 1676
8429 Nepeta <i>Ph.</i>	lesser	Δ	or	1 1/2	jl.o	B	England	ch.hil.	D	co	Eng. bot. 1414
8430 marifolia <i>Pers.</i>	Marum-leaved	Δ	or	1 1/2	jn.jl	Pu	Spain	1788.	D	co	Cav. ic. 6. t. 576
8431 cretica <i>Pers.</i>	Cretan	Δ	or	1 1/2	jn.jl	Pu	S. Europe	1596.	D	r.m	Barr. ic. 1166
8432 fruticosus <i>Pers.</i>	shrubby	Δ	or	1 1/2	jl.s	Pu	Spain	1752.	C	r.m	
1278. MELIS'SA. <i>W.</i>	BALM.						<i>Labiatae.</i>	<i>Sp. 2.</i>			
8433 cordifolia <i>SA.</i>	heart-leaved	Δ	m	1	jn.o	W.pu	Italy	D	co	
8434 officinalis <i>W.</i>	common	Δ	m	1	jn.o	W	S. Europe	1573.	D	co	
	<i>β romana hairy</i>										



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farriers; a little cotton moistened with it, and put into the hollow of an aching tooth, frequently relieves the pain. The country people use the tops to dye woollen cloth purple. It also dyes linen of a reddish brown color. For this purpose the linen is first macerated in alum water and dried; it is then soaked for two days in a decoction of the bark of the crab-tree; it is then wrung out of this, boiled in a ley of ashes, and then suffered to boil in the decoction. According to the Swedish experiments, goats and sheep eat it, horses are not fond of it, and kine refuse it.

O. onites and marjorana are culinary aromatics; the latter being principally in use under the name of knotted marjoram, from the flower coming in whorls at the joints. O. vulgare and marjorana are both retained in the *Materia Medica* as tonics and stomachics, though scarcely ever used. In quack medicine, the leaves dried and powdered form an ingredient in cephalic snuff. Marjorana is so called from *marjamic* (*māryamyeh*), its Arabic name, according to Förskañl, p. 59.

1275. *Thymus.* From *θυμωσ*, courage, on account of its balsamic smell, which revives the spirits of animals. *T. serpyllum*, from *σέρπω*, to creep, is fragrant, and yields an essential oil that is very heating. It has the same sensible qualities as garden thyme, but the flavor is milder, and rather more grateful. Its essential oil is both smaller in quantity and less acid, and its spirituous extract comes greatly short of the penetrating warmth and pungency of the other. It is a common notion that the flesh of sheep that feed upon aromatic plants, particularly wild thyme, is superior in flavor to other mutton. The truth is, that sheep do not crop

- 8392 Leaves ovate acute serrated, Spikes clustered in umbels
 8393 Spikes on long stalks aggregate, Bractes the length of calyx
 8394 Spikes roundish panicled clustered, Bractes longer than calyx ovate colored
 8395 Spikes oblong aggregate hairy, Leaves cordate downy
 8396 Leaves stalked ovate pubesc. Spikes clustered prismatical, Bractes imbricate ovate smooth ciliated at edge
 8397 Leaves stalked ovate acute subserrate hairy, Spikes prismatical, Bractes dense ovate acute
 8398 Leaves subsessile ovate acute subserrate hairy, Spikes oblong bluntish
 8399 Spikes roundish thin compact stalked, Leaves stalked ellipt. blunt smoothish
 8400 Spikes roundish several clustered stalked, Leaves stalked ellipt. blunt downy

- 8401 Flowers capitate, Stems decumbent, Leaves flat blunt ciliated at base
 8402 Flowers capitate, Stems creeping hairy, Leaves blunt villous
 8403 Leaves ovate smooth with the smell of common balm
 8404 Flowers capitate, Stems procumbent, Leaves cuneate linear ciliated at base
 8405 Erect, Leaves revolute ovate, Flowers in whorled spikes
 8406 Leaves oblong more ciliated than in *T. serpyllum*, Cor. with a more obscure spot in the orifice
 8407 Stem shrubby, Flowers in whorled spikes, Lvs. linear lanc. bluntish flat about 3-nerved ciliated at base
 8408 Erect, Leaves revolute linear-lanc. hairy, Head few-flowered axillary stalked
 8409 Flowers capitate, Stems creeping, Leaves linear nerved and furrowed beneath, Bractes ovate
 8410 Fl. whorled somew. spiked, Ped. 1-fl. Stem shrubby erect, Lvs. ellipt. entire acute smooth shining above
 8411 Flowers in whorled spikes, Cal. woolly with very long setaceous segments
 8412 Flowers in whorled spikes, Spikes oblique, Ped. 1-fl. Lvs. ov. obtuse very entire and calyxes nearly naked
 8413 Flowers in whorled heads, Stems filiform, Leaves roundish flat hairy nerved ciliate at base
 8414 Flowers in whorled spikes, Cal. woolly with setaceous teeth, Lvs. ellipt. entire downy on each side
 8415 Flowers in whorled spikes, Stem erect, Lvs. linear very blunt nerveless revolute at edge ciliated at base
 8416 Pedun. about 3-fl. axillary, Lvs. ovate blunt nerved entire sess. Cor. twice as long as calyx, Stem villous
 8417 Heads laxly imbricated, Bractes broad ovate colored not dotted, Leaves linear entire
 8418 Heads imbricated large, Bractes toothed, Leaves setaceous hairy
 8419 Flowers whorled, Stem half-shrubby erect, Leaves hispid acuminate
 8420 Flowers axillary subsolitary stalked, Leaves cordate acute entire, Stems filiform

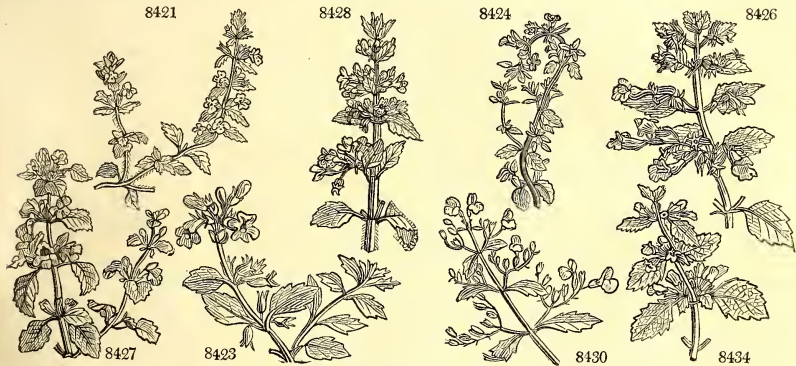
8421 Stem erect branched at base, Leaves ovate acute serrated forwards, Whorls 6-flowered

- 8422 Hirsute villous larger than the last, Stem much branched, Leaves ovate
 8423 Whorls 6-fl. Leaves nearly blunt roundish concave subserrated
 8424 Nearly smooth, Whorls 6-10-fl. Leaves ovate subserrate, Stem ascending
 8425 Fls. whorled, Pedunc. 1-flow. Stem branched spreading, Leaves roundish acute subserrate at end hairy

8426 Pedun. axill. 3-4-fl. Bractes lanc. sessile, Leaves ovate acute finely serrated
 8427 Leaves rhomboid oval obsoletely toothed upwards, Whorls somewhat stalked about 10-fl. shorter than leaf

- 8428 Stem weak, Pedun. axill. many-fl. dichotomous, Lvs. ovate blunt serrated hairy dotted
 8429 Pedunc. axill. many-fl. in dichotomous corymbs, Lvs. ovate blunt subserrate smoothish
 8430 Leaves ovate somewhat toothed glaucous, Pedunc. axill. dichotomous, Segm. of calyx equal
 8431 Racemes terminal, Peduncles solitary very short
 8432 Branches thin twiggy, Leaves downy beneath

8433 Villous, Leaves cordate crenate-toothed, Branches axillary elongated flowering
 8434 Whorls halved subsessile, Bractes oblong stalked, Leaves ovate acute serrated



and Miscellaneous Particulars.

these aromatic plants, unless now and then by accident, or when they are first turned on hungry to downs, heaths, or commons; but the soil and situations favorable to aromatic plants produce a short sweet pasturage best adapted to feeding sheep, whom nature designed for mountains, and not for turnip grounds and rich meadows. The attachment of bees to this and other aromatic plants is well known.

Few plants are subject to more varieties than wild thyme. In its most natural state, on dry exposed downs, it is small and procumbent; but when it grows among furze or other plants, it runs up with a slender stalk to a foot or more in height. It differs also very much in the smoothness or hairiness of its leaves. The flowers are sometimes larger than ordinary, and of a paler purple color, or even white.

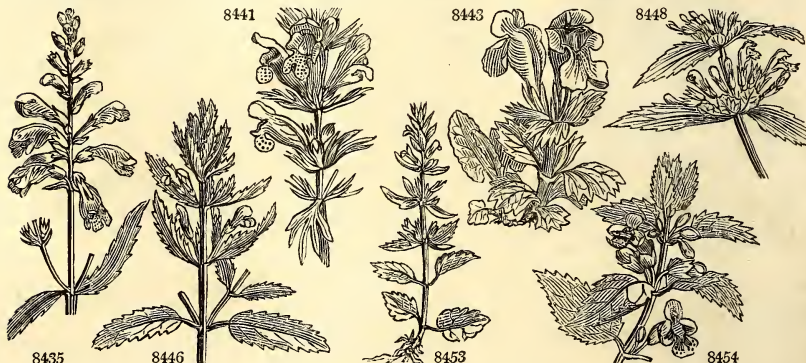
T. vulgaris has the aromatic qualities common to lavender, sage, rosemary, and other *Verticillatae*. It yields a species of camphor in distillation with water. In Spain they infuse it in the pickle with which they preserve their olives. Before the oriental spices were common, it was much used in cookery.

1376. *Acymos*. The Greek name of a balsamic plant, which probably was related to *Thymus*. This genus was included in *Thymus* by Linnæus.

1377. *Calamintha*. From *καλως*, beautiful, and *μινθον*, mint. An ancient Greek name of a plant supposed to chase away serpents.

1378. *Melissa*. This is the Greek name of the bee, from *μελις*, honey, which is sought by bees in these flowers with avidity, as indeed it is in all the plants of the order. The recent plant has the agreeable odor of

1279. DRACOCEPHALUM W. DRAGON'S-HEAD.	Labiatae. Sp. 19-25.							
8435 virginianum W.	Virginian	Δ	or	3	jl.s	L.B	N. Amer.	1683. D p.l Bot. mag. 467
8436 denticulatum W.	Carolina	Δ	or	1	aus.	St	Carolina	1787. D p.l Bot. mag. 214
8437 variegatum Ph.	variegated	Δ	or	1	aus.	Pu	Carolina	1812. D co Vent. cels. t. 44
8438 canariense W.	Balm of Gilead	Δ	or	3	jl.s	Pa.pu	Canaries	1697. S r.m Com. hort. 2. t.41
8439 palmatum W.	palmated	Δ	or	1	jn.au	Pu	Siberia	1815. D co
8440 peregrinum W.	prickly-leaved	Δ	or	1	jl.au	B	Siberia	1759. D p.l Bot. mag. 1084
8441 austriacum W.	Austrian	Δ	or	1	jn.jl	B	Austria	1597. D p.l Jac. ic. 1. t. 112
8442 Ruyschiana W.	Hysop-leaved	Δ	or	2	jn.jl	B	N.Europe	1699. D p.l Fl. dan. 121
8443 grandiflorum W.	great-flowered	Δ	or	1	jl	B	Siberia	1759. D p.l Bot. mag. 1009
8444 altaicum W.	Betony-leaved	Δ	or	1	jl.au	Pu	Georgia	1787. D co N.co pet. t.29.f.3
8445 sibiricum W.	Siberian	Δ	or	1	jn.au	L.B	Siberia	1760. D p.l Bot. mag. 2185
8446 Moldavia W.	Moldavian	○	or	2	jl.au	B	Moldavia	1596. D co Lam.ill. t.513.f.1
β albidiflorum	white-flowered							
8447 canescens W.	hoary	○	or	2	jl.au	Bu	Levant	1711. D co Sweet fl. gard.38
8448 peltatum W.	Willow-leaved	○	or	1	jl.au	Pu	Levant	1711. D co Lam.ill. t.513.f.2
8449 argunense Fisch.	rough-flowered	Δ	or	1	jl.au	B	Siberia	1822. D co Bot. cab. 797
8450 speciosum Hort.	shewy	Δ	or	3	jl.au	Pk	Siberia	1822. D co Sweet fl. gard.93
8451 botryoides Bieb.	cut-leaved	Δ	or	1	jl.au	Pu	Siberia	1822. D co
8452 nitans W.	nodding	Δ	or	1	jl.au	B	Siberia	1731. D co Bot. reg. 841
8453 thymiflorum W.	small-flowered	○	or	1	jn.s	Pu	Siberia	1752. S co Gmel. sib. 3. t.50
1280. MELIT'IS W.	BASTARD-BALM.		Labiatae. Sp. 2-4.					
8454 Melissophyllum W.	common	Δ	or	1	my.jn	F	England	woods. D co Eng. bot. 577
β alpina	Alpine	Δ	or	1	my.jn	F	Switzerl.	... D co
8455 grandiflora H. K.	great-flowered	Δ	or	1	my	W.Y	England	woods. D co Eng. bot. 636
1281. O'CYMUM W.	BASIL.		Labiatae. Sp. 20-50.					
8456 thysiflorum W.	thyrse-flowered	Δ	or	un	jl.au	W	E. Indies	1806. C s.l Jac. vind. 3. t. 72
8457 suave W. en.	sweet-scented	Δ	or	3	jl.s	W	.....	1816. C s.l
8458 viride W. en.	green	Δ	or	3	jl.s	W.G	.....	1816. C s.l
8459 monachorum W.	monk's	Δ	or	un	jl.au	W	E. Indies	1796. C s.l
8460 gratissimum W.	shrubby	Δ	or	un	jl.au	W	E. Indies	1752. C s.l Jac. ic. 3. t. 495
8461 grandiflorum W.	great-flowered	Δ	or	un	s.o	W	Abyssinia	1802. C s.l L'Her. s.nov. t.43
8462 Basilicum W.	common-sweet	○	or	cul	jl.au	W	India	1548. S r.m Blackw. t. 104
8463 minimum W.	bush	○	or	cul	jl.au	W	E. Indies	1573. S r.m Sch. han. 2. t.166
8464 salictum W.	purple-stalked	○	or	un	jl.s	Pu	E. Indies	1758. S s.l Rhe.mal.10. t.92
8465 americanum W. en.	ciliated	○	or	un	jl.s	W	.....	1816. S s.l
8466 americanum W.	American	○	or	un	jl.au	W	India	1789. S s.l Jac. vind. 3. t. 86
8467 tenuiflorum W.	slender-spiked	Δ	or	un	jl.au	Pa.pu	E. Indies	1703. S s.l Ru. am.5.t.92.f.2
8468 polystachyon W.	small-spiked	Δ	or	un	jl.au	W	E. Indies	1783. S s.l Mur.co.got.3. t.3
8469 menthoides	Mint-leaved	○	or	un	jl.au	W	E. Indies	1783. S s.l
8470 micranthum W. en.	small-flowered	○	or	un	jl.au	Pa.pu	.....	1816. S s.l
8471 mole W.	heart-shaped	○	or	un	s.o	W	E. Indies	1781. S s.l
8472 capitellatum W.	small-headed	ec	or	1	jl.au	W	China	1806. S s.l
8473 febrifugum Lindl.	fever-plant	Δ	or	m	3	jn.o	W	S. Leone 1822. C co Bot. reg. 753
8474 canum Sims.	hoary	○	or	un	jl	W	China	1822. S co Bot. mag. 2452
8475 polycladum Link.	many-branched	○	or	un	1	jn.o	W	..... 1823. S co
Lumnitzera ocymoides Jacq.								
1282. PLECTRANTHUS W. PLECTRANTHUS.	Labiatae. Sp. 8-13.							
8476 fruticosus W.	shrubby	Δ	or	3	jn.s	B	C. G. H.	1774. C r.m L'Her.st.85. t.41
8477 Forskohlæi W.	Forskohl's	Δ	or	3	o.n	B	Abyssinia	1806. C lp Bot. mag. 2036
8478 parviflorum W. en.	small-flowered	Δ	or	3	jn.s	B	S. Amer.	1805. C lp W. hort. ber. 65
8479 scutellarioides R.Br.	skullcap-like	○	or	2	jl.au	B	E. Indies	1764. S lp Bot. mag. 1446
O'cimum scutellarioides H. K.								
8480 punctatum W.	dotted	Δ	or	2	ja.my	B	Africa	1775. S r.m L'Her.st.87. t.41
8481 comosus Sims.	comose	Δ	or	2	au	B	Nepal	1821. S co Bot. mag. 2318
8482 ternatus Sims.	Omise Plant	Δ	or	3	au	Pu	Madagasc.	1821. D r.m Bot. mag. 2460
8483 incanum Link.	hoary	Δ	or	3	jl.au	B	1822. D co



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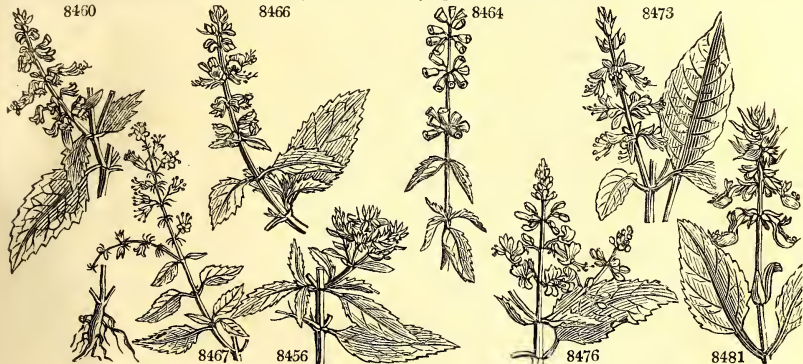
lemons, which is lost in drying, and an austere, slightly aromatic taste. In distillation with water, it yields a small portion of a yellow essential oil, on which its odor depends. It is stomachic and diuretic, and was formerly prized as a corroborant in hypochondriacal and nervous affections; but it is now used only in the form of tea, as a grateful diluent in fevers. For medicinal use the herb should be cut before it flowers, as it is then more odorous. (London Dispensatory, 383.)

1279. *Dracocephalum*. From *δρακων*, a dragon, and *κεφαλη*, a head. A name applied in the same sense as *Lamium*, *Galeopsis*, &c. See those genera. Most of the species are plants of ornament, and cultivated as such in the gardens of the curious. *D. canariense* smells of citron, especially when rubbed between the fingers. Sown on a hot-bed early in spring, it may be planted out in the borders like other tender annuals. *D. austriacum* is a handsome plant for a flower border.

- 8435 Smooth, Flowers spiked close, Leaves linear lanceolate serrated
 8436 Flowers spiked remote, Leaves obovate lanceolate toothletted upwards
 8437 Spikes short 4-cornered, Corolla variegated, Leaves oblong toothletted upwards
 8438 Flowers spiked, Leaves ternate oblong
 8439 Fl. somewhat spiked, Lvs. roundish cuneiform sinuate-toothed, Upper lip of cal. undivided mucronate
 8440 Fl. somewhat spiked, Leaves lanceolate remotely mucronate toothed, Bractes lin. lanc. toothed spiny
 8441 Fls. spiked, Lvs. sessile linear mucronate, Cauline 3-5-parted at base, Stem branched somewhat villous
 8442 Flowers spiked, Leaves and bractes lanceolate undivided pointless, Stem nearly simple smooth
 8443 Fls. whorled, Lvs. obl. blunt toothed stalked, Bractes lanc. entire, Upper lip of cal. ellipt. blunt undivided
 8444 Fls. whorled, Rad. lvs. cord. ov. ; cauline sessile roundish wedge-shaped acutely toothed, Teeth of cal. equal
 8445 Flowers whorled, Whorls stalked bifid one-sided, Leaves lanc. cordate acum. serrated smooth
 8446 Flowers whorled, Bractes lanceolate deeply toothed dotted beneath, Lower serratures subclimated
- 8447 Flowers whorled, Bractes oblong ciliated, Cal. striated pubescent, Tube of cor. longer than calyx
 8448 Flowers whorled, Bractes orbicular serrate ciliate
 8449 Stem erect, Leaves linear lanceolate blunt entire at edge rough, Two upper teeth of calyx largest
 8450 Leaves broad-lanceolate finely serrated entire at base, Lower teeth of calyx longest
 8451 Flowers in spiked heads, Leaves roundish pinnatifid crenate downy on each side
 8452 Flowers whorled, Bractes oblong ovate entire, Cor. twice as long as calyx nodding
 8453 Flowers whorled, Bractes oblong entire, Cor. scarcely larger than calyx
- 8454 Leaves opposite ovate toothed, Calyx 3-lobed hairy
- 8455 Cal. 4-lobed smooth, Cor. yellowish white, Segment of lower lip violet in the middle
- 8456 Flowers in paniced fascicles, Stem much branched
 8457 Racemes paniced, Leaves ovate oblong cuneate at base acutely serrated hoary beneath
 8458 Racemes paniced, Leaves ovate cuneate at base bluntly serrated, Veins hairy above rough beneath
 8459 Stamens toothless, every other one bearded at base
 8460 Stem $\frac{1}{2}$ shrubby, Leaves lanceolate ovate subtomentose, Racemes rounded
 8461 Stem shrubby, Leaves ovate serrate, Stamens very long
 8462 Leaves ovate smooth, Calyxes ciliated
 8463 Leaves ovate entire
 8464 Leaves somewhat oblong blunt serrated wavy, Stem hairy, Bractes cordate
 8465 Leaves ovate oblong, Foot-stalks, bractes and calyxes ciliated
 8466 Leaves sublanceolate acuminate subserrate, Racemes rounded, Stem nearly herbaceous
 8467 Leaves ovate-oblong serrated, Bractes cordate reflexed concave, Spikes filiform
 8468 Cor. 4-fid, Racemes leafless nodding at end
 8469 Leaves linear lanceolate serrate [than calyx
 8470 Lvs. broad ovate acum. at each end serr. Bractes shorter than cal. winged at edge, Cor. scarcely longer
 8471 Leaves ovate cordate acute serrated rugose, Recesses closed, Bractes roundish wedge-shaped
 8472 Leaves ovate, Flowers aggregate, Footstalks lateral
 8473 Downy, Lvs. ovate lanceolate crenate stalked, Whorls terminal racemose, Corolla the length of calyx
 8474 Leaves oblong elliptical serrated hoary on long stalks, Stamens twice as long as corolla
 8475 Like *Ocymum polystachyon*, but not having a musky scent as that has

- 8476 Nectary spurred, Racemes compound, Pedunc. 3-parted, Stem shrubby polished
 8477 Nectary gibbous, Racemes leafless, Stem nearly equal
 8478 Nectary gibbous, Racemes compound, Pedunc. 1-flowered whorled, Stem half shrubby nearly smooth
 8479 Cor. falcate, Flower-stalks branched

- 8480 Nectary gibbous, Flowers spiked, Stem herbaceous hairy rufous dotted
 8481 Flowers whorled sessile, Lower lip of calyx 4-parted, Bractes cordate acuminate
 8482 Stem 6-angled, Leaves ternate stalked ovate crenate rugose, Roots tuberous
 8483 Leaves stalked cordate crenate hairy, Bractes nearly equal to flower ovate



and Miscellaneous Particulars.

1280. *Melittis*. A name with the same meaning as *Melissa*.

1281. *Ocymum*. Said by Mathiolus to be derived from $\epsilon\lambda\omega$, to smell, on account of the powerful scent of the plants. *O. gratissimum* is cultivated in China for culinary purposes. *O. Basilicum* ($\beta\alpha\sigma\iota\lambda\iota\kappa\omicron\varsigma$, royal) and *minimum*, are culinary aromatics much used in French cookery. There are several varieties of the *basilicum*, which with some other species were formerly used in medicine, but are now neglected.

1282. *Plectranthus*. From $\pi\lambda\eta\kappa\tau\epsilon\omicron\nu$, a cock's spur, and $\alpha\nu\theta\omicron\varsigma$, a flower, the corolla of the original species of the genus being terminated by a spur-like appendage. Half-shrubby plants with purple flowers, all natives of hot climates.

1283. TRICHOSTE'MA. <i>W.</i> TRICHOSTEMA.				<i>Labiatae.</i> Sp. 2-4.			
8484 dichotoma <i>W.</i> Marjoram-leav.	○	pr	1	jn.jl	B	N. Amer. 1759.	S s.l
8485 brachiata <i>W.</i> sessile-leaved	☒	pr	1	jn.au	B	N. Amer. 1732.	C s.p Di.el. t.285.f.369
1284. PROSTANTHERA. <i>R. B.</i> PROSTANTHERA.				<i>Labiatae.</i> Sp. 1-13.			
8486 lasianthos <i>R. Br.</i> villous-flower'd	☒	or	2	jn.jl	Pu.w	N. S. W. 1808.	C s.p Bot. reg. 143
1285. SCUTELLA'RIA. <i>W.</i> SKULL-CAP.				<i>Labiatae.</i> Sp. 21-30.			
8487 orientalis <i>W.</i> yellow-flowered	☒	or	1	jl.s	Y	Levant 1729.	D p.l Bot. mag. 2120
8488 grandiflora <i>P. S.</i> large-flowered	☒	or	1½	jl.au	P.Y	Siberia 1804.	D s.l Bot. mag. 635
8489 albida <i>W.</i> hairy	☒	or	1½	jn.jl	W.pu	Levant 1771.	D s.l Sab. hort. 3. t.29
8490 alpina <i>W.</i> Alpine	☒	or	1	jn.o	B.w	Hungary 1752.	D p.l Sweet fl. gard.90
8491 lupulina <i>W.</i> Tartarian	☒	or	1	jn.s	Y.w	Tartary 1739.	D p.l Schmidel.ic. t.73
8492 lateriflora <i>W.</i> Virginian	☒	or	1	jn.s	B	N. Amer. 1752.	D p.l
8493 pilosa <i>Ph.</i> pubescent	☒	or	1	jl.au	B	N. Amer. 1805.	D p.l
8494 galericulata <i>W.</i> common	☒	or	1	jn.s	B	Britain wat.pl.	D co Eng. bot. 523
8495 minor <i>W.</i> lesser	☒	or	1	jl.au	Pk	Britain m.hed.	D co Eng. bot. 524
8496 hastifolia <i>Pers.</i> hastate-leaved	☒	or	1	jn.jl	Pu	Germany 1798.	D co
8497 caroliniana <i>Ph.</i> Carolina	☒	or	1½	jn.jl	B	Carolina 1811.	D co Lam.ill. t.515.f.3
8498 integrifolia <i>Ph.</i> entire-leaved	☒	or	2	jn.s	B	N. Amer. 1731.	D p.l Pluk.al. t.441.f.6
8499 serrata <i>Ph.</i> saw-leaved	☒	or	4	jn.s	B	N. Amer. 1800.	D s.l Bot. rep. 494
8500 havanensis <i>W.</i> Havannah	☒	or	2	my.jn	B	Havannah 1793.	D s.l Jac. obs. 2. t.29
8501 peregrina <i>W.</i> Florentine	☒	or	2	jn.o	V	Italy 1683.	D co Pl.r.hort. 2.t.125
8502 columna <i>W.</i> heart-leaved	☒	or	1½	jn.au	B	Italy 1806.	D co Sweet fl. gard.52
8503 altissima <i>W.</i> tall	☒	or	1	jl.au	D.P	Levant 1731.	D p.l Bot. mag. 2548
8504 cretica <i>W.</i> Cretan	☒	or	1	jn.jl	Pu	Crete 1729.	C s.l
8505 parvula <i>Mich.</i> least	☒	or	1	jn.jl	B	N. Amer. 1823.	S p Hook. ex. fl 10
8506 rubicunda <i>W. en.</i> pink	☒	or	2	jl.au	Pk	..... 1823.	D co
8507 pallida <i>Bieb.</i> pale	☒	or	2	jl.au	W	Crimea 1824.	D co Gmel. sib. t. 58
1286. PRUNEL'LA. <i>W.</i> SELF-HEAL.				<i>Labiatae.</i> Sp. 8-10.			
8508 vulgaris <i>W.</i> common	☒	m	1	jl.au	Pk	Britain me.pa.	D co Eng. bot. 961
β alba white-flowered	☒	cu	1	jl.au	W	Britain me.pa.	D co
8509 ovata <i>Pers.</i> oval-leaved	☒	un	1	jl.au	Pu	America ... S	l.p W. hort. ber. t.9
8510 pensylvanica <i>W.</i> Pensylvanian	☒	un	1	jl.s	La.B	N. Amer. 1801.	D p.l Mor. s.ii. t.5. f.7
8511 hyssopifolia <i>W.</i> Hyssop-leaved	☒	un	1	jl.s	P.B	France 1731.	D p.l Bot. mag. 337
8512 grandiflora <i>W.</i> great-flowered	☒	un	1	jl.s	L.B	Austria 1596.	D p.l Lam.ill. t.516.f.2
8513 laciniata <i>P. S.</i> yellow-flowered	☒	un	1	jl.s	Y	Austria 1713.	S p
8514 intermedia <i>P. S.</i> various-leaved	☒	un	1	jl.s	Pk	Portugal 1790.	D s.l
8515 incisa <i>Link.</i> cut	☒	un	1	jl.s	Pk	..... 1823.	D co
1287. CLEONIA. <i>W.</i> CLEONIA.				<i>Labiatae.</i> Sp. 1.			
8516 lusitânica <i>W.</i> sweet-scented	○	or	1	jn.jl	L.B	Portugal 1710.	S co Mill. ic. 1. t. 70
1288. PRA'SIUM. <i>W.</i> PRASIUM.				<i>Labiatae.</i> Sp. 2.			
8517 majus <i>W.</i> great Spanish	☒	cu	1	jn.au	Pu	Spain 1699.	C r m Fl. græca, 584
8518 minus <i>W.</i> small Sicilian	☒	cu	1	jn.au	Pu	Sicily 1752.	C r m
1289. PHRY'MA. <i>W.</i> PHRYMA.				<i>Labiatae.</i> Sp. 1.			
8519 leptostachya <i>W.</i> slender-spiked	☒	cu	1½	aus	W.pu	N. Amer. 1802.	D l.p Plamal.t.380.f.5

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1290. GESNE'RIA. <i>W.</i> GESNERIA.				<i>Gesneriace.</i> Sp. 6-25.			
8520 acalulis <i>W.</i> stemless	☒	or	1	...	S	Jamaica 1793.	C l.p Slo. ja.1. t.102.f.1
8521 tomentosa <i>W.</i> woolly	☒	or	2	jn.n	S	S. Amer. 1732.	C p.l Bot. mag. 1023
8522 aggregata <i>Ker.</i> aggregate	☒	or	2	au	S	Brazils 1816.	C p.l Bot. reg. 329
8523 bulbosa <i>Ker.</i> bulbous	☒	or	2	my.jn	S	Brazils 1816.	C p.l Bot. reg. 343
8524 prasinata <i>Ker.</i> green	☒	or	3	my.jn	G	Brazils 1818.	C p.l Bot. reg. 428
8525 tubiflora <i>Cav.</i> tube-flowered	☒	or	2	f.mr	S	S. Amer. 1815.	D p.l Cav. ic. t. 584
1291. GLOXINIA. <i>W.</i> GLOXINIA.				<i>Gesneriace.</i> Sp. 2.			
8526 maculata <i>W.</i> spotted-stalked	☒	or	1	jl.o	Pu	S. Amer. 1739.	C s.p Bot. mag. 1191
8527 speciosa <i>B. Reg.</i> many-flowered	☒	or	1	jn.n	Pu	S. Amer. 1815.	C s.p Bot. reg. 213



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1283. *Trichostema*. From *θριξ* *τριχος*, hair, and *στημα*, a stamen, because its long slender stamens resemble hairs.

1284. *Prostanthera*. Named in allusion to the spurs of the anthers, the word being derived from *προσθηνη*, an appendage, and *ανθηρα*, the anther. Strong smelling shrubs, natives of New Holland. Flowers either racemose or terminal.

1285. *Scutellaria*. From *scutella*, a small vessel, on account of the figure of the calyx, which is not unlike a cup with its handle. The calyx inverted, presents the figure of a helmet with visor raised.

1286. *Prunella*. A barbarous name softened down by Linnæus from the *Brunella* of some authors, and so called from the German *die Bräunne*, a disorder in the jaws and throat, which this plant is said to cure. Herbaceous plants common by waysides all over Europe.

8484 Stamens very long exerted, Leaves linear
8485 Stamens short included

8486 Leaves lanceolate tooth-serrated smooth, Racemes paniced, Corolla hairy

8487 Leaves cut downy beneath, Spikes rounded 4-cornered
8488 Leaves cordate cut crenate pubescent on each side shorter than footstalk, Spikes short 4-cornered
8489 Leaves subcordate serrate rugose opaque, Spikes 1-sided, Bractes ovate
8490 Leaves cordate cut serrate crenate, Spikes imbricated rounded 4-cornered, Bractes twice as short as fl.
8491 Leaves cordate cut serrate acute smooth, Spikes imbricated rounded 4-cornered, Bractes length of flower
8492 Much branched, Leaves smooth with a scabrous keel, Racemes lateral leafy
8493 Hairy, Leaves ovate rhomboid crenate, Flowers subracemose
8494 Leaves cordate lanceolate crenate, Flowers axillary
8495 Leaves cordate ovate nearly entire, Flowers axillary
8496 Leaves quite entire, lower hastate, upper sagittate, Flowers axillary
8497 Branched very smooth, Leaves stalked linear lanceolate acute entire, Racemes loose leafy, Cal. blunt
8498 Simple densely pubes. Lvs. subsess. obl. or linear blunt entire attenuated at base, Racemes loosish leafy
8499 Branched tall pubescent, Leaves ovate acuminate serrate on short stalks, Racemes usually paniced
8500 Leaves cordate ovate crenate, Flowers solitary axillary, Each lip of cor. trifold
8501 Leaves cordate serrate, Spikes elongated 1-sided, Bractes stalked ovate longer than calyx
8502 Leaves oblong cordate serrate pubes. Spikes elongated 1-sided, Bractes stalked ovate shorter than calyx
8503 Leaves cordate oblong acuminate serrate, Spikes nearly naked
8504 Villous, Leaves cordate blunt and bluntly serrated, Spikes imbricated, Bractes setaceous
8505 Subvillous, Leaves ovate entire all alike, Flowers axillary
8506 Related to *S. albidia* from which it differs in being much less hairy, and in its more slender flower
8507 Lvs. cord. cren. serrate bluntish villous, Spikes long 1-sided hispid, Bractes stalked ovate longer than cal.

8508 Lvs. stalked obl. ovate somew. toothed, Upper lip of cor. trunc. with 3 awns, Stem ascending, Spike round

8509 Leaves broad ovate toothed, Stem much branched, Spikes ovate
8510 Lvs. stalked ovate lanc. toothed at base, Lips of cal. equal: upper truncate with 3 awns, Stem ascending
8511 Leaves sessile lanceolate entire rough, Stem erect
8512 Leaves stalked oblong ovate toothed at base, Upper lip of cor. trifold, Stem ascending
8513 Small, Stem nearly simple villous, Leaves pinnatifid lower oblong, Cor. pale yellow
8514 Leaves entire and sinuated toothed rugose hairy, Upper lip of cor. truncate slightly 3-toothed
8515 Upper leaves linear-lanceolate: lower sinuate toothed somewhat hairy

8516 Bractes laciniate

8517 Leaves ovate oblong serrated
8518 Leaves ovate with a double crenature on each side

8519 Leaves stalked ovate serrated, Spikes terminal long

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8520 Leaves lanceolate ovate serrated somewhat stalked terminal, Pedunc. 3-fl. shorter than leaves
8521 Leaves ovate lanceolate crenate hairy, Peduncles lateral very long bearing corymbs
8522 All vill. Branches rounded, Lvs. opp. obl. ovate cren. Ped. 2-4 axill. 1-fl. aggregate, Cor. clavate cylind.
8523 All pubes. Lvs. opp. ovate ellipt. cord. at base serr. cren. Panicle numer. opp. spread. dist. Ped. corymbose
8524 All pubes. Lvs. oval lanc. velvety above, Panicle leafy, Fl. with a campan. inflated orifice, Limb oblique
8525 Leaves opposite ovate crenulate tomentose, Flowers axillary 2-3 together downy

8526 Leaves oblong cordate crenate rugose, Stem spotted
8527 Leaves hoary ellipt. or oblong crenate, Pedunc. erect longer than flower, Sepals angular acuminate



and Miscellaneous Particulars.

1287. *Cleonia*. An ancient Greek name employed by Theophrastus, *lib. 7. cap. 4.*: the *Cleonæum* of Pliny. This is an annual plant six or eight inches high, and nearly related to *Prunella*, from which some eminent French botanists do not distinguish it.

1288. *Prasium*. The Greek name of the horehound, which this plant resembles in some respects.

1289. *Phryma*. A Linnean name, the meaning of which is unknown.

1290. *Gesneria*. In honor of Conrad Gesner, of Zurich, the famous botanist and natural historian, called the German Pliny. Very fine herbaceous or half-shrubby plants, some of which are remarkable for the brilliancy of their colors.

1291. *Gloxinia*. In memory of Ben. Petr. Gloxin, of Colmar, author of *Observationes Botanicae*, Argent,

1992. LINNÆA. W.	LINNÆA.	two-flowered	♂, Δ	pr	Caprifoliaceæ. Sp. 1.	1/4 my.au F	Scotl.	dry.st.c.	D	lp	Eng. bot.	433	
8528 borealis W.					Rutaceæ? Sp. 2-4.								
1293. MELIANTHUS. W.	HONEY-FLOWER.												
8529 mājor W.	great	♂	Δ	or	10	my.jl	C. G. H.	1688.	Sk	s.l	Bot. reg.	45	
8530 minor W.	small	♂	Δ	or	2	au	C. G. H.	1696.	Sk	s.l	Bot. mag.	301	
1294. BIGNONIA. W.	TRUMPET-FLOWER.												
8531 ānguis W.	Barbadoes	♂	or	10	...	Y	W. Indies	1759.	L	s.p	Plum. amer.	t.94	
8532 æquinoctialis W.	equinoctial	♂	el	40	ap.o	Y	Guiana	1768.	C	s.l	Plum. ic.	t.55.f.1	
	β Chamberlaynii	♂	el	40	ap.o	Y	Brazil	1820.	C	s.l	Bot. reg.	741	
8533 alliacea W.	Garlick-scent.	♂	cu	10	...	Y	W. Indies	1790.	C	lp			
8534 laurifolia W.	Laurel-leaved	♂	or	20	...	...	Guiana	1804.	C	lp		
8535 paniculata W.	panicked	♂	or	20	...	Pu	W. Indies	1738.	C	lp			
8536 crucigera W.	cross-bearing	♂	or	20	...	Y.s	S. Amer.	1759.	L	s.p	Plum. ic.	t. 58	
8537 uncata B. M.	hooked	♂	or	15	jn.jl	Y	Guiana	1804.	L	s.p	Bot. mag.	1511	
8538 capreolata W.	four-leaved	♂	or	15	jn.jl	S	N. Amer.	1710.	C	s.p	Bot. mag.	864	
8539 pubescens W.	downy	♂	or	15	jn.jl	Y	Campeachy	1759.	C	s.p			
8540 rigescens Jacq.	stiff	♂	or	20	jn.jl	Pk	Caracas	1823.	C	s.p	Jac. schon.	t. 210	
8541 lactiflora Vahl.	milk-white	♂	or	20	jn.jl	Y	SantaCruz	1823.	C	s.p	Vah. symb.	t. 66	
8542 meonantha Link.	small-flowered	♂	or	20	jn.jl	Pk	N. Holl.?	...	C	s.p			
8543 grandifolia Jacq.	large-flowered	♂	or	60	ap.jl	Y	Caracas	1816.	C	p.l	Bot. reg.	418	
8544 venusta B. Reg.	comely	♂	or	20	s.d	Or	S. Amer.	1816.	C	lp	Bot. reg.	249	
8545 echinata W.	bristly-fruited	♂	or	20	...	...	Guiana	1804.	C	lp	Aub. gui.	t. 2.264
8546 triphylla W.	three-leaved	♂	or	10	...	W	S. Amer.	1733.	R	lp			
8547 pentaphylla W.	five-leaved	♂	or	20	...	...	Jamaica	1733.	C	lp	Marcg. bra.	t. 118
8548 Leucoxylon W.	white-wooded	♂	or	12	jn.jl	Pk	W. Indies	1759.	C	lp	Bot. rep.	43	
8549 radicans W.	Ash-leaved	♂	or	30	jl.au	Or	N. Amer.	1640.	R	s.p	Bot. mag.	485	
	α mājor	♂	or	20	jl.au	S	N. Amer.	1640.	C	s.p	Cates. car.	t. 1.65	
	β minor	♂	or	30	jl.au	Or	China	1800.	C	r.m	Bot. mag.	1398	
8550 grandiflora W.	large-flowered	♂	or	12	au	Y	America	1730.	S	lp	Plum. ic.	t. 54	
8551 stans W.	branching	♂	or	30	...	R.	E. Indies	1808.	R	lp	Rhee. mal.	t. 6. 226	
8552 chelonoides W.	tree	♂	or	30	...	W	E. Indies	1794.	C	lp	Bot. cor.	t. 1.14	
8553 spathacea W.	salver-shaped	♂	or	30	...	W	E. Indies	1794.	C	lp	Bot. cor.	t. 2.26	
	Spathodea longiflora												
8554 australis H. K.	New S. Wales	♂	or	40	ap.jl	W	N. S. W.	1793.	C	s.p	Bot. mag.	865	
8555 indica W.	Indian	♂	or	80	...	W	India	1775.	C	lp			
8556 procera W.	Box-leaved	♂	or	20	...	B	Guiana	1793.	C	lp	Aub. gui.	t. 2.265	
8557 linearis Cav.	linear-leaved	♂	or	20	...	Pk	Mexico	1825.	C	p.l	Cav. ic.	t. 3. 2.269	
1295. JACARANDA. Juss.	JACARANDA.												
8558 caroliniana R. Br.	Carolina	♂	or	10	jl.au	B	Bahamas	1724.	C	p.l	Cates. car.	t. 1. 2.42	
8559 ovalifolia R. Br.	oval-leaved	♂	or	10	ap.my	B	Brazils	1818.	C	p.l	Bot. reg.	631	
1296. SEYAMUM. W.	OILY-GRAIN.												
8560 orientale W.	oriental	♂	clt	1 1/2	jl	W	E. Indies	1731.	S	co	Rhee. mal.	9. t. 54	
8561 indicum W.	clt	♂	clt	1 1/2	jl	Pa.pu	E. Indies	1731.	S	co	Bot. mag.	1788	
1297. PENTSTEMON. W.	PENTSTEMON.												
8562 campanulata W.	bell-flowered	♂	or	1 1/2	mr.o	L.Pu	Mexico	1794.	D	p.l	Bot. mag.	1878	
8563 levigata W.	smooth	♂	Δ	or	2	au.s	L.Pu	N. Amer.	1776.	D	p.l	Bot. mag.	1425
8564 hirsuta W.	narr.-lvd.-hairy	♂	Δ	or	1	au.s	L.Pu	N. Amer.	1758.	D	p.l	M.h.s.11.	t.21.f.3



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1785, quarto. Handsome low herbaceous plants, with fine shewy flowers. The *Gloxinia speciosa* is a favorite in every hothouse, on account of the beauty of its rich purple blossoms.

1292. *Linnaea*. So named by Gronovius, in honor of the celebrated Carl von Linné, the reformer of natural history, and the father of the modern physical sciences. His works are not less numerous than important; it is to be wished that such another man, with equal talent, industry, and judgment, could be found at the present day, to rescue the science of natural history from the confusion to which it is fast approaching.

1293. *Melianthus*. From *μελι*, honey, and *ανθος*, flower. A shrub, native of the Cape of Good Hope, the blossoms of which are a great attraction to bees. Both the known species are common in collections, but seldom flower.

1294. *Bignonia*. In memory of Abbé Bignon, librarian to Louis XIV., born 1662, died in 1743. He was the friend and patron of most of the learned men of his time, and especially of Tournefort, by whom this truly noble genus was named. The species are trees or shrubs, inhabitants of hot climates: the leaves are opposite, pinnate, ternate, or conjugate: the flowers in panicles, large, and handsome, of various colors, red, blue, yellow, or white, and eminently beautiful. The stove sorts grow freely in loam and peat, and young cuttings root in sand under a hand-glass. The hardy species grow in any soil, but will not flower well unless the situation be warm. They are increased by cuttings of the roots, by layers, or by young cuttings on gentle heat under a hand-glass or frame. B. *radicans* is a well known and much admired species, capable of living in the open air in this country against a wall.

1295. *Jacaranda*. The name of the tree in Brazil. Two kinds remarkable for the goodness of their wood, are described by Piso. Those in the gardens are lofty stove plants with fern-like, elegant leaves, and panicles of beautiful blue flowers. They grow with facility, but flower seldom.

8528 The only species

8529 Stipules solitary adhering to stalk, Leaves smooth

8530 Stipules twin distinct, Leaves hoary beneath

8531 Leaves conjugate cirrhose, Leaflets ovate acuminate, Peduncles axillary 1-flowered

8532 Leaves conjugate cirrhose, Leaflets ovate-lanceolate, Pedunc. 2-flowered, Pods linear

8533 Leaves conjugate, Leaflets elliptical entire coriaceous, Pedunc. 5-flowered axillary, Calyx entire

8534 Lvs. conjugate obl. smooth, Racemes term. Branches dichotomous, Corollas very soft and downy outside

8535 Lvs. conjugate cordate ovate, Flowers racemose, Calyx with a double limb

8536 Leaves conjugate cirrhose: lower ternate, Leaflets ovate cord. acuminate, Racem. axill. Stem muricated

8537 Leaves conjugate quite smooth, Tendrils longer than petiole trifid at end hooked

8538 Leaves conjugate cirrhose, Leaflets cordate lanceolate, Lower leaves simple

8539 Leaves conjugate cirrhose, Leaflets cordate ovate downy beneath

8540 Leaves conjugate cirrhose, Leaflets elliptical blunt, Flowers racemose, Pedunc. 3-fl. Calyxes toothed

8541 Leaves conjugate cordate ovate smooth, Lower racemes leafy, Limb of calyx leafy entire

8542 Leaflets 9-lanceolate subserrate dotted beneath, Corollas ventricose bearded in the orifice

8543 Lvs. conjugate cirrhose, Leaf. obl. acute at each end, Corymb trifid term. Ped. petioles and branches rough

8544 Climbing, Lvs. smooth upper conjugate cirrhose obl. ovate acumin. Peduncles corymbose many-flowered

8545 Lower leaves ternate, upper conjugate, Petioles dichotomous cirrhose, Fruit echinate

8546 Leaves ternate smooth, Leaflets ovate acuminate, Stem shrubby erect

8547 Leaves digitate, Leaflets entire obovate

8548 Leaves digitate, Leaflets lanceolate acuminate entire smooth, Flowers terminal solitary

8549 Lvs. pinnate, Leaflets ovate acuminate toothed, Corymb terminal, Tube of cor. thrice as long as calyx

8550 Leaves pinnate, Leaflets ovate acuminate toothed, Panicle terminal, Tube of cor. the length of calyx

8551 Leaves pinnate, Leaflets oblong lanceolate serrate, Raceme simple terminal, Stem erect

8552 Leaves pinnate with an odd one, Leaflets ovate entire pubescent, Corollas bearded half pentandrous

8553 Leaves pinnate with an odd one, Leaflets ovate hirsute, Cal. 1-leaved spathaceous, Cor. hypocrateriform

8554 Leaves pinnate of four pair, Leaflets elliptical generally entire, Racemes compound

8555 Leaves bipinnate, Leaf. roundish ovate cordate acuminate, Fl. pentandrous, Calyx tubular, Cor. 5-fid

8556 Leaves bipinnate, Leaflets oblong obtuse, Panicle terminal, Peduncles with bracts, Pods oblong blunt

8557 Leaves simple linear acuminate, Flowers terminal subumbellate, Stem erect

8558 Leaves bipinnate, Leaflets lanceolate acute, Panicle terminal, Peduncle naked, Pods long emarginate

8559 Leaves bipinnate oblong villous oval oblong mucronate, Panicle large lax branched, Corollas silky

8560 Leaves ovate oblong entire

8561 Leaves ovate lanceolate: lower 3-lobed; upper undivided, Stem erect

8562 Stem smooth, Sterile filament bearded upwards, Leaves lanceolate acuminate all finely serrate

8563 Leaves polished ovate-oblong amplexicaul finely toothletted, lower entire, Flowers paniced

8564 Leaves serrulate lanceolate oblong sessile downy obscurely toothed narrow, Flowers paniced



and Miscellaneous Particulars.

1296. *Sesamum*. From the Arabic word *semsem*. Forskahl, p. 68. These plants were introduced into Jamaica by the Jews, and are now cultivated in most parts of the island. They are called *vango* or oil-plant. The seeds are frequently used in broths by many of the Europeans, but the Jews make them chiefly into cakes. Many of the oriental nations look upon the seed as a hearty wholesome food, and express an oil from them, not unlike, or inferior to, the oil of almonds. It has been also manufactured for salad oil in this country, but without much success.

S. orientale is frequently cultivated in the Levant, and also in Africa, as a pulse: the seeds have been introduced in Carolina by the African negroes. An oil is extracted from the seeds which will keep many years, and not acquire any rancid smell or taste, but in two years become quite mild, so that when the warm taste of the seed, which is in the oil when first drawn, is worn off, it is used as salad oil, and for all the purposes of sweet oil.

The seeds are also used by the negroes for food: they parch them over the fire, then mix them with water, and stew other ingredients with them. A pudding is made with them, in the same manner as with millet or rice.

In Japan, China and Cochin-China, where they have no butter, they use the oil for frying fish, and in dressing other dishes; as a varnish; and medicinally as a resolvent and emollient. Nine pounds of the seed yield upwards of two pounds of neat oil.

1297. *Pentstemon*. From *πεντε*, five, and *στέμον*, a stamen, because of the four perfect and one imperfect stamen of the genus. Beautiful herbaceous plants, deserving a place in every garden.

8565 pubescens <i>W.</i>	broad-lv.-hairy	Δ	or	1½	au.s	L.Pu	N. Amer.	1758.	D	p.l	Bot. mag. 1424
8566 erianthera <i>Ph.</i>	dwarf	Δ	or	1	au.s	Pu	Louisiana	1811.	D	p.l	
8567 angustifolia <i>Ph.</i>	narrow-leaved	Δ	or	1½	jl.s	L.Pu	Louisiana	1811.	D	p.l	
8568 glabra <i>Ph.</i>	Nuttall's	Δ	or	1½	jl.s	D.Pu	Louisiana	1811.	D	p.l	Bot. mag. 1672
8569 Bradburii <i>Ph.</i>	large-flowered	Δ	or	2	jl.s	Pu	Louisiana	1811.	D	p.l	
8570 albidum <i>Nutt.</i>	whitish	Δ	or	¾	jl.s	W	Missouri	1823.	D	p.l	
1298. CHELO'NE. <i>W.</i>	CHELONE.						Scrophulariaceæ.		Sp. 4—6.		
8571 glabra <i>W.</i>	white-flowered	Δ	or	4	au.o	W	N. Amer.	1730.	D	p.l	Trew.ehret. t.83
8572 obliqua <i>W.</i>	red-flowered	Δ	or	4	au.o	Pu	N. Amer.	1752.	D	p.l	Bot. reg. 175
8573 Lyóni <i>Ph.</i>	Lyon's	Δ	or	4	jl.s	Pu	N. Amer.	1812.	D	p.l	Bot. mag. 1864
8574 barbata <i>W.</i>	scarlet	Δ	or	3	jns.	O.s	Mexico	1794.	D	p.l	Bot. reg. 116
1299. TOURRET'IA. <i>J.</i>	TOURRETTIA.						Scrophulariaceæ.		Sp. 1.		
8575 lappacea <i>W.</i>	scarlet-flowered	□	cu	6	jn.au	R.G	Peru	1788.	S	s.l	Sal.stir. 5. t.3
1300. MARTY'NIA. <i>W.</i>	MARTYNIA.						Pedalinee.		Sp. 4—6.		
8576 diandra <i>W.</i>	two-stamened	□	or	1½	jl.au	R	New Spain	1731.	S	s.l	Bot. rep. 575
8577 Craniolaria <i>W.</i>	white-flowered	□	or	1½	jl.au	W	S. Amer.	1733.	S	s.l	Jac. amer. t. 110
8578 proscidea <i>W.</i>	horn-capsuled	□	or	¾	jn.au	L.B	America	1738.	S	r.m	Bot. mag. 1056
8579 longiflora <i>W.</i>	long-flowered	□	or	2	jl.au	Papu	C. G. H.	1781.	S	s.l	Meerb. ic. 1. t. 7
1301. ACAN'THUS. <i>W.</i>	BEAR'S-BREECH.						Acanthaceæ.		Sp. 5—14.		
8580 mollis <i>W.</i>	smooth	Δ	or	3	jl.s	P.w	Italy	1548.	D	co	Lam. ill. t. 550
8581 niger <i>Mill.</i>	shining-leaved	Δ	or	3	jl.s	P.w	Portugal	1759.	D	co	
8582 spinosus <i>P. S.</i>	prickly-leaved	Δ	or	3	jl.s	P.w	Italy	1629.	D	co	Bot. mag. 1808
8583 spinosissimus <i>P. S.</i>	white-spined	Δ	or	3	jl.s	P.w	S. Europe	1629.	D	co	
8584 ilicifolius <i>W.</i>	Holly-leaved	□	or	2	...	...	E. Indies	1759.	D	co	Rhee.mal.2. t.48
1302. BARLE'RIA. <i>W.</i>	BARLERIA.						Acanthaceæ.		Sp. 8—18.		
8585 longifolia <i>W.</i>	long-leaved	□	or	2	jl.s	W	E. Indies	1781.	S	l.p	Pluk.al. t.133.f.4
8586 Prionitis <i>W.</i>	thorny	□	or	3	jl.au	Or	E. Indies	1759.	C	p.l	Rhee.mal.9. t.41
8587 buxifolia <i>W.</i>	Box-leaved	□	cu	2	jn.jl	W	E. Indies	1768.	D	l.p	Rhee.mal.2. t.47
8588 purpurea <i>Lodd.</i>	purple	□	pr	2	s	Pu	E. Indies	1814.	D	l.p	Bot. cab. 344
8589 alba <i>Hort.</i>	white	□	or	3	jn.jl	W	N. Holl.	1815.	C	co	Bot. cab. 360
8590 cristata <i>W.</i>	crested	□	or	2	jns.	B	E. Indies	1796.	C	p.l	Bot. mag. 1615
8591 mitis <i>B. Reg.</i>	yellow-flowered	□	or	3	jns.	Y	E. Indies	1816.	C	p.l	Bot. reg. 191
8592 longiflora <i>W.</i>	long-flowered	□	or	3	jns.	...	E. Indies	1816.	C	p.l	Vah.symb.1.t.16
1303. PHAYLOP'SIS. <i>Juss.</i>	PHAYLOPSIS.						Acanthaceæ.		Sp. 1—6.		
8593 longifolia <i>Sims.</i>	long-leaved	□	pr	2	apo	W	S. Leone	1822.	C	co	Bot. mag. 2433
1304. RUEI'LIA. <i>J.</i>	RUELLIA.						Acanthaceæ.		Sp. 18—70.		
8594 ovata <i>W.</i>	oval-leaved	□	pr	2	jl.au	D.B	Mexico	1800.	D	l.p	Cav. ic. 3. t. 254
8595 strepens <i>W.</i>	whorl-flowered	□	pr	2	jl.au	Pa.B	N. Amer.	1726.	D	l.p	Sch. han.2. t.177
8596 ocyroides <i>Can.</i>	Basil-like	□	pr	1½	jl.au	B	Mexico	1815.	C	l.p	Cav. ic. 5. t. 456
8597 patula <i>W.</i>	spreading	□	pr	1½	jl.au	Pa.V	E. Indies	1774.	C	l.p	Jac. ic. 1. t. 119
8598 lactea <i>W.</i>	white	□	pr	2	jn.au	Pa.V	Mexico	1796.	C	l.p	Cav. ic. 3. t. 255
8599 clandestina <i>W.</i>	three-flowered	□	pr	2	jl.au	B	Barbadoes	1728.	C	l.p	Dil.el.t.248.f.320
8600 paniculata <i>W.</i>	panicked	□	pr	3	au	Pu	W. Indies	1768.	C	s.p	Bot. ja.1. t. 100. f.2
8601 tuberosa <i>L.</i>	tuberous-rooted	□	pr	2	jl.au	B	Jamaica	1752.	C	l.p	Slo.jam.1.t.95.f.1
8602 biflora <i>W.</i>	two-flowered	□	pr	1	jl	Pa.B	Carolina	1765.	C	l.p	
8603 formosa <i>H. K.</i>	splendid	□	pr	2	jn.f	S	Brazil	1808.	C	s.p	Bot. mag. 1400



History, Use, Propagation, Culture,

1298. *Chelone*. *Xελωνη* signifies a tortoise, to the back of which the helmet of the present genus has been fancifully compared. The species are handsome border flowers, of easy culture in loamy soil, or loam and a little peat.

1299. *Tourrettia*. Named in honor of Marc Antoine Louis Claud la Tourrette, to whom some of Rousseau's Letters on Botany are addressed. A singular climbing annual plant, producing its flowers sparingly from the tips of the branches. Seldom preserved long in a garden, as it produces seed very sparingly.

1300. *Martynia*. In honor of John Martyn, F. R. S., professor of botany at Cambridge, author of *Historia Plantarum Rariorum*, and many other works: died in January, 1768. His son is the editor of the last edition of Miller's Dictionary. Handsome tropical annuals, remarkable for the size of their flowers compared with their leaves.

1301. *Acanthus*. From *ακανθα*, a spine: many of the kinds are very spiny. The species are generally large, with a single herbaceous stalk, and great pinnatifid leaves. The flowers are produced in terminating spikes. Some of the species are shrubby and thorny, with undivided leaves, toothed, and having a thorn at the end of the teeth.

A. mollis was formerly used in medicine under the name of *Branca ursina*: the root abounds in mucilage, and may be substituted for those of the marsh mallow. Virgil has two very different plants under the name of *Acanthus*: one a tree, supposed to be the *Mimosa nilotica*, which produces the gum Arabic: the other an

8565 Stem pubescent, Sterile filament bearded from the end to the middle
 8566 Leaves oblong acute subhirsute, Flowers racemose, Leaves of calyx linear very hairy
 8567 Stem smooth long linear entire, Flowers in racemose panicles, Leaves of calyx smooth.
 8568 Stem and lvs. smooth, Lvs. subamplex. ovate obl. ent. Barren flam. naked clav. Sepals roundish acuminate
 8569 Very smooth, Lvs. subamplexicaul. ov. obl. ent. upper roundish, Barren flam. with a short beard at end
 8570 Leaves ovate lanc. subserrulate smooth, Fl. fascicled axillary and terminal, Cor. equal 5-cleft spreading

8571 Leaves stalked lanceolate serrate : upper opposite
 8572 Leaves lanceolate oblique stalked opposite finely serrated at edge
 8573 Smooth much branched, Leaves stalked cordate ovate serrated, Spikes terminal dense
 8574 Leaves opposite connate lanceolate entire, Lower lip of corolla bearded

8575 The only species. Leaves pinnated cut cirrhose

8576 Stem branched, Leaves opposite cordate toothed, Flowers diandrous
 8577 Stem branched, Leaves opposite 5-lobed toothed
 8578 Stem branched, Leaves alternate cordate entire
 8579 Stem simple, Leaves roundish repand, Tube of cor. at base gibbous flattened

8580 Leaves sinuated unarmed
 8581 Leaves sinuated unarmed glabrous shining green
 8582 Leaves pinnated spiny
 8583 Leaves lacinate pinnatifid blistered spiny, Spines white
 8584 Leaves repand spiny-toothed, Stem shrubby prickly

8585 Spines of whorls 6, Leaves ensiform very long rough
 8586 Spines axillary pedate in fours, Leaves quite entire lanceolate ovate
 8587 Spines axillary opposite solitary, Leaves roundish entire
 8588 Unarmed, Leaves lanceolate, Flowers axillary solitary sessile
 8589 Leaves ovate lanceolate rough, Flowers capitate terminal, Bractes ciliate
 8590 Leaves oblong entire, Two lateral leaves of calyx ciliated wider than the rest ; two linear acute
 8591 Unarmed, Leaves lanceolate hairy entire, Fl. aggregate terminal tubular, Bractes very narrow setose
 8592 Unarmed, Leaves ovate silky, Bractes cordate scarious, Corollas very long

8593 Leaves lanceolate on long stalks, Flowers in terminal and axillary heads, Cor. small

8594 Leaves sessile oblong entire acute at each end villous, Fl. 3-subsessile, Stem ascending
 8595 Leaves stalked ovate entire, Peduncles 3-flowered very short, Stem erect
 8596 Subvillous, Stem dwarf branched erect, Leaves ovate concave entire
 8597 Leaves stalked ovate very blunt entire pubescent, Flowers 3 subsessile, Stem erect divaricating
 8598 Lvs. stalked obl. ovate ciliated somewhat toothed, Pedunc. very short about 3-fl. Stem very villous erect
 8599 Leaves stalked oblong blunt attenuated at base somewhat toothed, Pedunc. 3-fl. shorter than leaf
 8600 Leaves entire, Peduncles dichotomous lateral, Calyxes sessile, with the upper segment largest
 8601 Leaves cuneate ovate crenated, Peduncles 3-parted, Stem simple
 8602 Flowers twin sessile
 8603 Leaves stalked entire ovate downy, Pedunc. axillary alternate few-flow. very long



and Miscellaneous Particulars.

herb, supposed to be this plant. Pliny mentions an *Acanthus* which covered part of his lawn, which some conjecture to be a moss, a thing very improbable in a climate and situation where the musci are seldom seen even in winter.

The leaf of *Acanthus mollis* is supposed to have furnished the ancients with the elegant *Acanthus* leaf of their architecture.

1302. *Barleria*. In honor of the Rev. James Barrelier, a Dominican, and M. D. of Paris, who travelled from France into Spain and Italy, and died aged sixty-eight, 1673 ; author of *Icones*, 1714, Paris, folio, a useful work, containing, even at the present day, figures of many things which are to be found nowhere else. The species flower freely and are of easy culture : loam and peat, with a little rotten dung mixed with it, is the best soil for them. Cuttings root freely ; they strike best from the young wood, under a hand-glass, in the same kind of soil as the plants grow in. (*Bol. Cult.* 21.)

1303. *Phaylopsis*. Named by Willdenow, from φαυλος, vile or contemptible, and σψις, aspect. Tropical weeds.

1304. *Ruellia*. In honor of John Ruella, a native of Soissons, the physician of Francis I. He published a work *De Natura Plantarum*, in 1536, and *Commentaries upon Dioscorides*, in 1516. The species are pretty plants, free flowers, and of the easiest culture and propagation.

8604 fúlgida <i>H. K.</i>	bright-flowered	yz	□	pr	2	jl.au	Sc	W. Indies	1804.	C	l.p	Bot. rep. 527
8605 ciliáta <i>W. en.</i>	ciliated	yz	□	pr	2	jl	Pu	E. Indies	1806.	C	l.p	
8606 ringens <i>W.</i>	gaping-flower'd	yz	□	pr	3	jl.au	Pu	E. Indies	1807.	C	l.p	
8607 pubescens <i>Pers.</i>	pubescent	yz	△	pr	2	ju.au	D.B	C. G. H.	1823.	C	l.p	
8608 foetida <i>W. en.</i>	fœtid	yz	□	un	2	jn.au	B	S. Amer.	...	C	l.p	
8609 macrophýlla <i>Vahl.</i>	long-leaved	yz	△	pr	3	...	R	S. Martha	1824.	C	l.p	Vah.symb.2.t.39
8610 unduláta <i>Vahl.</i>	wavy	yz	□	pr	2	...	...	E. Indies	1824.	C	l.p	
8611 tetragóna <i>Link.</i>	four-cornered	yz	□	pr	2	jn.jl	B	Brazil	1824.	C	l.p	
1305. BLE'CHUM. <i>R. Br.</i>	BLECHUM.											
8612 Brównei <i>H.K.</i>	dense-spiked	yz	△	or	2	jn		W. Indies	1780.	C	l.p	Slo.ja.1.t.109.f.1
1306. APHELAN'DRA. <i>R. Br.</i>	APHELANDRA.											
8613 cristáta <i>H. K.</i>	dense-spiked	yz	□	spl	3	jn.s	S	W. Indies	1733.	C	l.p	Bot. mag. 1578
1307. CROSSAN'DRA. <i>P. L.</i>	CROSSANDRA.											
8614 undulæfólia <i>P. S.</i>	wave-leaved	yz	□	spl	1½	ja.jn	Or.s	E. Indies	1800.	C	p.l	Bot. reg. 69
1308. THUNBER'GIA. <i>W.</i>	THUNBERGIA.											
8615 frágrans <i>W.</i>	twining	yz	□	or	4	my.s	W	E. Indies	1796.	S	p.l	Bot. mag. 1881
8616 grandifóra <i>R.</i>	large-flowered	yz	□	or	6	my.s	B	E. Indies	1820.	C	p.l	Bot. mag. 2366
1309. HEBENSTRE'ITIA. <i>W.</i>	HEBENSTREITIA.											
8617 albifóra <i>Lk.</i>	white-flowered	yz	□	pr	1	my.s	W	C. G. H.	1822.	C	p.l	
8618 chamædyfólia <i>Link.</i>	saw-leaved	yz	□	pr	2	my.s	W	C. G. H.	1822.	C	p.l	
8619 dentáta <i>W.</i>	toothed	yz	□	pr	1	my.s	W	C. G. H.	1739.	S	p.l	Bot. mag. 483
8620 integrifólia <i>W.</i>	entire-leaved	yz	□	pr	1	my.jn	W	C. G. H.	1792.	C	p.l	Bot. rep. 252
	<i>afroca</i> <i>B. Rep.</i>											
8621 ciliáta <i>W.</i>	ciliated	yz	□	pr	1	my.jl	W	C. G. H.	1815.	C	p.l	
8622 spicáta <i>Thunb.</i>	spiked	yz	△	pr	1	my.jl	W	C. G. H.	1815.	C	p.l	
8623 erinóides <i>Th.</i>	Erinus-leaved	yz	□	pr	1	my.n	W	C. G. H.	1816.	C	p.l	
8624 cordáta <i>W.</i>	heart-leaved	yz	□	pr	1	jl.au	W	C. G. H.	1774.	C	p.l	
1310. HOSTA. <i>Jac.</i>	HOSTA.											
8625 carúlea <i>Jac.</i>	blue-flowered	yz	□	or	4	...	B	S. Amer.	...	C	l.p	Jac.schœ.1.t.114
1311. GMELIN'A. <i>W.</i>	GMELINA.											
8626 asiática <i>W.</i>	oval-leaved	yz	□	or	10	...	Y	E. Indies	1792.	C	l.p	Lam. ill. t. 542
8627 parvifóra <i>Rox.</i>	obovate-leaved	yz	□	or	10	...	O	E. Indies	1817.	C	l.p	Roxb. cor. t. 32
1312. LANTA'NA. <i>W.</i>	LANTANA.											
8628 mixta <i>W.</i>	Nettle-leaved	yz	□	or	5	au.o	R.v	W. Indies	1732.	C	p.l	Bot. cab. 68
8629 trifólia <i>W.</i>	three-leaved	yz	□	or	3	jn.s	Pu	W. Indies	1733.	C	p.l	Bot. mag. 1449
8630 ánnua <i>W.</i>	annual	yz	□	or	3	jl.au	F	S. Amer.	1733.	C	p.l	Bot. mag. 1022
8631 stricta <i>W.</i>	narrow-leaved	yz	□	or	3	...	Pa.pu	Jamaica	1733.	C	p.l	Slo.ja.2.t.195.f.4
8632 Rádula <i>W.</i>	Rasp-leaved	yz	□	or	3	...	Pu	W. Indies	1803.	C	p.l	
8633 Cámbara <i>W.</i>	various-colored	yz	□	or	6	aps	R.o	W. Indies	1691.	C	p.l	Dill.elt. t.56.f.65
8634 involucráta <i>W.</i>	round-leaved	yz	□	or	3	my.jl	Pk	W. Indies	1690.	C	p.l	Plu.alm.t.114.f.5
8635 récta <i>W.</i>	upright	yz	□	or	2	jn.au	Pu	Jamaica	1758.	C	p.l	Jac.schœ.3.t.360
8636 odoráta <i>W.</i>	sweet-scented	yz	□	or	2	my.n	W	W. Indies	1758.	C	p.l	Plum.ic. t.71.f.2
8637 melissifólia <i>W.</i>	Balm-leaved	yz	□	or	2	jl.s	Y	W. Indies	1732.	C	p.l	Dill.elt. t.57.f.66
8638 scábrida <i>W.</i>	rough	yz	□	or	2	s	...	W. Indies	1774.	C	p.l	
8639 nivea <i>Vent.</i>	white-flowered	yz	□	or	3	jl.s	W	E. Indies	...	C	p.l	Vent. malm. t. 8
8640 aculeáta <i>W.</i>	changeable-col.	yz	□	or	10	ap.n	R	W. Indies	1692.	C	p.l	Bot. mag. 96
8641 fucáta <i>Ker.</i>	painted	yz	□	or	2	ap.n	Pk	S. Amer.	1822.	C	p.l	Bot. reg. 798
8642 salvifólia <i>W.</i>	sage-leaved	yz	□	or	3	ap.n	R	C. G. H.	1823.	C	p.l	Jac. schö.3. t.285
8643 brazilíensis <i>Link.</i>	Brazilian	yz	□	or	3	ap.n	W	Brazil	1823.	C	p.l	
8644 álba <i>Müll.</i>	white	yz	□	or	3	ap.n	W	S. Amer.	...	C	p.l	
1313. ALOY'SIA. <i>Fl. Per.</i>	ALOYSIA.											
8645 citriodóra <i>Fl. Per.</i>	Lemon-scented	yz	□	or	3	my.s	Pa.pu	Chili	1784.	C	l	Bot. mag. 367
	<i>Verbéna triphýlla</i> <i>B. M.</i>											



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1305. *Blechnum*. Βλέχων, was the Greek name of a plant resembling Marjoram. This genus has also the flowers in a dense bracteated spike. It has been separated from *Justicia* by Jussieu.

1306. *Aphelandra*. From ἀφελάνης, simple, and άνδρς, a male, on account of the single cell of the anthers.

1307. *Crossandra*. From κροσσός, a fringe, and άνδρς, a man; or, in botanical language, an anther, alluding to the fringed anthers. A fine shewy shrub with large orange flowers.

1308. *Thunbergia*. In honor of Charles Peter Thunberg, M.D., knight of the order of Vasa, professor of botany in the university of Upsal, member of several learned societies; author of *Travels into Europe, Africa and Asia*; *Flor. Japonica*, &c. Handsome climbing flowers with a fragrant odor.

1309. *Hebenstretia*. John Ernest Hebenstreit, was a professor of botany in the university of Leipzig, and published, in 1728, a dissertation upon plants. Small Cape undershrubs, occasionally cultivated for the sake of their neat foliage and simple modest flowers. They require an airy greenhouse, and are easily propagated from cuttings.

1310. *Hosta*. After Dr. Nicholas Thomas Host, the author of the superb *Gramina Austriaca*, in four volumes, folio, and other important works. Smith thinks the genus the same as Linnaeus's *Cornuti* pyramidata.

8604 Leaves stalked ovate acuminate wavy crenate, Fascicles axillary on long stalks
 8605 Leaves ovate somewhat toothletted ciliated at edge on long stalks, Flowers solitary axillary sessile
 8606 Leaves oblong entire, Flowers solitary sessile, Stem procumbent
 8607 Leaves entire ovate subpubescent, Flowers solitary axillary, Stem erect
 8608 Leaves ovate lanceolate entire stalked smooth, Fl. solitary axillary sessile, Branches warted
 8609 Leaves ovate lanceolate acuminate entire, Peduncles long 2-flowered
 8610 Leaves stalked oblong wavy, Heads axillary sessile, Stem erect
 8611 Stem erect hairy, Leaves stalked ovate acuminate repand toothed hairy, Spike whorled

8612 Leaves ovate elliptical somewhat toothed, Spikes 4-cornered, Bractes ovate downy

8613 The only species

8614 The only species

8615 Leaves cordate acuminate somewhat angular at base, Stem climbing

8616 Leaves angular cordate, Inner calyx none, Anthers bearded spurred

8617 Leaves linear toothed, Bractes oval linear hairy

8618 Leaves sessile oblong lanceolate blunt serrated hairy at base, Bractes ciliated

8619 Leaves linear toothed, Spikes smooth

8620 Leaves linear quite entire

8621 Leaves linear toothed, Calyxes 3-valved ciliated

8622 Leaves linear toothed at end, Bractes ovate villous, Stem herbaceous

8623 Leaves lanceolate oblong serrated pilose, Bractes entire ciliated hispid

8624 Leaves cordate somewhat fleshy sessile

8925 Corymbs axillary trichotomous

8626 Spines opposite, Leaves ovate entire

8627 Leaves obovate subtrifid and simple, Prickles nearly straight, those of the stem alternate

8628 Leaves opp. ovate acute hairy, Stem prickly downwards, Heads round, Bractes lanceolate

8629 Leaves 3 or 4-ellipt. rugose above villous beneath, Stem unarmed, Spikes oblong imbricated

8630 Leaves opposite, Stem unarmed, Spikes oblong

8631 Leaves opp. oblong lanc. acute, Stem unarmed, Heads roundish, Bractes ovate-lanceolate and squarrose

8632 Lvs. opp. ov. acute serr. rugose rough hairy ben. Stem nearly unarm. rough, Heads obl. Bractes ovate acute

8633 Leaves opposite, Stem unarmed branched, Flowers in leafless capitate umbels

8634 Leaves opp. or in 3s rhomboid ovate blunt rugose downy, Stem unarmed, Heads squarrose, Bractes ovate

8635 Leaves opposite oval rugose, Stem unarmed, Heads squarrose, Bractes oblong, Pedunc. longer than leaf

8636 Lvs. opp. or in 3s ellipt. rugose, Stem unarmed, Heads squarrose with lanc. bractes, Ped. shorter than leaf

8637 Leaves opp. ovate obl. villous soft, Stem prickly, Spikes hemispherical, Bractes half as short as tube lanc. acute

8638 Lvs. opp. ovate ellipt. rough, Stem prickly, Spikes hemispherical, Bractes half as short as tube lanc. acute

8639 Leaves ovate lanceolate acuminat crenulate, Stem prickly, Head hemispherical, Bractes linear

8640 Leaves ovate subordate softish beneath, Stem prickly, Bractes of heads linear cuneiform

8641 Lvs. ovate rugose crenate blunt downy running down the foot-stalk, Head depressed shorter than leaf

8642 Leaves opposite ovate rough above hoary beneath, Heads conical, Bractes squarrose ovate acute nerved

8643 Leaves narrowed from an ovate base sessile serrate pubescent, Bractes lanceolate concave

8644 Leaves ovate narrowed into the stalk acuminate acutely crenate pubescent, Outer bractes cordate

8645 Leaves linear lanceolate ternate, Stem shrubby



and Miscellaneous Particulars.

A small shrub rising to the height of four feet. Leaves opposite, ovate, acuminate, somewhat toothed, smooth. Flowers blue, in axillary corymbs, which are shorter than the leaves; they are dotted all over with minute white glandular spots.

1311. *Gmelina*. In honor of John George Gmelin, a German naturalist, professor of medicine and botany at Tubingen, who travelled in Siberia and Kamtchatka, by order of the Empress Anne of Russia. His *Flora Sibirica*, in four quarto volumes, is a book of continual reference. These are fine arborescent Indian plants with beautiful flowers, which are seldom produced in this country. They require the utmost heat of the stove.

1312. *Lantana*. One of the ancient names of the *Viburnum*, which this resembles a little in foliage. The species are rapid growers and free-flowerers, and readily increased by cuttings. They form small bushes with pink, yellow, orange, or changeable heads of flowers, and a peculiar aromatic odor.

1313. *Atosia*. Named by Don Antonio Palau, professor of botany at Madrid, and author of an excellent translation of the Linnæus's *Species Plantarum* into Spanish, after her majesty Maria Louisa, queen of Spain, and mother of the reigning king, Ferdinand.

1314. LIPPIA. L.	LIPPIA.				<i>Verbenaceæ.</i>	Sp. 1—5.			
8646 purpúrea Jacq.	purple	□	or	3	jn.jl	R	Mexico	1823.	C pl Jacq. ecl. t. 85
1315. MELAMPYRUM. W. Cow-WHEAT.					<i>Scrophularinæe.</i>	Sp. 4—7.			
8647 cristátum W.	crested	○	w	3	jl.au	Y	England	corn fl.	S co Eng. bot. 41
8648 arvénse W.	purple	○	w	3	jn.jl	Y	England	corn fl.	S co Eng. bot. 53
8649 praténse W.	common	○	w	3	jl.au	Y	Britain	woods.	S co Eng. bot. 113
8650 sylváticum W.	wood	○	w	3	jl.au	Y	Britain	m. wo. S	co Eng. bot. 804
1316. SELA'GO. W.	SELAGO.				<i>Verbenaceæ.</i>	Sp. 13—40.			
8651 spinea Link.	spiny	□	pr	3	...	Pu	C. G. H.	1824.	C pl
8652 diffusa Th.	spreading	□	pr	1½	jl.au	Pu	C. G. H.	1807.	C pl
8653 fulvo-maculáta Link.	spotted	□	pr	2	...	Pu	C. G. H.	1824.	C pl
8654 polygaloides L.	Milkwort-like	□	pr	2	...	Pu	C. G. H.	1807.	C pl
8655 spiciáta Link.	spiked	□	pr	2	...	Pu	C. G. H.	1824.	C pl
8656 spúria W.	linear-leaved	□	pr	1	jl.o	V	C. G. H.	1779.	S pl Bur. afr. t. 42. f. 3
8657 fasciculáta W.	cluster-flower'd	□	pr	1	jn.jl	Pu	C. G. H.	1774.	S pl Bot. reg. 184
8658 lúcida Vent.	shining-leaved	□	pr	1½	jn.jl	Pu	C. G. H.	1812.	C lp Vent. malm. t. 10
8659 ramulósa Link.	branchy	□	pr	1	...	W	C. G. H.	1824.	C pl
8660 teretifolia Link.	round-leaved	□	pr	1½	jl.au	W	C. G. H.	1823.	C pl
8661 ováta W.	oval-headed	□	pr	1	jn.jl	D.Pu	C. G. H.	1774.	C pl Bot. mag. 186
8662 canéscent W.	caescent	□	pr	1	jn.n	Pa.pu	C. G. H.	1812.	C pl
8663 corymbósa W.	fine-leaved	□	pr	2	jl.au	Pu	C. G. H.	1699.	C pl Com. hort. 2. t. 40
1317. VI'TEX. W.	CHASTE-TREE.				<i>Verbenaceæ.</i>	Sp. 8—15.			
8664 ováta W.	oval-leaved	□	or	4	jl.au	Pu	China	1796.	C lp
8665 altíssima W.	tall	□	or	8	...	Pu	Ceylon	1802.	C lp
8666 Agnus-Cástus W.	common	□	or	6	s	W.B	Sicily	1570.	C co Woodville t. 222
β latifolia	broad-leaved	□	or	6	s	W.B	Sicily	1570.	C co
8667 incisa W.	cut-leaved	□	or	4	jl.s	Pu	China	1758.	C pl Bot. mag. 364
8668 Leucóxylon W.	white-wooded	□	or	4	...	Pu	Ceylon	1793.	C lp
8669 Negúndo W.	quadrangular	□	or	4	...	Pu	E. Indies	1812.	C lp Rump. am. 4. t. 19
8670 bicolor W. en.	two-colored	□	or	4	...	Pu	E. Indies	1810.	C lp
8671 trifolia W.	three-leaved	□	or	4	...	Pu	E. Indies	1759.	C pl Bot. mag. 2187
1318. CORNUTIA. W.	CORNUTIA.				<i>Verbenaceæ.</i>	Sp. 1—2.			
8672 pyramidáta W.	pyramidal	□	cu	4	...	B	W. Indies	1733.	C lp Lam. ill. t. 541
1319. ZAP'ANIA. J.	ZAPANIA.				<i>Verbenaceæ.</i>	Sp. 2—10.			
8673 stachadi'folia P. S.	oval-spiked	□	un	1	au.s	Pu	W. Indies	1732.	C lp Brow. jam. t. 3. f. 1
8674 nodiflora Ph.	knot-flowered	□	un	1	jl.au	Pu	America	1664.	C lp Fl. grac. 553
1320. PRI'VA. P. S.	PRIVA.				<i>Verbenaceæ.</i>	Sp. 2—6.			
8675 mexicána P. S.	Mexican	□	pr	2	au.s	V	Mexico	1726.	C lp Dil. el. t. 302. f. 389
Verbéna mexicána	W.	□	pr	2	jl.au	V	E. Indies	1799.	C lp Rox. cor. 2. t. 146
8676 leptostácha P. S.	rough	□	pr	2	jl.au	V	E. Indies	1799.	C lp
Tortula aspera W.									
1321. SPIELMAN'NIA. W. SPIELMANNIA.					<i>Verbenaceæ.</i>	Sp. 1.			
8677 africána W.	flex-leaved	□	or	3	f.n	W	C. G. H.	1710.	C r.m Bot. mag. 1899
1322. VERBE'NA. L.	VERVAIN.				<i>Verbenaceæ.</i>	Sp. 14—36.			
8678 bonariénsis W.	cluster-flower'd	□	un	6	jl.o	B	B. Ayres	1732.	R co Dil. el. t. 300. f. 387
8679 hastáta W.	halberd-leaved	□	un	5	jn.au	V	Canada	1710.	D co Her. parad. t. 242
8680 paniculáta P. S.	paniced	□	un	3	jl.au	B	N. Amer.	1800.	D co



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A deciduous under shrub with a most agreeable odor of citrons, and of the easiest culture in any soil. In Jersey and Guernsey, it stands the winter in warm situations.

1314. *Lippia*. Named in honor of Augustine Lippi, a French physician, born in Paris of an Italian family. He accompanied the ill-fated embassy of Lenoir Duroule to the king of Abyssinia, in the beginning of the eighteenth century, and was assassinated along with the ambassador at Sennaar. His merits entitled him to a more interesting genus than this, which consists of obscure weedy shrubs of South America.

1315. *Melampyrum*. From *melas*, black, and *pyros*, wheat. Its grain resembles a grain of wheat, and gives a singularly black color to bread in which it is ground. Smooth narrow-leaved weeds, not uncommon in corn fields and copses. *M. pratense* is considered nutritive, and was formerly cultivated by the Dutch and Flemish in the manner of Spurrey.

1316. *Selago*. This has nothing beyond its name in common with the Selago of the ancients; nor is it possible to imagine what induced Linnæus to apply it to the present plants, which are pretty half-shrubby Cape plants, with beautiful corymbs or spikes of flowers. Hardy greenhouse plants, propagated with facility by cuttings.

1317. *Vitex*. An ancient name applied to some plant of the osier tribe. *V. Agnus Castus* is an autumn shrub, with whorled spikes of blue and white flowers from seven to fifteen inches long. The dried leaves have a powerfully aromatic odor. The seeds, from the time of Dioscorides and Pliny, have been highly celebrated for securing chastity; hence the absurd official name of the shrub, *Agnus castus*; *αγνος*, in Greek, being the same with *castus* in Latin: and hence the Athenian matrons, in the sacred rites of Ceres, used to strew their

8646 Leaves oblong acute serrate rough above pubescent beneath, Heads globose, Bractes obl. lowest longest

8647 Spikes quadrangular, Bractes cordate compact toothletted imbricated

8648 Spikes conical lax, Bractes toothed setaceous colored, Teeth of calyx rough, Corolla closed

8649 Flowers axillary 1-sided, Corollas closed, Leaves lanceolate; floral hastate

8650 Flowers axillary 1-sided, Corollas gaping, All the leaves lanceolate

8651 Leaves linear acute entire reflexed rigid fleshy smooth, Spikes terminal

8652 Leaves linear smooth, Spikes terminal, Branches diffuse

8653 Leaves linear serrate toothed subciliated fleshy, Spikes corymbose

8654 Spikes terminal, Bractes and calyxes keeled rough, Leaves linear smooth reflexed at edge

8655 Leaves sessile linear lanceolate acute entire smooth, Spikes terminal solitary

8656 Spikes corymbose, Leaves linear toothletted

8657 Corymb multiplex, Leaves obovate smooth serrated

8658 Leaves obovate entire shining, Spikes rounded terminal, Stem shrubby

8659 Stem diffuse pubescent upwards, Lvs. lanceolate blunt finely serrate smooth, Spikes terminal subsolitary

8660 Lvs. rounded with a furrow on each side acutifid somewhat toothed smooth fleshy, Spikes term. aggregate

8661 Spikes cone-like ovate terminal, Leaf. lanc. acum. ent. beneath white with down, Branches of pan. dichotom.

8662 Spikes terminal, Leaves filiform fascicled smooth

8663 Leaves filiform fascicled smooth, Panicle compound

8664 Leaves simple ovate

8665 Leaves ternate entire, Panicle whorled, Berry 3-seeded

8666 Leaves digitate 7 or 5 lanceolate nearly entire, Spikes whorled paniced

8667 Leaves digitate 5, Leaflets cut-pinnatifid, Spikes somewhat whorled

8668 Leaves digitate 5, Leaflets stalked oblong entire, Panicle dichotomous, Berry 1-seeded

8669 Leaves quinrate and ternate serrate, Flowers in paniced racemes

8670 Lvs. ternate and quinrate, Leaf. lanc. acum. ent. beneath white with down, Branches of pan. dichotom.

8671 Leaves ternate and quinrate, Leaflets ovate acute entire hoary beneath, Panicle with a straight rachis

8672 Panicle terminal naked elongated

8673 Spikes ovate, Leaves lanceolate serrated plaited, Stem fruticose

8674 Spikes roundish conical, Leaves cuneiform toothed, Stem creeping

8675 Spikes lax, Cal. of fruit reflexed roundish didymous hispid

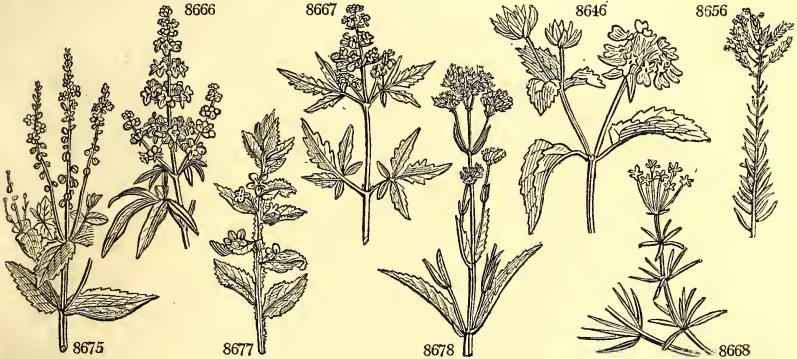
8676 Spikes filiform very long, Cal. of fruit reflexed hispid, Tube of corolla spiral

8677 The only species

8678 Spikes fascicled, Leaves oblong lanceolate stem-clasping, Stem very tall trichotomous at end

8679 Spikes long acuminate, Leaves hastate

8680 Spikes filiform paniced, Leaves lanceolate coarsely serrated



and Miscellaneous Particulars.

couches with the leaves. Hence also it has had the affected name of *Piper eunuchorum* and *monachorum*. The seeds of the chaste-tree are, however, so far from being thought antiaphrodisiac, that writers of later times have ascribed to them an opposite quality; their aromatic pungency seems to favor this opinion, and Bergius states them to be carminative and emmenagogue. (*Woodville.*)

The fruit of *V. trifolia* is reputed in the eastern countries to be warm, discutient, nervine, cephalic, and emmenagogue; and to be of service in paralysis, weakness, and pains of the limbs. It is in great use among the Indian practitioners, both internally and externally. The plant has a bitter taste, and a strong somewhat aromatic smell.

1318. *Cornutia*. So named after Jacques Cornut, a French physician, who travelled into Canada, and published an account of the plants of that country in 1635. *Cornutia pyramidata* is a shrub with square branches, elliptical ovate entire hoary leaves, and naked pyramidal terminal branches of flowers.

1319. *Zapania*. Named by Scopoli, after Paul Anthony Zappa, an Italian botanist.

1320. *Priva*. A genus of small *Verbena*-like herbaceous plants, with little blue flowers. The derivation of the name is unknown.

1321. *Spielmannia*. In honor of James Reinhold Spielmann, professor of medicine and botany at Strasburg, author of *Prodromus Floræ Argentoratensis*; *Pharmacopœia Generalis*, &c. A shrub of easy culture in any light soil, and cuttings root freely under a glass.

1322. *Verbena*. Said by De Theis, to be derived from *ferfaen*, its name in Celtic. A genus of weedy plants,

8681	angustifolia H. K.	narrow-leaved	△	un	3	jn.au	B	N. Amer.	1802.	D	co	
8682	caroliniana W.	Carolina	△	un	6	jn.s	W	N. Amer.	1732.	D	co	Di.l.et.1.301.f.388
8683	urticifolia W.	Nettle-leaved	△	un	3	jl.s	W	N. Amer.	1683.	C	co	Rob. ic. 26
8684	stricta Ph.	upright	△	un	3	jl.au	B	N. Amer.	1802.	D	co	Bot. mag. 1976
8685	Aubletia W.	Rose	△	or	1	jn.au	Pu	N. Amer.	1774.	S	r.m	Bot. mag. 308
8686	bracteosa Ph.	long-bracted	△	pr	1	jl	Pu	N. Amer.	1812.	D	co	
8687	Lamberti B. M.	Lambert's	△	or	1	jn.au	Pu	S. Amer.	...	D	co	Bot. mag. 2200
8688	spuria Ph.	jagged-leaved	△	un	2	jl.au	B	N. Amer.	1731.	C	p.l	
8689	officialis W.	common	△	un	2	jn.s	Pu	Britain	ro.sid.	C	co	Eng. bot. 769
8690	supina W.	trailing	△	un	1	jn.jl	B	Spain	1640.	S	co	Park.the.675. f.2
8691	prostrata H. K.	prostrate	△	un	1	jn.jl	B	N. Amer.	1794.	D	co	
1323.	AVICEN'NIA. L.	AVICENNIA.						Myoporiaceae.	Sp. 1-3.			
8692	tomentosa L.	downy-leaved	□	un	20	...	Pk	India	1793.	C	lp	Fl. d'Owar. 7
1324.	CALDA'SIA. W.	CALDASIA.						Verbenaceae.	Sp. 1.			
8693	heterophylla W.	blue	□	pr	2	my.d	B	New Spain	1813.	S	co	Bot. reg. 92
1325.	CLERODEN'DRUM. B. P.	CLERODENDRUM.						Verbenaceae.	Sp. 15-27.			
8694	fragrans H. K.	fragrant	□	or	6	au.d	W	China	1790.	R	s.p	Vent. malm. 70
	<i>β</i> <i>florè pleno</i>	double-flowered	□	or	6	au.d	W	China	1790.	R	s.p	Bot. mag. 1834
8695	viscosum H. K.	clammy	□	or	6	my.au	W	E. Indies	1796.	C	s.p	Bot. mag. 1805
8696	infortunatum P. S.	long-flowered	□	or	6	...	...	E. Indies	...	C	lp	
8697	fortunatum W.	spear-leaved	□	or	6	jl	W	E. Indies	1784.	C	lp	Os. it. t. 11
8698	squamatum H. K.	scarlet	□	or	10	jn.s	S	China	1790.	R	s.p	Bot. reg. 649
8699	paniculatum W.	panicked	□	or	6	jl.o	W	Java	1809.	C	lp	Bot. reg. 406
8700	trichotomum W.	three-forked	□	or	6	...	...	Japan	1800.	C	s.p	
8701	tomentosum R. Br.	downy	□	or	5	mr.ap	W	N. S. W.	1794.	S	s.p	Bot. mag. 1518
8702	ligustrinum H. K.	Privet-leaved	□	or	3	au.n	W	Mauritius	1789.	C	p.l	Jac.co.sup.t5.f.1
8703	heterophyllum H.K.	various-leaved	□	or	3	au.s	W	Mauritius	1805.	C	lp	Bot. rep. 554
8704	inermè H. K.	smooth	□	or	4	au.n	W	E. Indies	1692.	C	p.l	Jac.co.sup.t4.f.1
8705	Siphonanthus H. K.	whorl-leaved	□	or	6	...	...	E. Indies	1796.	C	p.l	Bur. ind. t.43.f.1
8706	macrophyllum B.M.	large-leaved	□	or	8	jl	W.B	E. Indies	1815.	C	p.l	Bot. mag. 2536
8707	phlomidios L.	Phlomis-like	□	or	4	au.s	W	E. Indies	1820.	C	lp	Bur. ind. t.45.f.1
8708	costatum R. Br.	ribbed	□	or	6	...	...	N. Holl.	1823.	C	lp	
1326.	VOLKAME'RIA. H. K.	VOLKAMERIA.						Verbenaceae.	Sp. 3-5.			
8709	aculeata H. K.	prickly	□	or	4	au.o	W	W. Indies	1739.	C	p.l	Bro.jam. t.20.f.2
8710	buxifolia W. en.	box-leaved	□	or	4	au	W	.....	1820.	C	p.l	
8711	japonica Thunb.	Japan	□	or	50	...	Pu.W	Japan	1820.	C	p.l	
1327.	HOLMSKIOL'DIA. H. K.	HOLMSKIOIDIA.						Verbenaceae.	Sp. 1.			
8712	sanguinea W.	scarlet	□	or	4	...	S	India	1796.	C	p.l	Bot. reg. 692
1328.	PETRE'A. W.	PETREA.						Verbenaceae.	Sp. 1.			
8713	volubilis W.	climbing	□	or	20	jl.au	Pu	VeraCruz	1733.	C	r.m	Bot. mag. 628
1329.	CITHARE'YLUM. W.	FIDDLE-WOOD.						Verbenaceae.	Sp. 5-9.			
8714	cinereum W.	ash-colored	□	or	15	...	W	W. Indies	1739.	C	p.l	Jac. amer. t. 118
8715	caudatum W.	oval-leaved	□	or	20	...	W	Jamaica	1763.	C	lp	Jac. ic. 3. t. 501
8716	villosum W.	hairy-leaved	□	or	10	...	...	S. Domin.	1784.	C	p.l	Jac. ic. 1. t. 118
8717	pentandrum Vent.	pentandrous	□	or	6	...	W	Porto Rico	1815.	C	lp	Vent. cels. t. 47
8718	quadrangulare W.	square-stalked	□	tm	50	...	W	Jamaica	1759.	C	p.l	Jac. vind. l. t. 22
1330.	DURAN'TA. W.	DURANTA.						Verbenaceae.	Sp. 3-4.			
8719	Plumieri W.	smooth	□	or	15	o	B	S. Amer.	1733.	C	p.l	Bot. reg. 244
8720	Ellisia W.	prickly	□	or	6	au	B	W. Indies	1739.	C	p.l	Bot. mag. 1759
8721	microphylla W. en.	small-leaved	□	or	3	...	B	1820.	C	p.l	



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with the exception of *Verbena Aubletia* and *Lamberti*. *V. officinalis* was held sacred among the ancients, and used in making leagues by ambassadors, sacrificial rites, incantations, &c.; and by the moderns as an amulet, and for medical purposes: it is now, however, entirely out of use.

1323. *Avicennia*. Named after Abu Vali Ibn Tsin, commonly called Avicennas, a Persian physician, born in 980, died in 1036. His Rules of Medicine were formerly the text-book of physicians, and have occupied the learning and time of many commentators.

1324. *Caldasia*. Named by Willdenow in compliment to Don Josef Caldas, an eminent botanist, native of Popayan, in New Grenada.

1325. *Clerodendrum*. From *κλῆρος*, accident, and *δενδρον*, a tree, in allusion to the various effects in medicine by its various species. *Clerodendrum fortunatum* is useful, *C. calamitosum* and *infortunatum*, dangerous. The species grow freely in light rich soil, composed of half loam, one-fourth of rotten dung, and one-fourth peat. They require a large pot to flower freely, and cuttings root readily under a hand-glass: the younger the shoots the better. The handsomest species are *C. paniculatum* and *C. squamatum*. (*Bot. Cult.* 41.)

C. inermè is hardy enough to live in the open air against a wall, but it must have the protection of a mat in winter.

1326. *Volkameria*. Named after John Christopher Volkamer, a German botanist, who died in 1720. John

- 8681 Spikes filiform, Leaves linear lanceolate subserrate
 8682 Spikes filiform, Leaves lanceolate serrate bluntish subsessile
 8683 Spikes filiform panicled, Leaves ovate serrate acute stalked
 8684 Hoary, Spikes cylindrical upright, Leaves ovate serrate subsessile, Stem erect round
 8685 Spikes solitary stalked, Leaves trifid cut
 8686 Decumbent hirsute, Leaves cut, Flowers spiked, Bracts linear very long squarrose
 8687 Spikes lax solitary, Stem hispid decumbent rooting, Leaves oblong cut-toothed entire at end
 8688 Spikes filiform, Leaves multifid cut, Stems numerous
 8689 Spikes filiform panicled, Leaves multifid cut, Stem subsolitary
 8690 Spikes filiform solitary, Leaves bipinnatifid
 8691 Hirsute, Spikes filiform solitary, Leaves serrate cut, Calyxes twice as long as fruit
- 8692 Leaves oblong blunt downy beneath
- 8693 The only species
- 8694 Leaves subcordate tooth-serrate pubesc. with 2 glands at base, Corymb terminal hemispherical compact
- 8695 Somewhat downy, Leaves cordate toothed, Cal. large 5-cornered viscid, Segm. of cor. on one side
 8696 Leaves subcordate entire, Cor. thrice as long as tube of calyx, Limb bilabiate
 8697 Leaves lanceolate quite entire
 8698 Leaves cordate obscurely angular, Panicles of branches dichotomous smooth
 8699 Leaves 5-lobed toothletted smooth, Panicle brachiate, Axilla woolly
 8700 Leaves lobed and undivided broad ovate entire, Panicle trichotomous
 8701 Leaves elliptical acute entire and calyxes downy, The calyx in fruit thickened colored, Corymbs clustered
 8702 Leaves oblong lanceolate entire, Petioles peduncles and calyx hairy
 8703 Leaves lanc. or lin. lanc. entire quite smooth, Corymbs axill. and term. Cal. 5-toothed and pedunc. smooth
 8704 Leaves ovate entire shining, Petioles peduncles and calyxes smooth
 8705 Leaves whorled long lanceolate entire smooth, Corymbs axillary few-flowered, Corollas very long
 8706 Leaves broad-ovate acuminate serrate subsessile downy beneath, Cal. 5-toothed, Cor. labiate
 8707 Leaves ovate entire toothed and angular, Peduncles axillary about 2-flowered
 8708 Leaves ovate blunt downy beneath ribbed rugose, Corymb trichotomous
- 8709 Leaves oblong acute entire, Spines from the rudiments of petioles
 8710 Leaves obovate entire retuse shining, Peduncles axillary about 1-flowered
 8711 Unarmed, Leaves cordate ovate acute toothed, Racemes 1-sided
- 8712 Leaves stalked cordate crenate smooth
- 8713 Leaves ovate, Flowers thirsoid
- 8714 Branches round, Leaves oblong acuminate entire, Racemes pendulous, Calyxes toothed
 8715 Branches round, Leaves elliptical emarginate blunt entire, Racemes erect, Calyxes somewhat toothed
 8716 Branches square, Leaves obovate pubescent beneath somewhat toothed at end, Racemes nodding
 8717 Branches bluntly 4-cornered, Leaves ovate obl. toothed upwards pubesc. beneath Fl. bracteate pendulous
 8718 Branches square, Leaves ovate acuminate entire, Racemes nodding
- 8719 Calyxes in fruit twisted, Leaves obovate oblong
 8720 Calyxes in fruit erect, Leaves oblong lanceolate acuminate
 8721 Spiny, Leaves 9 lines long 3 lines broad subserrate attenuated at each end, Teeth of cal. short subciliated



and Miscellaneous Particulars.

George Volkamer, his brother, born 1616, died in 1693, wrote many academical dissertations, and a Flora of Nuremberg, which was not published till after his death. The species are ornamental plants with the habit of the last genus.

1327. *Holmskiöldia*. A Theodore Holmskiöld, a Dane, published some obscure works upon Cryptogamous plants. A handsome herbaceous stove plant, remarkable for the large calyxes of a bright red color.

1328. *Petrea*. So called by Houstoun, in honor of Robert James Lord Petre, born in 1710, died in 1742. The famous Peter Collinson, in a letter to Linnæus, speaks of his death as the greatest loss that botany or gardening ever felt in this island. A climbing plant with blue flowers.

1329. *Citharexylum*. From *κίθαρα*, a lyre (hence guitar), and *ξύλον*, wood. This tree produces a wood which in America is very useful for carpenters' work. It is very hard, and has been supposed applicable to making musical instruments, a mistake which arose thus; *C. melanocardium* is called by the French *fidèle*, from its faithfulness or durability in building; the English have corrupted the name to fiddle-wood, as if it were used for making musical instruments, which is a mistake. (Miller.)

Cuttings root in sand under a hand-glass.

1330. *Duranta*. After Castor Durantes, physician to Pope Sixtus V., author of Herbarium, 1584, died in 1590. The species grow and flower freely in loam and peat, and cuttings root in sand under a hand-glass.

1331. PEDA'LIUM. <i>W.</i>	PEDALIUM.			<i>Petalinae.</i>	<i>Sp. 1.</i>				
8722 Múrex <i>W.</i>	prickly-fruited	☐	cu	1½	aus.	W.pu	E. Indies	1778.	C lp Lam. ill. t. 538
1332. MYOPO'RUM. <i>Forst.</i>	MYOPORUM.			<i>Myoporinae.</i>	<i>Sp. 8.</i>				
8723 ellipticum <i>R. Br.</i>	smooth-leaved	☐	or	2	ja.mr	W	N. S. W.	1789.	C lp Bot. rep. 283
8724 acuminatum <i>R. Br.</i>	acuminate	☐	pr	3	...	W	N. S. W.	1812.	C lp Bot. mag. 1693
8725 parvifolium <i>R. Br.</i>	small-leaved	☐	pr	3	ja.d	W	N. Holl.	1803.	C lp Bot. mag. 1693
8726 tuberculatum <i>R. Br.</i>	tuberled	☐	pr	3	...	W	N. Holl.	1803.	C lp Bot. mag. 1830
8727 viscósum <i>R. Br.</i>	viscid	☐	pr	3	...	W	N. Holl.	1803.	C lp Bot. mag. 1830
8728 débile <i>R. Br.</i>	procumbent	☐	pr	3	my.au	W	N. S. W.	1793.	C lp Bot. mag. 1830
8729 diffusum <i>R. Br.</i>	diffuse	☐	pr	3	f.au	W	N. Holl.	...	C lp Bot. mag. 1830
8730 oppositifolium <i>R. Br.</i>	opposite-leav'd	☐	pr	3	ja.d	W	N. Holl.	1802.	C lp Bot. mag. 1830
1333. STENOCHIVI <i>US. R. Br.</i>	STENOCHILUS.			<i>Myoporinae.</i>	<i>Sp. 2-3.</i>				
8731 gláber <i>R. Br.</i>	smooth-leaved	☐	or	2	ja.d	R	N. Holl.	1803.	C s.p Bot. mag. 1942
8732 maculátus <i>Kei</i>	spotted	☐	or	3	ap.my	S	N. Holl.	1820.	C s.p Bot. reg. 647
1334. BON'TIA. <i>R. Br.</i>	BONTIA.			<i>Myoporinae.</i>	<i>Sp. 1.</i>				
8733 daphnoídes <i>W.</i>	Barbadoes	☐	or	6	jn	Y.Pu	W. Indies	1690.	C p.l Dill.elt. t.49.f.57
1335. OROBAN'CHE. <i>W.</i>	BROOM-RAPE.			<i>Orobanchaeae.</i>	<i>Sp. 6-20.</i>				
8734 májor <i>W.</i>	greater	☐	w	1½	jn.jl	Br	Britain	unc.pl	S s.l Eng. bot. 421
8735 elátior <i>W.</i>	taller	☐	cu	1½	jl.au	Y	Britain	unc.pl	S s.l Eng. bot. 568
8736 mínor <i>W.</i>	smaller	☐	cu	1½	jl.au	Y.w	Britain	unc.pl	S s.l Eng. bot. 422
8737 rúbra <i>E. B.</i>	red	☐	cu	1½	au	Pu	Britain	unc.pl	S s.l Eng. bot. 1786
8738 carúlea <i>W.</i>	blue	☐	cu	1½	jl	V	Britain	unc.pl	S s.l Eng. bot. 423
8739 ramósa <i>W.</i>	branching	☐	cu	1	aus	Br.pu	Britain	unc.pl	S s.l Eng. bot. 184
1336. CRESCENTIA. <i>W.</i>	CALABASH-TREE.			<i>Solanaeae.</i>	<i>Sp. 2.</i>				
8740 Cujéte <i>W.</i>	oval-fruited	☐	cu	10	...	W	Jamaica	1690.	C r.m Jac. amer. t. 111
8741 cucurbitina <i>W.</i>	round-fruited	☐	cu	10	...	W	W. Indies	1733.	C r.m Plum. ic. t. 109
1337. CASTILLEJA. <i>Sm.</i>	CASTILLEJA.			<i>Scrophularinae.</i>	<i>Sp. 1-10.</i>				
8742 sessiliflora <i>Ph.</i>	sessile-flowered	☐	△	or	1½	jl.au	Pa.Y	Louisiana	1811. D lp
1338. HALLE'RIA. <i>W.</i>	HALLERIA.			<i>Scrophularinae.</i>	<i>Sp. 1-2.</i>				
8743 lícida <i>W.</i>	shining-leaved	☐	or	6	jn.au	S	C. G. H.	1752.	C p.l Bot. mag. 1744
1339. LATHRE'A. <i>W.</i>	TOOTHWORT.			<i>Orobanchaeae.</i>	<i>Sp. 1-3.</i>				
8744 squamária <i>W.</i>	scaly	☐	△	cu	1	ap	Gr	Britain	dry wo. D co Eng. bot. 50
1340. RHINAN'THUS. <i>W.</i>	YELLOW-RATTLE.			<i>Scrophularinae.</i>	<i>Sp. 3-10.</i>				
8745 crista-gállii <i>W.</i>	Cock's-comb	☐	w	1	jn.au	Y	Britain	mea.pa.	S co Eng. bot. 65
8746 alectorolophus <i>Poll.</i>	wattled	☐	pr	1	jn.au	Y	Europe	1820.	S co Mor. h.3. t.24. f.8
8747 Trixágo <i>L.</i>	inflated	☐	pr	1	jn.au	Y	Europe	...	S co Mor. h.3. t.24. f.8
1341. BART'SIA. <i>W.</i>	BARTSIA.			<i>Scrophularinae.</i>	<i>Sp. 5-10.</i>				
8748 coccínea <i>W.</i>	scarlet	☐	△	or	½	jl	R.Y	N. Amer.	1787. D s.p Pluk.a.l.t.102.f.5
8749 pállida <i>W.</i>	pale-flowered	☐	△	or	½	jn.s	L.P	Siberia	1782. D s.p Gmel. sib.3. t.42
8750 viscósa <i>W.</i>	yellow	☐	△	or	½	jl.au	Y	Britain	mar. S m.s Eng. bot. 1045
8751 Odontites <i>H. K.</i>	red	☐	△	or	½	jl.s	Pk	Britain	mea.pa. S co Eng. bot. 1415
8752 alpina <i>W.</i>	Alpine	☐	△	or	½	jl.au	Pu	Britain	alp.riv. S m.s Eng. bot. 361



History, Use, Propagation, Culture,

1331. *Petalium*. Πηδαλιον, a Greek word signifying a nail or point. This plant produces a hard and nut-like fruit with four sharp points or horns.

1332. *Myoporium*. From μύω, to shut up, and πορος, a pore; the spots which cover the leaves being, as it were, pores closed with some semi-transparent substance.

1333. *Stenochilus*. From στενος, narrow, and χείλος, a lip; the narrow lip distinguishing this genus from some of its kindred. Very pretty New Holland small shrubs, with fine red flowers.

1334. *Bontia*. James Bont or Bontius was a Dutch physician, born at Batavia, published in 1658, a natural history of the East Indies, in the manner of Piso. A South American plant, with the appearance of a *Daphne*. The leaves are alternate, fleshy, and crenated, and the flowers axillary.

1335. *Orobanchaeae*. So called from οροβός, a vetch, or other leguminous plant, and αργειν, to strangle, in allusion to the well known effect of these parasites in destroying the plants upon which they grow. The species are fleshy herbs of a russet color, fastening themselves to the roots of other plants, and chiefly to Leguminosae. The root is tuberous, imbricated with scales, and sends out fibres into the soil; the stem is without leaves, scaly, and generally simple; the flowers are in terminating spikes. The whole plant is acrid and astringent, and rejected by all animals, excepting the minuter tribes of Cimices and Thripses.

O major adheres to the root of broom, furze, and clover, and is particularly destructive to the latter, especially in Flanders, where in some places it deters the farmer altogether from the culture of clover. It has a large, thick, fleshy, oval, scaly root, sometimes bubous, and sending out fibres which are very brittle. The bulb adheres to the woody roots of furze or broom, and the fleshy root of clover, and the fibres clasp round them.

O. elatior is commonly found adhering to the roots of *Centaurea scabiosa* and *Trifolium pratense*. It does

8722 Leaves truncate, Flowers with a strong smell of musk

8723 Leaves elliptical bluntish mucronate and branches smooth, Sepals lanc. very acute, Orifice of cor. villous

8724 Leaves broadish lanc. acumin. very acute and branches smooth, Sepals ovate lanc. Limb of cor. bearded

8725 Lvs. lin. bluntish sometimes toothed at end with the branches glandular, Peduncles occasionally 2-parted

8726 Leaves lanceolate acute serrated and branches warted with glands

8727 Leaves elliptical acute serrated reflexed and branches viscid with glands

8728 Leaves lanc. toothed at end entire at base, Drupes compressed shorter than calyx, Stem prostrate

8729 Leaves lanceolate at base with recurved teeth, Stems diffuse glandular, Peduncles solitary

8730 Leaves serrate cordate sessile

8731 Leaves lanceolate or elliptical entire sometimes toothed at end, Branches downy, Stem diffuse

8732 Stem silky, Leaves spatulate lanceolate much shorter than flower, Stamens a little protruded

8733 Leaves alternate, Peduncles 1-flowered

8734 Stem simple, Cor. 4-fid inflat. Stam. naked downw. Stigma 2-lobed, Lobes distant, Style pubesc. upwards

8735 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma orbicordate, Style smooth upwards

8736 Stem simple, Cor. 4-fid, Stamens hairy downwards, Stigma retuse, Style smooth upwards

8737 Stem simple, Corolla tubular, Segm. of lip blunt equal, Stamens fringed on one side at base

8738 Stem nearly simple, Cor. 5-fid, Bractes 3, Calyx tubular half 4-cleft

8739 Stem branched, Cor. 5-fid, Bractes 3, Calyx short deeply 4-cleft

8740 Leaves cuneate lanceolate close together

8741 Leaves ovate subcoriaceous separate, Fruit ovate acuminate

8742 Leaves at end palmate-cut, Flowers sessile

8743 Leaves ovate acuminate serrate, Corollas 2-lipped, Calyx 3-leaved, Stamens exserted

8744 Stem quite simple, Corollas pendulous with the lower lip trifid

8745 Upper lip of corolla emarginate 2-toothed, Middle segment of lower lip very short

8746 Upper lip of corolla compressed shorter, Calyxes villous

8747 Lower lip of cor. longer than upper, Middle segm. blunt longer than lateral, Cal. vill. Lvs. deeply toothed

8748 Leaves alternate linear 2-toothed on each side

8749 Leaves alternate lanceolate entire, Floral oval toothed

8750 Upper leaves alternate serrated, Flowers distant lateral

8751 Leaves linear lanceolate serrated, Segm. of lower lip of corolla blunt

8752 Leaves opposite cordate bluntly serrated



and Miscellaneous Particulars.

not appear among clover till the second year. On the borders of corn-fields it is found on *Centaurea scabiosa* and *nigra*, *Scabiosa arvensis*, &c.

O. minor also adheres to common red clover and to *Hypochaeris radicata*. *O. ramosa* is found on *Galeopsis tetrahit*. Any of the species may be removed to the garden and planted by the whin or broom.

1336. *Crescentia*. In memory of Pietro Crescenti, of Bologna, author of various agricultural works in the thirteenth century. The fruits after the inside has been scooped out, are dried by the natives of the countries where they grow, and serve for containing water or other fluids.

1337. *Castilleja*. Named after one Castillejo, a Spanish botanist and friend of Mutis. Some of the species of this genus which have not yet been introduced, are very beautiful plants, and would amply repay a collector for his trouble in procuring them.

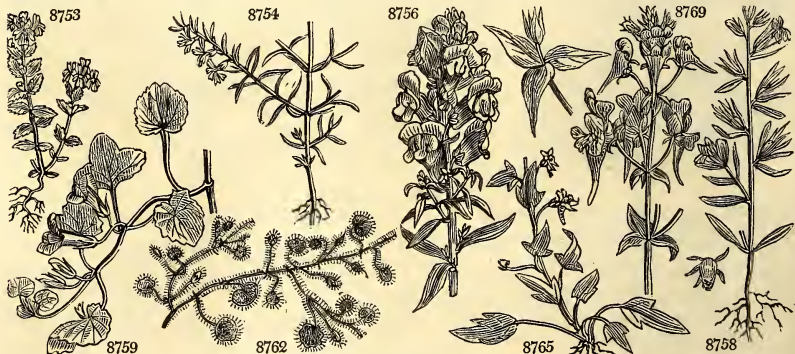
1338. *Halleria*. After the famous Albert Haller, author of *Stirpes Helveticæ*, and other considerable works on botany and medicine. A pretty stove plant, with long branches of red flowers. Surely so eminent an investigator of alpine vegetation as Haller was, should have had an alpine genus consecrated to him.

1339. *Lathræa*. *Æthæos*, concealed. The plant is only found in the most hidden recesses of the grove. A curious humble parasite without leaves, in the room of which it is covered with abundance of white fleshy scales.

1340. *Rhinanthus*. From $\rho\upsilon$, a nose, and $\alpha\nu\theta\eta\varsigma$, a flower; because of its ringent corolla compressed, at the upper lip so as to resemble the snout of some animal.

1341. *Bartsia*. Named by Linnæus, in honor of his beloved friend John Batsch, M. D., of whom he gives an interesting and melancholy account in his *Flora Suecica*. Curious herbaceous plants of very difficult cultivation.

1342. EUPHRA'SIA. W.	Eye-bright.					<i>Scrophularineæ. Sp. 3—12.</i>			
8753 officinalis W.	common	○ w	½ jls	W	Britain	past.	S	co	Eng. bot. 1416
8754 lutea W.	yellow	○ or	1 ½ jls	Y	S. Europe	1816.	S	co	Jac. aust. t. 398
8755 latifolia L.	broad-leaved	○ or	1 jls	Pu	S. Europe	...	S	co	
1343. ANTIRRHINUM. J.	SNAP-DRAGON.					<i>Scrophularineæ. Sp. 5—9.</i>			
8756 majus W.	great	△ or	3 jn.au	Pk	England	old w.	S	co	Eng. bot. 129
β coccineum	scarlet-flower'd	△ or	3 jn.au	S	England	old w.	S	co	
γ bicolor	two-colored	△ or	3 jn.au	S.W	England	old w.	S	co	
δ flore pleno	double-flowered	△ or	2 jn.au	F	England	old w.	C	co	
8757 siculum W.	Sicilian	△ or	1 ½ jl.au	W	Sicily	1804.	D	lp	
8758 orontium W.	lesser	○ or	1 jls	F	Britain	san.fi.	S	sl	Eng. bot. 1155
8759 Asarina W.	heart-leaved	△ or	½ jls	W	Italy	1699.	S	rm	Bot. mag. 902
8760 mollis L.	soft-leaved	△ or	½ jlo	W	Spain	1752.	C	sl	
1344. LINARIA. J.	TOAD-FLAX.					<i>Scrophularineæ. Sp. 37—75.</i>			
8761 Cymbalaria H. K.	Ivy-leaved	△ or	½ my.n	V	England	old w.	D	sl	Eng. bot. 502
8762 pilosa H. K.	hairy-leaved	△ or	¼ jn.s	Pu	Pyrenees	1800.	D	sl	Jac. obs. 2. t. 43
8763 Elatine H. K.	sharp-pointed	△ or	½ jln	Y	England	corn fi.	S	co	Eng. bot. 692
8764 spuria H. K.	rind-leaved	△ or	½ jls	Y	England	corn fi.	S	co	Eng. bot. 691
8765 cirrhosa H. K.	tendrilled	△ or	½ jl	Pa.B	Egypt	1771.	S	co	Jac. vind. 1. t.82
8766 aegyptiaca H. K.	Egyptian	△ or	1 ½ jl	Y.Pu	Egypt	1771.	S	co	
8767 triphylla H. K.	three-leaved	○ or	1 jn.s	Y.Pu	Sicily	1596.	S	sl	Bot. mag. 324
8768 latifolia H. K.	broad-leaved	○ or	1 jn.jl	Y	N. Amer.	1800.	S	co	Desf. atl. 2. t. 134
8769 triornithophora H.K.	three-bird	△ or	½ jn.s	Pu	Portugal	1710.	C	sp	Bot. mag. 525
8770 bipartita P. S.	two-parted	△ or	½ jn.s	Pu	Barbary	1815.	D	lp	Sweet fl. gard.30
8771 purpurea H. K.	purple	△ or	½ jls	Pu	S. Europe	1648.	S	co	Bot. mag. 99
8772 versicolor H. K.	various-colored	○ or	1 jls	P.Y	France	1777.	D	sl	Jac. ic. 1. t. 116
8773 repens H. K.	creeping-rooted	△ or	¼ jlo	G	England	ch.hil.	S	co	Eng. bot. 1253
8774 Spartea H. K.	branching	○ or	1 jn.o	Y	Spain	1772.	S	sl	Bot. mag. 200
8775 bipunctata H. K.	two-spotted	○ or	1 jn.au	Y	Spain	1749.	S	co	
8776 Hæläva W.	hairy-calyxed	○ or	1 jl	Pu	Egypt	1803.	D	co	
8777 tristis H. K.	brown	△ or	1 jl	Y	Spain	1727.	S	sl	Bot. mag. 74
8778 supina H. K.	trailing	△ or	¾ jl	Y	Spain	1728.	S	sl	
8779 simplex P. S.	upright	○ or	1 jl.au	P.B	S. Europe	1816.	S	sl	Jac. ic. 3. t. 499
8780 arvensis P. S.	corn	○ or	1 jl.au	P.B	S. Europe	...	S	co	
8781 Pelisseriana H. K.	violet-colored	○ or	1 jn.s	V	S. Europe	1640.	S	sl	Barrel. ic. 1162
8782 viscosa H. K.	clammy	○ or	1 jl	Br	Spain	1786.	S	sl	Bot. mag. 368
8783 multicaulis H. K.	many-stalked	○ or	1 ½ my.jl	Pu	Levant	1728.	S	sl	Boc. sic. t. 19. f.1
8784 reticulata H. K.	net-flowered	△ or	1 ½ my.jl	W	Algiers	1728.	D	lp	Smith ic. pict. 2
8785 glauca H. K.	glaucous-leav'd	○ or	1 jn.au	Pu.Y	S. Europe	1800.	S	co	Buxb.cen.4. t.37
8786 alpina H. K.	Alpine	△ or	1 jln	B	Austria	1570.	C	sl	Bot. mag. 205
8787 villosa H. K.	villous	△ or	1 jl.au	B	Spain	1786.	D	lp	Barrel. ic. 597
8788 organifolia H. K.	Marjoram-lvd.	△ or	1 jn.s	B	S. Europe	1785.	D	lp	Barrel. ic. 598
8789 minor H. K.	least erect	○ w	½ jn.n	V	England	san.fi.	S	sl	Eng. bot. 2014
8790 dalmatica H. K.	Dalmatian	△ or	1 ½ jn.jl	cu	Levant	1731.	S	sl	Buxb.cen.1. t.24
8791 hirta H. K.	shaggy-leaved	○ or	1 jn.s	Pu	Spain	1759.	S	co	Jac. ic. 1. t. 117
8792 macrooura Bieb.	long-horned	○ or	1 jn.s		Crimea	1822.	D	co	
8793 genitifolia H. K.	Broom-leaved	△ or	2 jl.au	Y	Austria	1704.	D	co	Bot. mag. 2183
8794 juncæa H. K.	Rush-stalked	△ or	1 ½ jl.au	Y.Br	Spain	1780.	S	co	
8795 vulgaris H. K.	yellow	△ or	1 jn.s	Y	Britain	hed.	D	co	Eng. bot. 658
β Peloria	regular-flower'd	△ or	1 jn.s	Y	Britain	...	D	co	Eng. bot. 260
8796 canadensis P. S.	Canada	○ or	1 jn.au	V	N. Amer.	1812.	S	co	Vent. cels. 49
8797 chalepensis H. K.	white-flowered	○ or	1 jn.jl	W	Levant	1680.	S	co	Mor. s.5. t.35. f.9
1345. ANARRHINUM. Desf.	ANARRHINUM.					<i>Scrophularineæ. Sp. 1—6.</i>			
8798 bellidifolium W.	Daisy-leaved	△ or	1 ½ jn.au	B	France	1629.	S	sl	Bauh.prod.t.106
1346. NEMESIA. Vent.	NEMESIA.					<i>Scrophularineæ. Sp. 3—5.</i>			
8799 chamædrifolia V.	Chamædry-s.lv.	△ or	2 aps	Pu	C. G. H.	1787.	D	co	
8800 foetens V.	foetid	△ or	2 aps	Pu	C. G. H.	1798.	D	co	Vent.malm. t.41
8801 bicorne P. S.	horned	○ or	2 jls	Pu	C. G. H.	1774.	S	sl	Bur. afr. t.75. f.3



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1342. Euphrasia. An abridgment of Euphrosine, the name of a woman, expressing joy or pleasure. This has been so called from the joyful effects of E. officinalis in disorders of the eyes, but it is now thought to be injurious rather than otherwise. Lightfoot states, that the Scotch Highlanders make an infusion of it in milk, and anoint the patient's eyes with a feather dipped in it.

1343. Antirrhinum. From αντι, similar, and ρω, a nose, because the flowers of most of the species bear a perfect resemblance to the snout of some animal. A. majus and its varieties are popular border flowers of the easiest culture in any dry soil; the other species are also pretty little plants.

1344. Linaria. The plant out of flower is very similar to Linum, Flax. The species are for the most part pretty annual plants; and some of them, as L. Cymbalaria, well adapted for growing in pots or for rock-work.

- 8753 Leaves ovate bluntly toothed, Segm. of lower lip of corolla emarginate
 8754 Leaves linear serrated : upper entire, Lateral segments of lower lip of corolla toothletted
 8755 Leaves ovate toothed palmate, Flowers spiked, Cor. tubular, Segm. of lower lip blunt
- 8756 Leaves lanceolate opposite, Flowers racemose, Sepals glandular hairy ovate blunt
- 8757 Leaves linear lanceolate ternate, Flowers racemose, Sepals glandular hairy lanceolate acute
 8758 Leaves lanceolate : upper alternate, Flowers subsessile, Calyxes longer than corolla
 8759 Leaves opposite cordate unequally crenate somewhat lobed hairy, Stems procumbent
 8760 Leaves opposite ovate downy, Stems procumbent
- 8761 Leaves cordate 5-lobed alternate smooth, Stems procumbent
 8762 Small, Leaves reniform repand very hairy alternate, Stems procumbent
 8763 Leaves hastate alternate, Stems procumbent
 8764 Leaves hairy alternate roundish ovate, lower obsoletely toothed : upper subsessile entire, Stem procumb.
 8765 Leaves hastate alternate, Stems spreading, Petioles occasionally producing tendrils
 8766 Leaves hastate alternate, Stem erect much branched, Peduncles stiff
 8767 Leaves ternate ovate blunt 3-nerved rough at edge, Spike terminal, Flowers stalked
 8768 Leaves ternate ovate lanceolate 3-nerved, Spike terminal, Flowers sessile
 8769 Lvs. whorled lanc. 3-nerved, Stems decumbent, Raceme terminal few-flowered, Cor. very large stalked
 8770 Leaves linear lanceolate : lower opposite ; upper alternate, Racemes lax, Helmet erect 2-parted
 8771 Leaves 4 linear lanceolate, Flower-stem erect spiked
 8772 Leaves linear lanceolate : lower ternate, Stem erect spiked
 8773 Root creeping, Leaves linear close : lower 4, Calyx as long as capsule
 8774 Leaves subulate channelled fleshy : lower 3, Stem paniced and corolla quite smooth
 8775 Leaves linear smooth : lower 4, Stem erect paniced, Flowers in capitate spikes
 8776 Leaves linear lanceolate : lower about 4 smooth, Flowers capitate, Calyxes hairy, Stem nearly simple
 8777 Leaves linear scattered : lower opposite, Spur subulate, Flowers subsessile
 8778 Leaves about 4 linear, Stem diffuse, Flowers racemose, Spur straight
 8779 Leaves nearly linear : lower in fours, Calyxes pilose viscid, Fl. racemose, Spur straight, Stem erect
 8780 Leaves nearly linear : lower in fours, Calyxes pilose viscid, Fl. racemose, Spur recurved, Stem erect
 8781 Cauline leaves linear alternate : radical ovate lanceolate 3-5, Flowers corymbose
 8782 Cauline leaves linear alternate : radical lanceolate 4, Cal. villous close to stem
 8783 Leaves 5 linear fleshy, Flowers capitate
 8784 Leaves linear channelled scattered upon the rootshoots in 5s, Calyx hairy, Pedunc. shorter than bractes
 8785 Leaves 4 subulate fleshy, Stems erect, Flowers spiked
 8786 Leaves 4 linear lanceolate glaucous, Stem diffuse, Flowers racemose, Spur straight
 8787 Leaves all opposite villous, Stem simple, Flowers opposite lateral
 8788 Leaves obovate opposite : floral alternate, Stem ascending pubescent, Spur straight
 8789 Leaves mostly alternate lanceolate blunt, Stem much branched diffuse
 8790 Leaves somewhat stem-clasping lanceolate scattered, Bractes longer than calyx, Stem $\frac{1}{2}$ shrubby
 8791 Leaves lanceolate hairy alternate, Flowers spiked : upper sepal very large
 8792 Leaves alternate linear-subulate somewhat fleshy, Stem erect simple, Spike term. stalked
 8793 Leaves lanceolate acuminate, Panicle twiggy flexuose
 8794 Leaves linear alternate, Stem paniced twiggy, Flowers racemose
 8795 Leaves lanceolate linear close, Stem erect, Spikes terminal sessile, Flowers imbricated
- 8796 Leaves alternate linear remote smooth, Flowers racemose, Stem simple, Runners procumbent
 8797 Leaves linear lanceolate alternate, Flowers racemose, Cal. longer than cor. Stem erect
- 8798 Very smooth, Radical leaves obovate lanceolate blunt serrate : cauline divided entire
- 8799 Leaves ovate serrated stalked, Peduncles axillary 1-flowered
 8800 Leaves 4 linear lanceolate acute about 3-nerved smooth, Flowers racemose terminal with bractes
 8801 Leaves oblong serrated, Stem erect herbaceous, Capsules 2-horned spreading



and Miscellaneous Particulars.

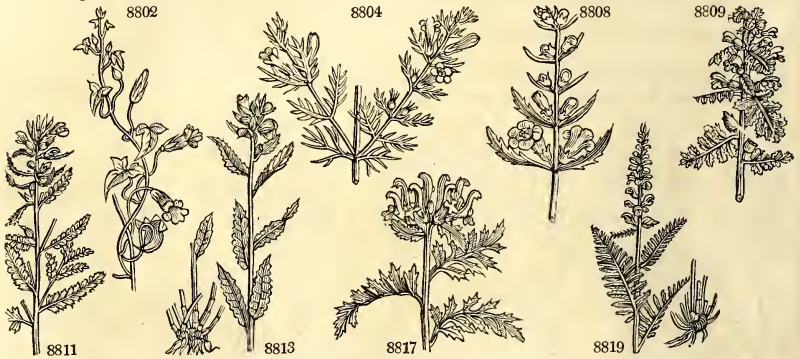
L. triphylla is a popular border annual. *L. triornithophora* is remarkable for the form of its flowers, which resemble three little birds seated in the spur.

L. vulgaris is a very shewy plant, but also a bad weed in sandy pastures.

1345. *Anarrhinum*. Named by Desfontaines, from α , privative, and $\rho\nu$, nose, in contradistinction to *Antirrhinum*, because the plants of this genus have not the snout-like flowers of the latter. Plants resembling *Linaria* in habit.

1346. *Nemesia*. A name used by Dioscorides to designate a kind of *Antirrhinum*, to which genus this is nearly related.

1347. MAURANDYA. <i>W.</i> MAURANDYA.					<i>Scrophularineæ. Sp. 2.</i>				
8802 semperflorens <i>W.</i> red-flowered	⊠	□	or	10	ja.d	Pu	Mexico	1796.	C Lp Bot. mag. 460
8803 antirrhiniflora <i>W.</i> en. blue-flowered	⊠	□	or	10	ja.d	Pu	Mexico	1814	C Lp Bot. mag. 1643
1348. GERARDIA. <i>W.</i> GERARDIA.									<i>Scrophularineæ. Sp. 5—16.</i>
8804 delphinifolia <i>W.</i> Larkspur-leav'd	⊠	□	or	2	jn.jl	Pk	E. Indies	1800.	C Lp Rox. cor. 1. t. 90
8805 purpurea <i>Ph.</i> purple	○	□	or	1	jl.au	Pu	N. Amer.	1772.	S s.l Bot. mag. 2048
8806 tenuifolia <i>Ph.</i> slender-leaved	○	□	or	1	jl.au	Pu	N. Amer.	1812.	S s.l Pluk. al. t. 12. f. 4
8807 flava <i>Ph.</i> yellow	○	□	or	1	jl.au	Y	N. Amer.	1796.	C Lp Plu. am. t. 389. f. 3
8808 quercifolia <i>Ph.</i> Oak-leaved	△	□	or	4	jl.au	Y	N. Amer.	1812.	C Lp Pursh. amer. t. 19
1349. PEDICULARIS. <i>W.</i> LOUSEWORT.									<i>Scrophularineæ. Sp. 16—40.</i>
8809 palustris <i>W.</i> marsh	⊠	□	pr	2	jn.jl	Pu	Britain	bog.m.	D co Eng. bot. 399
8810 sylvatica <i>W.</i> common	⊠	□	pr	1	my.jl	Pk	Britain	m.hea.	D co Eng. bot. 400
8811 euphrasioides <i>W.</i> Eyebright-lvd.	⊠	□	pr	1	...	Pu	Siberia	1816.	S p.l Gmel. sib. 3. t. 43
8812 myriophylla <i>W.</i> Milfoil-leaved	⊠	□	pr	1	my.jl	Y	Dauria	1816.	S p.l Pa. it. 3. ap. t. 8. f. 1
8813 resupinata <i>W.</i> resupinate	⊠	□	pr	1	my.jl	Pu	Siberia	1816.	S p.l Gmel. sib. 3. t. 44
8814 Scæptrum Carolinum <i>W.</i> sceptred	⊠	□	spl	5	au	Y	Sweden	1793.	S p.l Flor. dan. t. 26
8815 recutita <i>W.</i> jagged-leaved	⊠	□	pr	1	jl.au	Pu	Austria	1787.	S p.l Jac. aust. 3. t. 258
8816 foliosa <i>W.</i> leafy	⊠	□	pr	1	jl	Y	Austria	1786.	S p.l Jac. aust. 2. t. 139
8817 canadensis <i>W.</i> Canadian	⊠	□	pr	1	jl.au	Y	N. Amer.	1800.	S p.l Sweet fl. gard. 67
8818 incarnata <i>W.</i> flesh-colored	○	□	pr	1	jn.jl	Pk	Austria	1796.	S p.l Jac. aust. 2. t. 140
8819 uncinata <i>W.</i> hooked-flower.	⊠	□	pr	1	jl.au	Y	Siberia	1815.	S p.l Gmel. sib. 3. t. 45
8820 verticillata <i>W.</i> whorled	⊠	□	pr	1	my.jn	Y	Austria	1790.	S p.l Jac. aust. 3. t. 206
8821 flammæa <i>W.</i> upright	⊠	□	pr	1	jl	Y.S	Switzerl.	1775.	S p.l Hall. helv. t. 8. f. 3
8822 tuberosa <i>W.</i> tuberous	⊠	□	pr	1	jl.au	Y	Switzerl.	1799.	S p.l H. hel. n. 323. t. 10
8823 compacta <i>W.</i> close-headed	⊠	□	pr	1	jl.au	Y	Siberia	1815.	S p.l
8824 comosa <i>W.</i> spiked	⊠	□	pr	1	jl.au	Y	Italy	1775.	S p.l All. ped. 1. t. 4. f. 1
1350. ERINUS. <i>W.</i> ERINUS.									<i>Scrophularineæ. Sp. 4—12.</i>
8825 alpinus <i>P. S.</i> smooth-leaved	⊠	□	or	1	mr.ap	B	Pyrenees	1739.	C s.l
8826 hispanicus <i>P. S.</i> hairy-leaved	⊠	□	or	1	mr.ap	R	Spain	1739.	D s.l
8827 fragrans <i>W.</i> fragrant	⊠	□	or	1	my.jn	Y	C. G. H.	1776.	C s.l Bur. afr. t. 49. f. 4
8828 Lychnidea <i>Thunb.</i> pale	⊠	□	or	1	my.jn	Y	C. G. H.	...	C s.l Bot. reg. 748
1351. MIMULUS. <i>W.</i> MONKEY-FLOWER.									<i>Scrophularineæ. Sp. 5—12.</i>
8829 ringens <i>W.</i> gaping	⊠	□	or	1	jl.au	L.P	N. Amer.	1759.	C p.l Bot. mag. 283
8830 glutinosus <i>W.</i> Orange-flower.	○	□	or	1	ja.d	Or	California	1794.	C r.m Bot. mag. 354
8831 parviflorus <i>Lindl.</i> small-flowered	○	□	or	1	ja.d	Y	Chili	1824.	S co Bot. reg. 874
8832 alatus <i>W.</i> oval-leaved	⊠	□	or	1	jl.au	L.P	N. Amer.	1783.	D p.l Bot. cab. 410
8833 luteus <i>W.</i> yellow-flowered	⊠	□	or	2	jn.s	Y	America	1812.	D p.l Bot. mag. 1501
1352. HORNEMANNIA. <i>W. en.</i> HORNEMANNIA.									<i>Scrophularineæ. Sp. 1—2.</i>
8834 bicolor <i>W. en.</i> two-colored	⊠	□	pr	1	jn.s	B	E. Indies	1816.	S s.l
1353. MA'ZUS. <i>Lour.</i> MAZUS.									<i>Scrophularineæ. Sp. 1.</i>
8835 rugosus <i>H. K.</i> China	⊠	□	pr	1	mys.	Y.Pu	China	1780.	S s.l Sweet fl. gard. 36
1354. ISOPLEXIS. <i>Lindl.</i> ISOPLEXIS.									<i>Scrophularineæ. Sp. 2.</i>
8836 canariensis <i>Lind.</i> Canary	⊠	□	or	4	jn.jl	Br.o	Canaries	1698.	S p.l Lind. dig. 27
8837 scæptrum <i>Lind.</i> Madeira	⊠	□	or	4	jl.au	Br.o	Madeira	1777.	S p.l Lind. dig. 28



History, Use, Propagation, Culture,

1347. *Maurandya*. Named in honor of the lady of Dr. Maurandy, the botanical professor at Carthage. An elegant greenhouse plant, native of Mexico, and flowering for months together in the summer.

1348. *Gerardia*. In honor of John Gerarde, our old English botanist, author of the Herbal, 1597, folio, and a great cultivator of exotic plants, of which he published a catalogue in 1596. These are handsome North American herbaceous plants, of such very difficult culture, that few persons have seen them in gardens. They deserve any pains which may be necessary to their successful cultivation.

1349. *Pedicularis*; of which the English word *lousewort* is a translation and explanation. The term *lousewort* is applied from a supposition that sheep which feed much on the plant become lousy; probably because the plants grow in very bad pastures, which may occasion the sheep to be in bad condition and to breed vermin. The species have their leaves very much cut, and that in a very regular manner. Their flowers are red, white, or yellow, and the mixture or shades of these three colors sometimes give the corolla the colour of fire. They grow in general at a considerable elevation; namely, more than a thousand toises above the level of the sea.

P. scæptrum Carolinum was so named by Rudbeck, in honor of Charles XII. It abounds in the north of Sweden and Lapland, where it was greatly admired by the traveller Dr. Clarke, who sent seeds of it to the Cambridge botanic garden, but they never came to anything. The flowers grow in long whorled spikes, and

8802 Orifice of corolla pervious
8803 Orifice of corolla closed

8804 Leaves linear pinnatifid, Stem somewhat branching
8805 Stem oppositely much branched, Leaves linear, Flowers axillary opposite subsessile
8806 Branches paniced, Leaves linear, Peduncles axillary opposite longer than flower
8807 Pubescent, Stems nearly simple, Leaves subsessile lanceolate entire or toothed; lower pinnatifid cut
8808 Smooth, Stem paniced, Leaves stalked pinnatifid, Flowers axillary opposite stalked

8809 Stem branched, Lvs. pinnat. Pinnæ pinnatif. cut, Cal. inflated ovate 2-parted crest. Helmet blunt truncate
8810 Low tufted, Stem branch. at base, Lvs. pinnat. Pinnæ acute, cut, Cal. obl. infl. smooth uneq. 5-cléft crested
8811 Stem branched, Leaves pinnatifid toothed, Cal. tubular 2-parted truncate, Helmet 2-toothed
8812 Stem somewhat branched, Leaves pinnated, Pinnæ in 4s acutely pinnatifid, Helmet acute 2-toothed
8813 Stem nearly simple, Leaves lanc. toothed crenate, Cal. 2-fid truncate, Helmet acute
8814 Stem simple, Leaves pinnatifid, Pinnæ repand crenulate, Cal. 5-fid crested, Cor. closed
8815 Stem simple, Lvs. deeply pinnatifid, Pinnæ lanc. pinnatifid toothed, Spike compact leafy
8816 Stem simple, Cauline leaves deeply pinnatifid, Pinnæ lanc. acuminate pinnatifid toothed, Spike leafy
8817 Stem simple, Spike somewhat leafy, Helmet setaceous 2-toothed, Cal. truncate downwards
8818 Stem simple, Leaves deeply pinnatifid, Pinnæ unequally toothed linear-lanc. Calyxes villous 5-cléft
8819 Stem simple, Cauline lvs. deeply pinnatifid, Pinnæ lh. lanc. doubly toothed, Cal. round smooth 5-toothed
8820 Stem simple, Cauline leaves pinnatifid in fours, Pinnæ oblong blunt toothed, Spike capitate, Cal. hairy
8821 Stem simple, Lvs. pinnated, Pinnæ imbricated ovate blunt doubly toothed, Cal. 5-toothed, Helmet blunt
8822 Stem simple, Lvs. pinnated, Pinnæ deeply pinnatifid tooth. Cal. 5-fid somew. crested, Helmet uncinatè
8823 Stem simple, Lvs. pinn. Pinnæ lanc. pinnatifid confluent at end, Spike capitate naked [acum. emargi.
8824 Stem simple, Lvs. pinnate, Pinnæ pinnatifid somewhat toothed, Spike leafy, Helmet two-toothed

8825 Leaves caespitose spatulate deeply serrated smoothish, Peduncles terminal subcorymbose
8826 Smaller branched villous, Leaves bluntly serrated, Flowers racemose
8827 Leaves lanceolate oblong toothed, Segm. of limb entire
8828 Leaves lanceolate smooth serrated at end, Stem herbaceous, Segm. of limb bifid

8829 Leaves lanceolate acuminate smooth sessile, Pedunc. longer than flower
8830 Leaves oblong bluntyish clammy sessile, Peduncles shorter than flower
8831 Procumb. Stem round rooting hairy, Lvs. cord.-ovate toothed 5-nerved, Pedunc. shorter than petioles
8832 Leaves ovate stalked, Stem square winged
8833 Leaves roundish ovate nerved; lower stalked, Stem creeping

8834 Leaves obovate entire at base, Calyxes spreading and peduncles smooth

8835 Raceme lax longer than the few-leaved stem, Calyxes pubescent in fruit increased in size

8836 Segments of cor. acute

8837 Segments of corolla blunt, Raceme comose



and Miscellaneous Particulars.

each represents a lion couchant. All the species are extremely difficult to keep in gardens. According to Sweet, they succeed best in peat soil and moist situations; the more tender species must be grown in pots in the same kind of soil, and should be protected under frames in severe weather: the best way of increasing them is by seed. (*Bot. Cult.* 404.)

1350. *Erinus*. A name under which Dioscorides describes an aquatic plant with a white flower, black seeds, and a milky stem. From the last circumstance it has derived its name; *ερίσιος* signifying a wild fig tree. The plant of the ancients had no resemblance to that called *Erinus* by the moderns. Beautiful little alpine herbaceous plants, well adapted to rock-work in warm damp situations.

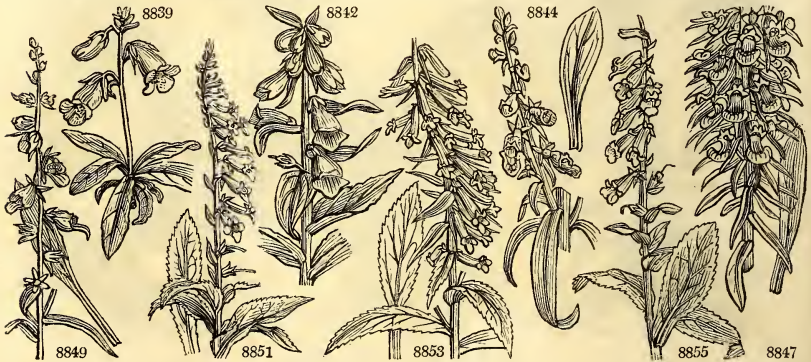
1351. *Mimulus*. From *μυμω*, an ape. The flower seeds in front resemble the face of a grinning monkey. The species are showy plants of the easiest culture in almost any soil or situation.

1352. *Hornemannia*. Named after Professor Hornemann, of Copenhagen, an eminent botanist, and the present editor of the *Flora Danica*. Little, inconspicuous, but curious annual plants.

1353. *Martus*. From *μαρτος*, a teat, on account of the little protuberances which close the mouth of the corolla. East Indian herbaceous plants, not unlike some kinds of *Antirrhinum*.

1354. *Isopteris*. From *ισος*, equal, and *πτερίς*, segment, in allusion to the equal-sized divisions of the corolla.

1355. DIGITALIS W.	Fox-glove.				<i>Scrophularineæ. Sp. 19-21.</i>				
8838 purpurea L.	purple	△	○	or	4	jn.s	Pu	Britain	hed.b. S co Lindl. dig. 2
β alba	white	△	○	or	4	jl	W	Britain	hed.b. S co Lindl. dig. 3
8839 minor L.	dwarf	△	△	or	3	ju.lj	Pu	Spain	1789. D s.l Lindl. dig. 6
8840 Thapsi L.	Mullein	△	△	or	1½	my.au	Pu	Spain	1752. D co Lindl. dig. 7
8841 ambigua Murr.	ambiguous	△	△	or	3	jl.au	L.Y	Switzerl.	1596. D co Lindl. dig. 8
8842 ochroleuca Jacq.	great-yellow	△	△	or	4	jl.au	L.Y	Europe	... D co Lindl. dig. 7
8843 fulva Lindl.	fulvous	△	△	or	3	jl.au	Br	.....	... D co Lindl. dig. 9
8844 lævigata W. & K.	shining-leaved	△	△	or	2	jl.au	Y	Hungary	1816. D co Lindl. dig. 10
8845 ferruginea L.	Iron-colored	△	△	or	4	jl.au	Br	Italy	1597. D co Lindl. dig. 12
8846 aurea Lindl.	golden	△	△	or	3	jl.au	Br	Greece	1816. D co Lindl. dig. 13
8847 leucophæa Sibth.	broad-lipped	△	△	or	2	jn.o	W.Br	Greece	1788. D co Lindl. dig. 14
8848 lanata Ehr.	woolly	△	△	or	2	jn.jl	W.Br	Hungary	1789. D co Lindl. dig. 15
8849 orientalis Lam.	eastern	△	△	or	1½	jn.jl	W	Levant	1820. D co Lindl. dig. 16
8850 parviflora Jacq.	small-flowered	△	△	or	1½	jn.au	Br	.....	1798. D co Lindl. dig. 17
8851 rigida Lindl.	rigid	△	△	or	1½	jn.au	Y.r	.....	... D co Lindl. dig. 19
8852 purpurascens Roth.	purple	△	△	or	2	jn.au	Pk	Germany	1776. D co Lindl. dig. 20
8853 tubiflora Lindl.	tube-flowered	△	△	or	2	jn.au	Y	.....	... D co Lindl. dig. 22
8854 lutea L.	small-yellow	△	△	or	2	jl.au	L.Y	France	1629. D co Lindl. dig. 23
8855 lutescens Lindl.	pale-yellow	△	△	or	2	jl.au	Y	.....	... D co Lindl. dig. 21
8856 obscura L.	Willow-leaved	△	○	or	1	jl.au	O	Spain	1778. C p.l Lindl. dig. 26
1356. SCROPHULARIA W.	Figwort.							<i>Scrophularineæ. Sp. 29-35.</i>	
8857 marilandica W.	Maryland	△	△	un	4	my.jl	G.Br	N. Amer.	1759. D lp Eng. bot. 1544
8858 nodosa W.	knotty-rooted	△	△	un	2	my.jl	Bd	Britain	woods. D co Eng. bot. 854
8859 aquatica W.	water	△	△	un	4	my.jl	Bd	Britain	wat.pl. D co Jac. sch. 3. t. 286
8860 appendiculata W.en.	heart-leaved	△	△	un	3	jl	D.Pu	Morocco	1805. D co Eng. bot. 2209
8861 auriculata W.	ear-leaved	△	△	un	2	jl.au	Br	Spain	1772. D co Jac. schæ. 2. t. 209
8862 Scorodonia W.	Balm-leaved	△	△	un	3	jl.au	Pu	Britain	wat.pl. D co Barr. ic. 274
8863 glabrata W.	spear-leaved	△	○	un	2	ap.my	Pu	Canaries	1779. S lp
8864 betonicifolia W.	Betony-leaved	△	△	un	2	jn.au	Pu	Spain	1752. D co Scop. carn. t. 32
8865 biserrata W. en.	doubly-sawed	△	△	un	2	jn.au	Br	.....	1816. D co Pl. rar.hun.t. 214
8866 Scopoli Hoppé.	Scopoli's	△	△	un	2	jn.au	Br	Austria	1823. D co Herm. lug. t. 547
8867 glandulosa W. en.	glandular	△	△	un	2	jn.s	Br.pu	Hungary	1806. D co Mur.co.got. 4. t. 2
8868 orientalis W.	Hemp-leaved	△	△	un	2	jl.au	Br	Levant	1710. D co Eng. bot. 567
8869 ascendens W. en.	ascending	△	△	un	2	...	Br	.....	1816. D co Pluk.al. t. 313. f. 6
8870 frutescens W.	shrubby	△	△	un	2	jn.au	D. Pu	Portugal	1768. D co Mill. ic. 2. t. 231
8871 altaica W.	white-flowered	△	△	un	3	my.jn	Pa.Y	Siberia	1786. C co Pl. rar. hu. 2. t. 170
8872 vernalis W.	yellow	△	△	or	2	mr.my	Y	Britain	m.sh.pl. S co W. ho. ber. 1. t. 55
8873 arguta W.	slender-upright	△	○	un	1½	my.jn	R	Canaries	1778. S co Desf. atl. 2. t. 143
8874 trifoliata W.	three-leaved	△	△	un	2	my.s	R.v	Africa	1731. C co Lob. ic. 2. p. 55
8875 sambucifolia W.	Elder-leaved	△	△	un	3	jl.s	R.G	Spain	1640. D co W. hort. ber. 57
8876 laciniata W. en.	jag-leaved	△	△	un	3	jl	Br.pu	Hungary	1806. D co W. ho. ber. 1. t. 58
8877 lyrata W. en.	lyrate-leaved	△	△	un	3	jl.au	Br.pu	Portugal	1816. D co W. ho. ber. 1. t. 59
8878 tanaacetifolia W. en.	Tansy-leaved	△	△	un	3	jl.s	Br.pu	Tauria	1804. D co Desf. atl. 2. t. 143
8879 mellifera W.	Barbary	△	△	un	3	jl.au	Br.pu	Barbary	1786. D co Lob. ic. 2. p. 55
8880 canina W.	wing-leaved	△	△	un	3	jn.au	Br.pu	S. Europe	1683. D co W. hort. ber. 57
8881 lucida W.	shining-leaved	△	△	un	2	jn.au	Br.pu	Levant	1596. D co
8882 variegata M. B.	variegated	△	△	un	2	jn.au	Br.pu	Casp. shoo.	1816. D co
8883 multifida W. en.	multifid-leaved	△	△	un	3	jn.au	Br.pu	.....	1816. D co W. ho. ber. 1. t. 58
8884 chrysanthemifolia W. en.	Chrysan. -lv.	△	△	un	3	jn.au	Br.pu	Tauria	1816. D co W. ho. ber. 1. t. 59
8885 prægriana W.	Nettle-leaved	△	△	un	2	jn.au	Pu	Italy	1640. S co Camer.hort. t. 43
1357. VANDELIA L.	VANDELLIA.							<i>Scrophularineæ. Sp. 1-2.</i>	
8886 diffusa L.	diffuse	□	cu	1	jl.au	W	S. Cruz	1824. S s.l	Marc.br. 32. f. 1



History, Use, Propagation, Culture,

1355. *Digitalis*. Named by Fuchs, from *digitulum*, a thimble, in allusion to the form of the flowers. The species are for the most part showy border flowers of easy culture. *D. purpurea*, found both with purple and white flowers, is one of the most ornamental of native plants in rocky copses, neglected hedges, and by road sides. Its large tall spike attracts not only the botanist and florist, but is even conspicuous enough to be introduced in the painter's landscape of such scenery. It is a violent poison; but also a valuable plant in medicine. The leaves are the parts of the plant used. They should be gathered when the plant is in flower, and those only which are fresh selected. The leafstalks and midrib should be rejected, and the remaining part be dried either in the sunshine, or on a tin-pan or pewter dish before the fire, or the plant be hung up, each leaf separate, in a warm kitchen. Practitioners ought annually to obtain a supply of the recent leaves in the month of July, and dry them themselves; as in the herb-shops they are often so ill dried as to appear black, in which state they are useless. The powder should be kept in closely stopped opaque phials.

Digitalis is directly sedative and diuretic. It weakens the force of all the vital functions; and by a proper exhibition of it, the frequency of the pulse may be diminished any number of pulsations, and regulated at the pleasure of the practitioner; whilst at the same time it admits, to a certain extent, of the employment of such medicines as increase the firmness of the arterial action, and give tone to the habit. When given to the

- 8838 Lvs. obl. rugose crenate, Sepals ovate obl. Segm. of cor. transverse acute, Pedunc. straight as long calyx
- 8839 Lvs. obl. rugose crenate wavy decurrent, Sepals ovate, Segm. of cor. ovate rounded [as calyx
- 8840 Lvs. radical flat on the ground, Racemes few-fl. Segm. of cor. ov. round smooth, Pedun. three times as long
- 8841 Lvs. ov. lanc. tooth. sess. nerved, Lower bractes as long as fl. Cor. downy netted, Segm. ov. transverse blunt
- 8842 Lvs. ov. lanc. acum. toothed and stem villous, Bractes twice as long as lower flowers, Cor. villous netted
- 8843 Lvs. lanc. ciliated, Bractes twice as short as flowers, Cor. downy netted, Segm. ov. acute, Lip bearded,
- 8844 Very smooth branched, Lvs. lin. lanc. Flowers scattered not downy [Stamens as long as tube
- 8845 Raceme dense pyramidal, Sepals edged, Lip of corolla ovate entire bearded
- 8846 Raceme many-flowered, Sepals edged, Corolla bowed, Lip ovate 3-toothed
- 8847 Raceme dense cylindrical many-fl. Lip of cor. clawed lunate, Bractes linear longer than flower
- 8848 Leaves oblong, Rachis woolly, Lip of cor. ovate
- 8849 Very smooth, Leaves linear, Flowers scattered, Lips of cor. oblong
- 8850 Lvs. obl. lanc. wavy deflexed ciliated entire, Raceme dense cylindrical, Segm. and sepals of cor. rounded
- 8851 Glandul. hairy, Lvs. obl. lanc. rugose wavy tooth. Raceme 1-sided many-fl. Cor. pubesc. Segm. ov. glandul.
- 8852 Lvs. linear lanc. serrated smooth, Raceme 1-sided, Cor. smooth, Segments rounded
- 8853 Segm. of cor. ovate obtuse, Flowers of distinct sexes [flowers
- 8854 Lvs. lanc. toothed smooth, Raceme 1-sided, Cor. smooth : segm. ov. bearded, Lower bractes longer than
- 8855 Lvs. cordate oblong flat crenate not downy, Raceme 1-sided, Cor. smooth, Segm. very blunt
- 8856 Half shrubby, Leaves linear lanc. entire smooth, Corollas ventricose
- 8857 Leaves cordate serrate acute rounded at base, Stem with blunt angles
- 8858 Leaves cordate 3-nerved, Stem with blunt angles
- 8859 Leaves cordate stalked decurrent blunt, Stem with membranous angles, Racemes terminal
- 8860 Lvs. ovate cord. smooth cut serrate with appendages at base, Petioles dilated, Racemes term. compound
- 8861 Lvs. obl. cord. hairy beneath doubly toothed with an appendage at base, Petioles equal, Racemes terminal
- 8862 Leaves cordate doubly serrate pubescent, Panicles terminal trichotomous with leaves between
- 8863 Lvs. obl. lanc. cord. doubly serrated smooth, Panicles racemose terminal 3-chotomous, Stem $\frac{1}{2}$ shrubby
- 8864 Leaves cordate obl. toothed : teeth entire those at base deepest
- 8865 Leaves obl. lanc. deeply cordate finely and doubly serrated smooth, Pan. racem. term. Ped. 3-chotomous
- 8866 Lower lvs. term. cord. cren. toothed; upper entire, Fl. racemose paniced, Bractes ovate lanc. entire at end
- 8867 Leaves cordate 3-nerved pubesc. on each side, Petioles ciliated, Pedunc. and bractes with glandular hairs
- 8868 Leaves lanceolate serrated stalked : cauline in 3s; and the branches opposite
- 8869 Lvs. lanc. narrowed at each end deeply unequally and doubly toothed smooth, Racemes terminal
- 8870 Lvs. somew. fleshy : upper sessile toothed smooth recurved at end, Pan. racem. Pedunc. bifid many-flow.
- 8871 Lvs. cord. doubly toothed : lower teeth bent backwards, Raceme terminal compound, Ped. 2-3-fl. altern.
- 8872 Leaves cordate pubescent doubly serrated, Panic. axillary dichotomous, Bractes ovate serrate
- 8873 Leaves cordate smooth doubly serrated, Panic. axillary dichotomous, Capsules acuminate
- 8874 Leaves smooth : lower ternate pinnate blunt; upper simple, Pedunc. about 3-fl. axillary
- 8875 Leaves interruptedly pinnate cordate unequal, Raceme terminal, Pedunc. axillary twin dichotomous
- 8876 Lvs. obl. cord. lobed at edge naked as long as pet. Rac. term. comp. Branch. and ped. with glandular hairs
- 8877 Lvs. interruptedly pinnate oblong subcordate unequal at base, Panicle terminal, Pedunces dichotomous
- 8878 Leaves pinnated, Leaflets oblong cut toothed, Panicle terminal, Peduncles dichotomous
- 8879 Leaves smooth : lower interruptedly pinnate; upper ternate, Leaflets oblong, Flowers axillary
- 8880 Leaves pinnated, Raceme terminal naked, Peduncles bifid, Calyxes scariosus
- 8881 Lower leaves bipinnate somewhat fleshy very smooth, Racemes bipartite
- 8882 Stems woody at base, Leaves bipinnatifid pubescent, Racemes long, Pedicels short villous
- 8883 Leaves bipinnate, Pinnæ acutely cut toothed, Panicle terminal, Peduncle dichotomous
- 8884 Lvs. smooth : rad. bipinnat. caul. pinnate, Panicle leafy, Ped. dichotomous, Lat. seg. of lower lip emargin.
- 8885 Leaves cordate lined shining, Pedunc. axillary 2-flowered, Stem hexangular

8886 Leaves roundish subsessile



and Miscellaneous Particulars.

full extent of which the system can admit, the pulse intermits, and vertigo, indistinct vision, and nausea, with vomiting or purging, occur; and if, after these indications, the quantity be still increased, or if any considerable portion of the recent herb be inconsiderately swallowed, it produces delirium, hiccough, cold sweats, convulsions, syncope, and death. (*London Dispensatory*, 287.)

1356. *Scrophularia*. So named from the roots having a resemblance to *scrophulous* tumours, which they were, by the peculiar mode of induction of the dark ages, therefore supposed to cure. *S. nodosa* has the name of figwort from its knobbed roots : it has a rank smell like elder, and a bitter taste; swine that have the scab are cured by washing them with a decoction of the leaves. Wasps resort greatly to the flowers. Goats eat the plant; but cows, horses, sheep and swine refuse it

The same observations apply to *S. aquatica*, which in French is called *Herbe du Siege*, because at the celebrated siege of Rochelle by Cardinal Richelieu in 1628, the garrison was reduced to the necessity of supporting life upon the roots of the plant.

1357. *Vandellia*. Louis Vandelli, a Portuguese, was professor of botany in the garden of Coimbra. He published in 1788, an essay on the plants of Portugal and Brazil, a work which is little known, on account of its extreme rarity.

1358. SIBTHORPIA. <i>W.</i>	SIBTHORPIA.				<i>Scrophularineæ. Sp. 1—2.</i>						
8887 europæa <i>W.</i>	Cornish	* Δ el	½	jl.au	Y	England	w.sh.p.	D	s.l	Eng. bot. 649	
1359. LIMOSELLA. <i>LA. W.</i>	MUDWORT.				<i>Scrophularineæ. Sp. 1—5.</i>						
8888 aquatica <i>W.</i>	water	≡ ○ pr	½	jl.s	F	Britain	mud.pl.	S	s.l	Eng. bot. 357	
1360. BROWALLIA. <i>W.</i>	BROWALLIA.				<i>Scrophularineæ. Sp. 2.</i>						
8889 demissa <i>W.</i>	spreading	* (○) or	¾	jn.s	B	S. Amer.		1735.	S	s.l	Bot. mag. 1136
8890 elata <i>W.</i>	upright	(○) or	1	jn.s	B	Peru		1768.	S	s.l	Bot. mag. 34
1361. STEMODIA. <i>W.</i>	STEMODIA.				<i>Scrophularineæ. Sp. 2—8.</i>						
8891 parviflora <i>H. K.</i>	small-flowered	(○) cu	½	jl.au	W	S. Amer.		1759.	S	p.l	
8892 verticillaris <i>Link.</i>	whorled	(○) cu	½	jl.au	Pu	Brazil		1825.	S	p.l	
1362. TREVIRANA. <i>W. en.</i>	TREVIRANA.				<i>Scrophularineæ. Sp. 1.</i>						
8893 coccinea <i>W. en.</i>	scarlet	¥ (Δ) spl	1½	au.o	Sc	Jamaica		1778.	C	lp	Bot. mag. 374
	<i>Cyrilla pulchella</i> <i>B. M.</i>										
1363. COLUMNEA. <i>W.</i>	COLUMNEA.				<i>Scrophularineæ. Sp. 3—8.</i>						
8894 scandens <i>H. K.</i>	climbing	fl. () or	6	aus	Sc	W. Indies		1759.	C	s.p	Bot. reg. 805
8895 hirsuta <i>W.</i>	hairy	fl. () or	4	au.n	Pa.pu	Jamaica		1780.	C	s.p	Bro.jam.t. 30. f.3
8896 trifoliata <i>Link.</i>	three-leaved	fl. () or	3	au.n	B	.....		1823.	C	s.p	
1364. RUSSELLIA. <i>W.</i>	RUSSELLIA.				<i>Scrophularineæ. Sp. 1—4.</i>						
8897 multiflora <i>B. M.</i>	many-flowered	() or	4	jn.au	R	S. Amer.		1812.	C	s.p	Bot. mag. 1528
1365. DODARTIA. <i>W.</i>	DODARTIA.				<i>Scrophularineæ. Sp. 1—2.</i>						
8898 orientalis <i>W.</i>	oriental	¥ Δ un	1½	jl.au	Pu	Levant		1752.	C	s.p	Lam. ill. t. 530
1366. LINDERNIA. <i>R. Br.</i>	LINDERNIA.				<i>Scrophularineæ. Sp. 1—3.</i>						
8899 Pyxidaria <i>W.</i>	European	() un	1	jn.au	B	S. Europe		1789.	S	s.l	Lam. ill. t. 522
1367. HERPESTIS. <i>R. Br.</i>	HERPESTIS.				<i>Scrophularineæ. Sp. 3—7.</i>						
8900 Monnieria <i>R. Br.</i>	Thyme-leaved	≡ (Δ) pr	½	jl.s	L.B	India		1772.	D	lp	Rox. cor. 2. t.178
8901 cuneifolia <i>Ph.</i>	wedge-leaved	≡ (Δ) pr	½	au	B	N. Amer.		1812.	D	lp	
8902 stricta <i>Schrad.</i>	upright	≡ (Δ) pr	1	au	B	.....		1824.	D	lp	
1368. CAPRARIA. <i>P. S.</i>	CAPRARIA.				<i>Scrophularineæ. Sp. 5—9.</i>						
8903 biflora <i>W.</i>	shrubby Goatw.	fl. () un	2	jl.au	W	S. Amer.		1752.	C	lp	Lam. ill.t.534.f.2
8904 cuneata <i>H. K.</i>	wedge-leaved	fl. () un	2	...	W	S. Amer.		1759.	C	p.l	
8905 lanceolata <i>W.</i>	spear-leaved	fl. () un	2	...	W	C. G. H.		1774.	C	p.l	
8906 undulata <i>W.</i>	wave-leaved	fl. () un	2	mr.jl	W	C. G. H.		1774.	C	p.l	Bot. mag. 1556
8907 humilis <i>W.</i>	dwarf	() un	1	jl.au	W	E. Indies		1781.	C	p.l	
1369. BUCHNERA. <i>B. P.</i>	BUCHNERA.				<i>Scrophularineæ. Sp. 1—13.</i>						
8908 americana <i>W.</i>	American	¥ Δ cu	1½	jn.au	B	N. Amer.		1733.	D	lp	
1370. MANULEA. <i>W. en.</i>	MANULEA.				<i>Scrophularineæ. Sp. 10—40.</i>						
8909 foetida <i>Thunb.</i>	stinking	(○) pr	1½	jn.s	W	C. G. H.		1794.	S	s.p	Bot. rep. 80
8910 villosa <i>Thunb.</i>	villous	(○) pr	1	jn.jl	W	C. G. H.		1783.	S	s.p	Bur. afr. t. 50.f.2
	<i>Buchnera capensis</i> <i>W.</i>										
8911 pedunculata <i>Thunb.</i>	solitary-flower.	fl. () pr	1½	jn.n	W	C. G. H.		1790.	C	p.l	Bot. rep. 84
8912 viscosa <i>W. en.</i>	clammy	fl. () pr	1	jn.n	Pk	C. G. H.		1774.	C	p.l	Bot. mag. 217
8913 rubra <i>Thunb.</i>	red	fl. () pr	1½	aps.r	R	C. G. H.		1790.	C	p.l	
8914 tomentosa <i>Thunb.</i>	woolly	fl. () el	1	my.n	Y	C. G. H.		1774.	C	s.p	Bot. mag. 322
8915 Cheiranthus <i>Thunb.</i>	Woolly-flower	fl. () el	1	jn.au	Or	C. G. H.		1795.	S	s.p	Com. hort. 2.t.42
8916 argentea <i>Thunb.</i>	silvery	fl. () el	1½	jl.n	Y	C. G. H.		1801.	S	s.p	
8917 rhynchantha <i>Link.</i>	tail-flowered	fl. () el	1	jl.n	Y	C. G. H.		1823.	C	s.p	
8918 violacea <i>Link.</i>	Violet	fl. () el	2	jl.n	V	.....		1824.	C	s.p	



History, Use, Propagation, Culture,

1358. *Sibthorpia*. In honor of Humphry Sibthorp, M. D., professor of botany at Oxford, who travelled into Greece, for the purpose of collecting materials for a classical Flora Græca, in which he succeeded even beyond his own hopes. After his death the publication of his materials was confided to Sir James Edward Smith, under whose care the work has reached to five hundred figures in folio, of the most magnificent kind; five hundred more have yet to be published. A little trailing plant.

1359. *Limosella*. From *limus*, mud. The plant grows by the edge of puddles and in muddy places.

1360. *Browallia*. Named by Linnæus, in honor of John Browallius, bishop of Aboo, who defended the sexual system against Siegesbeck, in a book entitled *Examen episcopes, &c.*, Aboo, 1739, octavo. Handsome plants with blue flowers, often cultivated as tender annuals.

1361. *Stemodia*. From *stemon*, a stamen, and *dis*, double. Each of the stamens supports two anthers.

1362. *Trevirana*. Named after Dr. Treviranus, a German botanist. This beautiful plant, which is commonly called *Cyrilla pulchella*, is one of the prettiest of the old inhabitants of the stove.

1363. *Columnnea*. In honor of Fabius Columnea, or Fabio Colonna, of the noble family of Colonna in Italy, born in 1567. He published his *Phytobazanus* in 1592, and his *Ephrasis* in 1606, both works of high reputation in their day. One species, *C. scandens*, is common in hothouses, where it is cultivated for the neatness of its foliage and the beauty of its scarlet blossoms.

- 8887 Leaves reniform subpeltate erenate
 8888 Leaves lanceolate spatulate, Scapes shorter than leaf
 8889 Peduncles 1-flowered
 8890 Peduncles 1 many-flowered
 8891 Leaves opposite and ternate stalked
 8892 Leaves opposite and ternate stem-clasping
 8893 Leaves ternate ovate hairy
 8894 Leaves ovate acute entire subvillous, Sepals entire and corollas pubescent, Upper lip undivided
 8895 Leaves ovate acuminate serrate hairy above, Sepals toothletted and corollas hairy
 8896 Leaves 3 subsessile oblong acutely crenate pubescent, Cor. hairy, Galea dilated reflexed
 8897 Leaves ovate acuminate stalked, Raceme terminal whorled, Peduncles cymose
 8898 Leaves linear smooth entire, Stem nearly naked
 8899 Leaves oblong ovate entire 3-nerved sessile, Pedunc. axillary 1 flowered, Stem proeumbent
 8900 Leaves oblong entire, Peduncles longer than leaf, Stem deelineate
 8901 Very smooth, Leaves cuneate oblong upwards obsolete erenate, Pedunc. nearly as long as leaf
 8902 Stem erect, Leaves lanceolate acute doubly serrated smooth, Flowers whorled
 8903 Leaves ovate serrated alternate, Flowers twin
 8904 Hairy, Leaves alternate rhomboid cuneiform cut serrate, Flowers twin, Sepals linear
 8905 Leaves opposite linear entire, Racemes compound terminal
 8906 Leaves opposite ovate-oblong entire wavy : upper subcordate whorled, Racemes spiked
 8907 Pubescent, Leaves opposite and ternate ovate serrate stalked, Pedunc. axillary shorter than petiole
 8908 Leaves toothed lanceolate 3-nerved
 8909 Leaves opposite ovate jagged, Flowers somewhat umbelled terminal
 8910 Leaves linear toothed villous, Cal. hairy, Branches subfastigiate
 8911 Upper leaves opposite sessile tooth-sinuated, Flowers solitary on long stalks
 8912 Leaves opp. lin. lanc. acute at each end toothletted, Raceme terminal, Stamens exerted
 8913 Leaves lanc. toothed villous, Racemes of flowers remote
 8914 Leaves obovate crenate downy, Stem decumbent
 8915 Leaves obl. serrated hairy, Stem nearly leafless, Flowers alternate remote
 8916 Leaves ovate toothed silky beneath dotted with silver, Flowers axillary stalked
 8917 Leaves wedge-shaped serrated pubescent, Segm. of cor. with very long points
 8918 Leaves opp. stalked oblong blunt tooth-serrated when old smooth, Segm. of cor. rounded



and Miscellaneous Particulars.

1364. *Russelia*. In honor of Alexander Russel, M. D. F. R. S., born in Scotland; died 1768; author of the natural history of Aleppo, London, 1756. His brother Patrick, published a second edition in 1794, and a work on serpents in 1796, folio.

1365. *Dodartia*, by Tournefort, after M. Dodart, member of the academy of sciences at Paris; and an eminent physician. An ugly, leafless, almost flowerless plant, of much rarity and little beauty.

1366. *Lindernia*. Named after Francis Lindern, an obscure Swiss botanist. Pyxidaria is so called from *ρυξος*, the box, which it resembles in foliage.

1367. *Herpestis*. From *ἕρπυστος*, any thing which creeps. An exotic genus of herbs, with opposite leaves and axillary flowers, each of whose stalks bears a pair of bractæe. *Herpestis Monnieria* is a beautiful aquatic.

1368. *Capraria*. So named from *capra*, a goat, the leaves being much liked by that animal.

1369. *Buchnera*. Named after John Godfrey Buchner, a German botanist, who published in 1743, his Observations upon the Plants of Saxony. Small Cape shrubs of little interest or beauty. Their leaves are generally small, and their flowers white.

1370. *Manulca*. Derived from *manus*, the hand. The five divisions of the flower, in some species, from their form and relative position, resemble an open hand. Handsome Cape shrubs of humble growth. They are rare in collections, but deserving of being very generally cultivated.

1371. ANGELO'NIA. <i>Kunth.</i> ANGELONIA.					<i>Scrophularineæ.</i> Sp. 1.			
8919 salicariæfólia <i>Kunth.</i> violet	☿ Δ	el	3	au	L.B S. Amer.	1818.	C co	Bot. reg. 415
1372. SCHIZAN'THUS. <i>R. & P.</i> SCHIZANTHUS.					<i>Scrophularineæ.</i> Sp. 1.			
8920 pinnátus <i>R. & P.</i> pinnated	☉	el	2	fn	L.B Chili	1822.	S co	Hook. ex. fl. t. 73
β por'rigens <i>Hook.</i> ex. fl. t. 85.								
1373. BESLE'RIA. <i>W.</i> BESLERIA.					<i>Scrophularineæ.</i> Sp. 5—10.			
8921 melittifólia <i>W.</i> Balm-leaved	☿	□	or	3	jn.jl	Or	Guiana	1739. C s.p Exot. bot. 1. t. 54
8922 látea <i>W.</i> yellow-flowered	☿	□	or	3	jl.au	Y	Guiana	1739. C l.p Plum. ic. 49. f. 1
8923 serruláta <i>W.</i> saw-leaved	☿	□	or	6	...	P.Y	W. Indies	1806. C l.p Jac. sch. 3. t. 230
8924 pulchélla <i>H. K.</i> striped-flowered	☿	□	or	3	jl.au	Y	Trinidad	1806. C l.p Bot. mag. 1146
8925 cristáta <i>W.</i> crested	☿	□	or	3	jn.au	Y	W. Indies	1739. C l.p Jac. amer. t. 119
1374. TEE'DIA. <i>P. S.</i> TEEDIA.					<i>Scrophularineæ.</i> Sp. 2.			
8926 lúcida <i>P. S.</i> shining	☿	☉	or	2	ap.jl	Pu	C. G. H.	1774. C p.l Bot. reg. 209
8927 pubéscens <i>B. reg.</i> pubescent	☿	☉	or	2	my.o	Pu	C. G. H.	1816. C p.l Bot. reg. 214
1375. BRUNSFEL'SIA. <i>W.</i> BRUNSFELSIA.					<i>Solanææ.</i> Sp. 3.			
8928 unduláta <i>W.</i> wave-flowered	☿	□	or	4	jn.jl	W	Jamaica	1780. C r.m Bot. reg. 228
8929 americana <i>W.</i> American	☿	□	or	4	jn.jl	Pa.Y	W. Indies	1735. C r.m Bot. mag. 393
α latifólia broad-leaved								
β angustifólia narrow-leaved								
8930 violácea <i>Lodd.</i> violet	☿	□	cu	3	jl.au	Ld	W. Indies	1815. C r.m Bot. cab. 792
1376. CEL'SIA. <i>W.</i> CELSIA.					<i>Solanææ.</i> Sp. 7—10.			
8931 orientális <i>W.</i> oriental	☉	or	2	jl.au	Br.Y	Levant	1713. S co	Lam. ill. t. 532
8932 Arctúrus <i>W.</i> scallop-leaved	☿	☉	or	4	jls	Y	Candia	1780. S p.l Bot. mag. 1962
8933 coromandeliana <i>W.</i> Coromandel	☿	☉	or	4	jl.au	Y	E. Indies	1783. S p.l
8934 viscosa <i>W. en.</i> clammy	☿	☉	or	3	jl.au	Y	.....	1816. S p.l
8935 crética <i>W.</i> great-flowered	☿	☉	or	6	jls	Y	Crete	1752. S p.l Bot. mag. 964
8936 lanceoláta <i>P. S.</i> spear-leaved	☿	☉	or	3	jls	Y	Levant	1816. S p.l Vent. cels. t. 27
8937 sublanáta <i>Jacq.</i> woolly	☿	Δ	or	2	jls	Y	.....	1818. S p.l Bot. reg. 438
1377. ALONSO'A. <i>H. K.</i> ALONSOA.					<i>Solanææ.</i> Sp. 4—8.			
8938 acutifólia <i>P. S.</i> acute-leaved	☿	□	or	3	my.o	Sc	Peru	1790. C l.p
8939 incisifólia <i>H. K.</i> Nettle-leaved	☿	□	or	2	my.o	Sc	Chili	1795. S s.p Bot. mag. 417
<i>Hemimeris urticifólia</i> linear-leaved								
8940 lineáris <i>H. K.</i> linear-leaved	☿	□	or	2	my.o	S	Peru	1790. C s.p Bot. mag. 210
8941 caulialáta <i>R. & P.</i> wing-stemmed	☿	Δ	or	3	my.o	S	Chili	1823. C co
1378. ANTHOCER'CIS. <i>R. Br.</i> ANTHOCERCIS.					<i>Solanææ.</i> Sp. 2—3.			
8942 littórea <i>R. Br.</i> yellow	☿	□	or	3	my.au	Pa.Y	N. Holl.	1803. C s.p Bot. reg. 212
8943 viscosa <i>R. Br.</i> viscid	☿	□	or	3	...	Pa.Y	N. Holl.	1822. C s.p
1379. CYMBA'RIA. <i>W.</i> CYMBARIA.					<i>Scrophularineæ.</i> Sp. 1.			
8944 daúrica <i>W.</i> Daurian	Δ				jn.jl	Y	Dauria	1796. D co Amm.rut. t.1.f.2



History, Use, Propagation, Culture,

1371. *Angelonia*. *Angelon* is the name of the plant among the Spanish colonists of Caraccas, where it grows. A very beautiful stove herbaceous plant, with large light-blue flowers.

1372. *Schizanthus*. From *σχίζω*, to cut, and *ανθος*, a flower, in allusion to the numerous divisions of the beautiful purple and yellow flowers. Tender annual plants, with finely cut pale green leaves, and terminal panicles of elegant flowers.

1373. *Besleria*. After Basil Besler, an apothecary at Nuremberg, joint editor with Jungermann, of a sumptuous work entitled *Hortus Eystettensis*, 1613. The garden belonged to Bishop Conrad, of Eichstedt, and the plates were engraved at his expense.

1374. *Tedia*. So named by Persoon, but the meaning is unknown. Pretty herbaceous plants, with bright purple flowers and dark berries.

1375. *Brunfelsia*. In memory of Otho Brunfels, of Mentz, a Carthusian monk, and afterwards a physician, author of *Figures of Plants* in 1530. He died in 1534. The species are handsome tropical shrubs, with neat foliage and shewy white or purple flowers. Cuttings with a little ripened wood strike root freely in heat.

8919 The only species

8920 The only species

8921 Peduncles branched, Leaves ovate

8922 Peduncles simple clustered, Leaves ovate-lanceolate serrated

8923 Peduncles simple solitary, Calyxes serrated, Cor. smooth with a serrulated limb

8924 Leaves obl. ovate rugose crenate decurrent down the petiole, Cal. serrulate colored

8925 Peduncles simple solitary, Calyxes colored serrated, Cor. hairy with an entire limb, Leaves ovate

8926 Leaves opp. obl. finely serrulate smooth

8927 Leaves downy

8928 Leaves ovate-lanceolate narrowed at each end, Tube of cor. curved, Limb wavy

8929 Leaves obovate acuminate longer than petiole, Tube of cor. straight, Limb entire

8930 Leaves and leafstalks deeply stained with purple

8931 Cauline leaves bipinnate

8932 Rad. leaves lyrate: upper oblong, Pedicels longer than bractes, Sepals linear entire

8933 Radical leaves lyrate: upper ovate, Bractes longer than pedicels, Sepals linear oblong entire

8934 Radical leaves lyrate: floral cordate half stem-clasping, Peduncles as long as flower

8935 Radical leaves lyrate: upper oblong, Flowers subsessile the length of bractes, Cal. ovate serrated

8936 Somewhat downy, Leaves lanceolate, Flowers axillary solitary

8637 All over wool, Leaves oval oblong blunt crenate, Stamens bearded with capitate hairs

8938 Leaves ovate lanceolate deeply serrated

8939 Leaves ovate acute cut serrated

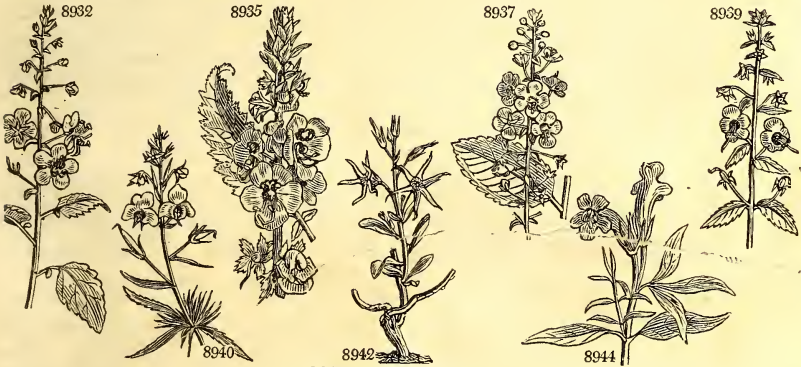
8940 Leaves ternate remotely toothletted

8941 Leaves ovate acute serrated, Stem winged at angles

8942 Leaves obovate smooth, Segments of cor. length of tube

8943 Leaves obovate dotted with glands downy

8944 Flowers large yellow spotted



and Miscellaneous Particulars.

1376. *Celsia*. In honor of Olaus Celsius, D. D., surnamed the northern Pliny, professor of the oriental languages in the university of Upsal. His Hierobotanicon, or History of the Plants of Scripture, appeared in 1745. There was also another Swedish botanist called Magnus Nicolaus Celsus, who died in 1679. Besides these moderns, the name is rendered familiar to classical scholars by the recollection of the famous Aurelius Cornelius Celsus, who wrote upon agriculture and medicine, and whose purity of style procured him the name of the Cicero of medicine.

1377. *Alonsoa*. Named by the authors of the Flora Peruviana, after Zanoni Alonso, at the time of the publication of that work, Spanish secretary for the kingdom of Santa Fé, and a great patron of objects connected with natural history. Sir James Smith considers the genus the same as *Hemimeris*.

1378. *Anthocercis*. From *ανθος*, a flower, and *κεραυς*, a ray, the narrow divisions of the corolla spreading in a radiant manner, like the spokes of a wheel.

1379. *Cymbaria*. From *κυμαρον*, a boat, in allusion to the shape of the fruit. A small pubescent hoary plant, native of mountainous rocky places in Siberia.



CLASS XV. — TETRADYNAMIA. STAMENS 6, of which four are longer than the rest.

This class consists, with the exception of *Cleome*, entirely of the natural order *Cruciferae*, and has lately been the subject of the most acute and successful investigation of many botanists of celebrity. Our countryman, Mr. Brown, led the way to the improvements which have been made in the genera, in the second edition of the *Hortus Kewensis*, in which, discarding the uncertain and unnatural characters derived from variations in the floral envelopes, he took a new course, and by indicating with great precision the curious modifications of the seeds and seed-vessels, led the way to an entirely new arrangement of the class. The principles thus developed have been adopted by M. Decandolle, whose learned treatise upon *Cruciferae* is here followed without variation.

The difference between the genera with a long pod (*Siliquosae*), and those with a short one (*Siliculosae*), has given rise to two orders in the Linnean system. But these are not only ambiguous, but interfere so much with a distribution of the genera according to their natural affinities, that they have been rejected here, and the divisions of M. Decandolle, depending upon variation in the relative position of the various parts of the seed, have been substituted.

The plants of this class have always been celebrated for their antiscorbutic qualities. These seem to reside in an acrid, oily, volatile principle, not yet determined by chemists, and varying in the degree of abundance in which it is found in different species. It is particularly abundant in the seeds of mustard and garden rocket, in the roots of the horse radish, and in the foliage of the *Lepidium latifolium*, which, administered inwardly, act powerfully upon the gastric organs, or, applied externally, inflame the skin and operate nearly as severely as blisters. A slighter degree of acrimony is found in the foliage of the scurvy grass, the roots of the garden radish, &c.; and these, therefore, operate more gently, and perhaps more safely, when eaten, scarcely at all when applied outwardly. Whatever the degree of acrimony may be in these plants, they all appear, when eaten, to produce some specific action upon the digestive organs, and thence upon scorbutic humours; for which reason, the horse radish, water-cress, radishes, and even cabbages are eminently antiscorbutic. They are also admitted by physicians as diuretic, sialagogue, and diaphoretic. It is only when the acrid principle is diffused over a considerable quantity of fleshy and watery substance, that cruciferous plants become eatable, as in the leaves and stems of cabbages and sea-kail, and in the roots of radishes and turnips. Even in these plants, the proportion of acrid principle is much diminished by exclusion from light. Plants of this class are also remarkable for containing a larger quantity of azote than most vegetables; for which reason ammonia is generally evolved in their fermentation or putrefaction: to which circumstance it is possible that the two remarkable phenomena are to be attributed, viz.: that cruciferous plants contain a greater portion of nutritive matter than most herbaceous plants; and that they require either a very rich soil manured with animal substances, or at least a situation near the habitations of men. The embryos of all these plants are filled with oil, and the seeds of *Camelina sativa*, *Brassica campestris*, some species of *Rocket*, &c. are cultivated in many parts of Europe for the sake of their expressed oil, which is used either for culinary purposes or for lamps.

Cruciferous plants are chiefly natives of temperate climates, those which are found within the tropics being in all cases mountain plants, and are nearly all cultivable in the open air; they are mostly found in open sandy plains; some on the tops of the highest mountains at the utmost limits of vegetation. Nine hundred species are now described, of which not more than twenty-two are to be found in the works of Hippocrates, Theophrastus, Dioscorides, or Pliny.

A. *Cotyledons four, spirally twisted. Petals 4, cruciate.*

1380. *Schizopetalon*. Petals pinnatifid.

B. *Cotyledons two. Petals 4, cruciate.*

1. *Cotyledons flat, accumbent. Radicle lateral. Seeds compressed. (O=) PLEURORHIZEÆ, Dec.*

* *Siliqua opening; with a linear dissepiment more or less wide than seeds. Seeds oval, compressed; often margined. Cotyledons flat, accumbent, parallel with the dissepiment. ARABIDÆÆ, Dec.*

1381. *Mithola*. Siliqua roundish. Stigmas connivent, thickened or cornute at base. Calyx bisaccate at base.

1382. *Cheiranthus*. Siliqua round or compressed. Stigmas 2-lobed or capitate. Calyx bisaccate at base.

1383. *Nasturtium*. Siliqua roundish, shortened or declinate. Stigma nearly 2-lobed. Calyx equal at base, spreading.

1384. *Leptocarpea*. Siliqua roundish, very slender. Stigmas sessile, 2-lobed. Calyx spreading, equal.

1385. *Notoceras*. Siliqua 4-cornered, 2-edged, the valves elongated at end into a horn or mucro.

1386. *Barbarea*. Siliqua 4-cornered, 2-edged, the valves not elongated at end. Calyx equal at base.

1387. *Braya*. Siliqua oblong, subcylindrical, with flattish valves and a sessile stigma. Seeds few, ovate. Calyx equal at base.

1388. *Parrya*. Siliqua linear with veiny valves. Seeds in two rows, with a loose wrinkled skin. Stigmas approximating. Filaments not toothed.

1389. *Turritis*. Siliqua linear with flat valves. Seeds in two rows in each cell.

1390. *Arabis*. Siliqua linear with flat valves, 1-nerved in the middle. Seeds in one row in each cell.

1391. *Macropodium*. Siliqua pedicellate, linear, with flat valves, 1-nerved in middle.

1392. *Cardamine*. Siliqua linear with flat nerveless valves, often opening with elasticity. Funicles of the hilum slender.

1393. *Pteroneuron*. Siliqua lanceolate with flat nerveless valves, often opening with elasticity: placentas with winged nerves. Funicles dilated.

1394. *Dentaria*. Siliqua lanceolate with flat nerveless valves, often opening with elasticity: placentas not winged. Funicles dilated.

** *Silicle opening lengthwise, with a broad oval membranous dissepiment, and flat or concave valves. Seeds compressed, frequently margined. Cotyledons flat, accumbent, parallel with the dissepiment. ALYSSINÆ, Dec.*

1395. *Lunaria*. Silicle pedicellate, elliptical or lanceolate with flat valves. Funicles long, adhering to the dissepiment. Calyx somewhat bisaccate. Petals nearly entire. Stamens not toothed.

1396. *Ricotia*. Silicle sessile, oblong, when ripe losing its dissepiment and becoming 1-celled: valves flat. Calyx with two prominences at base. Petals emarginate. Stamens not toothed.

1397. *Farsetia*. Silicle sessile, oval or orbicular, with flat valves. Seeds winged. Calyx bisaccate at base. Petals entire.

1398. *Berteroa*. Silicle sessile, elliptical or obovate, with flat or concave valves. Calyx equal at base. Petals 2-parted. The small stamens toothed.

1399. *Aubrietia*. Silicle oblong with convex valves. Seeds not edged. Calyx bisaccate at base. Petals entire. Smaller stamens toothed.

1400. *Vesicaria*. Silicle globose inflated with hemispherical valves. Seeds more than 8. Petals entire.

1401. *Alyssum*. Silicle orbicular or elliptical, with valves flat or convex in centre. Seeds 2-4 in each cell. Calyx equal at base. Petals entire. Some the stamens toothed.
1402. *Clypeola*. Silicle orbicular, 1-celled, 1-seeded, with flat valves. Calyx equal. Petals entire. Stamens toothed.
1403. *Peltaria*. Silicle orbicular, 1-celled, 1-4-seeded, with flat valves. Seeds two in each cell: funicles adhering to the dissepiment.
1404. *Petrocallis*. Silicle sessile, oval, with flattish valves. Seeds two in each cell: funicles adhering to the dissepiment.
1405. *Draba*. Silicle sessile, oval or oblong, with flat or convex valves. Seeds many, not edged. Calyx equal. Petals entire. All the stamens without teeth.
1405. *Erophila*. Silicle oval or oblong, with flat valves. Seeds many, not edged. Calyx equal. Petals 2-parted. Stamens without teeth.
1407. *Cochlearia*. Silicle sessile, ovate-globose or oblong, with ventricose valves. Seeds many, not edged. Petals entire. Stamens without teeth.
- *** Silicle opening, with a very narrow dissepiment, and keeled navicular valves. Seeds oval, sometimes margined. *Cotyledons flat, accumbent, contrary to the dissepiment.* THLASPIDÆ, Dec.
- † Cells of silicle 2-many-seeded.
1408. *Thlaspi*. Silicle emarginate at end, with navicular valves, winged at back. Cells two, many-seeded.
1409. *Capsella*. Silicle triangular, cuneate at base, with navicular valves, not winged. Cells many-seeded.
1410. *Hutchinsia*. Silicle elliptical, with navicular valves, not winged. Cells 2-seeded, rarely many-seeded.
1411. *Teesdalia*. Silicle oval, emarginate at end, with navicular valves and 2-seeded cells. Stamens having a scale inside at their base.
- †† Cells of silicle 1-seeded.
1412. *Iberis*. Two outer petals largest. Silicle compressed, truncate, emarginate.
1413. *Biscutella*. Silicle flat, biscutate, with the cells laterally united to the axis. Style long, persistent. Embryo inverted.
- **** Silicle not opening, with concave indistinct valves, and sometimes with scarcely any trace of a dissepiment. Seeds oval, very few. *Cotyledons flat, accumbent, parallel with dissepiment.* EUCLIDIÆ, Dec.
1414. *Euclidium*. Silicle drupaceous, ovate, with manifest sutures. Style subulate. Cells 1-seeded.
1415. *Ochrodium*. Silicle coriaceous, subglobose. Stigma sessile. Dissepiment thick. Cells 1-seeded.
- ***** Silicle opening lengthwise, with concave valves, bearing internally transverse horizontal dissepiments separating the seeds. Seeds not margined. *Cotyledons flat, accumbent, parallel with the dissepiment.* ANASTATICÆ, Dec.
1416. *Anastatica*. Silicle ventricose, with valves bearing an appendage outside at the end.
- ***** Silique or silicle separating across into 1-2-celled, 1-2-seeded joints. Seeds not edged. *Cotyledons flat, accumbent, parallel with the dissepiment when there is any.* CARKINEÆ, Dec.
1417. *Cakile*. Silicle 2-jointed, compressed: the upper joint ensiform. Seeds solitary in the cells: upper erect; lower pendulous.
1418. *Rapistrum*. Silicle 2-jointed: the upper joint ovate, rugose. Seeds solitary in the cells: upper erect, lower pendulous.
1419. *Chorispora*. Silique roundish, with many equal joints. Seeds all pendulous.
2. *Cotyledons flat, incumbent. Radicle dorsal. Seeds ovate, not margined.* (O||) NOTORHIZÆ, Dec.
- * Silicle 2-celled, opening lengthwise, with concave or keeled valves. Seeds ovate or oblong, not margined. *Cotyledons flat, incumbent, contrary to the dissepiment.* SISYMBRIÆ, Dec.
1420. *Malcomia*. Silique roundish. Stigma simple much pointed.
1421. *Hesperis*. Silique roundish, or about 4-cornered. Stigmas 2, erect, conniving. Calyx bisaccate at base.
1422. *Sisymbrium*. Silique roundish, sessile upon the torus. Stigmas 2, somewhat distinct or connate in a head. Calyx equal at base.
1423. *Alliaria*. Silique roundish, 4-cornered, with prominent nerves. Calyx lax.
1424. *Erysimum*. Silique 4-cornered. Calyx closed.
- ** Silicle with concave valves, and with a dissepiment elliptical in its greatest diameter. Seeds ovate. *Cotyledons flat, incumbent, contrary to dissepiment.* CAMELINEÆ, Dec.
1425. *Camelina*. Silicle obovate or subglobose, with ventricose valves and many-seeded cells. Style filiform.
1426. *Nestia*. Silicle subglobose, with concave valves, 1-celled, 1-seeded, indehiscent.
- *** Silicle with a very narrow dissepiment, and with keeled or very convex valves. Seeds solitary or few in the cells, ovate, not margined. *Cotyledons flat, incumbent, parallel with the dissepiment.* LEPIDINEÆ, Dec.
1427. *Coronopus*. Silicle twin. Valves ventricose or subcarinate, scarcely dehiscent, 1-seeded.
1428. *Lepidium*. Silicle ovate or subcordate, with carinate or rarely ventricose valves, opening with 1-seeded cells.
1429. *Æthionema*. Silicle oval, generally emarginate, with navicular valves, and 1-2-seeded cells. Larger stamens either united or toothed.
- **** Silicle with indistinct or indchiscent keeled valves, 1-celled, 1-seeded, with an obliterated dissepiment. Seeds ovate, oblong. *Cotyledons flat, incumbent, apparently in the same direction as the dissepiment should be.* ISATIDÆ, Dec.
1430. *Isatis*. Silicle elliptical, flat, 1-celled, 1-seeded, with carinate navicular valves, which are scarcely dehiscent.
1431. *Myagrum*. Silicle compressed, almost cuneate, with two empty hollows at end, and at base 1-celled, 1-seeded.
3. *Cotyledons incumbent, folded together, or plaited lengthwise through their middle, and enwrapping the radicle. Style generally enlarged, with a cell and seed at its base. Seeds generally globose, never margined.* (O > >) ORTHOPLOCEÆ, Dec.
- * Silique with valves opening lengthwise, and a linear dissepiment. *Cotyledons folded together.* BRASSICÆ, Dec.
1432. *Brassica*. Silique roundish. Style small, short, obtuse. Seeds in one row. Calyx closed.
1433. *Sinapis*. Silique roundish, with nerved valves. Style small, short, acute. Seeds in one row. Calyx spreading.
1434. *Moricandia*. Silique 4-cornered, somewhat 2-edged. Seeds in two rows. Calyx bisaccate at base.
1435. *Diplotaxis*. Silique compressed, linear. Seeds in two rows. Calyx equal at base.
1436. *Eruca*. Silique roundish. Style large, ensiform or conical. Seeds in one row. Calyx equal at base.

** *Silicle with concave valves, opening lengthwise, with an elliptical dissepiment. Cotyledons folded together.* VELLEZ, Dec.

- 1437. *Vella*. Larger stamens connate. Style ovate, flat, at the end of a tongue-shaped silicle.
- 1438. *Carrichtera*. Stamens all free. Style ovate, flat, foliaceous.
- 1439. *Succowia*. Stamens all free. Style slender, conical. Valves of the silicle echinate.

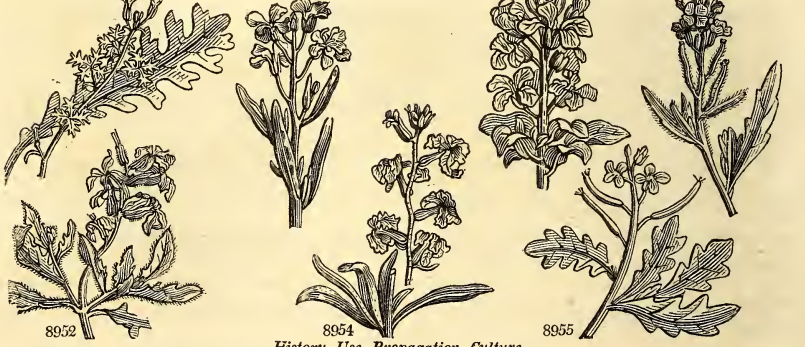
*** *Silicle indehiscent, ovate or globose, 1-celled, 1-seeded, with indistinct valves. Seeds globose. Cotyledons folded together.* ZILLEE, Dec.

- 1440. *Zilla*. Silicle 2-celled. Cells 1-seeded.
- 1441. *Calepina*. Silicle 1-celled, 1-seed. Seed pendulous. Outer petals rather the largest.

**** *Silicle or silique dividing across into one or few-seeded joints or cells. Seeds globose. Cotyledons folded together.* RAPHAEL, Dec.

- 1442. *Crambe*. Silicle with two joints, of which the lower is abortive, the upper globose 1-seeded.

1380. SCHIZOPETALON. Sims.	SCHIZOPETALON.	Cruciferae.	Sp. 1.						
8945 Walkeri Sims.	Walker's	my.jl W	Chili	1822.	S	p.l	Bot. reg. 752		
1381. MATHIOLA. R. Br.	Stock.	Cruciferae.	Sp. 11—26.						
8946 incana R. Br.	Pu. Gilly Flow.	my.n Pu	England	cliffs.	C	l.p	Eng. bot. 1935		
	<i>multiplex</i>								
	<i>β coccinea</i>								
	<i>γ alba</i>								
8947 annua Sweet.	ten weeks	○ or	2	my.n	St	S. Europe	1731.	S	l.p
8948 glabra Dec.	smooth	○ or	2	my.n	W	.....	...	C	l.p
8949 graeca Sweet.	Wall-fl.-leav'd	○ or	2	my.n	W	S. Europe	...	S	l.p
8950 fenestralis R. Br.	window	○ or	1	jl.au	Pu	.....	1759.	S	l.p
8951 sinuata R. Br.	greater sea	○ or	1	my.au	V	England	sea sh.	S	l.p
8952 odoratissima R. Br.	Persian	○ or	2	jn.jl	Ld	Persia	1797.	C	r.m
	<i>β fragrans</i> Fisch.	○ or	2	jn.jl	Ld	Crimea	1823.	C	r.m
8953 varia Dec.	variable	○ or	1	jn.jl	Ld	Levant	1820.	C	r.m
8954 tristis R. Br.	dark-flowered	○ or	1½	my.jl	Ld	S. Europe	1763.	S	s.l
8955 tricuspidata R. Br.	three-forked	○ pr	1	jl	Pu	Barbary	1739.	S	s.l
8956 parviflora R. Br.	small-flowered	○ pr	1	jl.au	Pu	Morocco	1799.	S	s.l
1382. CHEIRANTHUS. L.	WALL-FLOWER.	Cruciferae.	Sp. 7—17.						
8957 cheiri L.	garden	○ or	2	ap.jl	Or	S. Europe	1573.	S	r.m
	<i>β fruticosus</i> L.	○ or	1½	ap.jl	Y	Britain	old wa.	S	co
8958 ochroleucus Hal.	pale yellow	○ or	2	ap.jl	Pa.Y	Switzerl.	1820.	D	co
8959 tenuifolius Lher.	fine-leaved	○ or	2	my.jn	Y	Madeira	1777.	C	lp
8960 longifolius Lher.	changeable	○ or	3	mr.my	Y.Pu	Madeira	1777.	C	lp
	<i>β multifolius</i> Vent.	○ or	3	s.d	W.pu	Madeira	1815.	C	co
8961 scoparius W.	rock	○ or	3	my.o	W.pu	Teneriffe	1812.	C	r.m
	<i>β chamaeleo</i> Ker.	○ or	3	my.o	Y.Pu	Teneriffe	1812.	C	r.m
8962 semperflorans Schon.	ever-blowing	○ or	2	ja.d	W	Barbary	1815.	C	s.l
	<i>β frutescens</i> Pers.	○ or	2	mr.jl	W	Teneriffe	1815.	C	co
8963 linifolius Pers.	Flax-leaved	○ or	2	mr.au	Pu	Spain	1815.	C	s.l
1383. NASTURTIUM. R. Br.	NASTURTIUM.	Cruciferae.	Sp. 10—24.						
8964 officinale R. Br.	Water Cross	△ cul	1	my.jl	W	Britain	rivul.	D	co
8965 sylvestris R. Br.	creeping	△ w	1	jn.s	Y	Britain	wat.pl.	D	co
8966 terrestre R. Br.	marsh	△ w	1	jn.s	Y	Britain	wat.pl.	S	co
8967 sagittatum R. Br.	arrow-leaved	△ un	1	my.jn	Pa.Y	Siberia	1790.	D	co
8968 Lippizense Dec.	Lippa	△ un	1	my.jn	Y	Carinthia	...	D	co



History, Use, Propagation, Culture,

1380. *Schizopetalon*. A curious genus of Chilian plants, with pinnatifid petals, whence the name has been formed, from *σχίζω*, to divide. A plant of difficult cultivation. It is raised from seeds, which it produces sparingly, and only in a well-aired cool greenhouse.

1381. *Mathiola*. Named after Peter Andrew Matthioli, an Italian physician, born in 1500, died in 1577. He was first physician to Ferdinand of Austria, and author of a laborious commentary upon Dioscorides. Herbs, or rarely shrubs, nearly all covered with a white stellate soft down. *M. incana*, *annua*, *græca*, and *fenestralis* are popular border flowers, especially the first; the leaves of all the species, and also of *Cheiranthus*, and many other plants of this class, may be used as potherbs or salads.

1382. *Cheiranthus*. So called from the Arabic *kheiry*, the name of a plant with red sweet-scented flowers. Herbs, or occasionally shrubs, with entire or toothed leaves, and flowers of various colors. *C. Cheiri* is a

1443. *Raphanus*. Siliques transversely many-celled or dividing into several joints.
 4. *Cotyledons incumbent, linear, spirally or rather circinate twisted.* (O |||) SPIROLOBEE, Dec.
 1444. *Bunias*. Silicle nucamentaceous, indehiscent, 2-4-celled. Cotyledons twisted spirally.
 1445. *Erucaria*. Siliques lomentaceous, 2-jointed; the lower joint having two cells, the upper being ensiform. Cotyledons replicate, somewhat spiral.
 5. *Cotyledons incumbent, linear, with two legs, or a double plait, that is to say, plaited twice crosswise. Seeds depressed.* (O ||||) DIPLECOLOBEE, Dec.
 1446. *Heliophila*. Siliques elongate or rarely oblong or oval. Dissepiment linear or oval. Valves flat, or in the long siliques somewhat convex. Calyx equal at base.
 1447. *Subularia*. Silicle oval. Dissepiment elliptical. Valves convex. Cells many-seeded. Stigma sessile.
 C. *Cotyledons 2. Petals 4, not cruciate. Thalamus large, hemispherical or elongated. Stamens 4-6.00.*
 1448. *Cleome*. A honey gland at each division of the calyx, except the lowest. Calyx 4-leaved. Petals ascending.

8945 Stem weak cæsious, Petals pinnatifid quickly perishable

8946 Stem shrubby at base erect branched, Leaves lanceolate entire hoary, Pods subcylind. without glands

- 8947 Stem herbaceous erect branched, Leaves lanceolate blunt hoary, Pods subcylindrical without glands
 8948 Stem half shrubby erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands
 8949 Stem herbaceous erect branched, Leaves lanceolate smooth, Pods somewhat compressed without glands
 8950 Stem $\frac{1}{2}$ shrubby erect simple, Leaves close obovate downy, Pods downy without glands broadest at base
 8951 Stem somewhat erect herbaceous branch. Lvs. obl. downy; lower sinuated, Pods comp. velvety and gland.
 8952 Stem erect branched, Leaves downy or pubescent toothed or pinnatifid, Pods compressed downy
 β Pods twice as short as α
 8953 Stem erect nearly simple naked, Leaves linear blunt hoary entire, Flowers subsessile, Pods compressed
 8954 Stem $\frac{1}{2}$ shrubby at base branched erect, Leaves downy linear entire or toothed, Fl. subsess. Pods roundish
 8955 Stem suberect branched, Leaves sinuate pinnatifid, Pods with three acute nearly equal points
 8956 Stem suberect branched, Leaves downy lanceolate repand toothed, Fl. sessile, Middle point of pod longest

8957 Leaves lanc. entire, Hairs 2-parted appressed or none, Pods linear, Stigmas with recurved lobes

8958 Lvs. obl. lanc. somew. toothed, Hairs 2-parted or none, Stem decum. branch. Pet obov. Pods erect pointed

8959 Leaves linear entire somewhat silky, Stem half shrubby

8960 Leaves linear-lanceolate acuminate finely serrated downy with 2-parted hairs, Stem shrubby branched

8961 Leaves linear-lanceolate acuminate entire downy with appressed 2-parted hairs, Stem shrubby branched

8962 Leaves lin. lanc. entire roughish, Stem shrubby branched, Pods compressed, Pedic. half as short as calyx

8963 Leaves linear entire rough clustered, Stem shrubby branched, Pods roundish 3 times as long as calyx

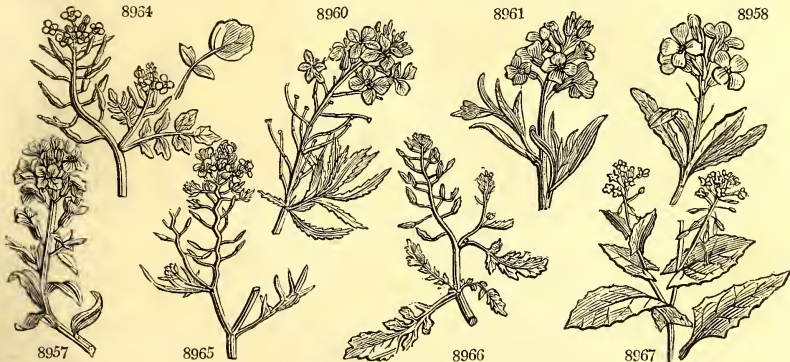
8964 Leaves pinnatifid, Segments ovate subcordate repand

8965 Leaves pinnatifid, Segments lanceolate serrate or cut

8966 Leaves pinnated-lobed, lobes confluent toothed smooth, Root fusiform, Petals as long as calyx

8967 Downy, Rad. lvs. toothed backwards, cauline sagittate oblong blunt, Stems erect branched from the base

8968 Radical leaves stalked obovate toothed or lyrate: upper pinnatifid, Lobes linear entire

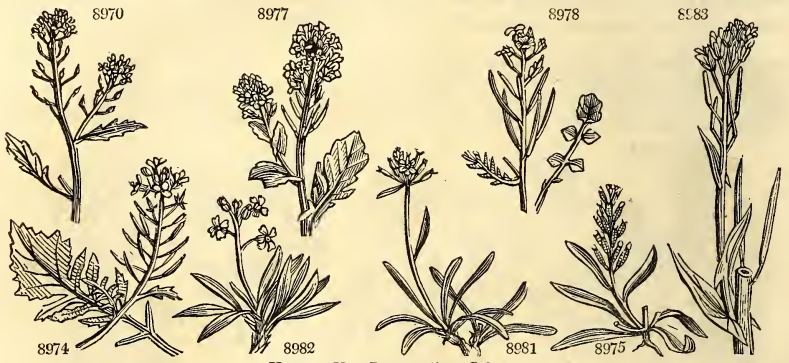


and Miscellaneous Particulars.

popular flower of long standing, admired for its various colors and agreeable odor. Being an acrid and hardy evergreen, it is sometimes sown in pastures, along with parsley, thyme, &c. as a preventative of the rot in sheep.

1383. *Nasturtium*, is said to have been so called from the effect its acrimony produces upon the muscles of the nose; *nasus tortus* signifying a convulsed nose. *Pliny*. *N. officinale* is a well known popular salad, gathered wild in most parts where it is found, and since 1808, cultivated to a considerable extent in the neighbourhood of London. A running stream of clear water is essential to its cultivation; in the bed of this stream the plants are inserted in rows in the direction of the current, and all that is necessary is to take up and replant occasionally, and to keep up the plants free of mud or any accumulation of extraneous matters, and to see that other plants, especially the *Sium nodiflorum*, a poisonous plant resembling the water-cress, do

8969	pyrenaicum R. Br.	Pyrenean	✓ Δ un	1/2 my.jn	Y	Pyrenees	1775.	D co	Act. helv. 4. t.15
8970	amphibium R. Br.	amphibious	✓ Δ w	1 1/2 jn.au	Y	Britain	riv.ba.	D co	Eng. bot. 1340
8971	benghalense Dec.	Bengal	○ ○ un	1/2 jn.au	Y	E. Indies	...	S co	
8972	microspérum Dec.	Chinese	○ ○ un	1/2 jn.au	W	China	1820.	S co	
8973	indicum Dec.	doubtful	○ ○ un	1/2 jn.au	Ap	China	...	S co	
1384.	LEPTOCARPÆA. Dec.	LEPTOCARPÆA. Dec.				Cruciferae.		Sp. 1.	
8974	Loeselii Dec.	Loesel's	○ w	1 1/2 au	Y	Germany	1683.	S co	Jac. aust.4. t.324
	Turritis Loeselii R. Br.								
1385.	NOTOCERAS. R. Br.	NOTOCERAS.				Cruciferae.		Sp. 2-4.	
8975	canariense R. Br.	Canary	○ j un	1/2 au.s	Y	Canaries	1779.	S co	Jacq. ecl. t. 111
8976	hispanicum Dec.	Spanish	○ j un	1/2 au.s	Y	Spain	1821.	S co	
1386.	BARBAREA R. Br.	WINTER CRESS.				Cruciferae.		Sp. 4-6.	
8977	vulgáris R. Br.	common	✓ Δ cul	1 1/2 my.au	Y	Britain	rub.	D co	Eng. bot. 443
8978	præcox R. Br.	Belleisle Cress	✓ Δ cul	1 ap.o	Y	England	brooks.	D co	Eng. bot. 1129
8979	ibérica Dec.	Barbarea-lvd.	✓ Δ un	1 my.au	Y	Iberia	1816.	C lp	
8980	plantaginea Dec.	Winter cress-lv.	✓ Δ un	1/2 jl.s	Y	Levant	1799.	D co	
	Sisymb. barbarea L.								
1387.	BRAY'A Stern.	BRAYA.				Cruciferae.		Sp. 1.	
8981	alpina Stern.	alpine	○ cu	1/2 jn	Fu	Carinthia	1823.	S p1	
1388.	PAR'RYA. R. Br.	PARRYA.				Cruciferae.		Sp. 1.	
8982	arctica R. Br.	northern	○ j cu	1/2 ...	Pu	Melville I.	1820.	S p1	Parry's append.
1389.	TURRITIS. R. Br.	TOWER MUSTARD.				Cruciferae.		Sp. 1-3.	
8983	glabra L.	long-podded	○ w	1 1/2 my.jn	W	England	gr.pa.	S co	Eng. bot. 777
1390.	AR'ABIS. L.	WALL CRESS.				Cruciferae.		Sp. 32-65.	
8984	vérna R. Br.	vernal	○ w	1 my.jn	Pu	France	1710.	S s1	Barr. ic. 476
8985	alpina L.	Alpine	✓ Δ pr	1/2 mr.my	W.w	Switzerl.	1596.	D p1	Bot. mag. 226
8986	álbida Steud.	early-flowering	✓ Δ pr	1/2 ja.o	W	Caucasus	1798.	D s1	Jacq. ecl. t. 71
	A. caucásica W.								
8987	toxophýlla Bieb.	bow-leaved	✓ ○ pr	1 jl.au	W	Volga	1823.	S co	
8988	auriculáta Lam.	auricled	✓ ○ pr	1/2 my	W	S. Europe	...	S co	W. & Kit.1. t.59
8989	saxátillis All.	stone	✓ ○ un	1/2 my	W	Switzerl.	...	D co	Vill. daup.3. t.37
8990	crispáta W.	crisp	✓ Δ pr	1 my	W	Carniola	1816.	D co	
8991	sagittáta Dec.	sagittate	✓ ○ un	1 my.jl	W	S. France	...	S co	
8992	hirsúta Scop.	hairy	✓ Δ w	1 my.jl	W	Britain	rocks.	D s1	Eng. bot. 587
8993	Alliónii Dec.	upright	✓ Δ w	2 my.jn	W	Italy	1804.	D co	
	Turritis stricta W.								
8994	murális Bert.	wall	✓ Δ un	1/2 my.jn	W	Italy	1824.	D co	
8995	stricta Huds.	Bristol	✓ Δ pr	1/2 my	Cr	England	rocks.	D s1	Eng. bot. 614
8996	ciliáta R. Br.	ciliated	✓ ○ pr	1/2 jn.jl	W	Ireland	ir.sh.	S s1	Eng. bot. 1746
8997	incána Roth.	hispid-stalked	✓ ○ un	1/2 ap.my	W	Switzerl.	1816.	S s1	
8998	Thaliána L.	common	✓ ○ w	1/2 ap.my	W	Britain	walls.	S s1	Eng. bot. 901
8999	serpylliflória Vill.	thyme-leaved	✓ ○ un	1/2 jn.jl	W	S. France	1823.	S co	Vil. dauph.3. t.37
9000	pubescens Desf.	pubescent	✓ Δ un	1 1/2 ap.my	W	Barbary	1825.	S co	Desf. atl. t. 163
9001	præcox W. & K.	shortly	✓ Δ un	1/2 jn.jl	W	Hungary	1820.	D co	
9002	hispida L.	short-podded	✓ Δ w	1/2 my.jl	Pu	Britain	al.roc.	D co	Eng. bot. 469
9003	lyráta L.	lyrate	○ un	1/2 my.jl	W	N. Amer.	...	S co	
9004	arenosa Scop.	purple	○ pr	1/2 jn.jl	Pk	Germany	1798.	S s1	Scop. carn. t. 40



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not find their way into the plantation. Near Rickmansworth, in Hertfordshire, there is a fine stream of water on a chalky bottom, in which one cultivator grows five acres, and sends a supply to London every day in the year, Sundays excepted. There are also large plantations at Uxbridge, Gravesend, and other places.

Some market-gardeners, who can command a small stream of water, grow the water-cress in beds sunk about a foot in a retentive soil, with a very gentle slope from one end to the other. Along the bottom of this bed, which may be of any convenient length and breadth, chalk or gravel is deposited, and the plants are inserted about six inches distance every way. Then, according to the slope and length of the bed, dams are made six inches high across it, at intervals; so that when these dams are full, the water may rise not less than three inches on all the plants included in each. The water, being turned on, will circulate from dam to dam; and the plants, if not allowed to run to flower, will afford abundance of young tops in all but the winter months. A stream of water no larger than what will fill a pipe of an inch bore, will, if not absorbed by the soil, suffice to irrigate in this way an eighth of an acre. As some of the plants are apt to rot off in winter, the plantation should be laid dry two or three times a year, and all weeds and decayed parts removed, and vacancies filled up. Cress grown in this way, however, is far inferior to that grown in a living stream flowing over gravel or chalk.

The water-cress has lately been cultivated in the neighbourhood of Paris, and also near Edinburgh. 1384. *Leptocarpea*. From λεπτος, slender, and καρπον, fruit. A genus distinguished from *Sisymbrium* by its accumbent cotyledons.

- 8969 Radical leaves stalked obovate or lyrate, Cauline amplexicaul pinnatifid, Lobes linear entire
 8970 Leaves obl. lanc. pinnatifid or serrated, Root fibrous, Petals larger than calyx, Silicles ellipsoid
 8971 Leaves obovate cuneate toothed at end, Pods roundish subtergird, Bractes a little shorter than pods
 8972 Lvs. smooth : rad. stalked pinnatifid ; caul. stem-clasping cut serr. Pods roundish, Pedic. bracteate very short
 8973 Lvs. ovate lanc. toothed backwards acuminate at each end smooth, Pods roundish 4 times as long as stalk

8974 The only species. Leaves stalked pinnatifid sublyrate with cut toothed acuminate lobes

- 8975 Pods 2-horned, Petals equal, Leaves entire, Hairs strigose fixed by their middle 2-parted appr. scattered
 8976 Pods 2-horned, Petals unequal, Leaves ent. Hairs strigose fixed by their middle 2-parted very numerous

- 8977 Lower leaves lyrate : terminal lobe roundish ; upper obovate toothed
 8978 Lower leaves lyrate : terminal lobe ovate ; upper pinnatifid with linear oblong entire lobes
 8979 Radical and lower leaves pinnatifid-lyrate : lateral lobes ovate ; terminal cordate entire
 8980 Lower leaves toothed lyrate : lateral lobes dentiform ; terminal very large subcordate, upper ovate

8981 Leaves linear narrowed at base smooth acute

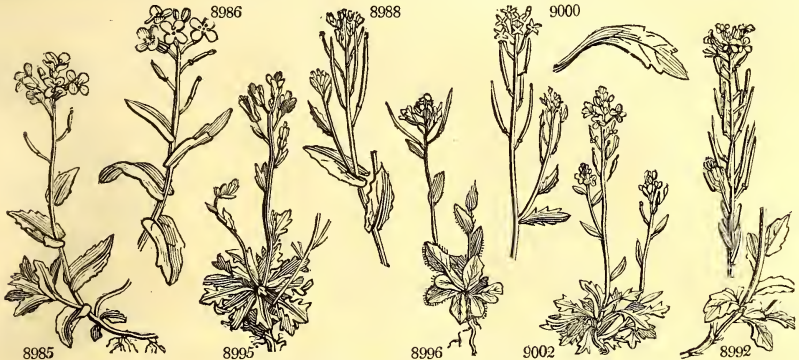
8982 Pods lin.-oblong, Anthers oval, Leaves entire, Peduncles smooth

8983 Rad. leaves toothed hairy : cauline stem-clasping entire smooth, Pods erect 6 times as long as stalk

- 8984 Cauline lvs. cord. stem-clasping rough with 3-parted down, Pedicels shorter than cal. Stigma somew. emarg.
 8985 Leaves many-toothed villous with branched hair lanc. acute : rad. somew. stalked ; caul. cord. stem-clasp.
 8986 Leaves few-toothed hoary with branched hairs : rad. obov. oblong ; cauline cordate sagitt. stem-clasping

- 8987 Lvs. pubesc. with minute stellate down : rad. obl. stalked sinuate toothed ; cauline sagittate lanceol. entire
 8988 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline bluntly cord.-auricled
 8989 Lvs. somew. toothed rough with branch. hair : lower oval narr. into a stalk ; cauline acutely cord.-auricled
 8990 Lvs. acutely toothed lanc. stem-clasping wavy rough with branching hairs : rad. narrowed into the stalk
 8991 Lvs. somew. toothed rough : rad. ovate or obl. narrowed into the stalk ; cauline lanceol. sagittate cordate
 8992 Lvs. toothed rough with generally branched hairs : radical obov. obl. narr. into the stalk ; caul. ovate lanc.
 8993 Lvs. smooth : radical ovate-oblong somewhat toothed narrowed at base ; cauline sessile ovate serrated

- 8994 Leaves hairy with branched pubescence : radical spatulate bluntly toothed ; cauline ovate acutely toothed
 8995 Leaves rough with scattered bifid down : radical obov. toothed ; cauline obl. nearly entire, Raceme erect
 8996 Leaves somewhat toothed smooth ciliated : radical subsessile oval oblong ; cauline oblong, Raceme erect
 8997 All the lvs. sessile somew. toothed hoary with branched hairs : radical obov. obl. ; cauline obl. Rac. erect
 8998 Leaves hairy somewhat toothed : radical stalked ovate oblong, Stem branched, Pods ascending
 8999 Leaves nearly entire rough with branched hairs : radical and caul. oval narrowed at base, Raceme lax
 9000 Lvs. pubesc. coarsely toothed : rad. spatulate lanc. narrowed into the stalk ; caul. lanc. Pods pubescent
 9001 Leaves oblong acute sessile entire smooth, Stems strigose, Runners creeping, Pods spreading
 9002 Leaves nearly smooth : radical cut ; cauline oblong linear entire, Stem generally branched
 9003 Rad. leaves lyrate pinnatifid smooth or ciliated : cauline linear, Stem hispid at base somewhat branched
 9004 Lvs. vill. with forked down : rad. lyrate pinnat. ; caul. cut toothed, Stem branched hisp. with simple hairs



and Miscellaneous Particulars.

1385. *Notoceras*. From *varos*, the back, and *zegeas*, a horn. The structure of the pod of this genus is intermediate between *Erysimum* and *Capsella*. The species are small annuals, with very minute flowers, which are sometimes apetalous.

1386. *Barbarea*. A name used by Dodoens, because the plant had been called the herb of St. Barbara by some preceding botanists. *B. vulgaris* is sometimes cultivated as a spring salad, but is much less delicate than the common cress, and has nothing in flavor to recommend it. *B. præcox*, the American or Belleisle cress of gardeners, is preferred to the other, and cultivated in a number of gardens.

1387. *Braya*. A curious little plant, with the habit of *Arabis* cerulea. Leaves are linear, racemes terminal, flowers purple. The genus is not completely known ; but it appears to be intermediate between *Silicuosæ* and *Siliculosæ* ; related to *Draba* on one hand, and *Arabis* on the other. It is a native of the Carinthian alps, where it was found by Dr. Hoppe, who named it after Count Bray, a German nobleman.

1388. *Parrya*. Named by Mr. R. Brown, after Captain Edward Parry, the commander of the British expeditions to discover the north-west passage round America. It was found upon Melville island, and once was raised from seeds brought home by some of the officers, but it never flowered, and is now lost.

1389. *Turritis*. From *turris*, a tower ; the leaves and seeds giving the stem a pyramidal form. This genus is principally distinguished from *Arabis* by its seeds being in two rows, and by its habit.

1390. *Arabis*. Native of *Arabia*, according to De Theis ; but this is a forced explanation, and scarcely the true root of the word. Distinguished from all the neighbouring genera by its linear compressed siliques, and flat valves.

9005 Halléri <i>L.</i>	Haller's	∞	○	un	1	jn.jl	W	Switzerl. ...	S	co	Wal.&Kit. t.120
9006 cebennensis <i>Dec.</i>	Montpellier	∞	○	un	1½	jn.jl	Pa.pu	S. France 1820.	S	co	
9007 Turrita <i>L.</i>	tower Mustard	∞	○	w	1½	ap.my	Sul	England walls	S	sl	Eng. bot. 178
9008 pendula <i>L.</i>	pendulous	∞	○	un	1	my.jl	W	Siberia 1759.	S	sl	Jac. vind. 3. t. 34
9009 lævigata <i>Dec.</i>	polished	∞	△	un	1½	my.jn	W	N. Amer. 1759.	D	co	
9010 canadensis <i>L.</i>	sickle-podded	∞	△	un	2	my.jl	W	N. Amer. 1768.	D	sl	Flu. alm. t.86.f.8
9011 nótans <i>W.</i>	noddling	∞	△	pr	½	mr.ap	W	Switzerl. 1658.	D	co	Jac. aust. 3. t.281
9012 bellidifolia <i>Jacq.</i>	Daisy-leaved	∞	△	pr	½	my.jn	W.Y	Switzerl. 1773.	D	pl	Jac. aust. 3. t.280
9013 caréola <i>Wulf.</i>	blue	∞	△	pr	½	jn.jl	Pa.B	Switzerl. 1793.	D	co	Al.ped. 1. t.40.f.2
9014 collina <i>Ten.</i>	hill	∞	△	pr	½	jn.jl	W	Naples 1824.	D	co	
9015 lácida <i>L.</i>	shining-leaved	∞	△	pr	½	jn.jl	W	Hungary 1790.	D	pl	
1391. MACROPODIUM. <i>R.Br.</i>	MACROPODIUM.							<i>Cruciferae.</i> <i>Sp. 1.</i>			
9016 nivále <i>R.Br.</i>	Siberian	∞	△	pr	1	jn.s	W	Siberia 1796.	D	co	Pall.it.2. ap. t.U
1392. CARDAMINE. <i>L.</i>	LADY'S SMOCK.							<i>Cruciferae.</i> <i>Sp. 16—55.</i>			
9017 asarifolia <i>L.</i>	Kidney-leaved	∞	△	pr	½	jn.jl	W	Italy 1710.	D	pl	Bot. mag. 1375
9018 bellidifolia <i>Crantz.</i>	Daisy-leaved	∞	△	pr	½	ap.jn	W	Scotland sc.al.	D	sl	Eng. bot. 2355
9019 resedifolia <i>L.</i>	Rocket-leaved	∞	△	un	1	jn	W	Germany 1658.	S	co	Al.ped. 1. t.57.f.2
9020 africána <i>L.</i>	African	∞	△	un	1	my.jn	W	C. G. H. 1691.	D	co	Her. parad. 202
9021 trifolia <i>L.</i>	three-leaved	∞	△	un	1½	mr.ap	W	Switzerl. 1629.	D	pl	Bot. mag. 452
9022 chilensis <i>Dec.</i>	Chili	∞	△	un	1	mr.ap	W	Chile 1825.	D	co	
9023 granulosa <i>All.</i>	granular	∞	△	un	1	ap.my	W	Italy 1820.	D	co	
9024 amara <i>L.</i>	bitter	∞	△	pr	½	ap.my	W	Britain wat.pl.	D	pl	Eng. bot. 100
9025 prórepsis <i>Fisch.</i>	creeping	∞	△	un	1	ap.my	W	Siberia 1821.	D	co	
9026 praténsis <i>L.</i>	Cuckoo-flower	∞	△	pr	1	ap.my	Fu	Britain me.pa.	D	ms	Eng. bot. 776
<i> </i> plena	double-flowered	∞	△	pr	1	ap.my	L.P	.....	.....	.....	.....
9027 pennsylvánica <i>L.</i>	Pennsylvanian	∞	△	un	1	my.jn	W	N. Amer. 1818.	S	co	
9028 hirsuta <i>L.</i>	hairy	∞	△	un	1	ja.d	W	Britain mo.s.p.	S	ms	Eng. bot. 492
9029 parviflora <i>L.</i>	small-flowered	∞	○	un	1	ap.my	W	France ...	S	co	Gmel. sib. t. 64
9030 impatiens <i>L.</i>	impatiant	∞	○	un	1	ap.jn	W	Britain al.roc.	S	co	Eng. bot. 80
9031 latifolia <i>Fahl.</i>	broad-leaved	∞	△	or	1½	jn.au	Fu	Spain 1710.	S	co	Her. parad. 203
9032 chelidonia <i>L.</i>	Celandine-ldv.	∞	△	or	1	jn.au	Fu	Italy 1739.	D	co	Pl.rar.hu.2.t.140
1393. PTERONEURON. <i>Dec.</i>	PTERONEURON.							<i>Cruciferae.</i> <i>Sp. 1—2.</i>			
9033 græcum <i>Dec.</i>	Grecian	○	un			jn.jl	Pa	S. Europe 1710.	S	co	Boc. sic. t. 44. f.2
<i>Cardamine græca</i> <i>L.</i>											
1394. DENTARIA. <i>L.</i>	DENTARIA.							<i>Cruciferae.</i> <i>Sp. 7—16.</i>			
9034 enneaphylla <i>L.</i>	nine-leaved	∞	△	el	1	my.jn	Pa.Y	Austria 1656.	D	sp	Jac. aust. 4. t.316
9035 diphylla <i>Mich.</i>	two-leaved	∞	△	el	2	my.jn	W.pu	N. Amer.	D	sp	Bot. mag. t.1465
9036 máxima <i>Nutt.</i>	large	∞	△	el	2	my.jn	Pa.pu	N. Amer. 1823.	D	sp	
9037 trifolia <i>W. & K.</i>	three-leaved	∞	△	el	1	my.jn	W	Hungary 1824.	D	sp	Wal.&Kit. t.139
9038 pentaphylla <i>Scop.</i>	five-leaved	∞	△	el	1½	my.jn	Pa.pu	Switzerl. 1656.	D	sp	Garid. prov. t.29
9039 pinnata <i>Lam.</i>	seven-leaved	∞	△	el	1	my.jn	Pa.pu	Switzerl. 1656.	D	sp	Garid. prov. t.28
9040 bulbifera <i>L.</i>	bulbiferous	∞	△	el	1½	ap.my	Pu	England sha.pl.	D	sp	Eng. bot. 309
1395. LUNA'RIA. <i>L.</i>	HONESTY.							<i>Cruciferae.</i> <i>Sp. 2.</i>			
9041 rediviva <i>L.</i>	perennial	∞	△	or	3	my.jn	L.P	Germany 1596.	D	co	Lam.ill.t.561.f.1
9042 biennis <i>Dec.</i>	annual	∞	○	or	4	my.jn	L.P	Germany 1570.	S	co	Lam.ill.t.561.f.2
<i>ánua</i> <i>L.</i>											
1396. RICO'TIA. <i>L.</i>	RICOTIA.							<i>Cruciferae.</i> <i>Sp. 1.</i>			
9043 ægyptia <i>L.</i>	Egyptian	○	cu		½	jn.jl	L.P	Egypt 1757.	S	sp	Bot. reg. 49
1397. FARSETIA. <i>Turr.</i>	FARSETIA.							<i>Cruciferae.</i> <i>Sp. 4—7.</i>			
9044 cheiranthoides <i>R.Br.</i>	stock	∞	∞	cu	1	jn.jl	W.pu	Levant 1788.	C	co	Desf. atl.2. t.160
9045 suffruticosa <i>Dec.</i>	half-shrubby	∞	∞	or	1	ap	W	Persia 1823.	C	co	Vent. cels. t. 19
9046 lunarioides <i>R.Br.</i>	oriental	∞	∞	or	1	jn.jl	Y	Archipel. 1751.	D	co	Tour. it. 1. p.242
9047 clupeata <i>R.Br.</i>	buckler-podded	∞	∞	or	1½	jn.jl	Y	S. Europe 1596.	S	co	Dal. lug.1141.f.1



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1391. *Macropodium.* So named because the pod is elevated above the receptacle upon a stalk; μακρος, long, and πους, a foot or stalk. A genus differing from *Arabis* chiefly in its stalked pod, and its calyx being a little thickened at the base. A little, smooth, erect, simple herb, with ovate, lanceolate, acuminate leaves, and white flowers.

1392. *Cardamine.* From καρδια, the heart, and δυναω, to strengthen, in allusion to its supposed stomachic qualities. The leaves of *C. pratensis* were formerly used in salads. *C. impatiens* is so named from the sudden bursting of the seed pods, being ripe and pressed between the fingers. *C. pratensis* frequently has double flowers. *C. hirsuta* and, it is said, other species, produce young plants from the leaves. All that is necessary is to lay the leaf on a moist grassy surface, or on moss kept moist. The plant propagates itself extensively in this way in moist soils.

1393. *Pteronuron.* From πτερον, a wing, and νευρον, a nerve, in allusion to the winged nerves of the pods, by which it is distinguished from *Dentaria* and *Cardamine*.

- 9005 Lower lvs. stalked lyrate: terminal lobe ovate; upper lanceolate cut, Stem branched weak softly villous
 9006 Leaves all stalked ovate acuminate, coarsely toothed velvety with very fine down, Pedic. and pods spreading
 9007 Lvs. stem-clasping acum. somewhat toothed pubescent, Pedicels length of calyx, Pods 1-sided decurved
 9008 Leaves stem-clasping toothed oblong dilated and cordate at base, Stem furrowed hispid, Pods pendulous
 9009 Cauline leaves linear sessile smooth: lower somewhat toothed; radical obovate, Pods erect
 9010 Cauline leaves sessile oblong lanceolate acuminate somewhat toothed, Pods pendulous falcate [stalk
 9011 Lvs. roughish nearly ent.: rad. obov.; caul. ov. or obl. Rac. nodding, Pods erect 3 times as long as their
 9012 Lvs. smooth nearly entire: rad. obovate; cauline ovate, Raceme erect, Pods 4 times as long as their stalk
 9013 Leaves smooth nearly entire: rad. oblong obovate; cauline few oblong, Raceme nodding, Pods. erect
 9014 Lvs. hoary with stellated down obl. sinuate toothed: rad. stalked; caul. sess. Pods 8 times as long as their
 9015 Leaves stem-clasping shining [stalk

9016 Leaves ovate lanceolate acuminate subserrate, Raceme terminal long

- 9017 Lvs. smooth stalked cordate roundish subsinate toothed, Stem erect, Pods erect twice as long as stalk
 9018 Leaves smooth thickish: radical stalked ovate entire; cauline few entire or 3-lobed, Pods erect
 9019 Leaves smooth membranous stalked: radical undivided; lower cauline 3-fid, upper 5-lobed, Pods erect
 9020 Leaves smooth 3-fid, Segments stalked ovate acuminate toothed, Pods spreading
 9021 Lvs. smoothish 3-fid, Segm. sess. rhomb. roundish tooth. Scape naked, Lower branches root-like creeping
 9022 Leaves above downy trifid, Segments somewhat stalked ovate lanceolate crenate, Stem ascending
 9023 Radical leaves stalked ovate subcordate: cauline pinnatifid with oblong entire lobes, Root granular
 9024 Leaves pinnatifid, Segments of radical roundish; of cauline toothed angular, Stem rooting at base
 9025 Lvs. pinnatifid, Segm. ovate nearly entire: term. round. 3-lobed, Runners creeping, Stem ascend. pubesc.
 9026 Lvs. pinnatifid, Segm. of rad. roundish: of cauline linear or lanc. entire, Style very short, Stigma capitate
 9027 Leaves pinnatifid or lyrate, Lobes oval angular toothed blunt, Stem erect, Petals oblong linear
 9028 Leaves pinnatifid, Segm. of radical roundish mucronate stalked, of the upper oblong subsess. Petals obl.
 9029 Leaves pinnatifid, Lobes sessile obl. linear entire the lowest distant from the stem, Petals oblong linear
 9030 Leaves pinnatifid, Segm. oval oblong somewhat toothed, lowest close to the stem acute stipule-like
 9031 Leaves pinnatifid smooth, Segm. 3-7 roundish toothed angular, Pods erect a little longer than stalk
 9033 Leaves pinnatifid nearly smooth, Segm. stalked ovate toothed lower pinnatifid, Segm. 3-4

9033 Segm. of leaves somewhat stalked roundish tooth-lobed nearly equal

- 9034 Leaves 3 whorled stalked trifid, Segm. oval lanceolate acuminate serrated, Stamens length of petals
 9035 Leaves 1-2 alternately shortly stalked 3-fid, Segm. ovate lanceolate coarsely and unequally serrate lobed
 9036 Leaves many alternate stalked trifid, Segm. broad oval cut toothed, Axillæ without glands
 9037 Leaves many alternate stalked trifid, Segm. ovate-lanceolate remotely toothed, Axillæ with glands
 9038 Caul. lvs. many alternate stalked palmate 5-lobed, Segm. oblong lanceolate acuminate coarsely serrated
 9039 Cauline leaves alternate stalked pinnatifid, Segm. oblong acuminate serrate toothed
 9040 Cauline leaves alternate pinnatifid: upper undivided mostly bearing bulbs in the axillæ

9041 Pods lanceolate narrowed at each end

9042 Pods elliptical blunt at each end

9043 Leaves sub-bipinnatifid, Lobes oblong sinuate angular

- 9044 Stem shrubby erect, Leaves linear with close hairs
 9045 Stem half-shrubby at base erect, Leaves lanceolate downy
 9046 Stems half-shrubby ascending, Leaves oblong obovate stalked and pods hoary with down
 9047 Stems herbaceous erect, Leaves oblong repand, Pods velvety with short down, Stigma capitate



and Miscellaneous Particulars.

1394. *Dentaria*. From *dens*, a tooth; its roots are furnished with projecting angles, which resemble the molar teeth of quadrupeds. Plants with broad palmate or pinnate leaves, and shewy white, yellowish, or purple flowers. The dried root of *D. diphylla* is used instead of mustard by the Americans, under the name of pepper root.

1395. *Lunaria*. Derived from *luna*, the moon, in allusion to the broad round silvery silicles. Large hairy plants, with alternate or opposite cordate leaves, and large lilac flowers.

1396. *Ricotia*. A word, the meaning of which is no where explained. It was probably formed after some obscure botanist. Small weak branched annual plants, with variously lobed foliage, and pale lilac flowers.

1397. *Farsetia*. In memory of Philip Farsetti, a noble Venetian, celebrated for his botanical erudition. A small genus, with hoary entire leaves, and yellow or dirty-white flowers.

1398. BERTERO' A. Dec.	BERTEROEA.			<i>Cruciferae.</i>	<i>Sp.</i>	3—5.				
9048 incana Dec.	hoary	£ ○ or	1½ jl.s	W	Europe	1640.	S s.l	Dal. lug. 1181.	f.2	
	<i>Farsétia incana</i> R. Br.									
9049 mutabilis Dec.	changeable	£ △ or	1½ jl.au	W.pk	Levant	1802.	D co	Vent. cels.	85	
	<i>Farsétia mutabilis</i> R. Br.									
9050 obliqua Dec.	oblique	£ — | or	1 jl	W	Sicily	1823.	C co	Flora Græca,	623	
1399. AUBRIETIA. Adans.	AUBRIETIA.			<i>Cruciferae.</i>	<i>Sp.</i>	1—2.				
9051 deltoidea Dec.	purple	£ △ or	¾ mr.my	Pu	Levant	1710.	C p.l	Bot. mag.	126	
	<i>Farsétia deltoidea</i> R. Br.									
1400. VESICARIA. Lam.	VESICARIA.			<i>Cruciferae.</i>	<i>Sp.</i>	3—10.				
9052 utriculata Lam.	smooth	£ △ or	1 ap.jn	I.Y	Levant	1739.	D s.l	Bot. mag.	130	
9053 sinuata Poir.	sinuate-leaved	£ △ or	1 ap.jn	L.Y	Spain	1896.	C s.l	Clu. his. 2.	134. f.1	
9054 cretica Poir.	Cretan	£ — | or	¾ my.au	Y	Crete	1739.	D s.l	Alp. exot. t.	118	
1401. ALYSSUM. L.	MADWORT.			<i>Cruciferae.</i>	<i>Sp.</i>	18—52.				
9055 saxatile L.	rock	£ — | or	1 ap.my	Y	Candia	1710.	C s.l	Bot. mag.	159	
9056 Gemonense L.	Austrian	£ — | or	1 ap.my	Y	Europe	...	C co	Jac. ic. 3. t.	503	
9057 argenteum W.	silvery	£ △ or	1 ap.my	Y	Switzerl.	...	D co	All. ped. 3.	f. 5.3	
9058 Bertolonii Desc.	Bertoloni's	£ △ or	1 ap.my	Y	Switzerl.	1823.	D co			
9059 murale W. & K.	wall	£ △ or	1 ap.my	Y	Hungary	1820.	D co	Wal. & Kit. 1.	t. 6	
9060 tortuosum W. & K.	twisted	£ △ cu	1 jn.jl	Y	Hungary	1804.	D s.l	Wal. & Kit. t.	91	
9061 alpêtre L.	alpine	£ △ cu	1 jn.jl	Y	S. Europe	1825.	D co	All. ped. t. 18.	f. 2	
9062 montanum L.	mountain	£ △ or	¾ jl.au	Y	Germany	1713.	D s.l	Bot. mag.	419	
9063 rostratum Stev.	beaked	£ ○ un	¾ my.jl	Y	Crimea	1823.	S co	St. ac. p. 3. t.	15. f. 1	
9064 micropetalum Fisch.	small-petaled	£ ○ un	¾ my.jl	Y	Siberia	1823.	S co			
9065 campêtre L.	field	£ ○ un	1 jl.au	L.Y	France	1768.	S s.p	Barr. ic. t. 912.	f. 2	
9066 calycinum L.	calycine	£ ○ un	1 jl.au	L.Y	Austria	1740.	S s.p	Jac. aust. t. 338		
9067 minimum W.	small	£ ○ un	¾ jl	L.Y	Spain	1791.	C s.l	Tratt. thes. t. 35		
9068 edentulum W. & K.	toothless	£ ○ un	1 jl	Y	Hungary	1820.	S co	Wal. & Kit. 1.	t. 92	
9069 maritimum Lam.	sweet	£ ○ un	1 jn.s	W	England sea co.	C s.l	Eng. bot.	1729		
9070 rupêtre Tenore.	rock	£ — | un	¾ jn.s	W	Naples	1825.	C co	Tenore nap. t. 60		
9071 halimifolium W.	purslane-leav'd	£ — | un	¾ jn.s	W	S. Europe	1820.	C co	Bocc. mus. t. 39		
9072 spinosum L.	thorny	£ — | un	¾ jn.au	W	S. Europe	1683.	C s.l	Barr. ic.	808	
1402. CLYPEOLA. W.	TREACLE MUSTARD.			<i>Cruciferae.</i>	<i>Sp.</i>	1—3.				
9073 Ion Thlaspi L.	annual	£ ○ cu	¾ my.jl	Y	S. Europe	1710.	S co	Cav. ic. 1. t. 34.	f. 2	
1403. PELTARIA. L.	PELTARIA.			<i>Cruciferae.</i>	<i>Sp.</i>	1—3.				
9074 alliacea L.	Garlic-scented	£ △ pr	1 my.jl	Y	Austria	1601.	D s.l	Jac. aust. 2. t.	123	
1404. PETROCAL/LIS. R. Br.	PETROCALLIS.			<i>Cruciferae.</i>	<i>Sp.</i>	1.				
9075 pyrenæica R. Br.	Pyrenean	£ △ cu	¾ my.jn	Pk	Pyrenees	1759.	D s.l	Bot. mag.	713	
1405. DRA/BA. L.	WHITLOW GRASS.			<i>Cruciferae.</i>	<i>Sp.</i>	11—60.				
9076 aizoides L.	sea-green	£ △ pr	¾ f.ap	Y	Wales	rocks.	D s.l	Eng. bot.	1271	
9077 ciliaris L.	ciliate-leaved	£ △ pr	¾ f.ap	W	Switzerl.	1731.	D s.l	Bot. mag.	170	
9078 aizoon Wahl.	evergreen	£ △ pr	¾ my	Y	Carinthia	1823.	D co			
9079 alpina L.	alpine	£ △ pr	¾ ap.my	Y	Lapland	1820.	D co	Wah. lap. t. 11.	f. 4	
9080 hirta L.	hairy	£ △ pr	¾ my.jl	W	N. Europe	1823.	D co	Wah. lap. t. 11.	f. 3	
9081 rupëstris R. Br.	rock	£ △ pr	¾ my.jl	W	Scotland al. roc.	D s.l	Eng. bot.	1338		
9082 stellata Jacq.	stellate	£ △ pr	¾ my.jl	W	Pyrenees	1820.	D co			
9083 incana L.	twisted-podded	£ ○ pr	¾ my.jn	W	Britain al. roc.	S s.l	Eng. bot.	588		
9084 confusa Ehr.	confused	£ △ pr	¾ my.jn	W	N. Europe	...	S co	Flora Dan. t. 130		
9085 nemoralis Ehr.	wood	£ ○ pr	¾ my.jn	Y	Europe	1759.	S s.l	Ho. sys. 4. t. 60.	f. 1	
9086 murâlis L.	Speedwell-lvd.	£ ○ pr	¾ my	W	England moun.	S s.l	Eng. bot.	912		
1406. EROPHILA. Dec.	EROPHILA.			<i>Cruciferae.</i>	<i>Sp.</i>	1—5.				
9087 vulgaris Dec.	common	£ ○ w	¾ mr.ap	W	Britain walls.	S s.l	Eng. bot.	586		
	<i>Draba verna</i> L.									



History, Use, Propagation, Culture,

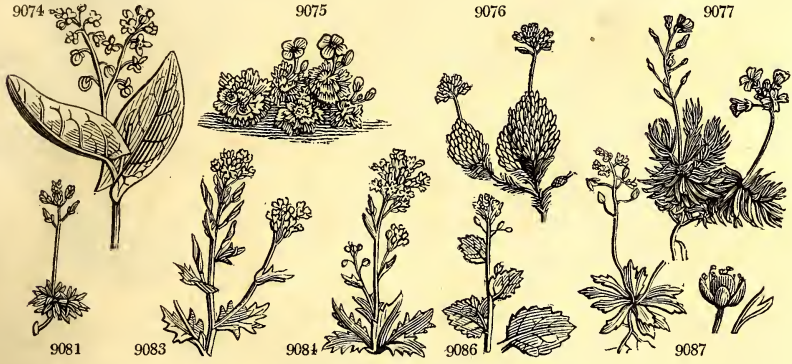
1398. *Berteroa*. Named after Charles Joseph Bertero, a pupil of Balbis, and a friend of M. Decandolle, who speaks in high terms of his merits. A genus distinguished from its allies by its bifid petals and peculiar habit.

1399. *Aubrietia*. Named by Adanson, after Aubriet, the famous French botanical draughtsman. A genus very distinct in habit, and sufficiently different from *Berteroa* in its entire petals, and from *Alyssum* in its bisaccate calyx and oblong fruit.

1400. *Vesicaria*. From *vesica*, a blister or bladder. The silicles of this genus are inflated like small bladders. This is a genus which combines species with bisaccate and an equal calyx, with entire and toothed stamens, with edged or not edged seeds, and with a deciduous or persistent calyx. It will, therefore, require division hereafter.

1401. *Alyssum*. From α , privative, and $\lambda\upsilon\sigma\sigma\alpha$, rage; the *Alyssum* passed among the ancients for a plant which possessed the properties of allaying anger. The $\alpha\lambda\upsilon\sigma\sigma\omega\upsilon$ of Dioscorides is referred by Sprengel to *A. alpestre*. The species are shewy plants, of easy culture. *A. saxatile* is very ornamental early in the season.

- 9048 Silicles pubescent somewhat ventricose
 9049 Silicles compressed flat elliptical smooth
 9050 Silicles flat elliptical downy
 9051 Pedicels longer than calyx
 9052 Calyx bisaccate, Leaves oblong entire smooth; lower ciliate subspatulate
 9053 Calyx equal somewhat spreading and leaves velvety oblong entire or sinuate toothed, Stem herbaceous
 9054 Calyx deciduous, Leaves oblong entire or repand wavy hoary with down
 9055 Stems $\frac{1}{2}$ shrubby at base subcorymbose, Leaves lanc. entire downy, Pods obov. orb. 2-seeded, Seeds edged
 9056 Stems $\frac{1}{2}$ shrubby at base panic. Leaves lanc. nearly entire velvety, Pods roundish 2-4-seeded, Seeds edged
 9057 Stems $\frac{1}{2}$ shrubby at base hoary with stellate down, Lvs. obl. spatul. silvery beneath, Pods ovate roundish
 9058 Stems shrubby at base hoary with stellate down, Leaves obl. obov. silvery beneath, Pods elliptical
 9059 Stems shrubby at base hoary with stellate down, Leaves obl. nearly acute whitish beneath, Pods ovate
 9060 Stems $\frac{1}{2}$ shrubby at base twisted diffuse hoary, Leaves hoary sublanceolate, Racemes corymbose
 9061 Stems $\frac{1}{2}$ shrubby at base diffuse hoary, Leaves obovate hoary, Racemes simple, Pods ovate oblong
 9062 Stems diffuse pubescent, Leaves hoary: lower obovate; upper oblong, Racemes simple
 9063 Stem erect, Flowering branches panic. Lvs. lanceol. downy, Pods roundish elliptic. little longer than style
 9064 Stem erect, Leaves lanceolate, Pods hirsute in long racemes twice as long as style
 9065 Stems diffuse, Leaves lanceolate or somewhat linear hairy, Pods roundish rough 6 times as long as style
 9066 Stems diffuse, Leaves linear lanceolate hoary, Cal. persistent, Pods four times as long as style
 9067 Stems diffuse, Leaves linear lanceolate hoary, Pods roundish emarginate smooth
 9068 Stem erect, Leaves velvety oblong sinuated: upper linear, Cal. spreading, Petals bifid
 9069 Stems half shrubby at base procumbent, Leaves lin. lanceol. acute somewhat hoary, Pods oval smooth
 9070 Stems half shrubby at base somewhat erect, Rad. lvs. obl.-lanc. acute silvery: caul. few lin. Pods woolly
 9071 Stems $\frac{1}{2}$ shrubby ascend. Lvs. obl. obt. narrowed at base scaly, Pods roundish smooth twice as long as style
 9072 Stem shrubby, Branches and old peduncles spiny, Leaves obl. linear silvery, Pods round smooth
 9073 Stems diffuse or ascending
 9074 Cauline leaves sagittate stem-clasping, Pods flat smooth
 9075 Leaves sessile 3-5-fid at end cuneate at base
 9076 Scapes naked smooth, Leaves rigid linear lanceolate keeled ciliated, Stamens as long as petals
 9077 Scapes naked smooth, Leaves long linear keeled ciliated, Stamens scarcely as long as calyx
 9078 Scapes naked smooth, Leaves linear keeled rigid ciliated, Style as broad as hairy pod but twice as short
 9079 Scapes naked downy, Leaves lanceolate flat hairy, Hairs branched, Pods oblong, Style very short
 9080 Scapes downy with 2 toothletted leaves, Rad. leaves obl. nearly entire downy, Pods smooth
 9081 Scapes naked or 1-leaved downy, Leaves lanc. hairy nearly entire, Pods lanceol. pubescent
 9082 Scapes 1-leaved pubescent, Leaves ovate obl. with a short starry down, Pedicels downy, Pods oblong
 9083 Stem leafy branched velvety with starry down, Leaves ovate toothed, Pod obl. smooth somewhat twisted
 9084 Stem leafy branched velvety with starry down, Leaves obl. somewhat toothed, Pods obl. pubescent
 9085 Stem branched leafy downy, Leaves ovate toothed downy, Pods ellipt. obl. many-seeded (32-36) velvety
 9086 Stem branched leafy downy, Lvs. ovate toothed subcord. stem-clasping somewhat hairy, Pods smooth few-seeded (12-16)
 9087 Pods elliptical shorter than stalk, Scapes 5-15-flowered



and Miscellaneous Particulars.

1402. *Clypeola*. From *clypeus*, a buckler, in allusion to the form of its silicle. A little annual plant, hoary, with stellate pubescence.
 1403. *Pellaria*. A name with the same meaning and application as the last; *πύλη* signifies in Greek a small buckler.
 1404. *Petrocallis*. From *πέτρας*, a rock, and *καλός*, beautiful, in allusion to the rocky places where it grows, and which it enlivens with its elegant tufts of rose-colored flowers.
 1405. *Draba*. From *δραβή*, acrid, biting, according to Linnaeus. Little annual or perennial plants, found, for the most part, in the cold mountainous countries of Europe; a few are also found in America. Some of the species have silicles, others silicles.
 1406. *Erophila*. A genus divided from *Draba*, on account of its bifid petals; and deriving its name from *ερός*, the spring, and *φιλία*, to love, in allusion to the time of the year when it appears.

1407. COCHLEA'RIA. L. SCURVY GRASS.				Cruciferae.	Sp. 9—30.			
9088 saxatilis R. Br.	rock	un	½	jn.jl	W	Austria	1775.	D s.l
9089 Armoracia L.	Horse-radish	cul	3	my	W	England	wat.pl.	D s.l
9090 macrocarpa W.&K.	large-capsuled	un	3	jl	W	Hungary	1806.	D s.l
9091 glastifolia L.	Wood-leaved	un	1½	my.jl	W	Germany	1648.	S co
9092 anglica L.	English	ec	½	my	W	Britain	sea sh.	S co
9093 officinalis L.	common	ec	½	ap.my	W	Britain	sea sh.	S co
9094 grónlandica L.	Greenland	ec	½	my.jn	F	Scotland	sc. al.	D co
9095 dánicá L.	Danish	ec	½	my.jn	W	Britain	sea sh.	S co
9096 acaulis Desf.	stemless	un	½	ja.ap	W	Portugal	1824.	D co
1408. THLASPI. L. SHEPHERD'S PURSE.				Cruciferae.	Sp. 7—17.			
9097 latifolium Bieb.	broad-leaved	un	1	mr.ap	W	Crimea	1822.	D co
9098 ceratocarpon L.	Siberian	w	1½	jl	W	Siberia	1779.	S co
9099 arvense L.	Penny-Cress	w	½	jn.jl	W	Britain	corn fi.	S co
9100 alliaceum L.	Garlic-scented	w	½	my.jl	W	S. Europe	1714.	S co
9101 perfoliatum L.	perfoliate	w	½	ap.jl	W	England	sto.pa.	D s.l
9102 montanum L.	mountain	w	½	jl	W	Austria	...	S s.l
9103 alpestre L.	alpine	w	½	my.jl	W	England	m.pas.	D s.l
1409. CAPSEL'IA. Mönch. SHEPHERD'S PURSE.				Cruciferae.	Sp. 1.			
9104 búrsa pastóris Mön. common	common	w	1½	f.n	W	Britain	roadsi.	S co
1410. HUTCHINSIA. R. Br. HUTCHINSIA.				Cruciferae.	Sp. 4—11.			
9105 rotundifolia R. Br.	round-leaved	pr	½	my.jl	W,pu	Switzerl.	1759.	D co
9106 stylósa Dec.	long-styled	pr	1½	my.jl	W	S. Europe	1824.	D co
9107 alpina R. Br.	Alpine	pr	½	ap.jn	W	Germany	1775.	D co
9108 petræa R. Br.	rock	pr	½	mr.my	W	England	rocks.	S co
1411. TESDALIA. R. Br. TESDALIA.				Cruciferae.	Sp. 2.			
9109 nudicaulis R. Br.	naked-stalked	pr	½	my.jl	W	Britain	gra.pa.	S co
9110 reguláris Sm.	regular	pr	½	f.my	W	S. Europe	1824.	S co
1412. IBE'RIIS. L. CANDY-TUFT.				Cruciferae.	Sp. 16—24.			
9111 sempervórens L.	broad-leaved	ft	1½	ja.d	W	Sicily	1679.	C r.m
9112 gibraltárica L.	Gibraltar	or	1	my.jn	W,pu	Spain	1732.	C co
9113 saxatilis L.	rock	or	½	ap.jn	W	S. Europe	1739.	C co
9114 pubescens W.	pubescent	or	½	ap.jn	Pa.V	.....	...	C co
9115 sempervirens L.	narrow-leaved	or	½	ap.jn	W	Candia	1731.	C co
9116 amára L.	bitter	or	1	jn.jl	W	England	chal.fi.	S co
9117 intermédia Dec.	intermediate	or	1	jn.jl	W	France	1823.	S co
9118 pinnáta L.	wing-leaved	or	1	jn.au	W	S. Europe	1596.	S co
9119 odoráta L.	sweet-scented	or	1	jl.au	W	Geneva	1806.	S co
9120 umbelláta L.	purple	or	1	jn.jl	Pu	S. Europe	1596.	S co
9121 linifolia L.	Flax-leaved	or	1½	jl.au	Pu	S. Europe	1759.	C p.l
9122 ciliáta All.	ciliate-leaved	or	½	jn.jl	W	Caucasus	1802.	C co
9123 taúrica Dec.	Taurian	or	½	jn.jl	W	Caucasus	1823.	S co
9124 violácea R. Br.	blunt-ld.-purp.	or	½	jn.jl	Pu	.....	1782.	S co
9125 nána All.	dwarf	or	½	jn.jl	Pu	Dauphiny	1822.	S co
9126 Tenoreána Dec.	Tenore's	or	½	jn.jl	Pa.pu	Naples	1823.	D co
1413. BISCUTEL'IA. L. THE BUCKLER MUSTARD.				Cruciferae.	Sp. 14—25.			
9127 auriculata L.	ear-podded	un	1½	jn.jl	Pa.Y	S. Europe	1683.	S co
9128 erigerifolia Dec.	Erigeron-leav'd	un	1½	jn.jl	Pa.Y	S. Europe	...	S co
9129 hispida Dec.	hispid	un	1½	jn.jl	Y	S. Europe	1824.	S co
9130 lyráta L.	lyre-leaved	un	1½	jn.jl	Y	Spain	1799.	S co
9131 raphanifolia Poir.	radish-leaved	un	1½	jn.jl	Y	Sicily	1822.	S co



History, Use, Propagation, Culture,

1407. *Cochlearia*. From *cochlear*, a spoon. The leaves are hollowed and concave like the bowl of a spoon. The annual species were formerly used as spring salads and antiscorbutics, but are now generally neglected.

C. armoracia, the horse radish, is cultivated as a condiment to roast beef. It is called upon the continent *Cran*, *Cran de Bretagne*, *Raisfort*, *Reeredyck*, &c. &c. Two excellent modes of cultivating it have lately been described in the Horticultural Transactions, by Knight, a nurseryman, and Judd, a gardener. Both agree in trenching the soil to a considerable depth, and putting the manure at the bottom of the trench; but Knight plants the sets on the surface, and calculates on the root that strikes down to the dung for produce. Judd, on the other hand, makes holes quite to the bottom of his trenched soil, and in each drops a set, filling up the hole with wood ashes, rotten tan, or sand, calculating for produce on the shoot made from the set at the bottom of the hole, up through the sand or ashes to the surface. Judd's mode is the most ingenious, and appears the best, but either will do extremely well. A moist soil increases the bitter and alkaline flavor of this and all the Cruciferae.

Common scurvy-grass has powerful medical properties, as antiscorbutic and sialagogue, and stimulating the digestive organs. For ample details respecting its qualities, consult *Wier Cochl. Descr.* lib. 1., Basilea, 1567. *Mællenoroch Cochl. Cur.*, Lipsia, 1674. *Murr. App. Med.* 2. p. 420, &c.

- 9088 Pods lentiform smooth, Rad. leaves obl. toothed hairy ; cauline linear oblong
- 9089 Pods ellipsoid, Rad. leaves obl. crenate ; cauline long lanceolate toothed or cut, Root large fleshy
- 9090 Pods ellipsoid, Rad. lvs. obl. crenate ; cauline lanc. toothed, Teeth cartilaginous, Root fleshy, Sepals erect
- 9091 Pods roundish, Cauline leaves cordate sagittate stem-clasping acuminate entire
- 9092 Pods ovate roundish with netted veins twice as short as stalk, Rad. leaves stalked ovate entire ; caul. obl.
- 9093 Pods ovate globose twice as short as stalk, Rad. leaves stalked cordate ; cauline ovate toothed angular
- 9094 Pods ovate the length of stalk, Rad. leaves stalked reniform entire ; cauline scarcely any
- 9095 Silicles ellipsoid the length of pedicel, Leaves all stalked subdeltoïd
- 9096 Silicles roundish emarginate, Pedicels and petioles radical long, Leaves ovate rounded entire

- 9097 Radical leaves on long stalks cordate repand-toothed ; cauline ovate cordate on short stalks
- 9098 Rad. lvs. somewhat stalked obovate-obl. ; cauline oblong at the base hastate stem-clasp. with acute auricles
- 9099 Leaves oblong toothed, Stems erect, Silicles obovate orbicular shorter than pedicel
- 9100 Lvs. obl. tooth. blunt : lower stalked ; upper sagit. stem-clasp. with acute auricles, Silicles subov. ventricose
- 9101 Lvs. somew. tooth. : rad. stalk. ; caul. cord. stem-clasp. Stem branch. Pet. length of cal. Silicles obcordate
- 9102 Lvs. somew. fleshy ent. : rad. obov. stalk. ; caul. obl. sagitt. stem-clasp. Pet. larg. than cal. Silic. obc. 4-seeded
- 9103 Lvs. nearly entire : rad. ovate stalked ; caul. obl. stem-clasp. Pet. as long as cal. Silic. obcord. 8-12-seeded

9104 Radical leaves pinnatifid, Silicles obcordate

[twice as short as silicle

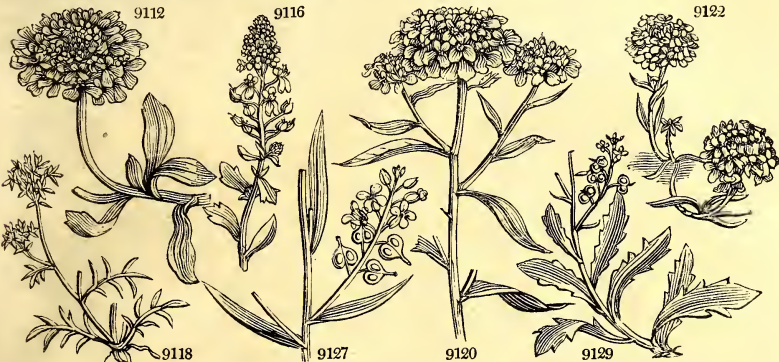
- 9105 Lvs. somew. fleshy entire : lower stalk. obov. ; caul. ovate obl. somewhat stem-clasp. Stam. petals and style
- 9106 Lvs. somew. fleshy : lower stalk obov. obl. entire ; caul. obl. Stamens petals and style about length of silicle
- 9107 Lvs. pinnated smooth, Pet. twice as long as decid. cal. Silicles acute at each end, Style very short exerted
- 9108 Lvs. pinnated, smooth, Pet. scarcely longer than calyx, Silicles blunt at each end 4-seeded, Stigmas sessile

- 9109 Petals unequal : outer largest
- 9110 Petals equal

- 9111 Shrubby, Lvs. cuneate or spatul. blunt ent. smooth, Flowers corymbose, Silicles truncate subemarg. at end
- 9112 Shrubby, Leaves cuneiform obtuse somewhat toothed at end a little ciliated, Flowers corymbose
- 9113 Shrubby, Leaves linear entire somewhat fleshy rather acute smooth or ciliated, Flowers corymbose
- 9114 Shrubby, Leaves ciliated blunt linear spatulate ; lower somewhat toothed at end, Flowers corymbose
- 9115 Shrubby, Lvs. obl. blunt narrowed at base smooth, Fls. in long racemes, Silic. emarg. with a narrow recess
- 9116 Herbaceous, Lvs. lanc. acute somew. toothed, Fls. corym. becoming racem. Silic. obcord. narrowly emarg.
- 9117 Herbaceous, Lvs. lanc. blunt smooth entire or the rad. somew. toothed, Fls. finally racem. Silic. ovate trun.
- 9118 Herbaceous smooth, Leaves pinnatifid, Racemes corymbose but little elongated after flowering [style
- 9119 Herb. smooth, Lv. lin. tooth. ciliat. at base dilat. at end, Silic. round. Lobes of end acute spread. short. than
- 9120 Herbaceous smooth, Leaves lanc. acuminate : lower serrate ; upper entire, Silicles umb. acutely 2-lobed
- 9121 Herbaceous smooth, Leaves linear entire : radical somewhat toothed, Silicles corymbose 2-toothed
- 9122 Herb. smoothish, Lvs. lin. entire ciliated at base, Silic. corymb. emargin. with blunt lobes as long as styles
- 9123 Herb. smoothish, Leaves ciliat. somew. fleshy : lower spatul. 2-tooth. at end ; upp. lin. Silic. corymb. emarg.
- 9124 Herb. smoothish, Lvs. stalked spat. blunt toothed and ent. ciliat. Corymb somew. umbel. Cal. hairy at back
- 9125 Herbaceous smooth, Lvs. round. spatul. ent. rather fleshy, Silic. corymo. emarg. with a broad blunt recess
- 9126 Half-shrubby at base pub. Lvs. rather fleshy cren. : lower ob. narr. at base ; up. obl. lin. Sil. somew. corymb.

[emarginate

- 9127 Cal. bluntly 2-spurred, Silicles smooth rough with elevated dots in centre, Lobes of end meeting over style
- 9128 Cal. bluntly 2-spurred, Silicles smooth even, Lobes at the end somewhat meeting over the style
- 9129 Cal. acutely 2-spur. Silic. smooth with elevat. rough points on disk, not overhang. style at end, Stem hispid
- 9130 Silicles hispid on each disk, Radical leaves lyrate
- 9131 Silicles smooth even, Radical leaves lyrate



and Miscellaneous Particulars.

- 1408. *Thlaspi*. From *Thlaspi*, to compress. The *Thlaspi*, says Pliny, bears seeds like the lentil, and compressed, whence its name. T. arvense, when rubbed, has the smell of garlic.
- 1409. *Capsella*. A diminutive of *capsula*. This, which is the common shepherd's-purse, has been separated from *Thlaspi* on account of its valves not being winged at back.
- 1410. *Hutchinsia*. Named after Miss Hutchins, to whom Sir James Smith was indebted for many communications of submarine algæ during the progress of his English Botany.
- 1411. *Teesdalia*. Named after Mr. Robert Teesdale, author of a Catalogue of the Plants growing about Castle Howard, in the North Riding of Yorkshire, published in the Transactions of the Linnean Society. Small annual smooth herbs, with revolute leaves, and simple scapes of small white flowers.
- 1412. *Iberis*. From the country called *Iberia*, now Spain. Most of the species grow in such countries. They are generally pretty plants, and some of them are commonly cultivated in gardens as hardy annuals, under the name of Candy-tuft ; a name which was originally applied to the *I. umbellata* only, which was first discovered in Candia, and called *Thlaspi Candia* by Lobel and Dodonæus.
- 1413. *Biscutella*. From *bis scutella*, a double shield, in allusion to the form of its seed-vessel when bursting. Small annual or perennial hispid plants, with small bright yellow flowers. The species are nearly related to each other, and difficult to distinguish.

9132	<i>maritima Tenore.</i>	sea-coast	○ un	1½	jn.jl	Y	Naples	1824.	S co	Ten. nap. t. 61
9133	<i>ciliata Dec.</i>	ciliated	○ un	1	jn.jl	Y	S. France	1820.	S co	Dec. ic. gall. t. 39
9134	<i>Columnæ Tenore.</i>	Columna's	○ un	1	jn.jl	Y	S. Italy	1823.	S co	Col.ecp. t. 284. f. 1
9135	<i>A'pula L.</i>	spear-leaved	○ un	1	jn.jl	Y	Italy	1710.	S co	Lam. ill. t. 560. f. 1
9136	<i>lævigata L.</i>	smooth-podded	△ un	1	jn.jl	Y	Italy	1777.	D co	Jac. aust. 4. t. 339
	<i>β alpestris W. & K.</i>	Hungarian	△ un	1	jn.jl	Y	Hungary	1816.	D co	Pl. rar. hu. 3. t. 228
9137	<i>coronopifolia All.</i>	buck's-horn-lv.	△ un	¾	jn.jl	Y	Italy	1790.	D co	Dec. diss. t. 11. f. 1
9138	<i>ambigua Dec.</i>	doubtful	△ un	¾	jn.jl	Y	S. Italy	1820.	D co	Dec. diss. t. 11. f. 1
9139	<i>saxatilis Dec.</i>	stone	△ un	¾	jn.jl	Y	S. Europe	1821.	D co	Dec. diss. t. 11. f. 1
9140	<i>sempervirens L.</i>	downy-leaved	△ un	¾	jn.jl	Y	Spain	1784.	C s.l	Barr. ic. t. 841
1414.	EUCLIDIUM. R. Br. EUCLIDIUM.									
9141	<i>riaciacum R. Br.</i>	Syrian	○ cu	¾	jl.au	W	Levant	1778.	S co	Jac. aus. 1. t. 6
1415.	OCHTHODIUM. Dec. OCHTHODIUM.									
9142	<i>gyptiacum Dec.</i>	Egyptian	○ cu	¾	au	Y	Egypt	1787.	S co	Jac. vind. 2. t. 145
	<i>Buniasgyptiaca L.</i>									
1416.	ANASTA'TICA. L. ROSE OF JERICHO.									
9143	<i>Hierochon'tia L.</i>	common	△ cu	¾	jn.au	W	Levant	1597.	D co	Jac. vind. 1. t. 58
1417.	CAKILE. Tourn. CAKILE.									
9144	<i>maritima Scop.</i>	Sea Rocket	○ cu	¾	jn.s	Pu	Britain	sea sh.	S s.l	Eng. bot. 231
1418.	RAPIS'TRUM. Desv. RAPISTRUM.									
9145	<i>perenne Dec.</i>	perennial	△ un	1½	jl	Y	Germany	1789.	D s.l	Jac. aust. 5. t. 414
	<i>Cakile perennis Lher.</i>									
9146	<i>rugosum All.</i>	wrinkled	○ un	1½	jn.jl	Y	S. Europe	1739.	S s.l	All. ped. 1. t. 78
	<i>Cakile rugosa Lher.</i>									
9147	<i>orientale Dec.</i>	oriental	○ un	1	jl	Y	Levant	1795.	S co	Flo. Græca, t. 612
	<i>Myagrum orientale L.</i>									
1419.	CHORISPO'RA. Dec. CHORISPO'RA.									
9148	<i>tenella Dec.</i>	purple	○ un	¾	jn.jl	Pu	Siberia	1780.	S co	Pall. it. 3. t. L. f. 3
	<i>γ arcuata</i>	bowed	○ un	¾	jn.jl	Pu	Siberia	...	S co	
	<i>Raphanus arcuatus W.</i>									
9149	<i>sibirica L.</i>	Siberian	○ un	¾	jn.jl	Y	Altai	1823.	S co	
1420.	MALCO'MIA. R. Br. MALCOMIA.									
9150	<i>africana R. Br.</i>	African	○ or	¾	jn.jl	Pu	Africa	1747.	S s.l	Bocc. sic. t. 42. f. 1
9151	<i>taraxacifolia Dec.</i>	Dandelion-lvd.	○ or	¾	jn	Pu	Siberia	1795.	S l.p	
9152	<i>laxa Dec.</i>	lax	○ or	2	jn	Pu	Siberia	1820.	S co	
9153	<i>Chia Dec.</i>	dwarf branching	○ or	1	jn	Pu	Chio	1732.	S s.l	Dil. el. t. 148. f. 178
9154	<i>maritima R. Br.</i>	dwarf annual	○ or	¾	my.jn	V	S. Europe	1713.	S s.l	Bot. mag. 166
9155	<i>arenaria Dec.</i>	sand	○ or	¾	jn.jl	V	Algiers	1804.	S s.l	Desf. atl. 2. 162
9156	<i>parviflora Dec.</i>	small-flowered	○ or	¾	jn.jl	V	S. Europe	1823.	S co	Dec. ic. gall. t. 35
9157	<i>lyrata Dec.</i>	lyrate	○ or	¾	jn.jl	Pu	Cyprus	1820.	S co	Flo. Græc. t. 635
9158	<i>litorea R. Br.</i>	small sea	○ or	1	jn.n	W.Y	S. Europe	1683.	S s.l	Lob. ic. t. 331. f. 1
1421.	HES'PERIS. L. ROCKET.									
9159	<i>tristis L.</i>	night-smelling	△ or	1	ap.jn	D.Pu	Austria	1629.	S s.l	Bot. mag. 730
9160	<i>lacinata All.</i>	jagged	△ or	1½	my.jn	Pu	S. France	...	S co	All. ped. t. 82. f. 1
9161	<i>runcinata W. & K.</i>	runcinate	△ or	1½	jn.jl	W.pu	Hungary	1804.	S s.l	Pl. rar. h. 2. t. 200
	<i>β bituminosa Savi.</i>	clummy	△ or	1½	jn.jl	W.pu	.....	1816.	S s.l	
9162	<i>matronalis L.</i>	common	△ or	4	my.au	Pu	Italy	1597.	D p.l	Lam. ill. t. 564. f. 1
	<i>β inodora L.</i>	scentless	△ or	4	my.jn	Pk	Britain	past. S.	S co	Eng. bot. 731
9163	<i>aprica Poir.</i>	exposed	△ or	¾	my.jn	Pu	Siberia	1822.	S co	
9164	<i>arabidiflora Dec.</i>	naked-stalked	△ or	¾	mr.my	Pu	Siberia	1798.	D s.l	Amæ. ac. t. 4. f. 20
	<i>Arabis grandiflora L.</i>									



History, Use, Propagation, Culture,

1414. *Euclidium.* From *eu*, well, and *κλειδω*, to shut up, because of the firmly closed seed vessel.
 1415. *Ochthodium.* So called from *οχθωδης*, warted, in allusion to the surface of the pods.
 1416. *Anastatica.* Derived from *αναστασις*, resurrection. This plant has been so called because it has the curious property of recovering its original form, however dry it may be, upon immersion in water. The common people believe that if you put this in water at the time when a woman first experiences the pains of childbirth, it will expand at the precise moment when the infant is brought into the world. Commonly called Rose of Jericho. It grows in the arid wastes of Arabia and Palestine, where it is called *kaf maryam*, that is to say, Mary's hand.
 1417. *Cakile.* An Arabic word employed by Serapio. Smooth fleshy annual plants, with pinnatifid leaves, and white or purple flowers. They all grow upon the sandy coasts of the northern hemisphere. *C. maritima* is said by Anguillara to be a powerful cathartic.

- 9132 Silicles even ciliated at edge, Radical leaves lyrate
 9133 Silicles even ciliated at edge, Stem erect elongated leafy, Leaves sessile oblong remotely toothed [at base
 9134 Sil. rough on edge and disk with a very fine down, Rad. lvs. obov. cun. acute tooth. Stem somew. nak. hisp.
 9135 Silicles rough on the edge and disk with a very fine down, Leaves lanc. serrate, Stem leafy branched hairy
 9136 Silicles smooth even, Rad. leaves rough with hair oblong narrowed into stalk : cauline linear few entire
- 9137 Silicles smooth even, Leaves rough with hairs, generally radical pinnatifid with 2-3 rem. lobes on each side
 9138 Sil. smth. even, Lvs. rough with hairs : rad. sin.-tooth. nar. at base ; caul. very few cord. at base $\frac{1}{2}$ stem-clasp.
 9139 Silicles smooth rough with elevated dots on the disk, Leaves hairy generally radical oblong
 9140 Silicles smooth rough with elevated dots on disk, Lvs. mostly radical erect linear lanc. hoary nearly entire
- 9141 Silicles scabrous with a persistent subulate style, Cauline leaves stalked lanceolate
- 9142 The only species
- 9143 The only species
- 9144 Upper joint of the silicle ensiform
- 9145 Silicles smooth : upper joint ovate longer than style, Leaves pinnatifid, Lobes toothed cut acute
 9146 Silicles downy : upper joint round rugose shorter than style, Leaves blunt toothed ; radical sublyrate
 9147 Silicles furrowed smooth, Leaves oblong toothed sinuated
- 9148 Silique and leaves smooth : upper lanceolate toothed ; lower pinnatifid
- 9149 Siliques and leaves nearly smooth, Leaves all sinuate pinnatifid
- 9150 Stem branched diff. Lvs. lanc. somew. toothed, Down 2-4-parted, Pedi. shorter than persist. cal. Siliq. rough
 9151 Stem erect simple, Lvs. obl. cut tooth. Down 3-parted, Pedi. shorter than decid. cal. Siliq. smth. about 4-cor.
 9152 Stem branched somew. hairy at base, Lvs. ov. acute toothed angul. and siliq. smooth, Pedi. shorter than cal.
 9153 Stem erect branch. Lvs. obov. ent. Down 2-parted app. Pedi. length of cal. Siliq. round. pub. Style very short
 9154 Stem erect branched, Lvs. ellipt. blunt ent. nar. at base, Down appr. 2-4-parted, Pedicels shorter than cal.
 9155 Stem erect branched, Lvs. lanc. acute : lower toothed sess. Down stel. Pedi. very short, Pods torulose subul.
 9156 Stem erect branched, Lvs. obl. blunt nearly ent. Down tom. stel. Pedicels finally as long as cal. Pods pubesc.
 9157 Stem erect branched, Lower lvs. lyrate stalked blunt, Down app. 2-part. Pedicels length of cal. Pods pubesc.
 9158 Stem compound erect, Leaves lanceolate linear nearly entire hoary, Pedicels length of cal. Pods hoary
- 9159 Pedicels very long spreading stiff as broad as silique which is thickened at each edge, Petals obl. oblique
 9160 Pedicels shorter than cal. Petals obovate oblong, Leaves obovate cut-toothed, Stem hispid
 9161 Pedic. longer than cal. Petals obov. somew. pointed, Lvs. downy : lower lyrate runcinate ; upper lanc. acum.
 9162 Pedicels length of cal. Petals obov. Siliq. erect torose smooth not thickened at edge, Lvs. ovate lanc. toothed
 9163 Pedicels glandular hairy length of cal. Petals obovate, Leaves oblong blunt and stem simple ciliate hispid
 9164 Pedic. scarcely so long as cal. Petals obovate, Leaves somewhat radical somewhat fleshy lanc. Scape simple



and Miscellaneous Particulars.

1418. *Rapistrum* ; that is to say, resembling *Rapa*. A genus very near *Cakile*, from which it differs in having yellow flowers, and leaves not fleshy, and more or less hairy.

1419. *Chorispora*. From *χρησις*, separately, and *σπορα*, seed ; each seed being enclosed separately in the pod. This differs from *Raphanus* in having flat decumbent cotyledons, not folded incumbent ones. Little annual plants.

1420. *Malcomia*. Named after Mr. William Malcolm, an eminent nurseryman in the neighbourhood of London, and a person of some botanical acquirements. *M. maritima* is a common annual, which, sown at different times, or left to sow itself, will be in flower nearly all the year.

1421. *Hesperis*. From *ἑσπερος*, the evening. The flower is more fragrant towards evening than at other periods of the day. *H. matronalis*, in its double varieties, is rather difficult to keep, and requires to be yearly renewed by cuttings. It prefers a strong loamy soil ; and it has been remarked, that it neither thrives in the neighbourhood of London or Paris.

1422. SISYMBRIUM L. SISYMBRIUM.		Cruciferae.	Sp. 20—58.					
9165 officinale Scop.	Hedge-Mustard	○ w	1½ mj.l	Y	Britain	was.gr.	S co	Eng. bot. 735
9166 strictissimum L.	spear-leaved	△ un	3 jn.au	Y	Switzerl.	1658.	D co	Jac. aust. 2. t.194
9167 janceum Bieb.	rushy	○ un	2 mj.jn	Y	Hungary	1820.	S co	Wal.&Kit. t.234
9168 hispanicum Jacq.	Spanish	△ un	1½ mj.jn	Y	Spain	...	S co	Jac.ic.ra.1. t.124
9169 obtusangulum W.	obtuse-angled	○ un	1½ mj.au	Y	Switzerl.	1823.	S co	Mor. s.3. t.5. f.10
9170 sinapoides R. Br.	Pyrenean	△ un	1½ jn.jl	Y	Pyrenees	1791.	S co	Jac. vind. 3. t. 97
9171 austriacum Jacq.	Austrian	○ un	1½ jn.au	Y	Austria	1799.	S co	Jac. aust. 3. t.262
β Eckaytsbergense W.	Austrian	△ un	1½ jn.jl	Y	Austria	1799.	S co	
9172 'Rio L.	London Rocket	○ w	1½ mj.au	Y	England	walls.	S co	Eng. bot. 1631
9173 Colum'nae Jacq.	Column's	○ un	2 jn.jl	Y	Italy	1796.	S co	Jac. aust. 4. t.323
β altissimum L.	tall	○ un	2 au	Y	Siberia	1759.	S co	Walth.hort. t.22
γ orientale L.	oriental	○ un	2 jl.au	Y	Levant	1739.	S co	
9174 pannonicum Jacq.	Hungarian	○ un	2 jl.au	Pa. Y	Hungary	1787.	S co	Jac. ic. 1. t. 123
9175 asperum L.	rough-podded	○ un	¾ mj.jn	Y	S. France	1778.	S co	Bauh. his.858. f.3
9176 Sophia L.	Flix-weed	○ un	1 jl	Y	Britain	was.gr.	S co	Eng. bot. 963
9177 millefolium H. K.	Milfoil-leaved	pr	1½ mj.s	Y	Canaries	1779.	C co	Jac. ic. 1. t. 127
9178 tanacetifolium L.	Tansy-leaved	△ un	3 jn.jl	Y	Italy	1731.	D co	Zanon. hist. t. 72
9179 supinum L.	dwarf	○ un	¾ jn.jl	W	S. Europe	1778.	S co	Isn. act. par. t. 79
9180 polyceratum L.	Dandelion-lvd.	○ un	¾ jn.jl	Y	S. Europe	1633.	S co	Jac. vind. 1. t.18
9181 rigidum Bieb.	stiff	○ un	¾ jn.jl	W	Crimea	1824.	S co	
9182 bursifolium L.	various-leaved	○ un	¾ ju.jl	W	S. Europe	1732.	S co	Dil. el. t.148. f.177
9183 pinnatifidum Dec.	pinnatifid	△ un	¾ jn.jl	W	S. Europe	1820.	D co	All. ped. t.57. f.3
9184 integrifolium L.	entire-leaved	△ un	¾ jn	W.pu	Siberia	1822.	S co	
1423. ALLIARIA. Adans. HEDGE GARLIC.		Cruciferae.	Sp. 2.					
9185 officinalis Andr.	common	△ w	3 my	W	Britain	hed.	D co	Eng. bot. 796
Erysinum Altaria L.								
9186 brachycarpa Bieb.	short-fruited	△ un	1 jl.au	W	Iberia	1824.	D co	
1424. ERYSIMUM L. HEDGE-MUSTARD.		Cruciferae.	Sp. 15—41.					
9187 sessiliflorum R. Br.	sessile-flowered	△ un	2 jn.jl	Y	Siberia	1794.	D co	L'He.stir.1. t.44
9188 angustifolium Ehr.	narrow-leaved	○ un	2 jl.au	Y	Hungary	1800.	S co	Pl.rar.hung. t.98
9189 cuspidatum Dec.	cuspidate	△ un	2 mj.jn	Y	Hungary	1822.	S co	Bux. cen. t.33. f.1
9190 odoratum R. Br.	fragrant	○ un	1½ jl.au	Y	Austria	1795.	D co	
9191 virgatum Roth.	twiggly	△ un	1½ jl	Y	Portugal	1807.	D co	
9192 ibericum Dec.	Armenian	△ or	1 my	Y	Armenia	1803.	C lp	Bot. mag. 835
Cheir. armeniacus Sims.								
9193 cheiranthoides L.	treacle	○ un	1½ jl.au	Y	Britain	fields.	S co	Eng. bot. 942
9194 repandum L.	small-flowered	○ un	1 mj.jn	Y	Spain	1772.	S co	Jac. aust. 1. t. 22
9195 helveticum Dec.	Swiss	△ un	1½ mj.jn	Y	Switzerl.	1793.	S sp	Jac. vind. 3. t. 9
9196 diffusum Ehr.	Alpine	△ un	1½ mj.jl	Y	S. Europe	1731.	D co	Jac. aust. 1. t. 75
9197 lanceolatum R. Br.	spear-leaved	○ un	1 mj.jl	P. Y	S. Europe	1597.	S co	Jac. aust. 1. t. 74
9198 dubium Dec.	doubtful	○ un	1½ mj.jl	Y	.....	1823.	S co	
9199 asperum Dec.	rough	○ un	1½ mj.jn	Y	N. Amer.	1822.	S co	
9200 alpinum Baumg.	Alpine	△ un	1½ mj.jn	W	Germany	1793.	D sl	Vil.dauph.3.t.36
Brassica alpina L.								
9201 orientale R. Br.	Hare's Ear	○ un	1 jn	W	England	cliffs.	S co	Eng. bot. 1804
austriacum Baumg.								
1425. CAMELYNA. Crantz. GOLD OF PLEASURE.		Cruciferae.	Sp. 3—6.					
9202 sativa Crantz.	cultivated	○ ec	1 mj.jl	Y	Britain	corn fl.	S sl	Eng. bot. 1254
9203 dentata Pers.	tooth-leaved	○ un	1 mj.jl	Y	Europe	1806.	S sl	Bauh. his. 2. 893
9204 austriaca R. Br.	Austrian	○ un	1 jn.jl	Y	Austria	1795.	S sl	Jac. aust. 2. t.111
1426. NESLIA. Desv. NESLIA.		Cruciferae.	Sp. 1.					
9205 paniculata Desv.	panicled	○ un	1½ jl.au	Y	Europe	1683.	S co	Gart. se. 2. t.141
Myagrum paniculatum L.								
1427. CORONOPUS. Smith. WART CRESS.		Cruciferae.	Sp. 2.					
9206 didyma Sm.	lesser	○ w	¼ jl.au	W	England	rubbish.	S co	Eng. bot. 248
9207 Ruel'ii All.	Star of the Earth	○ w	¼ jn.au	W	Britain	ro. si.	S co	Eng. bot. 1660



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1422. *Sisymbrium*. Σισυμβριον was the name given by the Greeks to some aquatic plant not now recognized. It appears to have had an agreeable smell. Ovid advises that Venus should be propitiated with garlands of myrtle, of roses, and of *Sisymbrium*. *S. officinale* is a celebrated medicinal plant, and esteemed diuretic, detensive, and expectorant, and prescribed in asthma and hoarseness, whence the French call it *Herbe aux chantes*.

1423. *Altaria*. From *allium*, garlic, in allusion to the smell of the leaves of this plant, for the sake of which it was formerly used in salads.

1424. *Erysimum*. From *ερωσω*, to cure, on account of the salutary effects of this plant in medicine. It is even now reckoned a powerful cure for the sore throat. The plant of the ancients appears to have been our garden cress; for Pliny says the Gauls called his *Erysimum velar*, and the garden cress is to this day called *vilhar* in

9165 Leaves runcinate hairy, Stem hairy, Siliques subulate appressed to the rachis
 9166 Leaves lanceolate stalked toothed pubescent
 9167 Leaves smooth glaucous : lower stalked runcinate pinnatifid ; upper linear lanceolate entire
 9168 Leaves lanc. toothed sessile smooth, Stem branched divaricating, Siliques erect roundish smooth [base
 9169 Leaves pinnated, Lobes oval oblong blunt sinuate-toothed with rounded recesses, Stem hispid backward at
 9170 Stem and lvs. smth. : rad. runcin. ; caul. pinnatifid, Lobes and recesses acute, Cal. much spread. Pods rough
 9171 Stem pods and lvs. smooth : rad. runcin. ; cauline cut or pinnatifid, Lobes and recesses acute, Cal. spreading

9172 Stem and leaves smooth runcinate pinnate, Lobes toothed terminal elongated, Cal. and pods spreading erect
 9173 Stem villous somew. hoary, Leaves runcinate pubes. Lobes toothed or ent. acute, Pods nearly erect, Cal. lax

9174 Lower leaves runcin. hispid with toothed lobes : upper pinnated smooth with lin. ent. lobes, Pods spreading
 9175 Lvs. smth. pinnat. with obl. blunt somew. tooth. lobes, Pedic. very sh. Pods muric. rough point, with sh. style
 9176 Leaves bipinnate with oblong linear cut lobes, Pedicels 4 times as long as calyx, Petals smaller than calyx
 9177 Leaves about 3-pinnate hoary with very small blunt lobes, Stem $\frac{1}{2}$ shrubby, Petals larger than calyx
 9178 Lvs. pinnated, Segm. lanc. cut serrated : outer confluent, Petals larger than calyx, Pods shorter than stalk
 9179 Pedic. axillary very short solitary, Pods erect downy, Leaves sinuate pinnatifid, Stem downy backwards
 9180 Pedic. about 3 axill. very short, Pods erect smooth, Lvs. sinuate runcin. Lobes acute toothed lowest largest
 9181 Pedic. very short axill. or naked, Pods and stems erect hispid, Leaves smoothish obl. acutely runcin.-pectin.
 9182 Leaves lyrate pinnatifid smooth, Stem erect leafy, Pedicels thick shorter than calyx
 9183 Rad. leaves lyrate : cauline pinnat. Lobes linear ent. term. largest, Pedic. slender almost shorter than alyx
 9184 Leaves linear entire, Branches and pedicels glandular and hairy, Pods glandular

9185 Leaves cordate, Pods prismatical much longer than pedicel

9186 Leaves ovate roundish, Pods lanceolate the length of their stalk

9187 Pods length of style : when young covered by the persistent calyx, Fl. sessile, Leaves linear entire
 9188 Pods much longer than style when young having a persistent calyx, Fl. subsessile, Leaves linear entire
 9189 Pods thrice as long as style 2-edged naked, Fl. on short stalks, Leaves oblong lanceolate sinuate toothed
 9190 Leaves lanc. toothed pubescent with a 3-parted down, Stem branched, Pods lax, Stigma 2-lobed [of pod
 9191 Lvs. obl. lanc. somew. tooth. pub with 3-part. down, Stem straight round, Length of style great, than breadth
 9192 Lower leaves runcinate toothed : upper lanc. undivided, Fl. branches and pods comp. 4-cor. erect spreading

9193 Lvs. lanc. somew. toothlet. roughish green, Pods erect spread. twice as long as stalk, Stigma small subsessile
 9194 Leaves linear lanc. repand-toothed, subpubes. Pods spreading torulose scarcely thicker than short pedicel
 9195 Lvs. lin. entire and stem cinereous with appressed 2-parted hair, Pods somew. erect, Stigma stalked emarg.
 9196 Lvs. lin. ent. or somew. tooth. somew. hoary with 2-part. hair, Claws long. than cal. Pods erect, Stig. near sess.
 9197 Lower lvs. lanc. toothed : upper somewhat linear entire, Petals roundish obovate, Claws longer than calyx
 9198 Leaves lanceolate toothed narrowed at base, Petals obovate oblong, Pods spreading, Style scarcely any
 9199 Leaves lin. obl. : lower toothed runcin. and stem pubesc. rough, Pods spreading, Style very short and thick
 9200 Leaves membranous smoothed : cauline cordate sagittate stem-clasping oblong ; radical stalked ovate

9201 Rad. lvs. obov. : cauline cordate stem-clasping, all blunt smooth glauc. Sides of square stalk without nerves

9202 Pods cuneate pyriform with 4 ribs and a longish style, Leaves lanceolate nearly entire

9203 Pods roundish pyriform with 4 ribs and a longish style, Leaves repand toothed

9204 Pods globose, Leaves oblong serrate toothed bluntly stem-clasping at base, Stem smooth

9205 The only species

9206 Leaves pinnatifid, Lobes oblong toothed or cut, Pods compressed twin netted

9207 Lvs. pinnatifid, Lobes ent. toothed or pinnatifid, Pods somew. acute compressed with crested rugose valves



and Miscellaneous Particulars.

the Basque tongue, and in other dialects of France *beler* or *veler*. From the seeds of *E. perfoliatum*, a plant not known in this country, oil for lamps is expressed in Japan.

1425. *Camelina* ; that is to say, *chamae-linum*, dwarf flax. *C. sativa* is cultivated in many parts of Europe for the seeds, from which oil is obtained. For the method of its culture see Parmentier, in *Roz. Cours d'Agric.*, v. xi. p. 291. *Bosc. Dict. d'Agr.* 3. p. 45. *Galliz. Bot. Agr.* 3. p. 170.

1426. *Neslia*. A name first employed by M. Desvaux, but not explained by him. A genus allied to *Camelina*, but well distinguished by its one-seeded indehiscent siliques.

1427. *Coronopus*. From *κορωνο*, a crow, and *πους*, a foot. The leaves are deeply cut, and resemble the feet of a bird. *Coronopus Ruellii* was formerly gathered and used as a salad, but has long since been deservedly neglected. *C. nitoticus* is said, by Delile, to be used in Egypt for the same purpose.

1428. LEPI/DIUM. L.	PEPPERWORT.			<i>Cruciferae.</i>	<i>Sp. 23—56.</i>			
9208 <i>Drába L.</i>	Whitlow	△ un	1	my.jn	W	Europe	1596.	D co Jac. aust. 4.t.315
9209 <i>chalepense L.</i>	Aleppo	un	1	my.jl	W	Aleppo	1798.	S co
9210 <i>glastifolium Desf.</i>	woad-leaved	un	1	my.jl	W	Barbary	1823.	S co Desf. atl. t. 147
9211 <i>coronopifolium Fisch.</i>	Buckshorn-lv.	△ un	1	my.jl	W	Siberia	1824.	D co
9212 <i>sativum L.</i>	common Cress	cul	1	jn.jl	W	.....	1548.	D co Zorn. ic. 16
9218 <i>campêtre R. Br.</i>	hoary field	un	1	jn.jl	W	Britain fields.	S co	S co Eng. bot. 1385
9214 <i>hirtum Smith.</i>	hairy	w	1	jn.jl	W	Britain fields.	S co	S co Eng. bot. 1803
9215 <i>spinosum L.</i>	prickly	un	1	s	W	Levant	1787.	S co
9216 <i>virginicum L.</i>	Virginian	un	1	jn.jl	W	America	1713.	S co Sch. han. 2.t.180
9217 <i>subulatum L.</i>	awl-leaved	un	1	jn.au	W	Spain	1739.	S p.l D. Asso ar.t.6.f.3
9218 <i>ruderale L.</i>	narrow-leaved	un	1	jn.jl	W	Britain sea co.	S co	S co Eng. bot. 1595
9219 <i>vesicarium L.</i>	bladdery	un	1	ap.au	W	Crimea	1820.	S co Bux. cent. 1.t.26
9220 <i>perfoliatum L.</i>	various-leaved	un	1	jn.jl	W	Austria	1640.	S co Jac. aust. 4.t.346
9221 <i>Cardamines L.</i>	Spanish Cress	un	1	jn.jl	W	Spain	1789.	C co Arduin.sp.1.t.18
9222 <i>divaricatum H. K.</i>	close-spiked	H	un	1	my.au	W	C. G. H.	1774. C p.l
9223 <i>bonariense L.</i>	Buenos Ayres	un	2	my.jn	W	S. Amer.	1732.	S co Dil. el.t.286.f.370
9224 <i>pisidium Forst.</i>	Fish-poison	ec	1	s	W	Society Isl.	1779.	S co
9225 <i>oleraceum Forst.</i>	eatable	cul	3	s	W	N. Zeal.	1824.	S co
9226 <i>lyratum L.</i>	lyrate	un	2	jn.jl	W	Levant	S co	S co
9227 <i>latifolium L.</i>	broad-leaved	un	2	jn.jl	W	Britain sea co.	D co	S co Eng. bot. 182
9228 <i>crassifolium W.&K.</i>	thick-leaved	un	2	my.jn	W	Hungary	1820.	D co W. et kit. J. t. 4
9229 <i>graminifolium Cav.</i>	bushy	un	2	au.s	W	Europe	1683.	D co Cav. ic. 151. f. 2
9230 <i>Iberis L.</i>	diandrous	un	1	jl.au	W	Germany	1793.	S co Lob. ic. 223
1429. ÆTHIONE/MA. R. Br.	ÆTHIONEMA.			<i>Cruciferae.</i>	<i>Sp. 3—9.</i>			
9231 <i>saxatile R. Br.</i>	rock	cu	1	jn.jl	F	S. Europe	1759.	S co Jac. aust.3.t.236
9232 <i>Buxbaumii Dec.</i>	Buxbaum's	cu	1	jn.jl	Pa.Y	Pa.pu Levant	1823.	S co Bu. cen. 1.t.5.f. 1
9233 <i>monsperrmum R.</i>	one-seeded	cu	1	jl.au	Pa.pu	Spain	1778.	S co
1430. ISA/TIS. L.	WOAD.			<i>Cruciferae.</i>	<i>Sp. 9—17.</i>			
9234 <i>armena L.</i>	Armenian	or	1	jl.au	Y	Levant	1825.	S co Desv. 3. t. 25. f.6
9235 <i>lusitânica Brot.</i>	Portugal	or	1	my	Y	Portugal	1822.	S co
9236 <i>alpina All.</i>	Alpine	or	1	jn.jl	Y	Italy	1800.	D s.l All. pcd. t. 86.f.2
9237 <i>præcox Kit.</i>	early	△ or	1	my.jn	Y	Hungary	1822.	S co
9238 <i>littoralis Stev.</i>	sea side	△ or	1	my.jn	Y	Tauria	1823.	D co
9239 <i>tinctória L.</i>	common dyer's	△ ag	4	my.jl	Y	England corn fi.	S s.l	S s.l Eng. bot. 97
9240 <i>campêstris Stev.</i>	field	△ or	1	my.jn	Y	Persia	1824.	D co
9241 <i>canescens D. C.</i>	hoary	or	1	my.jn	Y	S. Europe	1822.	S co Buxb cent. 1.t.5
9241 <i>iberica Stev.</i>	Iberian	or	1	my.jn	Y	Iberia	1823.	S co
9242 <i>alépica Scop.</i>	oriental	or	1	jn.jl	Y	Levant	1739.	S s.l Scop. ins. 2. t. 16
1431. MYA/GRUM. L.	MYAGRUM.			<i>Cruciferae.</i>	<i>Sp. 1.</i>			
9243 <i>perfoliatum L.</i>	perfoliate	pr	1	jn.jl	Pa.Y	France	1648.	S co Sch. han. 2.t.178
1432. BRAS/SICA. L.	CABBAGE.			<i>Cruciferae.</i>	<i>Sp. 12—34.</i>			
9244 <i>oleracea L.</i>	common	cu	2	ap.jn	Y	England cliffs.	S r.m	S r.m Eng. bot. 637



History, Use, Propagation, Culture.

1428. *Lepidium*. From *λεπτις*, a scale. The form of the silicles is that of little scales. *L. pisidium* is used by the natives of the Society Islands for the purpose of catching fish by inebriating them. It was used by the English voyagers as a salad, but it was very pungent. *L. oleraceum* is a powerful antiscorbutic, and is found of great service to the crews of ships visiting New Zealand; it resembles lettuce in taste, and acts as a moderate aperient. *L. sativum*, the common garden cress, is a salad-plant known to every one, and which even the cook can cultivate on moistened cloth or wool in a moist heat. Watering with water, impregnated with muriatic acid gas, or electrifying, will facilitate the germination and development of the seeds.

1429. *Æthionema*. So named by Mr. R. Brown, apparently in allusion to some tawny or sunburnt tinge in the stamens. From *αιθια*, to scorch, and *νημα*, a stamen. *Smith*.

1430. *Isatis*. From *ισαζω*, to render blue. The plant was believed to destroy, by its simple application, all roughness and inequalities of the skin. It was formerly called *glastum*, from the Celtic *glas*, blue, whence *Glastonbury* derived its name. The ancient Britons colored themselves with the blue preparation obtained from this plant, whence they received their appellation, *Britho* being the Celtic word for to paint. The Picts were so named by the Romans for the same reason. On account of the brightness of its manufactured colors the Celts called it *gwed* (*guedse*, French, at this day), whence the Anglo-Saxons obtained their name of *waad* or *wad*, and the English the word *woad*. *I. tinctoria* is in occasional cultivation for its leaves, from which a dye, as a substitute for indigo, is obtained. The seeds are sown on well prepared land in good heart; fresh broken old pasture land is preferred; and the great object is to have large leaves; for which purpose, as Miller observes, the culture given by the best gardeners to spinach should be imitated, that of sowing on a very rich well pulverised soil, thinning the plants so as they may not touch each other, keeping them perfectly clear of weeds, and frequently stirring the soil between the plants. The culture applied to the turnip in Northumberland would succeed well with woad. The seeds are sown in July, and the plants, when they come up, weeded and thinned; next July, or earlier, the first crop of leaves may be gathered, and two or three others will be ob-

- 9208 Pods cordate somewhat turgid entire at the end exceeded by the style, Leaves stem-clasping lanc. toothed
- 9209 Pods elliptical twice as long as stalk, Style filiform, Leaves with acute stem-clasping lanceolate auricles
- 9210 Pods ellipt. smooth shorter than stalk, Style filif. Leaves with blunt stem-clasping obl. bluntly toothed auric.
- 9211 Pods ellipt. ent. somew. downy pointed with style, Cal. somew. persistent, Rad. lvs. pinnat. : caul. lin. ent.
- 9212 Pods orbicular winged, Leaves variously divided and cut, Branches not spiny
- 9213 Pods ovate winged emarginate scaly, Cauline leaves sagittate toothed
- 9214 Pods ovate winged emarginate hairy, Cauline leaves sagittate villous nearly entire
- 9215 Pods oblong winged emarginate about 2-horned smooth, Radical leaves pinnatifid with cut lobes
- 9216 Pods orbic. emarg. shorter than stalk, Flowers with 2-4-stamens, Caul. lvs. lin. lanceol. cut-serrate smooth
- 9217 Pods ovate somewhat emarginate, Leaves subulate entire, Stem $\frac{1}{2}$ shrubby
- 9218 Pods ovate emarg. spreading shorter than stalk, Leaves smooth : radical pinnatifid, Fls. diandrous apetal.
- 9219 Pods elliptical slightly emarginate, Leaves pinnatifid, Lobes linear, Joints of stem inflated
- 9220 Pods ellipt. slightly emarg. Lower lvs. stalked pinnatifid with multifid lobes : upper cord. amplexicaul entire
- 9221 Pods oval somewhat emarginate, Leaves pinnatifid with oval entire lobes : terminal large roundish
- 9222 Pods oval somew. emarg. approxim. Lower leaves pinnati. with spread. acute lobes, Stem much branched
- 9223 Pods orbicular emarginate, Flowers diandrous, Leaves all pinnately multifid minutely ciliated
- 9224 Pods oblong obovate emarginate, Stigma exerted, Leaves oval-oblong toothed outwardly or entire
- 9225 Pods ovate acutish, Leaves smooth ellipt.-oblong deeply serrated : upper entire somewhat serrated at end
- 9226 Pods ovate pointed with stigma, Lower lvs. stalked lyrate pinnatifid, Lobes cut toothed : term. very large
- 9227 Pods ovate pointed with the stigma, Leaves ovate lanceolate undivided subserrate, lowest on long stalks
- 9228 Pods ovate pointed with stigma, Leaves smooth somew. fleshy entire, Rad. stalked ovate : caul. sess. sagitt.
- 9229 Pods elliptical pointed with stigma, Stems $\frac{1}{2}$ shrubby, Radical lvs. obov. obl. toothed : cauline linear entire
- 9230 Pods ovate pointed with stigma, Rad. leaves cut or pinnatifid : cauline linear entire, Stem much branched

- 9231 Silicles 2-celled many-seeded obcordate, Valves winged at back and entire, Racemes in fruit lax
- 9232 Silicles 2-celled 2-seeded round emarg. at base and end, Racemes very close, Valves winged at back and ent.
- 9233 Silicles 1-celled 1-seeded not opening emarginate at end, Leaves oval or obovate

- 9234 Silicles round cordate at base with a wide margin pointed with the style
- 9235 Silicles obov. with a broad edge cuneate at base very blunt and emarginate at end, Stem and leaves smooth
- 9236 Silicles oval-oblong blunt at each end with a leafy winged margin 3 times as long as broad
- 9237 Silicles elliptical blunt at each end with a coriaceous winged edge three times as long as broad
- 9238 Silicles obl. cuneate very blunt truncate emarginate narrowed at base, three times as long as broad
- 9239 Silicles cuneate acuminate at base somewhat spatulate at end very blunt three times as long as broad
- 9240 Silicles oblong narrowed at base bluntnish at end four times as long as broad [at end
- 9241 Silicles elongate-cuneate downy four times as long as broad and twice as long as the stalk which is obconical

9242 Silicles lin. blunt vill. with reversed down eight times as long as broad and three times as long as their stalk

9243 The only species

9244 Lvs. covered with glaucous pollen somew. fleshy repand or lobed even in their youngest state quite smooth



and Miscellaneous Particulars.

tained during the season. The end of the second year the plants may be ploughed down, as the third year they will run to seed, and yield but small leaves. The leaves are pressed, and the juice treated as in making indigo (see *Indigofera*) ; but such is the cheapness of the latter article, that no British farmer can afford to raise any sort of substitute.

1431. *Myagrum*. An ancient plant, so named from its properties of catching flies, which the modern plant does not possess ; *μυα*, a fly, *αγρε*, capture.

1432. *Brassica*. The etymology of this word has been explained with great learning and ingenuity by Vossius, Ray, Dalechamp, and others. It comes, however, from the Celtic *brasic*, which signifies a cabbage. This genus affords the well known pot herbs and roots, and also the oil plant rape, extensively cultivated in agriculture. There is scarcely an instance in the vegetable kingdom of a plant that produces varieties so different in appearance and qualities as the *B. oleracea* ; comparing the original plant as it is found on our shores, with wavy sea-green leaves, no appearance of a head, and flowering like wild mustard or charlock, with the red cabbage or cauliflower, the difference is astonishing. A new arrangement of the cultivated species of *Brassica* has been made by Professor Decandolle (*Hort. Trans.* vol. 1., and in his *Reg. Veg.*), whose varieties, or races of *B. oleracea*, are stated above.

The *colza* of the Dutch he makes a distinct species (*B. campestris*), and also the turnip (*B. rapa*) ; the rape (*B. napus*), and the summer rape of the Germans (*B. præcox*).

In Hungary, in the territory of Alba, the *B. elongata* is cultivated for its oil, for which purpose it is said to be better adapted than any other species.

The culture of all the *Brassica* tribe is so universally known that it would be a waste of space in a work of this sort to enlarge on it. They all prefer a loamy soil, well enriched with manure ; and manures of the strongest kind, as nightsoil, offals from the shambles, blood, &c. are not found too powerful for common cabbage or cauliflower. The turnip prefers a lighter soil than the cabbage tribe, but it must be well manured, and if the

		Garden Varieties.												
β <i>acephala</i> Dec.		Borecole					γ <i>costata</i> Dec.					δ <i>bullata</i> Dec.		
Cavalier Cabbage		Chou de Milan					Chou à grosses côtes					Savoy Cabbage		
Thousand-headed Cabbage		Chou Palmier, &c.					Cove tronchuda					Brussels Sprouts, &c.		
Chou môeller		&c.										&c.		
9245	<i>campéstris</i> L.	field	○	ag	2	jn	Y	England	fields.	S	s.l	Eng. bot.	2234	
	β <i>rutabaga</i> Dec.	<i>Sweedish Turnip</i>	* ○	ag	1½	jn	Y	Sweden	...	S	co			
9246	<i>Râpa</i> L.	Turnip	○	ag	2	ap	Y	England	corn fi.	S	r.m	Eng. bot.	2176	
9247	<i>Nâpus</i> L.	Rape	○	ag	2	my	Y	Britain	dit. ba.	S	co	Eng. bot.	2146	
9248	<i>præcox</i> W. & K.	Kohl-reps	* ○	ag	2	my	Y	Europe	1812.	S	co			
9249	<i>chinénsis</i> L.	Chinese	○	ag	4	jl	Y	China	1770.	S	s.l			
9250	<i>repânda</i> Dec.	repand	○	ag	2	jn.au	Y	S. Europe	...	D	co	Vil. dauph.	3. 39	
9251	<i>Richérii</i> Vill.	Richer's	○	ag	1	jl	Y	S. Europe	...	D	co	Vil. dauph.	3. t. 36	
9252	<i>monénsis</i> Huds.	Isle of Man	○	ag	1	jn.au	Y	Britain	sea sh.	S	s.l	Eng. bot.	962	
9253	<i>erucâstrum</i> L.	runcinate-leav'd	○	ag	1	jn.au	Y	S. Europe	1790.	S	s.l	Bull. herb.	331	
9254	<i>elongâta</i> Ehr.	stalk-leaved	○	ag	3	my.jn	Y	Hungary	1801.	S	s.l	Pl. rar. hu.	1. t. 28	
9255	<i>cheiranthiflora</i> Dec.	stock-leaved	○	ag	1	jn.au	Y	Spain	1806.	S	co	W. hort. ber.	1. t. 19	
	<i>Râphanus cheir.</i> W.													
1433.	SINA'PIS. L.	MUSTARD.						Crucifera.	Sp. 18—51.					
9256	<i>nigra</i> L.	common	○	ag	4	my.jn	Y	Britain	corn fi.	S	r.m	Eng. bot.	969	
	β <i>turgida</i> Pers.	<i>turgid</i>	○	ag	4	my.jn	Y	Britain	corn fi.	S	r.m			
9257	<i>lævigâta</i> L.	smooth	○	ag	2	jn.jl	Y	Spain	1769.	S	co			
9258	<i>integri-folia</i> W.	entire-leaved	○	un	1½	jl.au	Y	E. Indies	1804.	S	co	Wil. hor. ber.	t. 14	
9259	<i>jûncea</i> L.	fine-leaved	○	un	1½	jn.jl	Y	China	1710.	S	co	Jac. vind.	2. t. 171	
9260	<i>chinénsis</i> L.	Chinese	○	un	1½	jl	Y	China	1782.	S	co	Ard. spec.	1. t. 10	
9261	<i>brassicâta</i> L.	cabbage-leaved	○	un	1½	jn.jl	Y	China	1801.	S	co			
9262	<i>pubescens</i> L.	downy	○	ag	2	jn.jl	Y	Sicily	1789.	D	r.m	Ard. spec.	1. t. 9	
9263	<i>arvensis</i> L.	Charlock	○	w	1½	my.jl	Y	Britain	corn fi.	S	s.l	Eng. bot.	1748	
9264	<i>orientâlis</i> L.	oriental	○	un	1½	jn.jl	Y	Levant	1778.	S	s.l	Sch. han.	1. t. 186	
9265	<i>Kâber</i> Dec.	Persian	○	un	1	jn.jl	Y	Persia	...	S	co			
9266	<i>Alliôni</i> Jacq.	Allioni's	○	un	2	jn.jl	Y	.....	1789.	S	co	Jac. vind.	2. t. 168
9267	<i>incâna</i> L.	hoary-jointed	○	un	3	jl	Y	S. Europe	1771.	S	co	Jac. vind.	2. t. 169	
9268	<i>heterophylla</i> Lag.	various-leaved	○	ag	1½	my.jn	Y	Spain	1822.	S	co			
9269	<i>âlba</i> L.	white	○	ag	2	jn.jl	Y	Britain	corn fi.	S	r.m	Eng. bot.	1677	
9270	<i>hispidâ</i> W.	hispid	○	un	2	jl	Y	Morocco	1804.	S	r.m	Scho. Maroc.	t. 4	
9271	<i>dissêcta</i> Lag.	cut	○	un	1	mr.ap	Y	Spain	...	S	co			
9272	<i>foliôsa</i> W.	leafy	○	un	1	ap.my	Y	Levant	1820.	S	co			
9273	<i>frutescens</i> H. K.	shrubby	○	cu	1½	jn.d	Y	Madeira	1777.	C	s.l			
1434.	MORICAN'DIA. Dec.	MORICANDIA.						Crucifera.	Sp. 1—3.					
9274	<i>arvensis</i> Dec.	cabbage-flower.	○	w	1½	jn	V	S. Europe	1739.	co	Boc. sic. t.	25. f. 3, 4		
	<i>Brâssa arvensis</i> L.													
1435.	DIPLOTAX'IS. Dec.	DIPLOTAXIS.						Crucifera.	Sp. 9—13.					
9275	<i>pendûla</i> Dec.	pendulous	○	un	1½	f.mr	Y	Barbary	1823.	S	co	Desf. atl. t.	156	
9276	<i>hispidâ</i> Dec.	hispid	○	un	1½	ap.my	Y	Egypt	...	co	co			
9277	<i>erucoides</i> Dec.	dwarf	○	un	1	jn.jl	W.pu	S. Europe	1736.	r.m	Jac. vind.	2. t. 170		
	<i>Sinâpis erucoides</i> L.													



History, Use, Propagation, Culture,

manure be well fermented, so much the better for the garden turnip; in the fields, where it is buried in rows or drills, more littery dung will succeed.

The field culture of the turnip is become an important part of the agriculture of light soils; the best mode is by drills, as in Berwickshire and Northumberland, where are produced crops of treble the weight of those grown in the broad-cast manner in Norfolk. In the latter county a crop weighs from five to fifteen tons per acre; in Northumberland from twenty-five to thirty tons; and in Ayrshire as many as sixty tons have been raised on the statute acre. (*Encyc. of Agric.*)

The cabbage has been tried as a field plant; but, though it has been said by Sinclair (*Hortus Gram. Wob.*) to produce more nutritive matter than either turnips or field beet, professional farmers have not found it to answer.

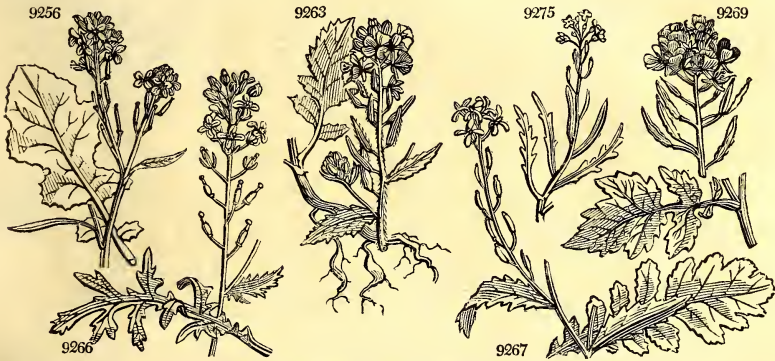
Of all the Brassica tribe it may be observed, that they attain to much the greatest perfection in temperate climates, such as those of Britain and Holland. Without constant and liberal supplies of water, they are small in size, and rigid or stringy in texture. In France and in Italy, and warm climates, it is only the cauliflower and broccoli that attain a large size; and that, in Italy at least, is during the coldest months of the year, and aided by liberal waterings. But in Tarragona the cauliflower is said to reach the enormous weight of 40 lbs.

1433. *Sinâpis*. In Greek *σινάπης*, said to be derived from *nap*, the Celtic designation of all plants resembling the turnip or cabbage. Our English word *mustard*, and the French *moutarde*, are modernizations of *mustum ardens*, hot must; the sweet must of new wine being one of the ingredients of the French mustard for the table. The seeds of all the species are hot, acrid, and will afford an oil by expression, and a powder or meal by drying and grinding, which might serve as the condiment mustard. *S. nigra* is more particularly adapted for the latter purpose, though it is often mixed with the seeds of *S. alba* and *arvensis*, and often with those of the

Garden Varieties.

ε <i>capitata</i> Dec.	Sugar-loaf Cabbage	ζ <i>caulo-rapa</i> Dec.	η <i>botrytis</i> Dec.
Battersca Cabbage	Penton Cabbage	Chou-rave, or	Cauliflower
Early York Cabbage	Red Cabbage, &c. &c.	Kohl Rabi	Brocoli, &c. &c.
Early Dwarf Cabbage		Chou-rave crépue,	
		&c. &c.	

- 9245 Lvs. fleshy with glaucous bloom : the lower when young somewhat hispid or ciliat. lyrate toothed ; the others [cordate amplexicaul acum.
- 9246 Rad. leaves lyrate without glauc. bloom rough ; cauline cut : upper entire
- 9247 Lvs. smooth cœsius : radical lyrate ; cauline pinnatifid and cren. cord. ; upper lanc. stem-clasping
- 9248 Lvs. smooth cœsius : radic. and lower cauline lyrate ; upper cord. lanc. stem-clasping cren. Pods erect
- 9249 Lvs. oval nearly entire : floral amplexicaul lanc. Cal. longer than the claw of the petals
- 9250 Radic. leaves fleshy smooth repand toothed, Scapes naked, Style slender distinct from silique
- 9251 Leaves smooth : lower stalked obl. somewhat toothed ; upper linear lanc. few
- 9252 Leaves smooth somewhat fleshy glauc. pinnated with linear distant somewhat toothed lobes
- 9253 Leaves runcinate somewhat smooth, Lobes unequal bluntly sinuated, Stem hispid at base
- 9254 Leaves stalked : lower sinuate pinnatifid hispid ; upper smooth toothed, Stem smooth
- 9255 Rad. leaves stalked lyrate pinnatifid somewhat hispid : cauline few with entire acute lobes
- 9256 Pods smooth about 4-cornered pressed to the peduncles, Lower lvs. lyrate : upper lanc. entire
- β Pods turgid veiny diverging with a conical striated beak
- 9257 Smooth, Lvs. stalked lyrate pinnatifid with acute lobes, Petiole not auricled at base
- 9278 Smooth, Lvs. ovate lanc. undivided acutely toothed, Pods erect torose with a subulate style
- 9259 Smooth, Lower leaves ovate lanc. coarsely serrated : upper lanc. entire, Branches fascicled
- 9260 At the base and nerves hairy, Lvs. blunt cut pinnatifid, Lobes toothed, Pods erect pointed with the style
- 9261 Smooth, Caul. lvs. cord. amplexicaul obl. entire : lower lyrate pinnatifid toothed, Pods spreading with a [conical beak
- 9262 Lvs. pubesc. villous lyrate pinnatifid, Terminal lobe large ovate, Pod hairy
- 9263 Pods smooth with many angles torulose three times as long as their slender two-edged beak, Stem and lvs. [hairy
- 9264 Pods hairy backwards about 4-cornered torulose shorter than the slender beak
- 9265 Pods smooth round with smooth valves twice as long as the conical beak
- 9266 Pods smooth ovate-oblong, Valves smooth scarcely longer than conical beak
- 9267 Pods smooth appressed to the raceme somewhat torose, Stem branch. rough at base, Lvs. lyrate rough
- 9268 Pods downy appressed to raceme somewhat torose, Stem bran. rough at base, Lvs. lyrate pinn. hispid on nerves
- 9269 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate and stem nearly smooth
- 9270 Pods hispid spreading a little narrower than the ensiform beak, Lvs. lyrate rough, Stem hispid backwards
- 9271 Pods subrect torulose shorter than the ensiform beak, Lvs. pinnat. Lobes narr. cut-toothed or pinnatifid
- 9272 Beak compressed very rough longer than the hispid pod, Lvs. lyrate repand angular smooth
- 9273 Calyx bisaccate, Lvs. coriaceous : lower oblong lanc. narrowed at base somewhat toothed
- 9274 Pods about 4-cornered, Cauline leaves cordate amplexicaul entire
- 9275 Pods pendulous stalked, Cauline leaves oblong hispid coarsely cut-toothed
- 9276 Pods pendulous sessile, Leaves obovate coarsely toothed hispid
- 9277 Pods sessile nearly erect, Style ensiform, Leaves sessile runcinate lyrate toothed



and Miscellaneous Particulars.

Brassica and Raphanus genera. Both *S. alba* and *nigra* are grown as small salads to be eaten with cress ; they are sown as thick as seeds will lie, in pots or boxes, or in the area of forcing-houses, in the winter season, and forced, or in beds in the open air, and cut as soon as the seed leaf is fully expanded. For flower of mustard, or for the seed for oil or medical purposes, both white and black sorts are sown in the fields in rich well pulverized soil, in March or April, and kept free of weeds. The crop ripens in July and August, and is either threshed immediately or stacked like other grain. It is like other oleiferous seeds, exhausting for the soil, and such seeds as drop and are buried, will retain their vegetative qualities for an unknown length of time ; so that where mustard has once been grown, it will come up occasionally for a century or more afterwards.

If the seeds, Dr. Cullen observes, be taken fresh from the plant and ground, the powder has little pungency, but is very bitter ; by steeping in vinegar, however, the essential oil is cooled, and the powder becomes extremely pungent. In moistening mustard powder for the table, it may be remarked, that it makes the best appearance when rich milk is used ; but the mixture in this case does not keep good for more than two days. The seeds of both the black and white mustard are often used in an entire state medicinally. Half or a quarter of a wine glass of mustard seeds, swallowed fasting, about five in the morning, is the most powerful tonic and strengthener of the digestive organs which is known.

1434. *Moricandia*. Named by Decandolle, after his friend Stephen Moricand, author of the *Flora Veneta*, and an excellent Italian botanist. *M. hesperidiflora* is a favourite food of the camel, notwithstanding its intense acidity.

1435. *Diptolaxis*. From *διπλος*, double, and *ταξις*, arrangement, on account of the double rows of seeds in each cell.

9278	<i>cathólica</i> Dec.	Spanish	○ un	1 ap.my	Y	Spain	1822.	S co	
9279	<i>tenuifolia</i> Dec.	fine-leaved	☿ un	1½ jl.o	Y	England	walls.	D s.l	Eng. bot. 525
	<i>Sisymbrium tenuifolium</i> L.								
9280	<i>murális</i> Dec.	sand	○ un	1½ jls	Y	England	san.pl.	S co	Eng. bot. 1090
	<i>Sisymbrium murale</i> L.								
9281	<i>Barreliéri</i> Dec.	small	○ un	¾ jn.jl	Pa.Y	S. Europe	1770.	S co	Barr. ic. 1016
9282	<i>viminea</i> Dec.	twiggy	○ un	¾ my	Y	S. Europe	...	S co	Bocc. sic. 10
9283	<i>saxatilis</i> Dec.	rock	☿ Δ un	¾ jn	Y	S. Europe	...	D co	
1436.	ERUCA. <i>Tourn.</i>	ROCKET.				<i>Cruciferae.</i>	<i>Sp. 2—3.</i>		
9284	<i>sativa</i> Lam.	stripe-flowered	○ cul	1½ jl	Pa.Y	S. Europe	1573.	S s.l	Sch. han. 2. t.186
9285	<i>vesicária</i> Cav.	bladdery	○ un	1½ jl	Pa.Y	Spain	1820.	S co	Asso arr. t. 4
1437.	VEL/LA. <i>L.</i>	CRESS-ROCKET.				<i>Cruciferae.</i>	<i>Sp. 1.</i>		
9286	<i>pseudocytisus</i> L.	shrubby	☿ | or	3	ap.my	Y	Spain	1759.	C co
1438.	CARRICHTE'RA. <i>Adans.</i>	CARRICHTERA.				<i>Cruciferae.</i>	<i>Sp. 1.</i>		
9287	<i>Vella</i> Dec.	annual	○ w	¾ jn.jl	Pa.Y	England	san.fi.	S s.l	Eng. bot. 1442
	<i>Vella annua</i> L.								
1439.	SUCCO'WIA. <i>Mönch.</i>	SUCCOWIA.				<i>Cruciferae.</i>	<i>Sp. 1.</i>		
9288	<i>baleárica</i> R. Br.	Minorca	○ pr	¾ jn.jl	Y	Minorca	1781.	S s.l	Jac. vind. 2. t.144
1440.	ZIL/LA. <i>Forsk.</i>	ZILLA.				<i>Cruciferae.</i>	<i>Sp. 1.</i>		
9289	<i>myagroides</i> Forsk.	spiny	☿ | cu	2	mr	Li	Egypt	1822.	C co
1441.	CALEPI'NA. <i>Adans.</i>	CALEPINA.				<i>Cruciferae.</i>	<i>Sp. 1.</i>		
9290	<i>Corvini</i> Desv.	rugose	○ cu	1½ ap.jn	W	S. Europe	...	S co	Brot. phyt. t. 42
1442.	CRAMBE. <i>W.</i>	SEA KAIL.				<i>Cruciferae.</i>	<i>Sp. 10—13.</i>		
9291	<i>maritima</i> L.	common	☿ Δ cul	1½ my.jn	W	Britain	sea sh.	D r.m	Eng. bot. 924
9292	<i>pinnatifida</i> R. Br.	smooth-winged	☿ Δ un	1 jn.jl	W	Siberia	1759.	D s.l	Jac. ic. 1. t. 128
9293	<i>orientális</i> L.	oriental	☿ Δ un	1 jn.jl	W	Levant	1752.	D s.l	
9294	<i>Tatária</i> Jacq.	Tartarian	☿ Δ cul	3 jn.jl	W	Siberia	1789.	D s.l	Jac. ic. 1. t. 129
9295	<i>aspera</i> Bieb.	rough	☿ Δ un	1 my	W	Tauria	1820.	D co	
9296	<i>cordáta</i> W.	gigantic	☿ Δ or	6 my	W	Caucasus	1822.	D co	
9297	<i>hispánica</i> L.	Spanish	☿ Δ un	1½ jn.jl	W	Spain	1683.	S s.l	Sch. han. 2. t. 189
9298	<i>filiformis</i> Jacq.	Patagonian	☿ Δ un	1½ jl.au	W	Patagonia	1796.	D s.l	Jac. ic. 3. t. 504
9299	<i>fruticósa</i> L.	Madeira	☿ | un	2 my.n	W	Madeira	1777.	C s.l	
9300	<i>strigósa</i> Lher.	Canary	☿ | un	1½ my.jn	W	Canaries	1779.	C s.l	Jac. ic. 1. t. 120
1443.	RA'PHANUS. <i>L.</i>	RADISH.				<i>Cruciferae.</i>	<i>Sp. 5—9.</i>		
9301	<i>sativus</i> L.	common	☿ ○ cu	3 my.jn	W.pu	China	1548.	S r.m	Lam. ill. t. 566
	<i>α radícula</i> Dec.	long	☿ ○ cu	3 my.jn	W.pu	China	1548.	S r.m	
	<i>β oblongus</i> Dec.	Turnip	☿ ○ cul	3 my.jn	W.pu	China	1548.	S r.m	
	<i>γ oleifera</i> Dec.	Oil-seed	☿ ○ ec	3 my.jn	W.pu	China	1548.	S r.m	
	<i>δ niger</i> Dec.	Black Spanish	☿ ○ cul	3 my.jn	W.pu	China	1548.	S r.m	
9302	<i>caudátus</i> L.	long-podded	☿ ○ cu	1½ ny.au	Pa.pu	Java	1815.	S co	Linn. dec. 3. t. 10
9303	<i>Raphanistrum</i> L.	wild	○ w	1½ jn.jl	Y	Britain	corn fi.	S co	Eng. bot. 856
9304	<i>Landra</i> Morett.	yellow-flowered	☿ ○ cu	3 jn.jl	Y	Italy	1820.	S co	
9305	<i>maritimus</i> Sm.	sea	☿ Δ w	3 my.jl	Y	Britain	sea co.	D co	Eng. bot. 1643



History, Use, Propagation, Culture,

1436. *Eruca*. The meaning of this word is involved in obscurity. According to Isidore, of Seville, a learned Spaniard, who died in 636, and left a book of etymologies, *cruca* is an alteration of *urica*, derived from *uro*, to burn. From *eruca*, the Italians formed *ruchetta*, the French *roquette*, and the English *rocket*. *E. sativa* is very pungent in the foliage, and is used as a salad in the South of Europe for its aphrodisiacal powers :

“ Excitat ad venerem tardos *Eruca* maritos.”

1437. *Vella*. Latinized from *valer*, the Gallic name of the cress. A pretty low shrub, with beautiful yellow flowers appearing in the early spring. It is hardy enough to live through the winter in a dry warm south border.

1438. *Carrichtera*. An unexplained name, first used by Adanson. A small annual plant, with pinnated leaves, and long erect racemes opposite to the leaves. Flowers small, pale yellow.

1439. *Succowia*. In honor of Professor Suckow, a learned botanist of Heidelberg. An annual, with the habit of the last, from which it differs in its subulate style and solitary seeds.

1440. *Zilla*. The Egyptian name of the plant, which is a large glabrous herb, with round white branches and oblong toothed leaves, which are boiled and eaten by the Arabs like those of cabbage.

1441. *Calepina*. A name used by Adanson, the meaning of which is unknown. This plant has been transferred by one author or another to almost every genus of Siliculose, but appears to be really akin to *Crambe* only, from which it differs in its sessile and purely unilocular silicle, in its stamens having no teeth, and in the outer petals being larger than the others.

1442. *Crambe*. One of the names applied by the Greeks to the cabbage, and especially to the marine cabbage. *C. maritima* grows on sandy shores in the west of England, and there the common people have from time immemorial been in the practice of watching when the shoots and leafstalks begin to push up the sand

- 9278 Pods sess. nearly erect, Style roundish 1-2-seed. Lvs. pinnatif. with cut lobes and lin. sinuate toothed segm.
 9279 Pods somewhat stalked erect, Style filif. short without seeds, Upper lvs. entire lower pinnatifid compound
- 9280 Pods sess. erect, Style short somew. filif. Rad. lvs. toothed or lyrate smooth, Stems nearly naked ascending
- 9281 Pods sess. erect, Style short somew. filif. Rad. lvs. runcinate toothed hispid, Stems naked erect
 9282 Pods sess. erect, Style short somew. filif. Rad. lvs. lyrate very blunt smooth, Stems naked decumbent
 9283 Pods sess. erect narrowed at base, Style short conical, Rad. lvs. pinnatifid thickish with entire lobes
- 9284 Lvs. lyrate pinnated with toothed acute lobes, Stem hirsute, Pedicels shorter than deciduous calyx
 9285 Lvs. pinnatifid, Lobes acute nearly entire, Stem hirsute, Calyx persistent somewhat bladderly
- 9286 The only species
- 9287 The only species
- 9288 The only species
- 9289 The only species
- 9290 The only species
- 9291 Long filaments forked, Pod blunt, Leaves roundish sinuated wavy toothed glauc. and stem quite smooth
 9292 Long filaments forked, Pod blunt, Leaves pinnatifid with obl. acute toothed lobes, Stem smooth
 9293 Long filaments forked, Pod blunt smooth, Leaves pinnatifid toothed rough, Stem smooth [smoothish
 9294 Long filam. forked, Pod blunt, Rad. lvs. decomposed, Pinnæ cut toothed: younger round; old and stem
 9295 Long filam. forked, Pod blunt rugose, Lvs. pinnated with obl. lin. toothed lobes and stem rough
 9296 Long filam. forked, Pod nearly blunt, Lvs. stalked toothed: lower cord.; upper ov. and stem nearly smooth
 9297 Long filam. toothed, Pod blunt, Lvs. lyrate rough, Terminal lobe cord. orbicular
 9298 Long filam. scarcely toothed, Pod blunt, Lvs. pinnate-lyrate hairy, Terminal lobe ovate
 9299 Long filam. toothed on one side, Pod mucronate, Lvs. lyrate pinnatifid toothed hoary
 9300 Filam. not toothed, Pod mucronate, Lvs. ov. toothed unequal and somew. auricled at base and stem hispid
- 9301 Pods round torose acuminate scarcely longer than stalk
- 9302 Pods depressed acuminate decumbent longer than the whole plant
 9303 Pods 1-celled jointed striated 3-8-seeded longer than the style, Lvs. simply lyrate
 9304 Pods 1-celled jointed substriated 2-6-seeded longer than the subulate style, Lvs. interruptedly lyrate
 9305 Pods 1-celled jointed striated 2-6-seeded, Style conical shorter than the last joint, Lvs. interruptedly lyrate



and Miscellaneous Particulars.

and gravel, in March and April; when they cut them off under ground, as is done in gathering asparagus, and boil them as greens. About the middle of the last century the plant was first introduced into gardens, grown on deep sandy soil, and blanched either by sand, ashes, litter, or by covering with flower pots, earthen pots made on purpose, or any opaque cover. It is now almost as universal in good gardens as asparagus, and like it is forced either by taking up the roots and planting them on a hotbed, or in the border of a forcing house, or by covering or surrounding them with litter in the open garden. Before covering a bed with warm litter, each plant or stool of plants is covered with an earthenware blanching pot, or a wicker case, to keep off the dung from the young shoots, and to ensure their being blanched. No plant is so easily forced; and, unlike asparagus, it yields produce the first spring after raising from seed.

C. tataria is called by the Hungarians *Tatar-Kenyer* or Tartarian bread, and its root, stripped of the bark and sliced, is eaten with oil, vinegar, and salt. The boiled root is sweet, and eaten by children. The young shoots are boiled like those of sea kail, and have an excellent taste, but are stringy, which they would not be if well cultivated, which the plant appears to deserve.

1443. *Raphanus*. From *ραψανος*, quickly, and *ραϊνονομας*, to appear, on account of the rapidity of its germination and arriving at perfection. *R. sativus* is a well known salad root, requiring a deep sandy soil to attain a large size. There are several varieties both of the spindle-shaped and globular rooted kinds, and a very distinct sort known as the black or Spanish radish. In the Horticultural Transactions, sixteen varieties are mentioned besides subvarieties, arranged as spring, summer, turnip, autumn, and winter radishes. They are all of easy culture, and the spring, summer, and turnip sorts force well on hot-beds, or on dung-beds covered with mats.

R. caudatus, or tree radish, is remarkable for the length of its pod, which is greater than the whole height of the plant. The young leaves of *R. Landra* are eaten by the inhabitants of Insubria as salad.

1444. BU'NIAS. L.	BUNIAS.			Cruciferae.	Sp. 3.				
9306 Erucágo L.	prickly-podded	○ un	1½ jn.jl	Y	Austria	1640.	S co	Jac. aust.4. t.340	
9307 áspera Retz.	rough	○ un	1½ jn	Y	Portugal	...	S co		
9308 orientális L.	oriental	△ un	1½ my.jl	Y	Levant	1731.	D co	Gmel. sib.3. t.57	
1445. ERUCA'RIA. Gaertn.	ERUCARIA.			Cruciferae.	Sp. 2-5.				
9309 alep'pica Gaertn.	Aleppo	○ un	1 jl.au	W.pu	Levant	1680.	S sl	Gæ.se.2.t.143.f.9	
9310 crassifólia Del.	thick-leaved	○ un	¾ jn.d	W.pu	Egypt	1823.	S co	Del.egyp.t.34.f.1	
1446. HELIO'PHILA. L.	HELIOPHILA.			Cruciferae.	Sp. 11-47.				
9311 filifórmis L.	awl-podded	○ pr	1½ jl.au	Papu	C. G. H.	1786.	S s.p		
9312 amplexicaúlis L.	opposite-leaved	○ pr	¾ jn.s	W.pu	C. G. H.	1774.	S s.p		
9313 pinnáta Vahl.	wing-leaved	○ pr	1½ jn.s	Y.Br	C. G. H.	1792.	S s.p	Ven.malm.t.113	
9314 pilósa Lam.	hairy	○ pr	1 my.s	B	C. G. H.	1768.	S s.p	Jac. ic. 3. t. 506	
9315 digitáta L.	digitate	○ pr	1 my.s	B	C. G. H.	...	S s.p		
9316 coronopifólia L.	Buck's-horn-lv.	△ pr	1½ jn.jl	V	C. G. H.	1778.	S s.p	Her. lugd. t. 367	
9317 feniculácea R. Br.	Fennel-leaved	○ pr	1½ jn.s	Pu	C. G. H.	1774.	S s.p		
9318 crithmitifólia W.	Sapphire-leav.	○ pr	¾ jn.s	V	C. G. H.	1816.	S s.p		
9319 platysiliqua R. Br.	broad-podded	○ pr	1 jl.au	Pu	C. G. H.	1774.	C s.p		
9320 incána H. K.	hoary	△ pr	2 my.au	Pu	C. G. H.	1774.	C s.p.		
9321 cleomoides Dec.	upright	△ pr	1 jl	Y	C. G. H.	1802.	S co		
	<i>Cheiranthus strictus</i> L.								
1447. SUBULA'RIA. L.	AWLWORT.			Cruciferae.	Sp. 1.				
9322 aquática L.	water	△ cu	¾ jl	W	Britain	all.lak.	S m.s	Eng. bot. 732	
1448. CLEO'ME. W.	CLEOME.			Capparidæe.	Sp. 15-53.				
9323 Chelidónii W.	Celandine-flow.	○ pr	1½ jn.jl	R	E. Indies	1790.	S s.p		
9324 viscosa W.	viscid	○ pr	2 jn.jl	F	Ceylon	1730.	S s.p	Rhee.mal.9. t.23	
9325 dodecáandra W.	three-leaved	○ pr	1½ jn.jl	W	India	1795.	S s.p	Bur.zey.t.100.f.1	
9326 pentaphýlla W.	five-leaved	○ pr	2 jn.jl	W	India	1640.	S s.p	Jac. vind. 1. t. 21	
9327 gigantéa W.	gigantic	△ pr	6 jn.jl	G	S. Amer.	1774.	C s.p	Jac. obs. 4. t. 76	
9328 spinósa W.	white-fl. prickly	△ pr	2 jn.jl	W	W. Indies	1731.	S s.p	Marcg.bras.t.34	
9329 púngens W.	red-fl. prickly	△ pr	2 jl.au	R	W. Indies	1812.	S sl.	W.ho.ber.1. t.18	
	<i>spinosa</i> B. M. 1640.								
9330 Houstóni H. K.	Houstoun's	○ pr	jl		W. Indies	1730.	S sl		
9331 violácea W.	violet-colored	○ pr	1 jn.jl	Pu	Portugal	1776.	S sl	Sch.han.2.t.189.b.	
9332 rósea Dec.	rose-colored	○ pr	1½ jn.jl	Pk	Brazil	1825.	S co		
9333 ornithopodioides W.	bird's-foot	○ pr	1 jn.jl	W.y	Levant	1732.	S sl	Dil.el.t.266.f.345	
9334 arábica W.	Arabian	○ pr	2 jn.jl	Y	Arabia	1794.	S sl	Lin. fil. fasc. t. 8	
9335 monophýlla W.	simple-leaved	○ pr	¾ jn.jl	Y	E. Indies	1759.	S sl	Bur.zey.t.100.f.2	
9336 procúbens W.	procrumbent	△ pr	¾ jn.jl	Y	W. Indies	1798.	D sl	Jac. amer. t. 120	
9337 pubéscens B. M.	pubescent	○ pr	1½ jl	W	.....	1815.	S sl	Bot. mag. 1857	



History, Use, Propagation, Culture,

1444. *Bunias*. From *Cyper*, a hill, because the plants grow upon exposed open situations. Linn.
 1445. *Erucaria*. See *Eruca*, No. 1437. Plants with the habit of *Cakile*.
 1446. *Heliophila*. From *ήλιος*, the sun, and *φιλεω*, to love; a plant loving heat. All the species grow upon dry hot plains at the Cape of Good Hope. These are mostly beautiful annual or perennial plants.

9306 Pods 4-cornered : angles crested, Radical leaves runcinate

9307 Pods 4-cornered : angles crested, Leaves all lanceolate

9308 Pods ovate 2-celled not crested somewhat warted

9309 Pod style-bearing, Lvs. pinnated, Lobes linear : of the lower pinnatifid ; of the upper entire

9310 Stigma sessile, Beak longer than pod, Lvs. pinnated thick, Lobes linear

9311 Smooth, Pods rounded narrowed at each end, Leaves linear subulate

9312 Smooth, Pods moniliform, Lower lvs. opp. : upper altern. cord. stem-clasping obl. entire

9313 Smooth, Pods moniliform pendulous, Lvs. pinnated in 3-5-pairs, Lobes linear entire

9314 Hispid, Pods linear, Lvs. hairy either linear entire or trifid at end and cuneate at base

9315 Hispid, Pods linear, Lvs. oval entire or here and there coarsely cut-toothed

9316 Smooth, Pods linear, Leaves pinnated, Lobes and rachis linear entire

9317 Downy, Pods linear spreading, Lvs. pinnated or bipinnated : lobes filiform

9318 Velvety, Pods linear nodding, Lvs. pinnated somewhat fleshy : lobes subfiliform furrowed above

9319 Smooth, Pods linear erect or pendulous, Lvs. fleshy half round

9320 Pods linear compressed velvety, Style thick conical smooth, Leaves oblong

9321 Pods compressed stalked, Leaves linear lanceolate

9322 The only species

9323 Polyandrous hairy, Lvs. 5-7 cuneiform rough, Racemes term. Pods filiform

9324 Flowers dodecandrous, Leaves quinate and ternate

9325 Flowers dodecandrous, Leaves ternate

9326 Flowers gynandrous, Leaves quinate, Stem unarmed

9327 Flowers hexandrous, Leaves 7, Stem unarmed

9328 Flowers hexandrous, Leaves 7-5, Stem spiny

9329 Flowers hexandrous, Leaves quinate viscid, Stem spiny

9330 Prickly hexandrous, Leaves quinate and ternate : floral simple, Stigma dilated

9331 Flowers hexandrous, Leaves ternate and solitary, Leaflets lanc. lin. entire

9332 Unarmed, Lvs. 5 : lower and floral 3 ; upper sessile ovate, Pod smooth as long as its stalk

9333 Flowers hexandrous, Leaves ternate, Leaflets oval-lanceolate

9334 Flowers hexandrous, Leaves ternate lanceolate blunt, Pods fusiform viscid

9335 Flowers hexandrous, Leaves simple ovate-lanceolate stalked

9336 Flowers hexandrous, Leaves simple lanceolate stalked, Stems procumbent

9337 Unarmed pubescent, Leaves 5-7 : floral simple cordate, Pod the length of the stalk



and Miscellaneous Particulars.

1447. *Subularia*. From *subula*, an awl, on account of the form of the leaves. A curious little aquatic, not of common occurrence.

1448. *Cleome*. A name employed by Octavius Horatius, a Latin physician, who lived in the fourth century, to designate a plant resembling *Sinapis*, and growing in humid places. It appears to have had no relation to the modern plant.



CLASS XVI. — MONADELPHIA.

THIS class is distinctly characterized by the filaments being united together throughout the whole or a part of their length; and for the most part consists of plants belonging to the natural orders of Malvaceæ and Geraniaceæ. Of the former, the major part are of little moment, consisting, in a great measure, of weeds or worthless shrubs of various parts of the world. Among them, however, are some plants both of interest and ornament, especially the beautiful *Astrapeæ*, and the various species of *Bombax* and *Hibiscus*. The *Gossypium*, so important as producing the material of cotton, and the *Adansonia* or Baobab tree of Africa, remarkable for its immense size and use as an article of food, are found in this class. The *Geranium*, *Camellia* and *Passion* flower are also genera of much beauty; the latter yielding the well known West Indian fruit called the *Granadilla*. The common *Tamarind*, with which this class commences, would more properly be placed in the next, and the succeeding genera of *Patersonia*, *Tigridia*, *Ferraria*, and *Galaxia*, are in every respect, except the union of their filaments, referable to the third class.

Order 1. TRIANDRIA.



Stamens 3.

1449. *Tamarindus*. Petals 3, ascending. Three filaments longer than the others and fertile. Legumen 1-3-celled, pulpy inside.

1450. *Patersonia*. Cor. tubular. Limb 6-parted, with 3 small segments. Caps. 3-celled, inferior.

1451. *Ferraria*. Spatha 2-leaved. Cal. O. Petals 6, wavy, curled. Filaments united at base. Style 1. Caps. 3-celled, inferior.

1452. *Tigridia*. Spatha 2-leaved. Cal. O. Petals 6, the 3 outer large. Filaments united into a very long tube.

1453. *Galaxia*. Spatha 1-leaved. Cal. O. Corolla monopetalous, 6-cleft, with a long tube. Style 1. Capsule 3-celled, inferior.

Order 2. PENTANDRIA.



Stamens 5.

1454. *Waltheria*. Cal. 5-fid, with a lateral deciduous 3-leaved involucre. Petals 5. Style 1. Stigma pencilled. Caps. 1-celled, 2-valved, 1-seeded.

1455. *Hermannia*. Cal. nearly naked, campanulate, 5-fid. Pet. 5. Stamens 5. Filaments united at base, lanceolate, frequently winged. Styles 5, cohering in one. Caps. 5-celled, 5-valved, many-seeded.

1456. *Melochia*. Cal. 5-fid, naked, or with 1-3 bractææ. Petals 5, spreading. Stam. 5, monadelphous at base. Styles 5. Caps. 5-celled. Seeds 1-2 in each cell.

1457. *Methania*. Cal. 5-parted, persistent, with a 3-leaved involucre on one side. Pet. 5. Stam. 10, alternately sterile: the fertile ones bearing from 1-2 anthers each.

1458. *Ochroma*. Cal. double, outer 3-leaved. Petals 5. Anthers anfractuose. Capsule 5-celled, many-seeded. Seeds involved in wool.

1459. *Passiflora*. Cal. 5-parted, colored. Petals 5 or O, inserted in the calyx. Crown of many filiform rays. Fruit stalked, fleshy.

1460. *Erodium*. Cal. 5-leaved. Petals 5. Scales 5, alternate, with filaments and honey glands at the base of the stamens. Cocci 5, 1-seeded, awned, at the base of a rostrate receptacle.

Order 3. HEPTANDRIA.



Stamens 7.

1461. *Pelargonium*. Cal. 5-parted, the upper segment ending in a nectariferous tube running down the peduncle. Cor. 5-petalous, irregular.

Order 4. OCTANDRIA.



Stamens 8.

1462. *Aitonia*. Cal. 4-parted. Cor. 4 petals. Style 1. Berry dry, quadrangular, 1-celled, many-seeded.

Order 5. DECANDRIA.



Stamens 10.

1463. *Geranium*. Cal. 5-leaved. Petals 5, regular. Glands 5, honey-bearing, united to the base of the longer filaments. Cocci 5, 1-seeded, awned, at the base of a beaked receptacle.

Order 6. DODECANDRIA.



Stamens 12.

1464. *Brownea*. Cal. tubular, bifid. Cor. double: outer 5-fid; inner of 5 petals. Legumen 1-celled.

1465. *Monsonia*. Sepals 5. Pet. 5. Stamens 15, united; their cup 5-fid. Style 5-fid. Cocci 5, 1-seeded awned, at the base of a beaked receptacle.

1466. *Helicteres*. Cal. tubular, obliquely 5-fid. Petals 5. Germs on a long stalk. Style about 5-fid. Caps. 5, 1-celled, many-seeded, spirally twisted.

1467. *Dombeya*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are sterile. Style 5-fid. Caps. 5, united, 1-celled, 1-many-seeded.

1468. *Pentapetes*. Cal. double, outer 3-leaved, deciduous. Petals 5. Stamens 20, of which 5 are barren. Style obsolete 5-toothed. Caps. 5-celled, many-seeded, with contrary disseminations.

1469. *Astrapeæ*. Flowers umbellate, with an involucre. Involucre many-leaved, unequal. Cal. simple, 5-leaved, with 1 bract. Petals 5, convolute-closed. Stamens 25, united into a tube bearing the corolla: 5-sterile.

1470. *Pterospermum*. Cal. simple, 5-parted. Petals 5. Stamens 20, of which 5 are sterile. Style cylindrical, Stigma thickish, Caps. woody, 5-celled. Seeds winged.

Order 7. POLYANDRIA.



Stamens indefinite in number.

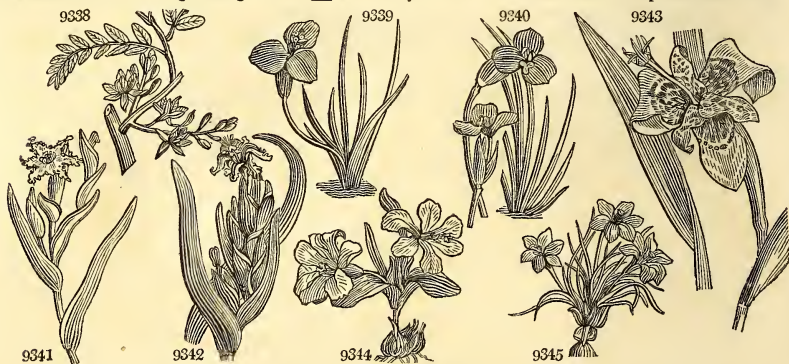
1471. *Malope*. Cal. double, outer 3-leaved. Capsules heaped without order, 1-seeded.
 1472. *Malva*. Cal. double, outer 3-leaved. Capsules many, 1-seeded.
 1473. *Kitaibelia*. Cal. double, outer 7-9-fid. Caps. clustered in a 5-lobed head, 1-seeded.
 1474. *Althæa*. Cal. double, outer 6-9-fid. Capsules many, 1-seeded.
 1475. *Lavatera*. Cal. double, outer 3-fid. Capsules many, 1-seeded.
 1476. *Malachra*. Common calyx 3-leaved, many-flowered, large. Caps. 5, 1-seeded.
 1477. *Urena*. Cal. double, outer 5-fid. Capsule 5-celled, 5-partible, with close 1-seeded cells.
 1478. *Pavonia*. Cal. double, outer many-leaved. Stigmas 10. Capsules 5, 2-valved, 1-seeded.
 1479. *Achania*. Cal. double, outer many-leaved. Cor. convolute, closed. Stigmas 10. Berry 5 celled, 5-seeded.
 1480. *Hibiscus*. Cal. double, outer many-leaved. Stigmas 5. Capsule 5-celled, many-seeded.
 1481. *Gossypium*. Cal. double, outer 3-fid. Caps. 5-celled. Seeds enwrapped in wool.
 1482. *Redoutea*. Cal. 5-parted, surrounded by a 10-12-leaved involucre. Stigmas 3. Capsules 3-celled, 3-valved, many-seeded, with three placentas alternate with the valves, and bearing on each side woolly seeds.
 1483. *Palavia*. Cal. naked, 5-fid. Capsules many, 1-seeded, united in a head without order.
 1484. *Cristaria*. Cal. naked, 5-fid. Fruit orbicular, depressed, covered with a skin, and consisting of several carpella, 2-winged in the centre, and many-seeded.
 1485. *Anoda*. Cal. naked, 5-fid. Lobes acuminate, much spreading in fruit. Caps. hemispherical beneath, depressed and stellate above, many-celled, with 1-celled, 1-seeded divisions.
 1486. *Periptera*. Cal. naked, 5-fid. Petals erect, spirally twisted in the tube, at length distinct. Capsule stellate, many-celled, with 1-seeded cells.
 1487. *Sida*. Cal. simple, angular. Style many-parted. Capsules several, 1 or 3-seeded.
 1488. *Lagunæa*. Cal. simple, 5-fid. Style 5-fid. Capsule 5-celled, with contrary dissepiments.
 1489. *Ruizia*. Cal. double, outer 3-leaved. Styles 10. Caps. 10, 1-celled, 2-seeded, closely cohering.
 1490. *Carolinea*. Cal. simple, subtruncate. Filaments branched. Style very long. Stigmas 6. Caps. woody, 1-celled, many-seeded.
 1491. *Adansonia*. Cal. simple, deciduous. Style very long. Stigmas many. Caps. woody, 10-celled, many-seeded, with a farinaceous pulp.
 1492. *Bombax*. Cal. 5-fid. Stamens 5, or many. Caps. woody, 5-celled, 5-valved. Seeds woolly. Receptacle 5-cornered.
 1493. *Myrodia*. Cal. naked, tubular, 4-5-toothed, bursting laterally. Petals oblong, linear. Stamens with a long column. Anthers 10-15. Capsule drupaceous, 2-3-celled, with 1-seeded cells.
 1494. *Gordonia*. Cal. simple. Style 5-cornered, with a 5-fid stigma. Caps. 5-celled. Seeds twin, with a leafy wing.
 1495. *Stuartia*. Cal. simple, rotate. Petals 5. Styles 5, united or distinct. Caps. 5-celled, 5-valved. Seeds solitary or twin.
 1496. *Camellia*. Cal. imbricated, many-leaved, the inner leaflets largest.
 1497. *Barringtonia*. Cal. 2-leaved, superior. Petals 4. Drupe dry, large, quadrangular, with a 4-celled ut.
 1498. *Gustavia*. Cal. 4-6-fid. Petals 4-6. Berry dry, 4-5-celled.
 1499. *Careya*. Cal. superior, 4-fid. Petals 4. Berry many-seeded. Seeds nestling in pulp.

TRIANDRIA.

1449. TAMARINDUS. <i>W.</i> TAMARIND TREE.					<i>Leguminosae. Sp. 1.</i>				
9338 indica <i>W.</i>	common	□	fr	60	jn.jl	Y	India	1633.	C r m Jac. amer. t. 10
1450. PATERSONIA. <i>R. Br.</i> PATERSONIA.					<i>Irideae. Sp. 2-7.</i>				
9339 sericea <i>R. Br.</i>	silky	△	or	1½	my.jl	B	N. S. W.	1803.	R s p Bot. mag. 1041
9340 glabrata <i>R. Br.</i>	smooth	△	or	1½	my.jl	Pu	N. S. W.	1814.	C s p Bot. reg. 51
1451. FERRARIA. <i>Ker.</i> FERRARIA.					<i>Irideae. Sp. 2-4.</i>				
9341 undulata <i>W.</i>	curled	♂	△	or	mr.ap	G.Br	C. G. H.	1755.	O s p Bot. mag. 144
9342 antherosa <i>Ker.</i>	variegated	♂	△	or	mr.jl	G.Br	C. G. H.	1800.	O s p Bot. mag. 751
1452. TIGRIDIA. <i>J.</i> TIGER FLOWER.					<i>Irideae. Sp. 1-2.</i>				
9343 Pavonia <i>P. S.</i>	Mexican	♂	△	or	my.s	O.r	Mexico	1796.	O s p Bot. mag. 53
β leona Hort.	whole-colored	♂	△	or	my.s	O.r	Mexico	1823.	O s p
1453. GALAXIA. <i>W.</i> GALAXIA.					<i>Irideae. Sp. 2-3.</i>				
9344 ovata <i>W.</i>	oval-leaved	△	or		my.s	D.Y	C. G. H.	1799.	s p Bot. rep. 94
β grandiflora <i>B. R.</i>	great-flowered	△	or		my.s	D.Y	C. G. H.	1799.	s p Bot. rep. 164
γ mucronularis <i>Sal.</i>	mucronated	△	or		my.s	Pu	C. G. H.	1799.	s p J. ic. t. 291. f. in. si.
δ versicolor <i>Sal.</i>	various-colored	△	or		my.s	Pu	C. G. H.	1799.	s p Jac. f. inf. dextr.
9345 graminea <i>W.</i>	narrow-leaved	△	or		jl.au	L.Y	C. G. H.	1795.	s p Bot. mag. 1292

PENTANDRIA.

1454. WALTHERIA. <i>W.</i> WALTHERIA.					<i>Byttneriaceae. Sp. 4-12.</i>				
9346 americana <i>W.</i>	American	♂	un	2	my.o	Y	S. Amer.	1691.	C l p Jac. ic. 1. t. 130
9347 indica <i>W.</i>	Indian	♂	un	9	jn.au	Y	E. Indies	1799.	L p l Burm. zeyl. t. 68
9348 elliptica <i>W.</i>	woolly	♂	un	3	...	Y	E. Indies	1812.	C s p Ca. dis. 6. t. 171. f. 2
9349 lucida <i>Schrank.</i>	smooth	♂	un	3	jl	Y	Guadalou.	1823.	C s p Schrank mon. 55
1455. HERMANNIA. <i>W.</i> HERMANNIA.					<i>Byttneriaceae. Sp. 34-42.</i>				
9350 althaeifolia <i>W.</i>	Althaea-leaved	♂	or	2½	mr.jl	Y	C. G. H.	1728.	C l p Bot. mag. 307
9351 plicata <i>W.</i>	plaited-leaved	♂	or	2	n.d	Y	C. G. H.	1774.	C l p Jac. schœ. 2. t. 213
9352 glandulosa <i>Link.</i>	glandular	♂	or	2	...	Y	C. G. H.	1822.	C l p
9353 cándicans <i>W.</i>	white	♂	or	2	ap.jn	Y	C. G. H.	1774.	C l p Jac. schœ. 1. t. 117
9354 disticha <i>W.</i>	round-leaved	♂	or	2	my.au	Y	C. G. H.	1789.	C l p Jac. schœ. 1. t. 118
9355 salvifolia <i>W.</i>	Sage-leaved	♂	or	2	ap.jn	Y	C. G. H.	1795.	C l p Ca. dis. 6. t. 180. f. 2
9356 micans <i>W.</i>	glittering	♂	or	2	my.au	Y	C. G. H.	1790.	C l p Jac. schœ. 1. t. 119



History, Use, Propagation, Culture,

1449. *Tamarindus*. Latinized from the Arabic name *Tamer-hindy*, or Indian date. This tree is a native of the East and West Indies, of Arabia, and Egypt. It is a large beautiful spreading tree. The leaves are abruptly pinnate, composed of sixteen or eighteen pairs of sessile leaflets, half an inch only in length, and one sixth of an inch broad, of a bright green color, downy, oblong, entire, and obtuse: the flowers are in loose bunches of five or six, which come out from the sides of the branches: the calyx is of a straw yellow color, and deciduous: the petals also yellowish, and beautifully variegated with red veins; ovate, concave, acute, indented, and plaited at the edge; and the filaments purplish, bearing incumbent brownish anthers: the pods are thick, compressed, and of a dull brown color when ripe: those from the West Indies from two to five inches long, with two, three, or four seeds: those from the East Indies are twice as long, and contain five, six, or seven seeds: the seeds in both are flat, angular, shining, and lodged in a dark pulpy matter.

In the West Indies, the pods are gathered in June, July, and August, when fully ripe; and the fruit being freed from the shelly fragments, is placed in layers in a cask, and boiling syrup poured over it, till the cask is filled; the syrup pervades every part quite down to the bottom; and when cool the cask is headed for sale. (*Long's Jamaica*, iii. 729.) The East India tamarinds are darker colored and drier, and are said to be preserved without sugar. Tamarinds are inodorous, and have an agreeable acid sweetish taste. The acid taste chiefly depends on the citric acid, the quantity of that being greater than of the other. The pulp is refrigerant, and gently laxative. The simple infusion of the pulp in warm water, or a whey made by boiling it in milk, forms a very grateful refrigerant beverage, which is advantageously used in febrile diseases. The dose of the simple fruit required to act upon the bowels is so large, that it is seldom given alone as a purgative, but is generally combined with cassia or manna, the action of which it augments, or with such of the neutral purgative salts as are not decomposed by it; which is the case with those that have potass for their base, and are therefore incompatible in mixtures with this fruit. (*Thompson's London Dispensatory*, 534.)

The plants thrive in loam and peat, and root under a glass in sand. They form handsome objects, but in our stoves are seldom allowed sufficient room to flower. Miller says, he had several plants twenty years old, and upwards, of fifteen feet high, which never had shewed blossoms.

TRIANDRIA.

9338 The only species

9339 Stigma deflexed, Scape and spathes silky, Leaves ensiform straight striated

9340 Stigma deflexed, Scape and spathes smooth shining, Keel of leaves woolly at base

9341 Stem branched, Leaves equitant ensiform equal wavy ; inner twice as narrow as the outer

9342 Stem simple, Leaves equitant ensiform ; lower narrow

9343 Stem simple wavy, Leaves ensiform nerved, Petals flat ; inner small panduriform

9344 Almost stemless, Leaves oblong, Spathe 1-valved 1-flowered

9345 Almost stemless, Leaves linear filiform dilated at base, Spathe 1-valved 1-flowered

PENTANDRIA.

9346 Leaves oval plicate acutely and unequally toothed downy, Heads stalked

9347 Leaves oval plicate bluntly toothed downy, Heads sessile

9348 Leaves lanceolate oblong blunt plicate toothed downy, Heads sessile

9349 Leaves ovate mucronate serrate and stem quite smooth, Heads stalked, Calyxes ciliated

9350 Leaves ovate downy plicate crenate, Lower stipules ovate ; upper broad lanceolate, Cal. angular

9351 Lvs. downy hairy ovate subcord. rugose denticulate, Stipules ovate acute, Cal. in fl. cylind. finally inflated

9352 Leaves oval unequally crenate subpubescent, Stipules ovate acute often cut, Stem glandular pubescent

9353 Leaves whitish downy round ovate crenate, Stipules lanceolate subulate, Cal. campanulate spreading

9354 Leaves hispid-villose roundish-ovate blunt toothed, Stipules subovate acuminate, Cal. angular

9355 Leaves downy hispid rugose oblong blunt entire subsessile, Stipules long lanceolate subulate, Fls. naked

9356 Lvs. downy hispid somewhat rugose obl. very blunt a little toothed at end with short stalks, Stip. lanc. subul.



and Miscellaneous Particulars.

1450. *Patersonia*. Named after Colonel William Paterson, a gentleman whose remarks on the Cape of Good Hope, New Holland, and Norfolk Island, have been of much service to botany. Handsome plants, which grow readily in loam and peat, and are increased like other herbaceous vegetables.

1451. *Ferraria*. Named after Jean Baptiste Ferrari, an Italian botanist, author of a work on the culture of flowers, published in 1633, &c. According to Sweet, "a mixture of sandy loam and peat is the best soil for the species, and they should be kept without water, after they have done growing, till they begin to grow again, when they may be planted in fresh pots and regularly watered: they are increased by offsets from the bulbs, or by seeds." (*Bot. Cult.* 192.)

1452. *Tigridia*. In allusion to the spotted flowers, which are marked something like the skin of a tiger. Splendid plants, and tolerably hardy. They do best when planted in the soil and protected by a frame or hand-glass; but will also thrive in sheltered borders, provided they are protected from the winter's frost. They ripen seeds, from which, or from offsets, they may be readily increased.

1463. *Galaxia*. Thunberg, the author of the name, has not explained its meaning. Like other plants of the bulbous kind, these should be kept dry after flowering and seeding. At the return of the growing season, they should be fresh potted, and kept in a cool part of the greenhouse till they are well rooted, when they may be put into a warmer situation and regularly watered. They seed freely.

1454. *Waltheria*. In memory of Augustin Frider. Walther, professor of medicine at Leipzig; author of *Hortus Proprius*, 1735. The species grow in any light rich soil, and are readily propagated. They are of no importance.

1455. *Hermannia*. In memory of Paul Hermann, who practised physic in Ceylon, and at the Cape of Good Hope, and was afterwards professor of botany at Leyden. He was born in 1640, at Halle, in Saxony, and died in 1695. The species are low shrubs, for the most part, with wrinkled leaves and yellow flowers, which they produce in abundance. They grow freely in any light rich soil, and are readily increased in the same soil.

9357 frágans <i>Link.</i>	fragrant	♂	or	2	...	...	C. G. H.	1822.	C	l.p	
9358 involuocráta <i>W.</i>	involute	♂	or	2	my.jn	Y	C. G. H.	1794.	C	l.p	Ca. dis. 6. t. 177. f. 1
9359 scordifolia <i>W.</i>	Germander-iv.	♂	or	2	ap.n	Y	C. G. H.	1794.	C	l.p	Jac. schœ. 1. t. 120
9360 mol'is <i>W.</i>	soft-leaved	♂	or	2	my.jn	Y	C. G. H.	1814.	C	l.p	
9361 denudáta <i>W.</i>	smooth	♂	or	2	my.jl	Y	C. G. H.	1774.	C	l.p	Jac. schœ. 1. t. 122
9362 disernæfólia <i>W.</i>	simple-flower'd	♂	or	2	mr.ap	Y	C. G. H.	1795.	C	l.p	Jac. schœ. 1. t. 121
9363 alnifolia <i>W.</i>	Alder-leaved	♂	or	7	f.my	Y	C. G. H.	1728.	C	l.p	Jac. schœ. 299
9364 cuneifolia <i>W.</i>	wedge-leaved	♂	or	2	aus.	Y	C. G. H.	1791.	C	l.p	Jac. schœ. 1. t. 124
9365 holosericea <i>W.</i>	velvet-leaved	♂	or	2	my.jn	Y	C. G. H.	1792.	C	l.p	Jac. schœ. 3. t. 292
9366 decumbens <i>W. en.</i>	decumbent	♂	or	1	my.jn	Y	C. G. H.	1821.	C	l.p	
9367 hisúta <i>W.</i>	hairy-branched	♂	or	2	my.jn	Y	C. G. H.	1790.	C	l.p	Schr. s. han. 1. t. 4
9368 scábura <i>W.</i>	rough-leaved	♂	or	3	mr.ap	Y	C. G. H.	1789.	C	l.p	Jac. schœ. 1. t. 127
9369 multiflóra <i>W.</i>	many-flowered	♂	or	3	mr.my	Y	C. G. H.	1791.	C	l.p	Jac. schœ. 1. t. 128
9370 flámmea <i>W.</i>	flame-flowered	♂	or	3	ja.d	Or	C. G. H.	1794.	C	l.p	Bot. mag. 1349
9371 angularis <i>W.</i>	angular	♂	or	3	ap.my	Y	C. G. H.	1791.	C	l.p	Jac. schœ. 1. t. 126
9372 hyssopifolia <i>W.</i>	Hyssop-leaved	♂	or	7	ap.jn	Str	C. G. H.	1725.	C	l.p	Ca. dis. 6. t. 181. f. 3
9373 trifurcáta <i>W.</i>	three-forked	♂	or	3	ap.jl	B	C. G. H.	1789.	C	l.p	Jac. schœ. 1. t. 125
9374 odoráta <i>W.</i>	sweet-scented	♂	or	3	f.o	Y	C. G. H.	1780.	C	l.p	
9375 lavandulifolia <i>W.</i>	Lavender-leav.	♂	or	1½	my.s	Y	C. G. H.	1732.	C	l.p	Bot. mag. 304
9376 filifolia <i>W.</i>	thread-leaved	♂	or	1½	my.au	Y	C. G. H.	1816.	C	l.p	Jac. schœ. 1. t. 123
9377 trifoliáta <i>W.</i>	three-leaved	♂	or	2	my.au	Y	C. G. H.	1752.	C	l.p	Ca. dis. 6. t. 182. f. 1
9378 procumbens <i>W.</i>	procumbent	♂	or	1½	my.jn	Y	C. G. H.	1792.	C	l.p	Ca. dis. 6. t. 177. f. 2
9379 grossularifolia <i>W.</i>	gooseberry-lvd.	♂	or	2	ap.my	Y	C. G. H.	1731.	C	l.p	
9380 pulverulénta <i>B. E.</i>	powdered	♂	or	2	my.au	Y	C. G. H.	1800.	C	l.p	Bot. rep. 164
9381 incisá <i>W.</i>	cut-leaved	♂	or	2	jn.jl	Y	C. G. H.	1806.	C	l.p	
9382 coronopifolia <i>Link.</i>	buckshorn-lvd.	♂	or	2	jn.jl	Y	C. G. H.	1823.	C	l.p	
9383 tenuifolia <i>B. M.</i>	slender-leaved	♂	or	2	jn.jl	Y	C. G. H.	...	C	l.p	Bot. mag. 1348
1456. MELO'CHIA. <i>W.</i>	MELOCHIA.						<i>Byttneriaceæ. Sp. 4—28.</i>				
9384 pyramidáta <i>W.</i>	pyramidal	♂	or	1	jl.au	Pu	Brazil	1768.	C	pl	Jac. vind. 1. t. 90
9385 tomentósa <i>W.</i>	downy	♂	or	2	my.jn	Pu	W. Indies	1768.	C	pl	Ca. dis. 6. t. 172. f. 2
9386 caracásana <i>Jacq.</i>	Caraccas	♂	or	2	my.jn	Y	Caraccas	1820.	C	pl	Jacq. ic. 507
9387 corchorifolia <i>W.</i>	Corchorus-lvd.	♂	or	1	jl.au	Y	E. Indies	1732.	S	l.p	Dil. el. t. 176. f. 217
1457. MELHA'NIA. <i>J.</i>	MELHANIA.						<i>Byttneriaceæ. Sp. 2—6.</i>				
9388 Erythróxyton <i>H. K.</i>	red-wood	♂	or	20	my.au	W	St. Helena	1772.	C	s.l	Bot. mag. 1000
9389 Melanóxyton <i>H. K.</i>	black-wood	♂	or	20	jl.au	W	St. Helena	1800.	C	s.l	Plu. ma. t. 333. f. 5
1458. OCHRO'MA. <i>W.</i>	OCHROMA.						<i>Bombacæ. Sp. 2.</i>				
9390 tomentósa <i>W. en.</i>	woolly-leaved	♂	or	20	...	W	S. Amer.	1816.	C	l.p	
9391 Lagópús <i>W. en.</i>	downy-leaved	♂	or	20	...	W	Jamaica	1802.	C	l.p	Cav. dis. 5. t. 153
1459. PASSIFLO'RA. <i>W.</i>	PASSION FLOWER.						<i>Passifloreæ. Sp. 44—95.</i>				
9392 serratifolia <i>W.</i>	notched-leaved	♂	or	20	my.o	G. Pk	W. Indies	1731.	C	pl	Bot. mag. 651
9393 cúprea <i>W.</i>	copper-colored	♂	or	20	jl.au	Or	Bahama!	1724.	C	pl	Jac. ic. 3. t. 606
9394 malifórmis <i>W.</i>	Sweet Calabash	♂	or	20	jl.n	G. R	W. Indies	1731.	C	pl	Bot. reg. 94
9395 racemósa <i>Erot.</i>	racemose	♂	or	20	mr.o	S	Brazil	1815.	C	pl	Bot. mag. 2001
9396 quadranguláris <i>W.</i>	square-stalked	♂	or	20	aus.	G. B. R	Jamaica	1768.	S	r.m	Bot. reg. 14



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1456. *Melochia*. According to Forskahl, it is an alteration of the Arabic name *melochieh*, or *melokkieh*. Light rich soil suits all the species, and they strike readily in moist heat.

1457. *Melhania*. A plant which grows upon Mount *Melham*, in Arabia. Pretty plants, which grow in sandy loam, and root in sand under cover. Sweet observes, that "they are very apt to become covered with insects."

1458. *Ochroma*. From *oxeos*, yellow, the flowers being of that color, according to Schreber. *O. Lagopus* is a very large tree, with divaricating branches, and leaves more than a foot long. The wood is white, tender, and so light, that it is used instead of corks to nets. The capsules contain a very soft fine rufous down, in which the seeds are involved, and which down is said to be used in the manufacture of English beavers. (*Desportes Plantes de S. Domingue*, iii. 16.)

1459. *Passiflora*. This genus has been so named, on account of its being supposed to represent, in the appendages of its flower, the passion of Jesus Christ. A beautiful genus of climbers, partly herbaceous, but chiefly suffrutescent or woody; and all of them exotics and very ornamental. Some species are odoriferous; others bear edible fruits, fleshy juicy berries of considerable size, though not rich in flavor. Of late, a number of hybrid sorts have been raised, some of which, as *P. cæruleo-racemosa*, are considered more beautiful than almost any of the natural species.

P. maliformis, the sweet calabash of the West Indies, produces large flowers, red, white, and blue, but of short duration. They are succeeded by fruit, roundish, the size of a large apple, yellow when ripe, having a thicker rind than any of the other sorts; inclosing a sweetish pulp, in which are lodged many oblong black seeds, of a brownish color, a little rough to the touch. It grows naturally in the West Indies, where the inhabitants call it *Granadilla*. The fruit is served up there in desserts. It has borne fruit in the garden of the Bishop of Durham in Oxfordshire, and at Vere's, Kensington Gore. (*Hort. Trans.* iii. 101.)

P. quadrangularis, the *Granadilla* vine of the French, has leaves five or six inches long, and luxuriant four-

- 9357 Leaves stalked oval blunt wavy crenate and stem hairy, Stipules lanceolate
 9358 Leaves downy hispid oblong acutish entire subsessile, Stipules lanceolate subulate, Flowers aggregate
 9359 Leaves downy beneath oblong blunt crenate stalked, Stipules subulate, Pedic. 1-2-fl. Calyxes spreading
 9360 Leaves soft with down whitish obl. blunt toothed cuneate at base entire, Pedunc. 2-fl. Cal. campan. velvety
 9361 Leaves smooth lanceolate serrate at end acute, Stipules ovate acuminate, Pedic. 2-4-flowered
 9362 Leaves white with down lanceolate serrate bluntnish wavy at edge, Stipules subul. Pedunc. 1-fl. very short
 9363 Leaves smooth broadly obovate cuneiform very blunt crenate emarginate plicate, Stip. lanc. subulate
 9364 Leaves pubescent obovate cuneiform truncate emarginate toothed, Stipules ovate acute
 9365 Leaves soft white with down oblong cuneiform rounded at end toothed, Stipules lanceolate
 9366 Leaves pubescent downy oblong unequally toothed rounded at each end, Stipules ovate somew. toothed
 9367 Leaves beneath white with down oblong obov. cuneiform unequally toothed at end, Stip. $\frac{3}{4}$ cord. acum.
 9368 Leaves rough above downy beneath cuneif. obl. unq. toothed entire at base, Stip. half cordate acuminate
 9369 Leaves smoothish cuneiform oblong truncate toothed at end, Stipules oblong acute, Racemes few-flow.
 9370 Leaves smooth cuneiform lanceolate truncate toothed at end, Calyxes reflexed
 9371 Leaves smooth above hairy beneath cuneiform lanceolate truncate toothed at end
 9372 Leaves pubescent cuneiform lanceolate blunt toothed at end, Calyx inflated downy
 9373 Leaves velvety cuneiform linear blunt entire or 3-toothed at end, Cal. campanulate
 9374 Leaves velvety cuneiform lanceolate blunt : upper entire ; lower 3-5-toothed at end, Stipules lin. subul.
 9375 Leaves velvety lanceolate blunt entire, Stipules linear subulate, Calyxes angular
 9376 Leaves smooth rough at edge linear 3-cornered entire, Stipules large lanceolate
 9377 Leaves white with down sess. cuneate obovord. somew. crenate at end, Stip. obl. blunt resembling lat. lvs.
 9378 Leaves smoothish oblong toothed pinnatifid : lower ovate ; upper elongate, Stem procumbent
 9379 Leaves rough with scattered down linear-cuneiform coarsely toothed, Stipules linear entire
 9380 Leaves roughish white bipinnatifid, Pedunc. 2-flowered very long
 9381 Leaves pinnatifid with linear lanceolate entire segments, Petals cut-toothed
 9382 Leaves linear pinnatifid fleshy smoothish, Stem pubescent
 9383 Leaves pinnatifid with linear entire acute lobes

- 9384 Leaves ovate lanc. toothed smooth, Pedunc. 5-6-fl. longer than petiole, Branches downy in decurrent lines
 9385 Lvs. uneq. sided ovate obl. acutely crenate plaited hoary on each side, Umbels 3-8-fl. longer than petiole
 9386 Leaves cordate crenate downy beneath, Fl. capitate subsessile axillary and opposite the leaves
 9387 Leaves ovate somewhat lobed serrated smooth, Flowers subterminal capitate sessile

- 9388 Leaves ovate cordate subpeltate acuminate crenulate beneath downy and reticulated
 9389 Leaves cordate entire downy on each side

- 9390 Leaves cordate somewhat 3-lobed repand subtomentose
 9391 Leaves cordate 5-angled somewhat lobed toothletted pubescent beneath

- 9392 Leaves ovate veiny subserrulate, Petioles with 2 glands, Invol. 3-leaved
 9393 Leaves elliptical entire blunt 3-nerved, Petioles without glands, Invol. O.
 9394 Leaves oblong ovate cordate 3-nerved veiny entire, Petioles with 2 glands, Invol. 3-leaved larger than fl.
 9395 Leaves 3-lobed peltate, Petioles with 4 glands, Flowers terminal racemose
 9396 Leaves obl. ovate subcord. entire veiny, Petioles with 6 glands, Stipules roundish ovate, Invol. 3-leaved



and Miscellaneous Particulars.

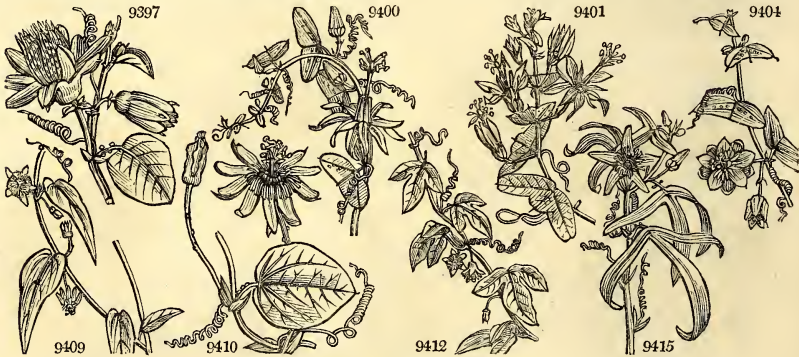
cornered ligneous stems. The flowers are red within, and white outside; they are odoriferous, and generally the plant is covered with fruits and flowers at the same time, which makes a fine appearance. The fruit, Sabine describes (*Hort. Trans.* iii. 100.) as very large, of an oblong shape, about six inches in diameter, from the stalk to the eye, and fifteen inches in circumference. It is externally of a greenish-yellow when ripe, soft and leathery to the touch, and quite smooth; the rind is very thick, and contains a succulent pulp of a purple color (which is the edible part), mixed with the seeds in a sort of sack, from which it is readily separated. Wine and sugar are commonly added to it when used. The flavor is sweet and slightly acid, and it is very grateful to the taste, and cooling in a hot climate. It has been successfully cultivated for its fruit in a few places, as at Lord Harewood's, Farley Hall, &c. (*Hort. Trans.* iv. 60.)

P. laurifolia, the water lemon, *Pomme de Liane*, Fr., has a suffrutescent stem, with divaricating filiform branches, oval smooth leaves, and very long tendrils. Flowers red and violet, sweet-scented; the fruit about the size of a hen's egg, but rather more elongated, and tapering equally at both ends; when ripe, it is yellow and dotted over with white spots; it contains a whitish watery pulp, which, in the West Indies, is usually sucked through a small hole made in the rind; the rind is tough, soft, and thin; the juice has a peculiar aromatic flavor, is delicately acid, and allays thirst agreeably. It is grown in our stoves, but has not yet been cultivated for its fruit.

P. normalis has berries about the size of small grapes. The root has been extolled as a counterpoison and diuretic.

P. Murucuja produces fruit of an oblong oval form, about the size of a large olive, and flesh-colored when ripe. Both the syrup and decoction of the plant are much used in the leeward parts of Jamaica, where it is frequent; and they are said to answer effectually all the purposes for which syrup of poppies and liquid laudanum are generally administered. The flowers are most in use: they are commonly infused in, or pounded and

9397 alata W.	wing-stalked	fr	20	ap.au	G.B.R	W. Indies	1772.	C	p.l	Bot. mag. 66
9398 laurifolia W.	laurel-leaved	fr	20	jn.jl.	G.Pu	W. Indies	1690.	C	p.l	Bot. reg. 13
9399 multiflora W.	many-flowered	fr	20	jn.s	...	VeraCruz	1731.	C	p.l	Plum.amer.t.90
9400 Murucija W.	purple	fr	12	jl.au	S	W. Indies	1739.	C	p.l	Bot. reg. 574
9401 perfoliata W.	perfoliate-leav.	or	15	jl.au	Pu	W. Indies	1806.	C	p.l	Bot. reg. 78
9402 rabra W.	red-fruited	or	15	ap.s	R	W. Indies	1771.	C	p.l	Bot. reg. 96
9403 normalis W.	linear-lobed	or	15	my.jn	...	VeraCruz	1731.	C	p.l	
9404 lunata W.	creasant-leaved	cu	10	jn.au	W	Jamaica	1733.	C	p.l	Bot. mag. 2354
9405 Vespertilio W.	bat-winged	cu	8	my.jn	W	W. Indies	1732.	C	p.l	Bot. reg. 597
9406 rotundifolia W.	round-leaved	cu	8	my.au	W	W. Indies	1779.	C	p.l	Cav. dis. 10. t.290
9407 punctata W.	dotted-leaved	cu	6	my.jn	W.Y	Peru	1784.	C	p.l	Bot. cab. 101
9408 latea W.	yellow	cu	4	my.jn	Y.W	America	1714.	R	p.l	Bot. reg. 79
9409 angustifolia W.	narrow-leaved	cu	6	jn.s	W	W. Indies	1773.	C	p.l	Bot. reg. 188
9410 al'bida Ker.	long-stalked	or	15	aus	W	Brazil	1816.	C	p.l	Bot. reg. 677
9411 pallida W.	pale	cu	20	aus	Y.G	St. Domin.	...	C	p.l	Bot. reg. 660
9412 minima W.	small	cu	6	jl.au	W	Curassao	1690.	C	p.l	Bot. reg. 144
9413 gracilis Link.	slender	cu	6	au	W	.....	1823.	O	co	Bot. reg. 870
9414 suberosa W.	Cork-barked	cu	6	jn.s	W	W. Indies	1759.	C	p.l	Exot. bot. I. t. 28
9415 peltata W.	peltate	cu	6	aus	G	W. Indies	1778.	C	p.l	Bot. reg. 507
9416 hederacea W.	Ivy-leaved	un	3	jn.jl	W	W. Indies	...	C	p.l	Plum.amer.t.84
9417 glauca W.	glaucous-leaf'd	un	6	aus	W	Cayenne	1779.	C	p.l	Bot. reg. 88
<i>stipulata</i> Aublet.										
9418 picturata Ker.	Newman's	or	15	s	Pu	Brazils	1820.	C	p.l	Bot. reg. 673
9419 holosericea W.	silky-leaved	or	10	my.au	W.pu	VeraCruz	1733.	C	p.l	Bot. reg. 59
9420 hirsuta W.	hairy	or	8	s	W	W. Indies	1778.	C	p.l	Bot. cab. 138
9421 tuberosa W.	tuberous	or	12	jn.o	G	W. Indies	1810.	C	p.l	Bot. reg. 432
9422 palmata Link.	palmate	or	12	...	W	Brazil	1818.	C	p.l	
9423 foetida W.	stinking	or	10	jl.au	W.G	W. Indies	1731.	S	p.l	Bot. reg. 321
9424 rubricaulis Jacq.	red-stalked	pr	6	jl.au	R	S. Amer.	1821.	S	co	
9425 ciliata W.	ciliated	or	6	jl.s	Pk	Jamaica	1783.	C	p.l	Bot. mag. 288
9426 Herbertiana Ker.	Lord Caernarv.	or	30	jl.s	G	N. Holl.	1821.	C	p.l	Bot. reg. 233
9427 adiantifolia B. Reg.	Adiantum-lvd.	or	20	jn.au	Or	Norfolk I.	1792.	C	p.l	Bot. reg. 233
9428 peduncularis Cav.	long-peduncled	or	10	...	W	Peru	1815.	C	p.l	Cav. ic. 5. t. 426
9429 edulis B. M.	eatable	fr	30	jl.au	W	W. Indies	...	C	p.l	Bot. mag. 1989
9430 incarnata W.	Rose-colored	or	30	jl.au	Pk	America	1629.	C	r.m	Miss Lawr. pass.
9431 cerulea W.	common	or	30	jn.o	W.B	Brazil	1609.	C	s.p	Bot. mag. 28
<i>β ceruleo-racemosa</i>										
<i>γ angustifolia</i>										
<i>δ chinensis</i>										
9432 filamentosa W.	thready	or	20	jn.o	W.B	China	...	C	co	
9433 serrata W.	saw-leaved	or	20	...	W.G	America	1817.	C	p.l	Bot. reg. 584
9434 pedata W.	curl-flowered	or	15	...	W.G	Martinique	1800.	C	p.l	Plum. amer. t.79
9435 heterophylla W.	various-leaved	or	15	...	W.G	W. Indies	1781.	C	p.l	Bot. reg. 233
		or	15	...	W.G	St. Domin.	1817.	C	p.l	Plum. ic. 139. f.1



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mixed immediately with wine or spirits; and the composition is generally thought a very effectual and easy narcotic.

P. incarnata, the May apple, has a perennial root, herbaceous shoots, and sweet-scented flowers, variegated with purple. The fruit is about the size of an apple, orange-colored, with a sweetish yellow pulp, but it requires the heat of the stove to bring it forward.

P. cerulea is the tallest and most ligneous of the species. The stem will grow almost as large as a man's arm, and the shoots will often grow the length of fifteen feet in one summer. The leaves are the most elegant of the genus. The flowers are blue outside, and purple and white within: they have a faint scent, and continue but for one day. The fruit is egg-shaped, of the size and color of the Mogul plum, the yellow skin of which encloses a sweetish disagreeable pulp and black seeds.

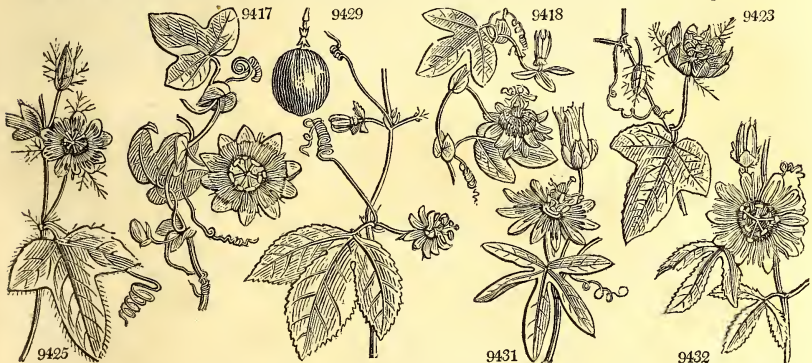
Besides the species thus enumerated, some varieties have been procured by cross impregnation, which are very remarkable for their beauty, and for having acquired the hardihood of their parent. The most valuable of these artificial productions, is the *P. ceruleo-racemosa*, raised by Mr. Milne, of Fulham, from seed of *P. racemosa* impregnated by *P. cerulea*, and figured in the Transactions of the Horticultural Society, vol. 3. tab. 3., and the *P. alato-cerulea*, obtained by Mr. J. H. Masters of Canterbury, between *P. alata* of the West Indies, and *P. cerulea*.

All the species grow and flower freely in a mixture of loam, and light rich earth or peat, with plenty of room. Most of them fruit in the stove, but the *P. cerulea* seldom fruits in the greenhouse. They are all easily increased either by seeds or very young cuttings, in a close moist heat.

As fruit-bearing plants the Passifloras are thus treated:—"Having procured plants with good roots, plant such as are intended to fruit in a border in the stove, and train them to a trellis near the glass; they will in general produce fruit the second year. The seedlings of the *P. incarnata*, will produce fruit the first year. All the species will fruit even in large pots; but Sabine says, the "best method is to plant them in an angle of the bark-bed, which has been parted off, either by boards or brick-work, as low as the pit goes. At the bottom of

- 9397 Leaves obl. ovate subcord. ent. veiny, Petioles with 4 glands, Stip. lanc. falcate subserrate, Invol. 3-leaved
 9398 Leaves oblong entire veiny, Petioles with 2 glands, Invol. 3-leaved toothed at end
 9399 Leaves obl. ent. acute 3-nerved veiny, Petioles with 2 glands, Ped. aggregate axill. Fl. apetalous, Invol. O.
 9400 Leaves 2-lobed bluntly emarginate, Petioles without glands, Corona campanulate truncate entire
 9401 Lvs. cord. 2-lobed blunt mucron. ; up. somew. stem-clasp. Petiol. without glands, Pet. twice as long as cal.
 9402 Leaves cordate 2-lobed acute mucronate pubescent beneath, Petioles without glands, Fruit obovate
 9403 Lvs. 2-lobed emarginate at base, Lobes linear blunt divaricating ; the intermediate obsolete mucronate
 9404 Lvs. cord. 2-lobed blunt smooth, Petioles without glands, Pedunc. axillary twin, Threads of corona clav.
 9405 Lvs. cuneiform acuminate divaricating with 2 glands at base, Petioles without glands, Invol. O.
 9406 Lvs. round. shortly and bluntly 3-lobed dott. downy ben. Petiol. without glands, Pet. twice as short as cal.
 9407 Lvs. round. subcord. blunt obsoletely 3-lobed smooth dott. Petioles without glands, Ped. twice as long as cal.
 9408 Lvs. cord. 3-lobed blunt smooth, Petioles without glands, Pedunc. axill. twin, Pet. twice as narrow as cal.
 9409 Lower leaves 3-lobed acuminate ; upper undivided lanceolate, Petioles with 2 glands, Flowers apetalous
 9410 Leaves roundish cordate, Petioles with 2 glands, Flowers solitary long-stalked, Cal. keeled, Stam. 1-sided
 9411 Leaves ovate entire 3-nerved veiny, Petioles with 2 glands, Flowers apetalous, Involucrum O.
 9412 Lvs. 3-lobed smooth, Lobes lanc. ; middle one longest, Petioles with 2 glands, Fl. apetal. Stem corky at base
 9413 Leaves subcordate 3-lobed, Lobes rounded with 2 glands, Pedunc. axillary solitary, Flower apetalous
 9414 Lvs. 3-lobed smooth, Lobes oblong ; lat. very short, Petioles with 2 glands, Fl. apetal. Stem corky at base
 9415 Lvs. peltate deeply 3-lobed smooth, Lobes lin. lanc. divaricating, Petioles with 2 glands, Flow. apetalous
 9416 Leaves peltate half 3-lobed smooth, Lobes ovate blunt, Petioles with 2 glands, Fl. apetalous
 9417 Leaves peltate cordate 3-lobed, Lobes equal oblong blunt, Petioles with 4 glands, Petals length of calyx
 9418 Leaves discolored peltate
 9419 Leaves 3-lobed downy with a reflexed tooth on each side at the base
 9420 Leaves 3-lobed vill. ; lower smooth above, Lobes obl. entire ; intermediate longest, Petioles with 2 glands
 9421 Leaves 2-lobed glandular beneath, Lobes oblong erect, Peduncles twin
 9422 Leaves palmate about 5-parted subserrulate, Involucres 3-leaved entire, Rays a little shorter than corolla
 9423 Leaves 3-lobed cordate hairy, Involucres multifid capillary
 9424 Leaves and stems all fringed with red hairs
 9425 Leaves 3-lobed cordate smooth ciliated serrated, Involucres multifid capillary
 9426 Downy, Leaves cordate 3-lobed, Peduncles twice as short as petiole, Corona much shorter than corolla
 9427 Lvs. rounded trunc. at base slightly 3-5-lobed, Lobes blunt, Petioles without glands, Pet. shorter than cal.
 9428 Stem square, Leaves 3-lobed : lobes nearly equal serrated, Pedunc. long 1-flowered
 9429 Leaves 3-lobed serrated smooth, Invol. glandular serrulate caducous, Ovary naked
 9430 Lvs. 3-lobed serr. Lobes obl. acute, Petioles with 2 glands, Inv. 3-leaved, Threads of corona longer than cor.
 9431 Lvs. palmate 5-parted entire, Petioles gland. Invol. 3-leaved entire, Threads of corona shorter than corolla

- 9432 Leaves palmate 5-parted serr. Petioles gland. Invol. 3-leaved serrate, Threads of corona longer than cor.
 9433 Leaves palmate 7-parted serrated, Petioles glandular, Invol. 3-fid entire
 9434 Leaves 7-pedate serrated, Petioles glandular, Invol. 3-leaved serrated
 9435 Upper leaves quinate pedate obovate somewhat cut ; lower ternate linear-lanceolate or simple



and Miscellaneous Particulars.

the cavity formed by this division, should be laid some brick-rubbish, over which may be thrown a little dead tan, and the whole be then filled with equal parts of very old tan, and a compost of leaf-mould and rotten dung. Herein the roots will strike freely, and will even spread through the partition into the pit, growing into the fresh tan. Such roots may be trimmed and reduced whenever the tan is changed; but should the plant have been some time in its station, it will be as well to leave part of the old tan in the bottom of the pit, in which the protruded roots may remain undisturbed. They do not require the full heat of the pine stove, for they flourish best in a temperature of from sixty-five to seventy degrees; but they do not bring their fruit to perfection if kept in a common greenhouse or conservatory, though they will grow and flower in it. The shoots, as they advance, must be trained near to and under the inclined glass of the stove: the flowers will appear in May, and the blooming will continue until September, the fruit setting the whole time; but if it does not set well, it will be advisable to impregnate the stigmas by applying the pollen with a feather. As they grow, the very strong shoots should be cut out from their origin, for these do not bear fruit so abundantly as those which are less vigorous; but the fruiting branches must not be shortened on any account. The temperature must be kept up equally during the time of flowering and fruiting. The crop will begin to come in in August, and will continue until January; but the earlier produce is the best. When the crop is all off, which will be early in January, the heat must be reduced to about fifty degrees, so as to check or stop the growth; this being effected, the shoots must be well cut in. As little old wood as possible, besides the main stem, which rises from the pit to the glass, and a few pieces (about two or three feet of each) of the old branches should be retained; for all that is to be trained under the glass to bear in each year, ought to be the growth of the same season. It is found that the shoots break better, and in greater quantity, from the older wood than from that of two years' standing. In this dormant and reduced state it is to be kept during January and February, after which the necessary heat may be applied to cause it to resume its functions for the ensuing season." (*Hort. Trans.* iii. and iv.)

1460. ERODIIUM W.		HERON'S BILL.	Geraniaceæ.	Sp. 20—45.		
9436	petræum W.	rock	½ jn.jl	Pu	S. Europe	1640. D co
9437	glandulosum W.	glandular	½ jn.jl	Pu	Spain	1798. C lp
9438	alpinum W.	Alpine	½ my.au	R	Italy	1814. D co
9439	crassifolium W.	thick-leaved	½ mr.au	S	Cyprus	1788. R r.m
9440	laciniatum W.	lacinated	½ my.au	R	Crete	1794. R r.m
9441	cicoinium W.	long-beaked	½ jn.jl	Pu	S. Europe	1711. S co
9442	cicutarium W.	Hemlock-leav'd	½ ap.s	Pu	Britain ro.sid.	S co
	β bipinnatum W.	Numidian	½ my.jn	Pu	Numidia	1803. C s.l
9443	romanium W.	Roman	½ my.jn	Pu	Rome	1724. S co
	β caulicifolium Sweet	Caulis-leaved	1 my.au	Pu	France	1816. S co
9444	moschatum W.	musky	1 my.jl	Pu	England m.pas.	S s.l
9445	gracium W.	broad-leaved	½ jn.jl	R	Crete	1596. S s.l
9446	chium W.	Chian	1 jn.jl	R	Levant	1724. S co
9447	hymenodes W.	three-leaved	½ ja.d	Pk	Barbary	1789. S r.m
9448	Gussóni Tenore.	Gousson's	1 ja.d	Pa pu	Naples	1821. D co
9449	malacoides W.	mallow-leaved	½ my.jl	B	S. Europe	1596. S co
9450	incarnatum W.	flesh-colored	½ my.jl	Fl	C. G. H.	1787. C r.m
9451	glaucocephyllum W.	glaucoles-leaved	½ jl.au	R	Egypt	1732. S co
9452	maritimum W.	sea	½ my.s	Fl	England san.sh.	D co
9453	Reichardt Dec.	dwarf	1 ap.s	W	Minorca	1783. C s.l
9454	littoreum Dec.	shore	½ ap.s	R	S. Europe	1821. D co
9455	serotinum Stev.	late	½ jl.s	B	Siberia	1821. D co
	multicaule Link.					Sweet ger. 137

HEPTANDRIA.

1461. PELARGONIUM W.		STORK'S BILL.	Geraniaceæ.	Sp. 186—uncertain.		
9456	longifolium Jacq.	long-leaved	½ my.jn	Pk	C. G. H.	1812. R r.m
9457	longiflorum Jacq.	long-flowered	½ my.jn	Y	C. G. H.	1812. R r.m
9458	ovalifolium Jacq.	oval-leaved	½ my.jn	W	C. G. H.	1820. R r.m
9459	reticulatum Sweet	netted	½ my.jn	Pk	C. G. H.	1820. R r.m
9460	ciliatum L'Her.	ciliated	½ ap.jn	F	C. G. H.	1795. R r.m
9461	punctatum W.	dotted-flower'd	½ ap.my	Y	C. G. H.	1794. R r.m
9462	radicatum Vent.	fleshy fringe-ly.	½ jn.jl	Y	C. G. H.	1802. R r.m
9463	spatulatum Andr.	spatula-leaved	½ ap.my	Y	C. G. H.	1795. R r.m
	β affine Andr.	fring.-spatul-ly	½ ap.my	Y	C. G. H.	1795. R r.m
9464	radiatum Pers.	ray-leaved	½ jn.au	Y	C. G. H.	1801. R r.m
9465	virginum Pers.	virgin	½ my.jl	Y	C. G. H.	1795. R r.m
9466	undulatum Ait.	wave-flowered	½ my.jl	Y	C. G. H.	1795. R r.m
9467	lineare Pers.	linear-petalled	½ jn.jl	Y	C. G. H.	1800. R r.m
9468	niveum Sweet	snow-white	½ jn.jl	W	.....	1821. R r.m
9469	revolutum Pers.	revolute	½ jl.au	Pu	C. G. H.	1800. R r.m
9470	auriculatum W.	ear-leaved	½ ap.jn	Pk	C. G. H.	..... R r.m
9471	laciniatum Pers.	jag-leaved	½ my.jn	Y	C. G. H.	1800. R r.m
9472	oxalidifolium Pers.	Wood-sorrel-ly.	½ my.au	Y	C. G. H.	1801. R r.m
9473	nervefolium Jacq.	nerve-leaved	½ my.au	Va	C. G. H.	1812. R r.m
9474	triphylum Jacq.	three-leaved	½ ap.my	F	C. G. H.	1812. R r.m
9475	reflexum Pers.	reflex-leaved	½ jn.jl	W	C. G. H.	1800. R r.m
9476	roseum Ait.	Rose-colored	½ mr.my	Pk	C. G. H.	1792. R r.m



History, Use, Propagation, Culture,

1460. *Erodium*. From *erodios*, a heron, because the fruit resembles the head and breast of that bird. The species are hardy plants, of common treatment, and no great beauty.

1461. *Pelargonium*. So called from *πελαργος*, a stork, in allusion to the beak of the fruit, which resembles the bill of that bird; as well as to preserve an analogy with the *Geranium* or Crane's-bill. It was detached by the late learned botanist Mons. L'Heritier, along with *Erodium*, from the Linnean genus *Geranium*; and distinguished by its seven fertile stamens, irregular flower, tubular nectary, and spiral-leaved awns, or beaks to the capsule.

"This vast and favorite genus, for which we are almost entirely indebted to the Cape of Good Hope, consists of a number of well marked species. But that number is greatly augmented in almost every book, by the admission of spurious hybrid species or varieties, which continually start up from seed, wherever many of the primary ones are cultivated, and are for a while propagated by cuttings, and even by seed. Sooner or later,

- 9436 Stemless, Peduncles many-fl. Lvs. smoothish pinnat. Segm. pinnatifid, Petals retuse twice as long as calyx
 9437 Stemless, Peduncles many-fl. Lvs. downy gland. pinnat. Segm. pinnatif. Petals acute twice as long as calyx
 9438 Stem smooth. branch. Ped. many-fl. Lvs. smooth. bipinnatif. Lobes lin. Pet. blunt long. than long-point. cal.
 9439 Stem branched diffuse downy, Lvs. thick pinnatif. cut, Lobes linear, Pedunc. many-fl. Bracts ovate scariose
 9440 Stem prostrate, Leaves bipinnate with linear acute lobes, Stipules and bracts ovate scariose, Ped. many-fl.
 9441 Stem ascend. and lvs. somew. villous pinnated, Seg blunt pinnatif. tooth. Ped. many-fl. Pet. length of calyx
 9442 Stem prostrate or diffuse hairy, Leaves pinnated, Segm. sess. pinnatifid cut, Pedunc. many-fl. Pet. unequal
 ♂ Caulescent diffuse, Segments pinnated with linear lobes
 9443 Nearly stemless, Leaves pinnate with ovate pinnatifid segments, Petals equal larger than calyx
 ♂ Plant of larger size
 9444 Stem procumbent, Leaves pinnated with stalked ovate unequally serrated segm. Pedunc. downy glandular
 9445 Stem erect nearly smooth, Leaves 3-cut, Segments cut-toothed, Pedunc. many-fl. Calyx striated nerved
 9446 Stem erect somewhat diffuse, Leaves smooth subcordate; upper 5-parted with cut toothed lobes
 9447 Stem erect branch. shrubby at base, Lvs. 3-lobed or 5-parted very blunt, Stipules and bracts scariose ovate
 9448 Stem erect soft, Pedunc. many-fl. Leaves cordate blunt bluntly toothed undivided or 3-lobed
 9449 Stem branched hairy, Leaves cordate undivided or 3-lobed blunt toothed, Petals length of calyx
 9450 Stem $\frac{1}{2}$ shrubby and leaves nearly smooth; lower cord. undivided toothed, Lobes cuneate 3-toothed at end
 9451 Stem erect and leaves smooth oblong lobed crenate fleshy, Awns feathery from middle to end
 9452 Caulescent diffuse smooth, Leaves cordate ovate cut-crenate pubescent, Awns beardless
 9453 Stemless, Leaves cordate crenate blunt smoothish, Pedunc. 1-fl. Petals larger than calyx
 9454 Caulescent diffuse smoothish, Leaves cordate roundish 3-lobed unequally crenate, Awns bearded
 9455 Stems diffuse, Leaves opposite 3-cut: segm. lateral cut-toothed divaricating, Peduncles many-flowered

HEPTANDRIA.

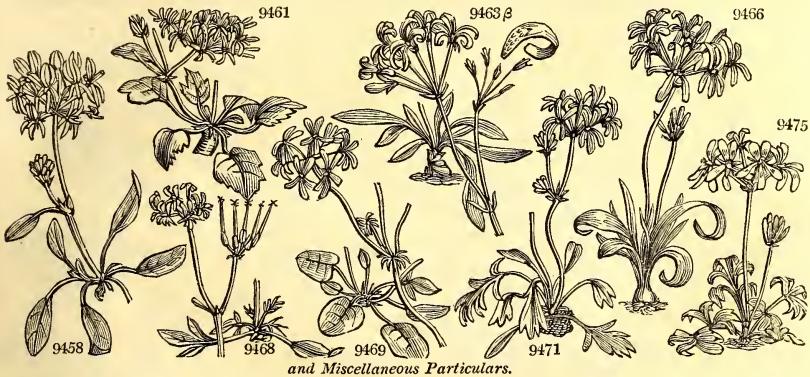
§ 1. HOAREA. Sweet. *Petals 5, rarely 2 or 4 obl. lin., 2 upper parallel, with long claws abruptly reflexed in the middle. Stamens in a long tube, length of lower petals, bearing 5 or rarely 2-4 anthers, the others sterile, straight or incurved at end, the 3 lower shorter than the fertile ones. Stemless herbs, with tuberous turnip-like roots, and radical stalked leaves.*

* *Leaves oblong, entire or lobed. Lobes entire or scarcely toothed.*

- 9456 Stemless, Leaves lanceolate entire acute smooth; older pinnatifid linear, Umb. comp. Fl. tetrandrous
 9457 Stemless, Leaves lanceolate entire acute smooth, Umb. comp. 4-fl. Fl. tetrandrous, Petals linear
 9458 Leaves oval or oval-oblong blunt flat or involute at edge entire hairy, Petals linear wavy twisted
 9459 Stemless, Leaves ellipt. lanc. or obl. ent. hairy revol. at edge, Fl. pentandr. Pet. lin. spatul. wavy reflexed
 9460 Stemless, Leaves ovate acute entire subciliated, Umb. compound, Fl. pentandrous, Petals linear spatulate
 9461 Stemless, Leaves ovate toothed smooth, Umb. compound, Fl. diandrous, Pet. linear; 3 lower shortest
 9462 Stemless, Leaves oval obl. entire acute at each end smooth ciliated, Umb. simple, Flowers pentandrous
 9463 Stemless, Lvs. obl. subspatul. blunt smooth, Umb. comp. Fl. pentandrous, Petals lin. blunt subrevolute
 9464 Stemless, Leaves elliptical spatulate entire smooth, Umb. compound, Fl. pentandrous, Petals cuneiform
 9465 Stemless, Lvs. ellipt. ovate acute at each end smooth, Umb. subcomp. Fl. pentandrous, Pet. lanc. cuneate
 9466 Stemless, Leaves lin. lanc. entire ciliated, Umb. simple, Flowers pentandrous, Petals wavy nearly equal
 9467 Stemless, Leaves linear lanceolate repand, Umbel nearly simple, Flowers pentandrous, Petals linear
 9468 Stemless, Lvs. smooth: lower ovate ent.; upper pinnatif. Petals reflexed; lower ones much the smallest

** *Leaves sagittate, cordate, 3-lobed, or with an appendage at base.*

- 9469 Stemless, Leaves cordate blunt nerved entire, generally with two ears at base, Leaves of invol. revolute
 9470 Stemless, Lvs. obl. lanc. acum. at each end hairy ciliat. at edge, generally ent. somet. with 2 obl. lin. append.
 9471 Stemless, Leaves entire and cut-lobed at end, Scape flexuose, Umbel compound
 9472 Stemless, Leaves ciliated 3-cut: segm. ovate blunt, Umbel compound
 9473 Stemless, Leaves smooth 3-cut: segm. blunt lobed nerved glauc. beneath, Scapes hispid, Umbel compound
 9474 Stemless, Leaves smooth 3-cut: segm. blunt crenated, Scapes and petioles downy
 9475 Stemless, Leaves smooth 3-cut: segm. lobed cut recurved, Two upper filaments and stigmas reflexed
 9476 Stemless, Leaves cut-lobed downy, Umb. simple close, Three lower petals much the smallest



and Miscellaneous Particulars.

however, they for the most part vanish, even before the eyes of those who witnessed their origin."

(Smith.)
 The greater part of the species being of the easiest cultivation, and many bearing the confined air of a sitting room better than most plants, it has happened that they have become objects of universal cultivation and attention; of which, indeed, they are in many cases deserving, for their neatness and beauty alone. There is, however, an uniformity in their form, coloring, and foliage, for which the liveliest colors will scarcely compensate. The popular taste for the Pelargonium tribe, or for Geraniums, as they are commonly called, has been much aided by several splendid publications both in this country and abroad; and especially by the Geraniaceæ of Mr. Sweet, in which it is proposed to figure not only all the species formed by the hand of nature, but the multitudes of hybrid creations produced by the assistance of modern ingenuity. It is very doubtful whether any permanent advantage is derived from the obtaining such of these productions as are truly

9477 rapáceum <i>Jacq.</i>	Fumitory-flow.	✱ Δ pr	½ ap,jn	Pk	C. G. H.	1788.	R r m	Bot. rep. 239
9478 nútans <i>Dec.</i>	nodding	✱ Δ pr	½ ap,jn	Y	C. G. H.	1788.	R r m	Bot. mag. 1877
9479 corydalifórum <i>Sw.</i>	fine-cut	✱ Δ pr	½ ap,jn	Pa.Y	C. G. H.	1821.	R r m	Sweet ger. t. 18
9480 barbátum <i>Jacq.</i>	bearded	✱ Δ pr	½ jl,au	Pk	C. G. H.	1790.	R r m	Bot. rep. 323
9481 fissifólium <i>Pers.</i>	cloven-leaved	✱ Δ pr	½ ap,au	Pk	C. G. H.	1795.	R r m	Bot. rep. 378
9482 setósum <i>Sweet</i>	setose	✱ Δ pr	½ ap,au	Pk	C. G. H.	1821.	R r m	Sweet ger. 38
9483 bubonifólium <i>Pers.</i>	Bubon-leaved	✱ Δ pr	½ mr,jl	W.pu	C. G. H.	1800.	R r m	Bot. rep. 328
9484 violaflórum <i>Sweet</i>	violet-flowered	✱ Δ pr	½ mr,jl	Pk	C. G. H.	1795.	R r m	Sweet ger. 123
9485 floribóndum <i>Ait.</i>	many-flowered	✱ Δ pr	½ mr,my	W	C. G. H.	1795.	R r m	Bot. rep. 420
9486 pilósum <i>Pers.</i>	hairy	✱ Δ pr	½ my,jl	Pk	C. G. H.	1801.	R r m	Bot. rep. 259
9487 pennifórmé <i>Pers.</i>	winged	✱ Δ pr	½ my,jn	Y	C. G. H.	1800.	R r m	Bot. rep. 269
9488 purpuráscens <i>Pers.</i>	purple-flowered	✱ Δ pr	½ my,jn	Pk	C. G. H.	1800.	C r m	Bot. rep. 304
9489 hirsútum <i>Jacq.</i>	various-leaved	✱ Δ pr	½ mr	Pu	C. G. H.	1788.	R r m	Bot. rep. 317
9490 melanánthum <i>Jacq.</i>	black-flowered	✱ Δ pr	½ my,jn	D.Br	C. G. H.	1790.	R r m	Sweet ger. 73
9491 dioicum <i>Her.</i>	dicocious	✱ Δ pr	½ jn,jl	D.Br	C. G. H.	1795.	R r m	Bot. rep. 509
9492 átrum <i>L'Her.</i>	dark-brown	✱ Δ pr	½ my,ji	D.Br	C. G. H.	1793.	R r m	Sweet. ger. 72

9493 viciefólium <i>L'Her.</i>	wing-leaved	✱ Δ pr	½ ap,jn	Pk	C. G. H.	1779.	R r m	Bot. mag. 579
9494 astragalifólium <i>Pers.</i>	Astragalus-lvd.	✱ Δ pr	½ jl	W.pu	C. G. H.	1788.	R r m	Bot. rep. 190
9495 coronillafólium <i>Pers.</i>	Coronilla-lvd.	✱ Δ pr	½ jn,jl	Br	C. G. H.	1795.	R r m	Bot. rep. 305
9496 heracleifólium <i>Lodd.</i>	Cow-parsnip-lv.	✱ Δ pr	½ jn,jl	D.Br	C. G. H.	1818.	R r m	Bot. cab. 437

9497 incrassátum <i>B. M.</i>	fleshy-leaved	✱ Δ pr	½ jn,jl	Pk	C. G. H.	1801.	R r m	Bot. mag. 761
9498 cárneum <i>Jacq.</i>	flesh-colored	✱ Δ pr	½ ap,jn	Pk	C. G. H.	1812.	R r m	Jac. ic. 3. t. 512

9499 laterítium <i>W.</i>	brick-colored	✱ □ or	1½ jn,au	R	C. G. H.	1800.	C r m	
9500 cynosbatifólium <i>W.</i>	Currant-leaved	✱ □ or	1½ ap,jl	D.R	.....	..	C r m	W.ho.ber.2. t.78

9501 columbínium <i>W.</i>	Dove's-foot	✱ Δ pr	½ jn,o	Pu	C. G. H.	1795.	R r m	Jac.schœ.2.t.133
9502 procúbens <i>Pers.</i>	procumbent	✱ Δ pr	½ ap,my	Pu	C. G. H.	1801.	S r m	Bot. rep. 234
9503 humifúsium <i>W.</i>	trailing	✱ □ pr	½ my,jl	R	C. G. H.	1801.	S r m	Sweet ger. 42
9504 chamædrysfólium <i>J.</i>	Chamædrys-lv.	✱ Δ pr	½ my,jn	R	C. G. H.	1812.	R r m	Jac. ic. 3. t. 528
9505 austrále <i>W.</i>	Botany Bay	✱ □ pr	½ my,au	R	N. S. W.	1792.	S r m	
9506 althæoïdes <i>L'her.</i>	Althæa-leaved	✱ □ pr	½ ap,jn	W	C. G. H.	1724.	S r m	Jac.col.4.t.21.f.2

9507 láxum <i>Sweet</i>	loose-paniced	✱ pr	1 ap,jn	W.pk	C. G. H.	1821.	S pl	Sweet ger. 196
9508 ceratophýllum <i>L'her.</i>	horn-leaved	✱ □ or	1 my,ju	W.pu	Africa	1786.	C r m	Bot. mag. 315
9509 dracaúlon <i>Sims.</i>	thick-stemmed	✱ □ or	1 jl,d	W.pu	C. G. H.	1795.	C r m	
9510 crithmifólium <i>Sm.</i>	Samphire-leav.	✱ □ or	1 my,jn	W.pu	C. G. H.	1790.	C r m	Smith. ic. pict. 13
9511 alter'nans <i>Wendl.</i>	Parsley-leaved	✱ □ or	1 my,au	W.pu	C. G. H.	1791.	C r m	Wendl.her.2. t.9
9512 carnósum <i>Ait.</i>	fleshy-stalked	✱ □ or	1 jn,au	W.pu	C. G. H.	1724.	C r m	Sweet ger. 98

9513 multiradiátum <i>Wen.</i>	many-rayed	✱ Δ pr	1 my,jn	D.Br	C. G. H.	1820.	R r m	Sweet ger. 145
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9514 cotylédonis <i>L'Her.</i>	Hollyhock-lvd.	✱ □ pr	¾ my,jl	W	St. Helena	1765.	S r m	Sweet ger. 126
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History, Use, Propagation, Culture,

hybrid; but it is quite certain, that to admit them into works of science, is replete with the greatest inconvenience, and can lead to no useful end. In the arrangement here adopted, all those kinds which are manifestly or avowedly artificial productions, are therefore placed at the end of the legitimate species in alphabetical order, an order much more commensurate with their importance, than an arrangement upon scientific principles.

*** *Leaves pinnatifid. Segments cut or multifid.*

- 9477 Stemless, Leaves hairy bipinnated, Lobes linear somewhat blunt, Upper petals reflexed; lower connivent
 9478 Nearly stemless, Lvs. bipinnated hairy, Lobes pinnati, cut multifid linear somewhat toothed, Fl. nodding
 9479 Stemless, Lvs. hairy pinnated: segm. pinnatifid or trifid, Lobes linear acute
 9480 Stemless, Lvs. pinnated: segm. trifid, Lobes linear acum, bearded at end, Pet. lin. blunt
 9481 Stemless, Lvs. pinnated pubesc: segm. cuneate 3-5-toothed at end, Petals setose at end, Umb. compound
 9482 Stemless, Lvs. pinnated: segm. trifid cut at end naked, Pet. blunt all with an oblong spot
 9483 Stemless, Lvs. pinnated smooth: segm. cut-lobed acute, Umb. simple, Petals emarginate
 9484 Subcaulescent, Leaves pinnated or 3-cut: segm. obl. lanc. smooth entire ciliated at edge acum. at end
 9485 Stemless, Lvs. pinnated: segments bipartite, Umbel compound
 9486 Stemless, Lvs. pinnated hairy: segm. cut multifid, Umbel simple 4-6-fl. Petals linear
 9487 Stemless, Lvs. pinnated: segm. lanc. linear, Umbel compound
 9488 Stemless, Lvs. lanc. linear entire and pinnatifid, Umb. compound
 9489 Stemless, Lvs. hairy ciliated obovate or lanc. entire or pinnatifid, Stipules adhering to petiole
 9490 Nearly stemless, Lvs. hairy pinnated: segm. oval-obl. blunt subpinnatifid or toothed, Petals lin. blunt
 9491 Stemless, Lvs. hispid entire or 3 cut, Umbel compound, Flowers dioecious [at end
 9492 Stemless, Lvs. downy: some obl. and entire; others pinnated, Upper sepal erect, Barren filam. incurved

§ 2. DIMACRIA. Lindl. *Petals 5, unequal, two upper connivent spreading at end. Stamens shorter than sepals, 5 fertile, two lowermost twice as long as the rest, upper very short; 5 sterile, very small, nearly equal. Stemless herbs, with a tuberous turnip-like root; leaves stalked pinnatifid.*

* *Leaves pinnated, with an odd segment. Segments entire.*

- 9493 Stemless, Lvs. pinnated villous: segm. ovate in 2 or 4 pairs, Petals nearly entire flat
 9494 Stemless, Lvs. pinnated hairy: segm. elliptical in many pairs, Petals wavy twisted at base
 9495 Stemless, Lvs. pinnated smooth: segm. of 1 or 2 pairs obovate or oblong
 9496 Stemless, Lvs. pinnated smooth: segm. of 2 or 3 pair obovate: the terminal ones confluent

** *Leaves pinnate, with an odd one. Segments lobed or multifid.*

- 9497 Nearly stemless, Leaves smooth pinnated: segments lobed blunt, Upper petals obcordate
 9498 Stemless, Lvs. smooth bipinnated, Lobes trifid linear blunt, Scape simple

§ 3. CYNOSBATA. Dec. *Petals oval, nearly equal, almost twice as long as calyx. Stamens 10 erect, the 5 alternate ones bearing the anthers. Stems shrubby, erect.*

- 9499 Stem shrubby at base, Lvs. cordate 5-lobed hairy zoned, Lobes acutely toothed at end
 9500 Stem shrubby branched, Lvs. cordate 3-lobed toothed hairy: middle lobe 3-lobed, Pedunc. 2-flowered

§ 4. PERISTERA. Dec. *Petals nearly equal, as long as calyx, or a little larger. Stamens 10, 5 longer, nearly equal, or one only occasionally abortive, 5 alternate, very short, sterile, tooth like. Herbs with stems, and with the appearance of Erodium or Geranium.*

- 9501 Stems many diffuse, Lvs. cordate rounded many-parted, Lobes trifid, Lobelets linear blunt
 9502 Caulescent procumbent, Lvs. cord. somewhat lobed crenate-toothed, Pedunc. 2-flowered
 9503 Stems many procumbent, Lvs. cord. usually 3-parted or 5-lobed toothed, Pedunc. 3-5-flowered
 9504 Much branched procumbent, Leaves ellipt. blunt hoary toothed, Pedunc. 2-flowered, Anthers 5
 9505 Diffuse procumbent, Lvs. cordate somewhat lobed villous beneath, Peduncles many-flowered
 9506 Diffuse procumbent, Lvs. cordate ovate villous 3-lobed toothed: upper sinuated, Umbel many-flowered

§ 5. OTIDIA. Lindl. *Petals oblong-linear, nearly equal, about twice as long as calyx, the two upper awicled at the base on the upper side. Stamens 10, erect, 5 fertile, 2 upper spatulate or subulate, 3 lower shorter. Stems shrubby, fleshy. Leaves alternate pinnated, fleshy. Flowers whitish.*

- 9507 Stem shrubby fleshy, Umb. many-flowered loosely paniced, Lvs. pinnated smooth, Petals somew. toothed
 9508 Stem shrubby fleshy branched, Lvs. fleshy pinnated: lobes lin. round channelled entire or 3-toothed at end
 9509 Stem shrubby fleshy warted, Lvs. fleshy pinnated: segm. cut pinnatifid subtrifid at end [at base
 9510 Stem shrubby fleshy, Lvs. fleshy bipinnated: lobes dilated and cut at end, Pedunc. panic. Upper pet. crisp
 9511 Stem shrubby fleshy, Branches hairy, Lvs. pinnat: segm. stalked subalternate wedge-shaped toothed at end
 9512 Stem fleshy thick suffruticose at base, Lvs. smooth thick sinuate-pinnat: segm. obl. blunt cut toothed at end

§ 6. POLYACTIUM. Dec. *Petals nearly equal, revolute. Petals 5, nearly equal, obovate. Stamens 10, 5 fertile: the four lower long, subulate; upper broad, spatulate, reflexed at end; the fertile ones shorter, incurved at end. Petals with a very large dark brown spot which is scarcely edged with yellow.*

- 9513 Subcaulesc. Lower lvs. pinnat. hairy: segm. pinnati; lobes obl. blunt cut-toothed; upper smoothish bipinn.

§ 7. ISOPETALUM. Sweet. *Upper sepal ending in a honey pore and not in a tube. Petals 5, equal. Stamens 10, united in a very short cup, 5-6 fertile, spreading incurved at end; sterile unequal, subulate incurved. Shrub with a fleshy stem.*

- 9514 Stem thick fleshy branched naked, Lvs. cord. subpeltate rugose pubesc. netted with downy veins beneath



and Miscellaneous Particulars.

The bulbous or fleshy stemmed species are generally very rare in collections, and are far more interesting than the common or vulgar kinds. They are distinguished by so peculiar a habit and constitution, that there can be little doubt of the propriety of separating them into one or more distinct genera, as has been done already by the authors quoted above; especially as the characters upon which they are founded, are generally more certain than those by which *Erodium* and *Geranium* are defined. Here, however, they are placed as

9515	<i>blattarium Jacq.</i>	downy-leaved	st.] or	1½ jn.au	V	C. G. H.	1790.	S	r.m	Sweet ger. 88
9516	<i>eriosémon Jacq.</i>	velvet-leaved	st.] or	1½ mr.jn	W	C. G. H.	1794.	C	r.m	Jac. scho. 2. t. 132
9517	<i>holosericeum Sweet</i>	silky	st.] or	1½ mr.jn	D. Pu	C. G. H.	1820.	C	r.m	Sweet ger. t. 75
9518	<i>Oenothéra Jacq.</i>	Oenothera-like	st.] or	1 mr.jn	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 525
9519	<i>coronopifólium Jacq.</i>	Buckshorn-lvd.	st.] or	1½ jn.o	Pk	C. G. H.	1791.	S	r.m	Bot. rep. 338
9520	<i>cánum Pers.</i>	hoary	st.] or	1½ jn.o	Pv	C. G. H.	1820.	S	r.m	Sweet ger. 114
9521	<i>carinátum Sweet</i>	carinate	st.] or	1½ jn.o	W. pu	C. G. H.	1820.	S	r.m	Sweet ger. 21
9522	<i>tricolor B. M.</i>	three-colored	st.] pr	1½ ja.d	W. pu	C. G. H.	1791.	C	r.m	Bot. mag. 240
9523	<i>canariéne W.</i>	Canary	st.] pr	1½ jl.s	W. r	Canaries	1802.	C	r.m	W. hort. ber. t. 17
9524	<i>myrrhifólium Ait.</i>	Myrrh-leaved	st.] pr	1½ my.au	W. r	C. G. H.	1696.	R	r.m	Jac. ic. 3. t. 531
9525	<i>coriandrifólium Jac.</i>	Coriander-lvd.	st.] pr	1 mr.s	W. r	C. G. H.	1724.	S	r.m	Sweet ger. t. 34
9526	<i>lácerum Jacq.</i>	torn-leaved	st.] or	1½ jn.au	Pk	C. G. H.	1731.	S	r.m	Jacq. ic. 3. t. 532
9527	<i>anemonifólium Jacq.</i>	Anemone-lvd.	st.] or	1½ jn.au	Pk	C. G. H.	...	S	r.m	Jacq. ic. t. 535
9528	<i>caucalifólium Jacq.</i>	caucalis-leaved	st.] pr	1½ mr.s	Pk	C. G. H.	1812.	S	r.m	Jac. ic. 3. t. 529
9529	<i>multicaúle Jacq.</i>	many-stalked	st.] pr	1½ jn.au	Pa. V	C. G. H.	1802.	S	r.m	Jac. ic. 3. t. 534
9530	<i>asarifólium Sweet</i>	Asarum-leaved	st.] el	½ d	D. Pu	C. G. H.	1821.	D	l.p	Sweet ger. 206
9531	<i>dipétalum L'Her.</i>	two-petalled	st.] el	½ ap.my	Pa. pu	C. G. H.	1795.	D	l.p	L'her. ger. t. 43
9532	<i>péndulum Sweet</i>	pendulous	st.] el	½ mr.jl	R	C. G. H.	...	C	r.m	Sweet ger. 188
9533	<i>quinátum B. M.</i>	five-fingered	st.] or	1 mr.jl	Pa. Y	C. G. H.	1793.	C	r.m	Bot. mag. 547
9534	<i>tetrágónum L'Her.</i>	square-stalked	st.] el	2 jn.au	Pk	C. G. H.	1774.	C	r.m	Sweet ger. 99
	<i>β variegátum</i>	variegated	st.] el	2 jn.au	Pk	C. G. H.	1774.	C	r.m	Bot. mag. 136
9535	<i>acetósium Ait.</i>	Sorrel-leaved	st.] or	3 my.s	Pk	C. G. H.	1710.	C	r.m	Bot. mag. 103
9536	<i>scándens Ehr.</i>	climbing	st.] or	3 jn.au	Pk	C. G. H.	1800.	C	r.m	
9537	<i>pánilum W.</i>	dwarf	st.] or	1½ jn.jl	Pk	C. G. H.	1800.	C	r.m	
9538	<i>stenopetalum Ehr.</i>	narrow-petalled	st.] or	1½ jn.jl	S	C. G. H.	1800.	C	r.m	
9539	<i>hybrídum Ait.</i>	bastard	st.] or	2 my.s	S	C. G. H.	1732.	C	r.m	Sweet ger. 63
9540	<i>zonfle W.</i>	com. horse shoe	st.] or	2 ap.d	S	C. G. H.	1710.	C	r.m	Cav. dis. 4. t. 98. f. 2
	<i>β marginátum</i>	white-margined	st.] or	2 ap.d	S	.....	...	C	r.m	
9541	<i>Fothergillii Sweet</i>	Fothergill's	st.] or	2 ap.d	S	C. G. H.	...	C	r.m	Sweet ger. 226
9542	<i>in'quinans Ait.</i>	scarlet-flowered	st.] or	2 my.s	S	C. G. H.	1714.	C	r.m	Ca. dis. 4. t. 106. f. 2
9543	<i>heterógamum L'Her.</i>	six-stamened	st.] or	2 my.s	Pk	.....	1786.	C	r.m	L'her. ger. t. 18
9544	<i>mónstrum Ait.</i>	cluster-leaved	st.] or	2 jl.au	R	.....	1784.	C	r.m	Sweet ger. 13
9545	<i>inodórum W.</i>	scentless	st.] pr	½ my.o	Pa. pu	N. Holl.	1796.	C	r.m	W. ho. ber. l. t. 34



History, Use, Propagation, Culture,

sectional names, so as to present a double arrangement, in which the purposes of combination and analysis are both combined.

As the cultivation of Pelargonium generally is of the easiest kind, so is that of the bulbous rooted species of the most difficult nature. They require plenty of air and light, not to be over-watered, and a great deal of

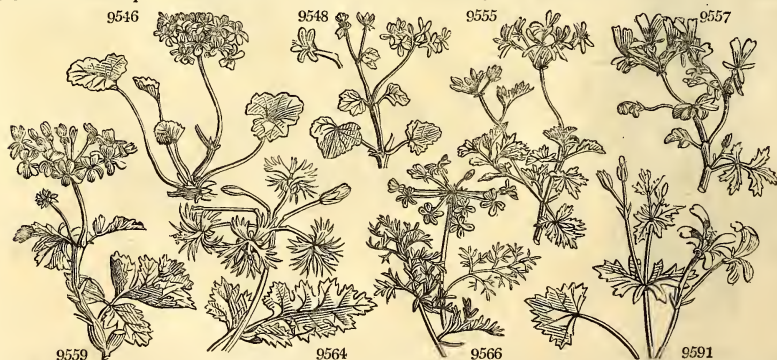
- § 8. *CAMPYLIA*. Lindl. *Petals 5, unequal, two upper larger, with an awicled claw. Stamens 10, hairy or pubescent, 5 fertile, erect, 5 alternate sterile, of which the two upper are longer and hooked back. Herbs at the base a little shrubby, branched. Leaves stalked, ovate or oblong, toothed or cut.*
 * *Petals with an appendage to the claw : 5 stamens fertile, erect ; 5 sterile, of which the two uppermost are hooked backwards.* TRUE *CAMPYLIA*.
 9515 Stem suffruticose erect, Lvs. ovate round blunt hoary silky toothed, Upper petals roundish : lower oblong
 9516 Stem suffruticose erect, Lvs. ellipt. roundish blunt crenate silky, Upper pet. obovate sharply emarginate
 9517 Stem suffruticose erect, Lvs. roundish ovate blunt doubly toothed silky, Upper petals round dark purple
 9518 Stem herbaceous ascending, Lvs. obl. lanc. blunt toothed hoary, Pedunc. 1-3-fl. Upper petals obovate
 9519 Stem suffruticose ascending, Lvs. lin. lanc. cut-toothed at end hoary beneath, Upper petals obov. oblong
 9520 Stem suffruticose, Lvs. ovate plaited serrated downy, 3 upper petals very broad ovate
 9521 Stem suffruticose ascending, Lvs. ovate unequally toothed or cut, Stipules carinate, Upper pet. oval wavy
 ** *Upper petals warty above the claw. Tube of stamens very short, 5 fertile recurved, spreading, 5 sterile straight.* *PHYMATANTHUS*. Lindl.
 9522 Stem suffruticose erect, Lvs. lanc. villous cut-toothed trifid, Upper petals blistered at base
- § 9. *MYRRHIDIUM*. Dec. *Petals 4, or rarely 5, the two upper very large, obovate, cuneate, usually marked with branching lines, the two or three lower much smaller, oblong-linear. Stamens 10, with their tube and filaments straight, generally with 5 anthers, and 5 alternately barren, rarely 7 fertile. Biennial or perennial herbs rarely shrubby. Stems round. Leaves pinnate or ternate, often multifid.*
 * *Anthers 5. Petals 4.*
 9523 Stem suffruticose, Lvs. 3-parted, Lobes toothed at end blunt : lower obovate ; middle ovate often trifid
 9524 Stem herbaceous strigose ascending, Lvs. hispid on each side rigid pinnate, Lobes cut-toothed
 9525 Stem herbaceous biennial somewhat downy, Lvs. bipinnate smooth, Lobes linear subpinnatifid
 ** *Anthers 5. Petals 5.*
 9526 Stem herbaceous hairy suberect, Lvs. bipinnatifid, Segm. lanc. blunt toothed at end
 *** *Anthers 7. Petals 4.*
 9527 Stem herbaceous biennial hairy erect, Lvs. pinnated hairy beneath smooth above, Lobes toothed
 9528 Stem herbaceous hairy, Lvs. bipinnate, Lobes linear smoothish, Pedunc. 1-fl.
 9529 Stem herbaceous procumbent smooth, Lvs. subbipinnatifid toothed, Pedunc. many-fl. capitate
- § 10. *SEYMOURIA*. Sweet. *Petals 2, distinct at base, abruptly reflexed in the middle. Stamens 5, nearly equal, in a long straight tube, all fertile.*
 9530 Lvs. roundish cordate bluntish entire ciliated shining on the upper side
 9531 Leaves ovate entire acute smooth, Umb. simple, Flowers pentandrous
- § 11. *JENKINSONIA*. Sweet. *Petals 5, the two upper much larger than the rest, emarginate at end, striated with colored lines, the 3 lower much smaller. Stamens 10, ascending, spreading at end, hairy at base, 7 fertile, of which the three upper are shorter, the three sterile shortened, subulate, of equal length. Stems shrubby. Flowers large.*
 9532 Lvs. bipinnatifid hairy, Stem procumb. hairy, Flowers heptandrous, Petals 4
 9533 Stem shrubby flexuose, Lvs. pubescent palmate 5-fid, Lobes cuneate 3-toothed at end
- § 12. *CHORISMA*. Lindl. *Petals 4, rarely 5, the two upper with long claws largest, two lower much smaller. Stamens declinate, in a very long tube, jointed in middle, connate, 7 fertile, of which the two lower are loose ; the 3 sterile shortened, subulate of equal length.*
 9534 Branches 4-cornered fleshy, Leaves cordate bluntly lobed somewhat toothed
- § 13. *PELARGONIUM*. Lindl. *Petals 5, unequal, the two upper approximating. Stamens 10, unequal, 7 fertile, 3 sterile, subulate.*
 * *Petals whole colored, the two upper shorter and narrower. Stamens short, erect, the two lowest very short with nearly sessile anthers. Stem shrubby, fleshy.* *CICONIUM*, Sweet.
 9535 Leaves very smooth obovate crenate somewhat fleshy, Pedunc. few-fl. Petals linear
 9536 Leaves roundish obsoletely lobed crenate smooth zoned, Petals linear breadth of sepals
 9537 Leaves roundish obsoletely lobed crenate : younger somewhat zoned, Pedunc. 4-fl. Petals linear
 9538 Leaves roundish obsoletely lobed crenate smooth zoned, Petals linear narrower than sepals
 9539 Leaves roundish obsoletely lobed crenate smooth not spotted, Petals linear cuneiform
 9540 Leaves cordate-orbicular obsoletely lobed toothed zoned upwards, Pedunc. many-fl. Petals cuneate
- 9541 Leaves reniform 5-lobed crenate zoned, Stipules cordate obl. acute ciliated, Umbels many-fl. crowded
 9542 Leaves round reniform scarcely divided crenate viscid, Petals obovate cuneate
 9543 Leaves cordate orbicular cut-lobed toothed pubescent on each side, Petals obl. cuneate
 9544 Leaves roundish reniform obsoletely lobed somewhat zoned complicate crisp downy on each side
 ** *Petals nearly equal in size.*
 § A. *Stems herbaceous. Leaves cordate, palmate, lobed. Petals small.*
 9545 Stem diffuse, Lvs. cord. ov. obsoletely lobed bluntly toothed ciliated, Pet. equal to the cal. and one another



and Miscellaneous Particulars.

attention at all periods. If well managed, they flower beautifully, and are incomparably superior in all points to the commoner races. They are no where in this country managed with so much success as by Sweet, who seems to hold the reins of nature in his hands in a more steady manner than any cultivator of the age.

9546	glomerátum Jacq.	heaped	2-Δ	pr	½	my.o	W	N. Holl.	...	C	r.m	Sweet ger. 68
	<i>P. austrále</i> Sweet,	not of Willd.										
9547	odoratissimum Ait.	sweet-scented	2-Δ	or	2	my.o	Pk	C. G. H.	1724.	S	r.m	Ca.dis.4.t.103.f.1
9548	frágrans W.	Nutmeg-scent.	2-Δ	or	2	my.o	Va	C. G. H.	...	C	r.m	Sweet ger. 172
9549	grossularioides Ait.	Gooseberry-lvd.	2-Δ	or	2	ap.au	Pk	C. G. H.	1731.	S	r.m	Ca.dis.4.t.119.f.2
9550	anceps Ait.	flat-stalked	2-Δ	pr	½	my.jl	Pk	C. G. H.	1788.	S	r.m	Jac.col.4.t.22.f.3
9551	tabuláre L'Her.	rough-stalked	2-Δ	pr	½	my.au	Pa.Y	C. G. H.	1775.	S	r.m	L'Her. ger. t. 9
9552	alchemilloides Ait.	mante-leaved	2-Δ	pr	½	my.o	Pk	C. G. H.	1693.	C	r.m	Ca.dis.4.t.98.f.1
9553	senecioides L'Her.	small white-fl.	2-Δ	cu	¾	jn.jl	W	C. G. H.	1775.	S	r.m	L'Her. ger. t. 11
9554	abrotanifólium Jacq.	Southernw.-lv.	2-Δ	or	3	my.jl	R	C. G. H.	1791.	S	r.m	Jac.schœ.2.t.136
9555	incisum W.	cut-leaved	2-Δ	or	3	my.au	W.R	C. G. H.	1791.	C	r.m	Bot. rep. 67
9556	tenuifólium L'Her.	fine-leaved	2-Δ	or	3	my.jl	Pu	C. G. H.	1768.	S	r.m	L'Her. ger. t. 12
9557	tripartitum Sweet	trifid-leaved	2-Δ	or	3	ap.au	Pa.Y	C. G. H.	1794.	C	r.m	Sweet ger. 115
9558	spinósum W.	thorny	2-Δ	or	3	my.jn	Pk	C. G. H.	1795.	C	r.m	Pater. it. t. p. 67
9559	gibbósum W.	gouty	2-Δ	ft	1½	my.jl	G	C. G. H.	1712.	C	r.m	Sweet ger. 61
9560	flávum Ait.	carrot-leaved	2-Δ	ft	½	jl.s	G.Br	C. G. H.	1724.	R	r.m	Jac. ic. 3. t. 522
9561	filipendulifólium Sw.	Dropwort-lvd.	2-Δ	cu	½	my.o	G.Br	C. G. H.	1812.	R	r.m	Bot. mag. 1641
9562	pedicellátum Sweet	long-stalked	2-Δ	cu	1	my.o	G.Br	C. G. H.	1822.	R	r.m	Sweet ger. 250
9563	tris'te Ait.	night-smelling	2-Δ	ft	1	my.o	G.Br	C. G. H.	1632.	R	r.m	Ca.dis.4.t.107.f.1
9564	schizopétalum Sweet	cut-petalled	2-Δ	el	1	jn	Y.Br	C. G. H.	1821.	R	r.m	Sweet ger. 232
9565	lobátum W.	Cow Parsnep-lv.	2-Δ	cu	1	jl.au	Y.Br	C. G. H.	1710.	R	r.m	Sweet ger. 51
9566	millefoliátum Sweet	Milfoil-leaved	2-Δ	cu	½	jl.au	Y.Br	C. G. H.	...	R	r.m	Sweet ger. 230
9567	sanguíneum Wendl.	bloody	2-Δ	or	1	jl.au	S	C. G. H.	...	S	r.m	Sweet ger. 76
9568	fúlgidum Ait.	Celandine-lvd.	2-Δ	or	1½	ap.jl	S	C. G. H.	1723.	C	r.m	Ca.dis.4.t.116.f.2
9569	ignéscens Sweet	fiery	2-Δ	or	1½	mr.jn	S	.....	1812.	C	r.m	Sweet ger. 2. 55
9570	quinquevólnerum W.	dark-flowered	2-Δ	or	1½	my.o	D.Pu	C. G. H.	1796.	C	r.m	Bot. rep. t. 114
9571	bicolor Ait.	two-colored	2-Δ	or	1½	jl.au	Pa.pu	.....	1778.	R	r.m	Bot. mag. 201
9572	pállens Sweet	pallid	2-Δ	pr	¾	mr.jl	Pa.Y	C. G. H.	...	S	r.m	Sweet ger. 148
9573	pulchéllum B. M.	nonesuch	2-Δ	pr	¾	mr.my	W	C. G. H.	1795.	S	r.m	Bot. mag. 524
9574	pictum Pers.	painted	2-Δ	pr	¾	ap.my	W.R	C. G. H.	1800.	R	r.m	Bot. rep. 160
9575	echinátum B. M.	prickly-stalked	2-Δ	pr	¾	my.au	W.R	C. G. H.	1789.	R	r.m	Bot. mag. 369
9576	crassicaule L'Her.	thick-stalked	2-Δ	pr	¾	jl.au	Pa.Y	S. Africa	1786.	S	r.m	Sweet ger. 192
9577	primulinum Sweet	primrose-flow.	2-Δ	or	1½	jl.au	V	C. G. H.	...	C	r.m	Bot. mag. 477
9578	cortusafólium L'Her.	cortusa-leaved	2-Δ	or	1½	jl.au	Pk	Africa	1786.	C	r.m	Bot. rep. 121
9579	renifórme B. M.	Kidney-leaved	2-Δ	or	2	ja.d	Pu	C. G. H.	1791.	C	r.m	Bot. mag. 493
9580	láteripes L'Her.	Ivy-leaved	2-Δ	or	2	jn.au	Pa.pu	C. G. H.	1787.	C	r.m	L'Her. ger. t. 24
9581	peltátum Ait.	peltated	2-Δ	or	2	jn.au	Pu	C. G. H.	1701.	C	r.m	Bot. mag. 20
9582	ovále L'Her.	oval-leaved	2-Δ	or	1½	my.jl	Pu	C. G. H.	1774.	S	r.m	L'Her. ger. t. 28
9583	élegans W.	elegant	2-Δ	or	3	mr.jn	W	C. G. H.	1795.	C	r.m	Bot. rep. 28
9584	gláucum L'Her.	glaucous-leav'd	2-Δ	or	3	jn.au	W.vy	C. G. H.	1775.	C	r.m	Sweet ger. 235
9585	diversifólium Wendl.	different-leav'd	2-Δ	or	3	jn.au	W.vy	C. G. H.	1794.	C	r.m	
9586	cuspidátum W.	sharp-pointed	2-Δ	or	3	jn.au	W.vy	C. G. H.	...	C	r.m	
9587	sorórium W.	sister	2-Δ	or	3	ap.jl	W.vy	.....	...	C	r.m	
9588	lavigátum W.	glauc. tern.-lvd.	2-Δ	or	3	my.au	W.vy	C. G. H.	...	C	r.m	Ca.dis.4.t.121.f.1
9589	grandifórum W.	great-flowered	2-Δ	or	3	ap.jl	W.vy	C. G. H.	1794.	C	r.m	Sweet ger. 29
9590	variegátum W.	variegated-flow.	2-Δ	or	3	ap.jl	W.vy	C. G. H.	1812.	C	r.m	Ca.dis.4.t.118.f.3
9591	pátulum Jacq.	spreading	2-Δ	or	3	ap.jl	Pk.vy	C. G. H.	1812.	C	r.m	Jac. ic. 3. t. 541
9592	saniculéfólium W.	Sanicle-leaved	2-Δ	et	3	jn.au	Pu.vy	C. G. H.	1806.	C	r.m	Jac. ic. t. 539
9593	fuscátum Jacq.	dark-marked	2-Δ	et	3	ap.jl	Pu.vy	C. G. H.	1812.	C	r.m	Jac. ic. 3. t. 540



History, Use, Propagation, Culture,

The most common free-growing kinds will thrive well in any rich light soil, or a mixture of loam and decayed leaves will suit them very well; the dwarfer woody kinds, as *P. tricolor*, *elegans*, *Blattarium*, *ovale*,

9546 Stem diffuse, Lvs. cord. somewhat lobed bluntly crenate villous beneath, Pet. larger than calyx

- 9547 Stem fleshy very short, Branches herbaceous long diffuse, Lvs. roundish cordate very soft
 9548 Branches spreading soft with down, Lvs. roundish cordate about 3-lobed bluntly toothed very soft
 9549 Stems square very smooth, Lvs. cordate roundish cut toothed, Pedunc. about 2-fl.
 9550 Stems 3-cornered 2-edged smooth, Lvs. cordate roundish obsoletely lobed toothed, Umb. many-fl.
 9551 Stem hispid, Lvs. reniform 3-5-lobed blunt toothed at end smoothish, Pedunc. long 2-4-fl.
 9552 Stem villous, Lvs. cordate 5-lobed palmate villous, Pedunc. few-fl. Stigma sessile
 9553 Stem erect, Lvs. bipinnatifid lacinate smooth, Involucres and calyxes blunt

§ B. *Stem half shrubby. Leaves pinnate. Lobes multifid.*

- 9554 Leaves cinereous velvety palmately 3-cut, Lobes linear trifid, Calyxes somewhat hispid
 9555 Leaves 3-cut dark-green, Lobes distant 3-parted lacinated, Petals linear flaccid
 9556 Stem fleshy naked erect, Leaves hairy bipinnate decomposed, Lobes linear subulate
 9557 Leaves 3-parted fleshy cut-toothed glaucous, Segments subsessile cuneiform, Honey spur very long
 9558 Leaves cuneiform trifid toothed, Petioles and stipules persistent spiny, Umb. comp. few-fl.

§ C. *Stem half-shrubby, fleshy. Leaves trifid or pinnate, fleshy, Petals yellowish brown.*

- 9559 Stem with tumid articulations, Leaves pinnate of 1 or 2 pairs with an odd one blunt cuneate cut-toothed
 § D. *Nearly stemless. Root fasciated, tuberous. Leaves decomposed, lacinated. Petals yellowish brown.*
 9560 Leaves decomposed lacinate hairy, Segm. linear, Umb. many-fl.
 9561 Leaves hairy pinnate, Segm. bipinnate; divisions ovate toothed somewhat acute
 9562 Leaves smooth ciliated fleshy 5-7-lobed toothed reflexed at end, Umb. many-fl. Fls. on very long stalks
 9563 Leaves hairy pinnate, Segm. bipinnatifid; divisions linear acute
 9564 Leaves ternate oblong blunt wavy hairy on each side and revolute at end, Petals 2-parted multifid
 9565 Leaves cordate downy beneath bluntly 3-5-lobed sinuate-toothed, Scape divided
 9566 Leaves decomposed smooth, Leaflets cut, Segments channelled linear, Calyx reflexed

§ E. *Stem short, or somewhat fleshy. Leaves divided, cut or toothed. Petals scarlet or crimson.*

- 9567 Leaves hairy pinnate, Segments lacinate pinnatifid decurrent, Lobes linear lanceolate
 9568 Leaves 3-parted, Segm. sessile cuneate cut toothed, Middle lobe larger pinnatifid
 9569 Leaves cord. 3-lobed, Segm. toothed: lateral bifid; middle 3-lobed, Stipules cord. acum. somew. toothed

§ F. *Stem half shrubby. Leaves lobed, hairy. Petals with a broad purple spot in the middle.*

- 9570 Leaves hispid 3-parted, Segm. multifid, Lobes linear-lanceolate serrated
 9571 Leaves cordate 3-fid wavy hairy blunt toothed: lateral segments 3-lobed; upper 5-lobed

§ G. *Stem fleshy, half shrubby. Leaves oblong, or often cordate, somewhat cut. Stipules lanceolate, spreading, acute. Roots tuberous, fasciated.*

- 9572 Leaves 3-parted hairy, Lateral segments smaller lobed toothed; term. long cut-toothed, Pet. spreading
 9573 Leaves oblong lobed pinnatifid, Petioles united at base, Umb. many-flowered
 9574 Leaves cord. obl. subreniculate toothed downy, Scape branched, Umb. many-fl. Involucres leafy
 9575 Leaves ovate cordate somewhat lobed crenate villous beneath, Stipules persistent spiny
 9576 Leaves reniform obacuminate toothed silky on each side, Bractes 4 times shorter than pedicel
 9577 Leaves reniform obacuminate toothed silky on each side, Bractes twice as short as pedicels
 9578 Leaves cordate cut-lobed wavy bluntly toothed downy, Honey-tube 4 times as long as calyx
 9579 Leaves reniform crenate-toothed downy beneath, Stipules persistent dilated at base

§ H. *Stem shrubby, fleshy. Leaves peltate, or cordate 5-lobed, fleshy. Honey-tube as long as stalk. Stipules broad ovate.*

- 9580 Branches fleshy round, Leaves cordate 5-lobed somewhat toothed fleshy smooth, Umb. many-fl.
 9581 Branches fleshy angular, Leaves peltate 5-lobed entire fleshy, Umb. few-fl.

*** *Two upper petals broader, shorter, very blunt.*

- 9582 Stem weak prostrate, Branches petioles and peduncles softly hairy, Leaves oval acute toothed hoary
 9583 Leaves elliptical roundish finely serrate blunt rigid smooth, Petals all obovate

**** *Two upper petals longer and broader. Stems shrubby.*

§ A. *Leaves smooth, or nearly smooth, more or less glaucous.*

1. *Petals white, the upper generally lined with red, or spotted.*

- 9584 Very smooth and glaucous, Leaves lanceolate entire acuminate, Peduncles 1-2-fl.
 9585 Smooth glaucous, Leaves lanceolate entire or 3-parted; lower toothed, Pedunc. about 1-fl. panicled
 9586 Very smooth somewhat glaucous, Leaves ovate acute glaucous somewhat cut remotely serrate
 9587 Very smooth, Leaves deeply 3-parted, Segm. acinaciform cut serrate, Peduncles 3-flowered
 9588 Very smooth glaucous, Leaves 3-parted, Segm. trifid cuneate; divisions linear lanc. Pedunc. about 2-fl.
 9689 Smooth glauc. Lvs. 5-lobed palmati. cord. at base, Lobes toothed tow. the end, Pet. 3 times as long as cal.
 9590 Smooth glaucous, Leaves 3-5-lobed palmate-parted, Segments trifid toothed, Stipules ovate cordate acute

2. *Petals rosy or violet, upper generally striped with purple.*

- 9591 Smooth glaucous, Leaves long-stalked cordate reniform 3-5-fid toothed, Petals lanceolate-cuneate
 9592 Smooth glaucous, Leaves on long stalks cordate roundish 5-fid toothed zoned above
 9593 Smooth glaucous, Leaves cord. 5-lobed toothed glaucous beneath: younger zoned above; upper 5-parted



and Miscellaneous Particulars.

&c. thrive best in an equal mixture of sandy loam and peat, and require their pots to be well drained; the succulent kinds like a light sandy loam, and require scarcely any water when not in vigorous growth; the

9594 penicillátum <i>W.</i>	pencilled	■ □	el	3	jn.au	W.vy	C. G. H.	1794.	C	r. m	W.hor.be.1.t.32
9595 betulinum <i>Ait.</i>	Birch-leaved	■ □	el	3	jn.au	W.vy	C. G. H.	1759.	C	r. m	Bot. mag. 143
9596 formosissimum <i>Pers.</i>	superb white	■ □	el	2	jn.au	W.vy	C. G. H.	...	C	r. m	Sweet ger. 215
9597 tomentosum <i>Jacq.</i>	Pennyroyal	■ □	or	3	jn.jl	W	C. G. H.	1790.	S	r. m	Bot. mag. 518
9598 ribifolium <i>Jacq.</i>	currant-leaved	■ □	or	3	my.jn	W	C. G. H.	1798.	C	r. m	Jac. ic. 3. t. 538
9599 papilionaceum <i>Ait.</i>	Butterfly	■ □	or	3	ap.jl	Pu	C. G. H.	1724.	C	r. m	Sweet ger. 27
9600 cordatum <i>Ait.</i>	heart-leaved	■ □	or	3	mr.jl	Pu	C. G. H.	1774.	C	r. m	Bot. mag. 165
9601 rubroinctum <i>Link.</i>	red-edged	■ □	or	3	mr.jl	Pu	C. G. H.	1774.	C	r. m	
9602 duplicitatum <i>W.</i>	curled-heart-lv.	■ □	or	3	mr.jl	Pu	.....	1774.	C	r. m	
9603 cucullatum <i>Ait.</i>	hooded-leaved	■ □	or	3	mr.jl	Pu	C. G. H.	1690.	C	r. m	Ca.dis.4.t.106.f.1
9604 speciosum <i>W.</i>	specious	■ □	or	3	ap.jl	Pu	C. G. H.	1794.	C	r. m	
9605 cochleatum <i>W.</i>	concave-leaved	■ □	or	3	mr.jl	Pu	.....	.....	C	r. m	
9606 acerifolium <i>L'Her.</i>	Maple-leaved	■ □	or	3	ap.my	Pu	C. G. H.	1784.	C	r. m	L'Her. ger. t. 21
9607 angulosum <i>Ait.</i>	Marsh mallow-lv.	■ □	or	3	jls	Pu	C. G. H.	1724.	C	r. m	Ca.dis.4.t.112.f.2
9608 Barringtonii <i>W.</i>	Barrington's	■ □	or	3	mr.jl	Pu	C. G. H.	...	C	r. m	
9609 Watsonii <i>Link.</i>	Watson's	■ □	or	3	mr.jl	Pu	.....	.....	C	r. m	Sweet ger. 130
9610 adulterinum <i>L'Her.</i>	hoary trifid-lv.	■ □	or	3	ap.jn	Pu	C. G. H.	1785.	C	r. m	Sweet ger. 22
9611 semitrilobum <i>Jacq.</i>	three-lobed	■ □	or	3	ap.jl	Pu	C. G. H.	1800.	C	r. m	Jac.schoe.2.t.136
9612 vitifolium <i>Ait.</i>	Vine-leaved	■ □	or	3	ap.au	Pu	C. G. H.	1724.	C	r. m	Ca.dis.4.t.111.f.2
9613 capitatum <i>Ait.</i>	Rose-scented	■ □	or	3	ap.au	Pu	C. G. H.	1690.	S	r. m	And. ger. c. ic.
9614 rubens <i>W.</i>	red-flowered	■ □	or	3	my.jl	Pu	.....	.....	C	r. m	
9615 obtusifolium <i>Ait.</i>	blunt-lobed	■ □	or	3	ap.au	Pu	.....	.....	C	r. m	Sweet ger. t. 8
9616 tricuspidatum <i>L'her.</i>	three-pointed	■ □	or	3	my.au	W.pu	C. G. H.	1780.	C	r. m	L'Her. ger. t. 30
9617 scabrum <i>Ait.</i>	rough wedge-lv.	■ □	or	3	ap.au	W.vy	C. G. H.	1775.	C	r. m	Jac. ic. 3. t. 542
9618 hermännifolium <i>Jac.</i>	Hermannia-lv.	■ □	or	3	ap.jn	Pk.vy	C. G. H.	...	S	r. m	Jac. ic. 3. t. 545
9619 crispum <i>Ait.</i>	curl-leaved	■ □	or	3	jln	Pu	C. G. H.	1774.	C	r. m	L'Her. ger. t. 32, 33
9620 exstipulatum <i>Ait.</i>	soft trifid-leaved.	■ □	or	3	my.au	Vi.vy	C. G. H.	1779.	C	r. m	L'Her. ger. t. 35
9621 pustulosum <i>Sweet</i>	pimpled	■ □	or	3	my.au	W	C. G. H.	1820.	C	r. m	Sweet ger. t. 11
9622 pallidum <i>W.</i>	pale-flowered	■ □	or	3	ap.au	Pk	.....	.....	C	r. m	
9623 ternatum <i>Jacq.</i>	ternate	■ □	or	3	ap.au	Pk.vy	C. G. H.	1820.	C	r. m	Sweet ger. 165
9624 quercifolium <i>Ait.</i>	Oak-leaved	■ □	or	3	mr.au	Pu	C. G. H.	1774.	C	r. m	L'Her. ger. t. 14
9625 graveolens <i>Ait.</i>	Odor of Rose	■ □	or	3	mr.jl	Pu	C. G. H.	1774.	C	r. m	L'Her. ger. t. 17
9626 glutinosum <i>Ait.</i>	clammy	■ □	or	3	my.jn	Pk.vy	C. G. H.	1777.	C	r. m	Bot. mag. 143
9627 hispidum <i>W.</i>	hispid	■ □	or	3	my.jl	Pu	C. G. H.	1790.	C	r. m	Ca.dis.4.t.110.f.1
9628 rádula <i>Ait.</i>	Rasp-leaved	■ □	or	3	mr.jl	Pu	C. G. H.	1774.	C	r. m	Bot. mag. 95
9629 balsameum <i>Jacq.</i>	balsamic	■ □	or	3	jls	Pk	C. G. H.	1790.	C	r. m	Jac. ic. 3. t. 543
9630 asperum <i>W.</i>	rough multifid	■ □	or	3	jls	Pk	C. G. H.	1795.	C	r. m	Roth.abhan.t.10
9631 denticulatum <i>Jacq.</i>	tooth-leaved	■ □	or	3	jn.jl	Pk	C. G. H.	1789.	C	r. m	Sweet ger. 109
9632 delphinifolium <i>W.</i>	Larkspur-leav.	■ □	or	3	ap.jl	Pk	.....	.....	C	r. m	
9633 dis'cipes <i>Haw.</i>	central-stalked	■ □	cu	5	...	...	Africa	1808.	C	r. m	
9634 spirium <i>W.</i>	spurious	■ □	or	2	ap.jl	V	.....	.....	C	r. m	
9635 gratum <i>W.</i>	Citron-scented	■ □	or	2	ap.au	Pk.vy	.....	.....	C	r. m	
9636 nóthum <i>W.</i>	mixed	■ □	or	2	ap.jl	Pk	.....	.....	C	r. m	
9637 consanguineum <i>W.</i>	kindred	■ □	or	2	ap.au	Pk	.....	.....	C	r. m	
9638 Willdenovii <i>Link.</i>	Willdenow's	■ □	or	2	my.au	W.vy	C. G. H.	.....	C	r. m	
9639 unicolorum <i>W.</i>	self-colored	■ □	or	2	my.au	C	C. G. H.	.....	C	r. m	
9640 alnifolium <i>W.</i>	Alder-leaved	■ □	or	2	ap.jl	Pk.vy	.....	.....	C	r. m	
9641 amplissimum <i>W.</i>	stately	■ □	or	2	ap.jl	Pu	.....	.....	C	r. m	



History, Use, Propagation, Culture,

tuberous rooted kinds thrive best in very sandy loam and peat, and require no water after they have flowered, till they begin to grow afresh. Cuttings of the shrubby kinds strike root freely under hand-glasses in the same

§ B. *Flowers white, or scarcely rose-colored; two upper petals deep-red, lined. Leaves ovate, cordate, or reniform toothed, undivided.*

9594 Lvs. ovate cut serr. the younger scabrous backwards; adult nearly smooth, Stipules ovate acuminate
 9595 Leaves ovate unequally serrate smoothish, Stipules ovate-lanceolate, Peduncles 2-4-flowered
 9596 Umb. many-fl. Leaves ovate acute concave rigid somew. lobed uneq. tooth. truncate at base many-nerved

§ C. *Petals white, narrow. Leaves cordate, soft with down. Stipules spreading much.*

9597 Stem shrubby fleshy, Branches peduncles and leaves hirsute, Leaves cordate hastate 5-lobed very soft
 9598 Stem shrubby fleshy, Branches and pedunc. subhispid, Lvs. cord. hastate 5-lobed rough, Umb. many-fl.

§ D. *Leaves cordate, flat, toothed. Lower petals linear; upper purple, lined.*

9599 Branches leaves and pedunc. hairy, Leaves cordate roundish angular toothed, Umbels panicked many-fl.
 9600 Lvs. cord. acute toothed flat hoary beneath and downy, Branches and ped. pilose, Lower pet. subulate-lin.
 9601 Leaves cordate acutely crenulate quite smooth, Stipules linear reflexed, Umbels many-flowered
 9602 Leaves roundish ovate truncate subcordate at base cut-toothed wavy beneath hoary pubescent

§ E. *Leaves cordate, or cuneate, toothed, undivided, or lobed. Lobes blunt, not divided down to the middle. Flowers purple. Lower petals oblong or obovate.*

1. *Leaves undivided, cucullate.*

9603 Leaves reniform cucullate toothed pubescent, Branches and peduncles softly hispid, Lower petals oblong
 9604 Leaves roundish truncate reniform with acute cartilaginous teeth many-nerved subpubescent
 9605 Leaves roundish ovate subcord. concave somewhat angular serr. pubesc. Honey-tube the length of calyx
 9606 Leaves cun. at base entire at end palmately 5-lobed toothed many-nerved rather villous, Stip. cordate ovate
 9607 Leaves truncate at base subcucul. roundish bluntly 5-lobed toothed pubesc. Stipules cord. ovate acuminate
 9608 Leaves reniform blunt cucullate toothletted hairy on each side, Umbels many-flowered
 9609 Leaves cord. roundish somewhat lobed tooth-crenate wavy at edge, Stipules cord. acute somew. toothed

2. *Leaves lobed, flattish.*

9610 Leaves cordate bluntly 3-lobed wavy villous soft, Pedunc. about 2-flowered
 9611 Leaves truncate at base subcuneate 3-fid flat hairy, Lobes divaricating serrated at end, Lower petals lin.
 9612 Leaves cordate 3-lobed roughish blunt toothed, Stipules broad cordate, Stem erect
 9613 Leaves cordate lobed wavy softly villous toothed, Stipules broad cordate, Stems diffuse
 9614 Lvs. subcord. acute slightly 5-lobed serrated, Umb. 5-fl. subcapitate, Ped. scarcely longer than involucrem

3. *Leaves lobed. Lobes acutely cut at end.*

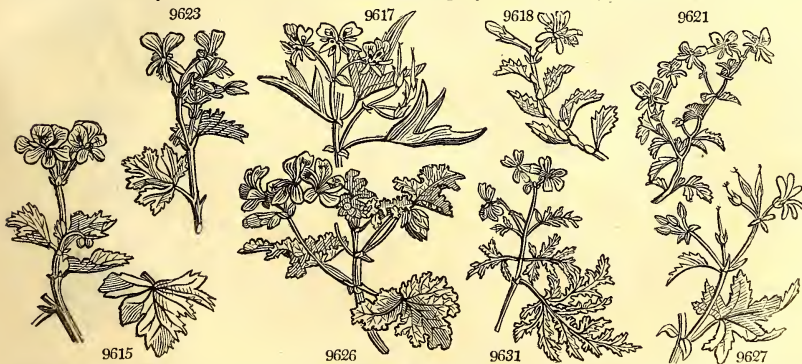
9615 Lvs. deeply 3-lobed, Lobes round. blunt unequally toothletted. Veins ben. and cal. roughish, Stipules cord.
 9616 Leaves cuneate at base trifid, Lobes acute: middle longer subserrate with a midrib muricated beneath
 9617 Leaves cuneate at base trifid rough, Lobes lanc. loosely serrated, Pedun. 1-4-flowered
 9618 Leaves cuneiform distichous rough plaited truncate at end cut-toothed, Peduncles 2-flowered short
 9619 Leaves distichous roundish fleshy subcuneate at base trifid wavy plaited rough toothed, Pedun. about 2-fl.
 9620 Leaves truncate cord. 3-lobed toothed hoary, Stipules scarcely any, Peduncles 3-4-flowered
 9621 Lower lvs. deeply 3-lobed beneath pustular, Lateral lobes spreading unequally and acutely toothed
 9622 Leaves deeply 3-lobed, Lobes spreading unequally and acutely toothed at end beneath and at edge rough
 9623 Leaves 3-parted cucullate rough, Lobes cuneiform cut-serrate at end: the middle one trifid

§ F. *Leaves divided beyond the middle. Lobes toothed, cut, or pinnatifid. Flowers purplish or pale.*

9624 Leaves cord. pinnatifid with rounded recesses, Lobes blunt crenate, Branches and petioles hispid
 9625 Leaves palmately 7-lobed, Lobes oblong blunt toothed revolute at edge, Umb. many-fl. capitate
 9626 Leaves cord. hastate 5-angled toothed viscid smoothish, Umb. 2-4-fl. Honey tube a little longer than calyx
 9627 Leaves palmatifid downy hispid, Lobes narrow pinnatifid revolute at edge, Segm. linear, Umb. few-fl.
 9628 Leaves palmated rough, Lobes narrow pinnatifid cut toothed, Umb. panicked many-fl.
 9629 Leaves palmated roughish cuneate at base, Lobes lanc. remotely toothed, Umb. few-fl.
 9630 Leaves somewhat palmated rough, Lobes 5-7-oblong blunt crisply toothletted at edge, Umb. 5-fl. in heads
 9631 Leaves palmated viscid smooth, Lobes linear pinnatifid repand toothed flattish, Umb. few-fl.
 9632 Leaves rough palmate 5-lobed, Lobes oblong serrated: middle 3-lobed, Umbels few-fl. compound

‡ *Uncertain species.*

9633 Stem fleshy branched arboreous, Lvs. cord. peltate pubesc. variably glauc. Petioles villous without stipules
 9634 Leaves reniform distichous slightly 3-lobed blunt unequally toothed wavy
 9635 Leaves slightly trifid unequally and acutely toothed wavy hairy, Peduncles 2-4-fl.
 9636 Leaves roundish ovate blunt subtrifid folded together wavy toothed hairy beneath, Sepals erect
 9637 Leaves slightly 3-lobed flat blunt; Lobes divaricating unequally and finely toothed, Pedunc. 3-fl.
 9638 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Branches petioles and peduncles villous
 9639 Leaves roundish cuneate slightly 3-lobed wavy toothletted, Honey tube twice as short as reflexed calyx
 9640 Leaves ellipt. blunt: floral obsoletely subtrifid unequally toothed somew. cuneate and entire at the base
 9641 Leaves flat very smooth half round 7-lobed serrated slightly cordate at base, Pedunc. 2-5-flowered



and Miscellaneous Particulars.

kind of soil, or in pots, without being covered by glass, and placed in a shady situation. Many of the kinds may also be increased by pieces of their roots, or from seeds. The tuberous-rooted kinds may be propagated

Garden Varieties.

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|----------------------------|--------------------------------|--------------------------------|
| 1 Aceroides Sweet ger. 242 | 31 calocéphalon Sweet ger. 201 | 61 elátum Sweet ger. 96 |
| 2 acutilóbium Do. 184' | 32 calycinum Do. 81 | 62 electum Do. 238 |
| 3 affluens Do. 194 | 33 Campyliaeflorum Do. 251 | 63 elegans (Hoarea) Do. 132 |
| 4 acidum Do. 261 | 34 candidum Do. 128 | 64 elegans (Dimacria) Do. 202 |
| 5 Allénii Do. 229 | 35 cardiifolium Do. 15 | 65 elegans (Campylia) Do. 222 |
| 6 amœnum Do. 121 | 36 cerinum Do. 176 | 66 erectum Do. 187 |
| 7 æmulum Do. 160 | 37 chærophýllum Do. 257 | 67 eriophýllum Do. 141 |
| 8 anthriscifolium Do. 233 | 38 chrysanthemifolium Do. 124 | 68 eximium Do. 26 |
| 9 árdens Do. 45 | 39 coarctátum Do. 70 | 69 Fair'lia Do. 178 |
| 10 ardescens Do. 231 | 40 Colvilliánum Do. 260 | 70 flexuósum Do. 180 |
| 11 armátum Do. 214 | 41 Colvilli Do. 86 | 71 floccósum Do. 129 |
| 12 asperifolium Do. 169 | 42 Comptónia Do. 122 | 72 floridum Do. 41 |
| 13 atrofuseum Do. 82 | 43 cómpum Do. 255 | 73 forósum Do. 120 |
| 14 atropurpúreum Do. 152 | 44 concávum Do. 237 | 74 fuscátum Do. 210 |
| 15 atrosanguineum Do. 151 | 45 concinnum Do. 108 | 75 glaucifolium Do. 179 |
| 16 aurantiacum Do. 198 | 46 cóncolor Do. 140 | 76 grandidentátum Do. 217 |
| 17 Baileyánum Do. 87 | 47 coriscans Do. 173 | 77 Grenvilliánum And. ger. |
| 18 Bakeriánum Do. 240 | 48 Cosmiánum Do. 189 | 78 Hammersliæ Sweet ger. 225 |
| 19 Barnardiánum Do. 127 | 49 cremátum And. ger. | 79 Hoareæflorum Do. 133 |
| 20 Beadonia Do. 191 | 50 crenulátum Sweet ger. 162 | 80 Hoareánum Do. 80 |
| 21 Beaufortiánum Do. 138 | 51 cruentum Do. 170 | 81 Husseyánum Do. 92 |
| 22 bel'ulium Do. 60 | 52 Daveyiánum Do. 32 | 82 imbricatú Do. 65 |
| 23 bipartitum Do. 142 | 53 Dennisiánum Do. 20 | 83 incanescens Do. 203 |
| 24 Blandfordiánum Do. 101 | 54 dentátum And. ger. | 84 inefructum Do. 249 |
| 25 blándum Do. 4 | 55 depéndens Sweet ger. 195 | 85 inerscriptum Do. 193 |
| 26 Boyleæ Do. 50 | 56 diffôrme Do. 105 | 86 intertécum Do. 185 |
| 27 Brightiánum Do. 227 | 57 Dimacriaeflorum Do. 220 | 87 involuératum máximum Do. 33 |
| 28 Broughtoniæ Do. 181 | 58 disséctum Do. 247 | 88 Jonkúsoni Do. 154 |
| 29 Brónni Do. 146' | 59 Dumbreánum Do. 253 | 89 Jenquinium Do. 241 |
| 30 Breesiánum Do. 64 | 60 dumósum Do. 19 | 90 Kin'gii Do. 248 |

OCTANDRIA.

1462. AITONIA. W. AITONIA. Sp. 1.
 9642 capénsis W. Cape π \square or 2 ap.s Pk C. G. H. 1774. C r.m Bot. mag. 173

DECANDRIA.

- | | | | | | |
|---------------------------------------|--------------------------------------|-----------------|-------|--------------------------|---------------|
| 1463. GERA'NIUM. W. CRANE'S-BILL. | Geraniaceæ. | Sp. 45-66. | | | |
| 9643 sibiricum W. Siberian | Δ pr 1 in.jl B | Siberia 1758. | D s.l | Jac. vind. I. t. 19 | |
| 9644 sanguineum W. bloody | Δ pr $\frac{3}{4}$ in.s Bd | Britain rocks. | D s.l | Eng. bot. 272 | |
| 9645 incánium W. hoary multifid | Δ pr $\frac{1}{2}$ my.jl Pk | C. G. H. 1701. | S r.m | Cav. dis. 4. t. 82. f. 2 | |
| 9646 canescens W. silky-leaved | Δ pr $\frac{1}{2}$ my.jn Pk | C. G. H. 1787. | S r.m | L'Her. ger. t. 38 | |
| 9647 argenteum W. silvery-leaved | Δ pr $\frac{1}{2}$ in.jl St | S. Europe 1699. | D s.l | Sweet ger. 59 | |
| 9648 várium W. grey | Δ pr 1 in.au R | Pyrenees ... | D s.l | L'Her. ger. t. 37 | |
| 9649 anemonefolium W. Anemone-lvd. | Δ or 3 my.au R | Madeira 1758. | S r.m | Sweet ger. 244 | |
| 9650 macrorhízium W. long-rooted | Δ pr 1 $\frac{1}{2}$ my.jn Pu | Italy 1576. | D s.l | Bot. mag. 2430 | |
| 9651 tuberósum W. tuberous-root. | Δ pr 1 my.au B | Italy 1596. | R r.m | Sweet ger. 155 | |
| 9652 ibérico W. Iberian | Δ el 1 $\frac{1}{2}$ in.s B | Levant 1802. | D s.l | Sweet ger. 84 | |
| 9653 nodósum W. knotty | Δ pr 1 my.o Pu | England mou. | D s.l | Eng. bot. 1091 | |
| 9654 angulátum W. angular-stalked | Δ pr 1 my.jn B | | 1789. | D s.l | Bot. mag. 203 |
| 9655 Wallichianum Sw. Wallich's | Δ un $\frac{5}{8}$ my.au R | Nepal 1819. | D s.l | Sweet ger. 90 | |
| 9656 vlassovianum Fisch. Russian | Δ pr 1 my.au Pu | Crimea 1821. | D s.l | Sweet ger. 228 | |
| 9657 striátum W. streaked | Δ pr 1 my.o St | Italy 1629. | D s.l | Bot. mag. 55 | |
| 9658 reflexum W. reflex-flowered | Δ or 1 $\frac{1}{2}$ my.jn B | Italy 1758. | D s.l | Cav. dis. 4. t. 81. f. 1 | |
| 9659 phæ'um W. dusky | Δ or 1 $\frac{1}{2}$ ap.jn Bd | England m.thi. | D s.l | Eng. bot. 322 | |
| 9660 fúscum W. brown | Δ or 1 $\frac{1}{2}$ jl Br | S. Europe 1759. | D co | | |
| 9661 lividum W. wrinkled-leav'd | Δ or 1 $\frac{1}{2}$ in.jl Pu | Switzerl. 1775. | D s.l | L'Her. ger. t. 39 | |
| 9662 eriostémón Fisch. woolly-stamen. | Δ pr 1 $\frac{1}{2}$ in.jl B | Siberia 1822. | D co | Sweet ger. 197 | |
| 9663 sylvaticum W. wood | Δ el 1 $\frac{1}{2}$ my.jn Pu | Britain m.thi. | D s.l | Eng. bot. 121 | |
| 9664 pratense W. Crowfoot-lvd. | Δ el 1 $\frac{1}{2}$ iny.jl B | Britain mc.pa. | D s.l | Eng. bot. 464 | |
| 9665 longipes Dec. long-stalked | Δ or 1 my.jl Li | ..... | 1823. | D co | |
| Londésii Fisch. | | | | | |



History, Use, Propagation, Culture,

by the little tubercles of the roots, or by seeds. For the general treatment of each species, see Sweet's Geraniaceæ. (Bot. Cult. 237.)

1462. Aitonia. In honor of the late Mr. William Aiton, the King's gardener at Kew. "A pretty genus," Sweet observes, "which thrives well in an equal mixture of sandy loam and peat: young cuttings will root in

Garden Varieties.

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|-----------------------------------|---------------------------------|------------------------------|
| 91 Lambérta Sweet ger. 104 | 121 párticeps Sweet ger. 49 | 151 scutátum Sweet ger. 95 |
| 92 lanceolátum And. ger. | 122 párens Do. 125 | 152 seléctum Do. 190 |
| 93 latilóbum Sweet ger. 236 | 123 paucidentátum Do. 186 | 153 selenifólium Do. 159 |
| 94 laxifórum Do. 216 | 124 pavoninum Do. 40 | 154 serratifólium Do. 221 |
| 95 lépidum Do. 156 | 125 pectinifólium Do. 66 | 155 Seymóurie Do. 37 |
| 96 lineátum Do. 116 | 126 phœniceum Do. 207 | 156 Smithii Do. 110 |
| 97 Lousadiánum Do. 44 | 127 pinguifólium Do. 52 | 157 solébile Do. 24 |
| 98 lútem Bot. rep. 328 | 128 planifólium Do. 219 | 158 spectábile Do. 136 |
| 99 macránthon Sweet ger. 83 | 129 platypétalon Do. 116 | 159 sphondyliifólium Do. 246 |
| 100 Mattocksianum Do. 234 | 130 Pottéri Do. 147 | 160 Strapétóni Do. 212 |
| 101 melissinum Do. 5 | 131 Principissæ Do. 139 | 161 striátum Do. 1 |
| 102 mixtum Do. 71 | 132 pubescens And. ger. | 162 sulphúrum Do. 163 |
| 103 modéstum Do. 204 | 133 pulcherrimum Sweet ger. 134 | 163 Thyn'neæ Do. 74 |
| 204 Mostýnæ Do. 10 | 134 púlebrum Do. 107 | 164 Tibbitsianum Do. 158 |
| 105 multínérve Do. 17 | 135 pulveruléntum Do. 218 | 165 torrefactum Do. 243 |
| 106 Murrayánum Do. 164 | 136 pyrethrifólium Do. 153 | 166 tryánthinum Do. 183 |
| 107 mutábile Do. 213 | 137 ramulósum Do. 177 | 167 Vandésia Do. 7 |
| 108 nánum Do. 102 | 138 recurvátum Do. 223 | 168 váríum Do. 166 |
| 109 nervósum Do. 47 | 139 reticulátum Do. 143 | 169 venifórum Do. 258 |
| 110 Newshamiánum Do. 144 | 140 rigescens Do. 112 | 170 venósum Do. 209 |
| 111 notátum Do. 208 | 141 ringens Do. 256 | 171 venústum Do. 167 |
| 112 nummularifólium Bot. rep. 123 | 142 Robinsóni Do. 150 | 172 verbascifórum Do. 157 |
| 113 oblátum Sweet ger. 35 | 143 rotundilóbum Do. 252 | 173 verbenacifólium Do. 149 |
| 114 obscúrum Do. 89 | 144 rubescens Do. 30 | 174 versicolor Do. 78 |
| 115 obtusifólium Do. 25 | 145 rugósum And. ger. | 175 vesperinum Do. 229 |
| 116 optábile Do. 62 | 146 sapefórens Sweet ger. 58 | 176 villosum Do. 100 |
| 117 opulifólium Do. 53 | 147 Saundérsii Do. 205 | 177 viscosissimum Do. 118 |
| 118 ornátum Do. 39 | 148 Scarboróvia Do. 117 | 178 Wellsiánum Do. 175 |
| 119 Páikii Do. 224 | 149 scintillans Do. 28 | 179 Yotángii Do. 131 |
| 120 pannifólium Do. 9 | 150 Scóttii Do. 264 | |

OCTANDRIA.

9642 The only species

DECANDRIA.

- 9643 Stem erect diffuse branched, Peduncles longer than petiole, Leaves 5-parted, Lobes oblong cut-toothed
 9644 Stem erect diffuse branched, Ped. longer than petiole, Leaves opp. 5-parted, Lobes trifid, Lobelets linear
 9645 Stem diffuse, Leaves hoary beneath 7-part. Lobes multifid linear, Pedunc. elongated, Calyxes silky villous
 9646 Stem diffuse, Leaves hoary beneath 5-parted, Lobes obl. cut-toothed, Ped. very long and cal. gland. hairy
 9647 Stem very short, Radical leaves on long stalks silky on each side 5-7-parted, Lobes 3-fid, Lobelets linear
 9648 Stem very short, Rad. leaves stalked glaucous pubescent 5-parted, Lobes cuneiform trifid, Pedunc. radical
 9649 Stem shrubby, Leaves smooth palmate 5-cut, Segments bipinnatifid, Peduncles opposite erect hairy
 9650 Stem suffruticose at base dichot. at end, Lvs. smooth 5-parted, Lobes toothed at end, Cal. globose inflated.
 9651 Root subglobose, Stem naked from base to the branches, Leaves 5-parted, Lobes lin. pinnately cut serrate
 9652 Stem villous dichotomous, Leaves 5-7-parted, Lobes pinnately cut, Calyxes ciliate villous
 9653 Stem 4-cornered, Lower leaves 5-lobed; upper 3-lobed, Lobes oblong acuminate serrate, Pet. emarginate
 9654 Stem angular, Rad. leaves 7-lobed; cauline 5-lobed, Lobes oblong acuminate toothed, Petals emarginate
 9655 Stem erect somewhat angular, Leaves opposite 5-lobed, Lobes cuneate ovate lobed-toothed, Stip. connate
 9656 Stem round, Leaves 5-lobed, Lobes oval acuminate cut-toothed, Stipules connate bifid
 9657 Stem round, Lower leaves 5-lobed; upper 3-lobed, Lobes ovate acute cut toothed, Stipules distinct
 9658 Stem round, Leaves altern. 5-7-lobed cut-toothed; upper sessile, Petals reflexed toothed at end
 9659 Stem round, Leaves 5-lobed cut-toothed; upper sessile, Petals spreading entire, Filaments hairy at base
 9660 Like the last, but with dark fuscous petals
 9661 Like Phaxum, but the petals are rose-colored and emarginate
 9662 Stem round simple, Lvs. 5-lobed, Lobes ovate coarsely toothed: lower on long stalks altern.; upp. sess. opp.
 9663 Stem round erect smooth, Lvs. about 7-lobed, Lobes obl. cut serr. Ped. corymbos. Pet. somev. emarginate
 9664 Stem round erect downy, Lvs. about 7-lobed, Lobes linear obl. cut serrate, Ped. somev. corymb. Pet. entire
 9665 Stem round erect smooth, Leaves palmate subpeltate 5-7-lobed, Lobes oblong coarsely cut, Ped. very long



and Miscellaneous Particulars.

sand, under a bell-glass, plunged in heat. The cuttings must not be put in very close together, and the glass must be wiped frequently, as they are apt to damp off." (Bot. Cult. 129.)

1463. *Ocranium*. *Γερανιον* of the ancient Greeks, so called from *γερανιος*, a crane, the capsule and its beak resembling the head of that bird. These are chiefly European plants, in many cases being mere weeds, of no

9666 maculátum <i>W.</i>	spotted	√ Δ pr	3/4	my.au	Pu	N. Amer.	1732.	D s.1	Cav.dis.4.t.86.f.2
9667 collinum <i>W.</i>	hill	√ Δ pr	1	my.au	Pu	Siberia	1815.	D co	
9668 palústre <i>W.</i>	marsh	√ Δ or	2	jn.au	Pu	Germany	1732.	D s.1	Sweet ger. 3
9669 aconitifólium <i>W.</i>	Aconite-leaved	√ Δ pr	1 1/2	my.jn	B	Switzerl.	1775.	D s.1	L'Her. ger. t. 40
9670 dahúricum <i>Dec.</i>	Dahurian	√ Δ un	1	my.jn	Pu	Dahuria	1820.	D co	
9671 pilósum <i>Forst.</i>	pilose	√ Δ un	3/4	my.au	Pu	N. Zeal.	1821.	D co	Sweet ger. 119
9672 parviflórum <i>W. en.</i>	small-flowered	√ Δ un	3/4	my.jn	Pu	N. Di. L.	1816.	D co	
9673 nepaléncum <i>Sweet</i>	Nepal	√ Δ pr	1	my.au	Pu	Britain	me.pa. D s.1	D s.1	Eng. bot. 405
9674 pyrenáicum <i>W.</i>	mountain	√ Δ pr	1	my.au	Pu	Hungary	1804.	D co	Pl. rar. h.2. t.144
9675 umbrósum <i>P. S.</i>	naked-stalked	√ Δ pr	1	jn.s	Pu	Britain	was.gr. S co	Eng. bot. 778	
9676 mÿlle <i>W.</i>	Dove's-foot	○ ○ w	1/2	ap.au	Pu	England	was.gr. S co	Eng. bot. 385	
9677 pusillum <i>W.</i>	small-flowered	○ ○ w	1/2	jn.jl	Pk	England	gra.ba. S co	Eng. bot. 157	
9678 rotundifólium <i>W.</i>	round-leaved	○ ○ w	1/2	jn.jl	Pk	Britain	cha.ba. S co	Eng. bot. 259	
9679 columbínium <i>W.</i>	long-stalked	○ ○ w	1/2	my.jl	Pu	Britain	was.gr. S co	Eng. bot. 753	
9680 dissectum <i>W.</i>	jagged-leaved	○ ○ un	3/4	jl.au	W.vy	N. Amer.	1725.	S co	Cav.dis.4.t.84.f.1
9681 carolináicum <i>Ph.</i>	spreading	○ ○ un	3/4	jn.au	Pu	Bohemia	1683.	S co	Cav.dis.4.t.81.f.2
9682 bohémicum <i>W.</i>	Bohemian	○ ○ un	3/4	jn.au	Pu	Hungary	1799.	S co	Pl. rar. h.2. t.123
9683 divaricátum <i>W.</i>	straddling	○ ○ un	3/4	my.au	Pk	Britain	ston.pl. S co	Eng. bot. 75	
9684 lácidium <i>W.</i>	shining	○ ○ w	1	ap.o	R	Britain	ston.pl. S co	Eng. bot. 1486	
9685 Robertiánium <i>W.</i>	Herb-Robert	○ ○ w	1	ap.o	R	Britain	ston.pl. S co	Vill.delph.3. t.40	
9686 purpúreum <i>W.</i>	purple	○ ○ w	1	ap.o	Pu	Britain	...	S co	Cav.dis.4.t.76.f.3
9687 Lancastréncum <i>With.</i>	Lancash're	√ Δ pr	3/4	jn.s	St	Britain	...	D s.1	
1464. BROWNÆA. <i>W.</i>	BROWNÆA.					<i>Leguminosæ.</i>	<i>Sp. 1—3.</i>		
9688 coccinea <i>W.</i>	scarlet	♣ □ spl	18	jl.au	Sc	W. Indies	1793.	C r.1	Jac. amer. t. 121

DODECANDRIA.

1465. MONSONIA. <i>W.</i>	MONSONIA.					<i>Geraniacæ.</i>	<i>Sp. 5—8.</i>		
9689 speciósa <i>W.</i>	large-flowered	√ Δ | or	1	ap.my	Pu	C. G. H.	1774.	R r.m	Sweet ger. 77
9690 pilósa <i>W.</i>	hairy	√ Δ | or	1	jl.au	Pu	C. G. H.	1778.	R r.m	Sweet ger. 199
9691 lobáta <i>W.</i>	broad-leaved	√ Δ | or	1	ap.my	Pu	C. G. H.	1774.	R r.m	Bot. mag. 385
9692 ováta <i>W.</i>	oval-leaved	√ Δ | or	1	au	Pu	C. G. H.	1774.	R r.m	L'Her. ger. t. 40
9693 spinósa <i>W.</i>	thorny	√ Δ | or	1	my.jn	Pu	C. G. H.	1790.	R r.m	L'Her. ger. t. 42
1466. HELICTERES. <i>W.</i>	SCREW-TREE.					<i>Bombacæ.</i>	<i>Sp. 5—17.</i>		
9694 baruénsis <i>W.</i>	small-fruited	♣ □ or	12	s.o	Pu	W. Indies	1739.	C p.1	Jac. amer. t. 149
9695 jamaicénsis <i>W.</i>	great-fruited	♣ □ or	8	jn.jl	Pu	Jamaica	1739.	C l.p	Jac.vind.2. t.143
9696 Isóra <i>W.</i>	East Indian	♣ □ or	12	jn.jl	Pu	E. Indies	1733.	C p.1	Bot. mag. 2061
9697 verbascifólia <i>Cels.</i>	Mullein-leaved	♣ □ or	8	jn.jl	Br	Brazil	1820.	C p.1	Bot. reg. 903
9698 ferrugináta <i>Link.</i>	rusty	♣ □ or	8	jn.jl	Y	Brazil	1823.	C p.1	
1467. DOMEYA. <i>J.</i>	DOMEYA.					<i>Byttneriacæ.</i>	<i>Sp. 2—10.</i>		
9699 tiliaefólia <i>Cav.</i>	linden-leaved	♣ □ or	15	...	W	Bourbon	1820.	C s.1	Cav.dis.3.t.39.f.2
9700 ferruginea <i>W.</i>	ferruginous	♣ □ or	15	...	W	Mauritius	1815.	C s.1	Cav.dis.3.t.42.f.2
1468. PENTAPETES. <i>W.</i>	PENTAPETES.					<i>Byttneriacæ.</i>	<i>Sp. 2.</i>		
9701 phœnicæ <i>W.</i>	scarlet-flower'd	√ Δ | or	2	jl.au	S	India	1690.	C s.p	Mill. ic. t. 201
9702 ováta <i>P. S.</i>	oval-leaved	√ Δ | or	2	jn.s	S	N. Spain	1805.	C s.p	Cav. ic. t. 433
1469. ASTRAPÆA. <i>Lindl.</i>	ASTRAPÆA.					<i>Byttneriacæ.</i>	<i>Sp. 1—3.</i>		
9703 Wallichii <i>Lindl.</i>	Wallich's	♣ □ spl	20	jl.au	Pk	Madagasc.	1820.	C s.p	Bot. mag. 2503
1470. PTEROSPERMUM. <i>W.</i>	PTEROSPERMUM.					<i>Byttneriacæ.</i>	<i>Sp. 3—4.</i>		
9704 suberifólium <i>W.</i>	various-leaved	♣ □ or	10	s.o	W	E. Indies	1783.	C p.1	Bot. mag. 1526
9705 acerifólium <i>W.</i>	Maple-leaved	♣ □ or	10	jl.s	W	E. Indies	1790.	C p.1	Bot. mag. 620
9706 semisagittátum <i>Roz.</i>	half-sagittate	♣ □ or	10	...	W	E. Indies	1820.	C p.1	



History, Use, Propagation, Culture,

interest, and in others, being extremely shewy border-flowers. The *G. Lancastrænsis* is the most elegant, and *G. sanguineum* the most ornamental of our British kinds. *G. anemonifolium*, a Cape species, is singularly beautiful, on account of its fine caulescent stem, loaded with large fern-like glossy leaves of the most delicate green, and its fine red rich blossoms broader than half a crown.

1464. *Brownæa*. Named after Dr. Patrick Browne, an English physician, who published a Natural History of Jamaica, in 1756, illustrated with figures from the pencil of Ehret. A splendid genus, as yet rare in British gardens. Loamy soil best suits rooted plants; and ripened cuttings root in sand in close moist heat.

1465. *Monsonia*. In memory of Lady Ann Monson, a lady of eminent botanical acquirements, who resided for many years in the East Indies, and is said to have assisted in compiling *Benca's Introduction to Botany*. The species are curious and beautiful plants: they grow well in turfy loam and rotten leaves, and are increased by cuttings of the shoots or roots.

- 9666 Stem somew. angul. erect dichotomous pubesc. backw. Lvs. 3-5-part. cut-toothed : radic. on very long stalks
 9667 Stem angular diffuse pubesc. backw. Lvs. palmate 5-part. : lobes 3-lobed cut serrate, Ped. and cal. vill. viscid
 9668 Stem decumbent villous with spreading hairs, Leaves 5-7-lobed : lobes cut-toothed, Ped. very long hairy
 9669 Stem ascending smoothish, Leaves peltate 7-parted : lobes cut, Peduncles and calyx villous
 9670 Stem naked at base erect smooth, Caul. lvs. opposite 3-5-part. : lobes cut acute, Ped. 3 times as long as leaf
 9671 Stems decumbent branched, Petioles and peduncles hispid, Leaves 3-5-parted : lobes linear blunt trifid
 9672 Stems decumbent, Petioles pedunc. and calyx smoothish, Caul. lvs. opp. 3-5-parted : lobes trifid toothed
 9673 Stem prostrate compressed, Lvs. opp. 5-lobed : lobes oblong unequally toothed, Ped. elong. and cal. hairy
 9674 Stem erect branched, Leaves reniform 7-lobed : segm. oblong obtuse trifid ; lobes 3-toothed
 9675 Stem more flaccid and nearly naked, Grains nearly smooth. Otherwise like the last
 9676 Leaves ren. : rad. 9-lobed ; caul. 7-lobed : lobes 3-fid, Pet. bifid length of pointless cal. Fruit smooth rugose
 9677 Leaves subreniform 7-lobed : lobes 3-fid, Petals emarg. length of pointless cal. Fruit downy not rugose
 9678 Radic. lvs. reniform 7-lobed ; caul. roundish trunc. at base 5-lobed : lobes trifid, Pet. length of awned cal.
 9679 Leaves 5-parted : lobes multifid linear, Petals emarginate length of awned calyx, Fruit smooth
 9680 Leaves 5-parted : lobes trifid linear, Petals emarginate length of awned calyx, Fruit hairy
 9681 Lvs. 5-lob. beyond middle : lobes cut 3-5-fid, Ped. clustered at end, Petals emargin. length of awned calyx
 9682 Lvs. 5-lobed : lobes cuneate ovate cut-tooth. Hair of stem spread. hispid, Pet. emarg. length of awned calyx
 9683 Lvs. 5-lob. : upp. 3-lob. : lobes obl. coarsely and irreg. tooth. Hair of stem spread. hisp. Pet. shorter than cal.
 9684 Very smooth, Leaves rounded 5-lobed, Calyx pyramidal angular transversely wrinkled, Fruit muricate
 9685 Leaves 3-5-parted : lobes trifid pinnatifid, Petals entire twice as long as the angular awned calyx
 9686 Like the last, but the petals only a little longer than calyx
 9687 Stem prostrate nodose, Leaves opposite deeply 5-lobed

9688 Stamens length of cor. Pedunc. aggregate, Branches smooth

DODECANDRIA.

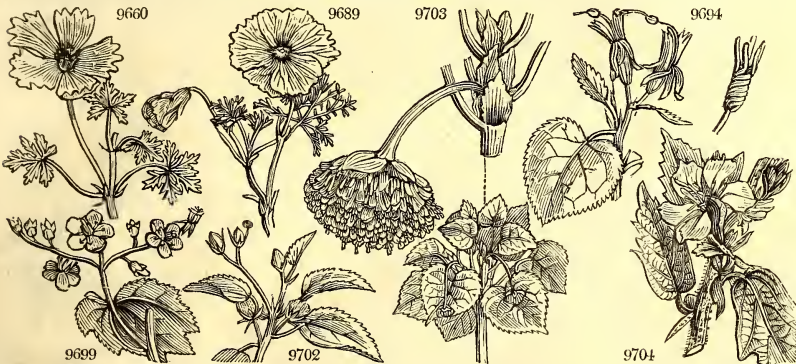
- 9689 Leaves palmate 5-parted, Segm. finely bipinnatifid, Petioles and calyxes smooth
 9690 Leaves palmate 5-parted, Segm. 3-parted pinnatifid ; beneath calyxes and petioles hairy
 9691 Leaves cordate 5-7-fid : lobes blunt serrated ; beneath petioles and calyxes somewhat hairy
 9692 Leaves ovate oblong subcordate crenate wavy, Stipules rigid, Pedunc. 1-fl. with 2 bractes
 9693 Leaves ovate mucronate entire, some subsessile, some on long stalks
 9694 Decandrous, Leaves cordate finely serrate downy beneath, Peduncles 2-flowered, Calyxes sub-bilabiate
 9695 Decandrous, Leaves cordate crenate velvety with down on each side, Flowers subterminal few corymbose
 9696 Decandrous, Leaves cordate ovate tooth-serrate acuminate rough, Flowers axillary
 9697 Leaves cordate acuminate serrate downy green, Peduncles axillary few-flowered, Fruit-stalk very long
 9698 Leaves cordate lanceolate crenulate downy beneath rusty, Fl. terminal subracemose

- 9699 Young leaves downy, adult smoothish cordate 7-nerved crenate, Corymb bifid
 9700 Leaves downy beneath smooth above ovate oblong 7-nerved subcordate-peltate toothed

- 9701 Leaves hastate lanceolate serrate
 9702 Leaves ovate serrated

9703 Leaves roundish cordate acuminate very large, Stipules large persistent ovate wavy

- 9704 Leaves oblong acuminate coarsely somewhat toothed at end, Pedicels scarcely longer than petiole
 9705 Leaves cordate blunt toothed
 9706 Leaves oblong acuminate entire cordate at base sagittate on one side



and Miscellaneous Particulars.

1466. *Helicteres*. Derived from $\epsilon\lambda\iota\kappa\tau\epsilon\rho\varsigma$, a screw, in allusion to the manner in which the fruit is twisted. Free-flowering plants of easy culture, and increased in sand closely covered. They have little or no merit.

1467. *Dombeya*. Named after Joseph Dombey, a famous French botanist, who travelled in Peru with Ruiz and Pavon, in 1777. Ripened cuttings root in sand in moist heat.

1468. *Pentapetes*. One of the names given by the Greeks to the Cinquefoil ; but having no reference to the present genus, except that the calyx and capsules are in five. The species are of easy culture in any rich light soil, and are readily increased by cuttings in sand.

1469. *Astrapæa*. So called from $\alpha\sigma\tau\rho\alpha\pi\eta$, lightning, in allusion to the splendid colors of the flowers. A noble genus, remarkable for the large heads of flowers, and the great dilated stipules at the base of the leaves.

1470. *Pterospermum*. From $\pi\tau\epsilon\rho\alpha$, a wing, and $\sigma\pi\epsilon\rho\mu\alpha$, a seed. Light soil suits the plants, and cuttings with their leaves on root in sand covered close.

POLYANDRIA.

		MALVACEÆ.		Sp. 2-4.					
1471.	MA'LOPE. <i>W.</i>	MALOPE.	Malvaceæ.	Sp. 2-4.					
9707	malacoides <i>W.</i>	Barbary	1 in.jl	Pu	Barbary	1710.	C s.l	Cav. dis. 2. t. 27. f. 1	
9708	trifida <i>W.</i>	trifid	1 jl	Pu	Barbary	1808.	S s.l	Cav. dis. 2. t. 27. f. 2	
1472.	MAL'VA. <i>W.</i>	MALLOW.	Malvaceæ.		Sp. 56-82.				
9709	tricuspidata <i>H. K.</i>	Jamaica	1 jl.au	Y	W. Indies	1726.	C co	Cav. dis. 2. t. 22. f. 2	
9710	americana <i>W.</i>	American	1 in.jl	Y	W. Indies	1756.	S co		
9711	scabra <i>W.</i>	rough-stemmed	4 in.jl	Y	Peru	1798.	C co	Ca. dis. 5. t. 138. f. 1	
9712	scoparia <i>W.</i>	Birch-leaved	6 au.s	Y	Peru	1782.	C co	Jac. ic. 1. t. 139	
9713	borbonica <i>W. en.</i>	Bourbon	4 jl.au	Y	Mauritius	1816.	C co		
9714	polystachya <i>W.</i>	many-spiked	6 jl.au	Y	Peru	1798.	C co	Ca. dis. 5. t. 138. f. 3	
9715	spicata <i>W.</i>	simple-spiked	2 s.o	O	Jamaica	1726.	C co	Cav. dis. 2. t. 20. f. 4	
9716	tomentosa <i>L.</i>	downy	3 s.o	Y	E. Indies	1820.	C co	Pluk. t. 356. f. 1	
9717	Waltherifolia <i>Link.</i>	soft-leaved	1 1/2	...	Java	1824.	D co		
9718	trachelifolia <i>Link.</i>	pointed	1 1/2	jl.au	Y	.....	1821.	S co	
9719	gangetica <i>L.</i>	Ganges	1 jl.au	Y	E. Indies	1823.	S co	Plu. alm. t. 74. f. 6	
9720	domingensis <i>Spr.</i>	Domingo	2 jl.au	Y	St. Domin.	1824.	S co		
9721	leprosa <i>W. en.</i>	leprous	2 my.jl	Pu	Cuba	1815.	C co		
9722	cretica <i>Cav.</i>	Candian	1 my.jl	Pu	Candia	1825.	S co		
9723	hispanica <i>W.</i>	Spanish	1 jl	Pu	Spain	1710.	S co	Ca. dis. 5. t. 138. f. 2	
9724	stipulacea <i>W.</i>	long-stipuled	1 in.au	Pu	Spain	1815.	S co	Cav. dis. 2. t. 15. f. 2	
9725	egyptia <i>W.</i>	Egyptian	1 in.jl	L.B	Egypt	1739.	S co	Cav. dis. 2. t. 15. f. 2	
9726	trifida <i>W.</i>	large-flowered	1 in.jl	Pu	Spain	1815.	S co	Ca. dis. 2. t. 17. f. 1	
9727	Tournefortiana <i>W.</i>	Tournefort's	3 jl.au	B	Spain	1759.	S co	Cav. dis. 2. t. 137. f. 2	
9728	Alcea <i>W.</i>	Yervain	3 jl.au	Pu	Germany	1597.	D co	Bot. mag. 2297	
9729	moschata <i>L.</i>	musk	2 jl.au	F	Britain	bor. fi.	D co	Eng. bot. 754	
	<i>β undulata</i> Sims.	wavy	2 jl.au	W	.....	.....	D co	Bot. mag. 2298	
9730	althaeoides <i>Cav.</i>	Althæa-like	2 jl.au	Pu	Spain	1822.	S co	Bot. diss. 2. t. 135	
9731	mauritanica <i>W.</i>	Ivy-leaved	6 in.jl	Pk	S. Europe	1768.	S co	Sweet fl. gard. 81	
9732	sylvestris <i>W.</i>	common	4 my.o	Pu	Britain	was. pl.	D co	Eng. bot. 671	
9733	rotundifolia <i>W.</i>	round-leaved	1 1/2 in.s	F	Britain	ro. sid.	S co	Eng. bot. 1092	
	<i>β pusilla</i> Sm.	dwarf	3 in.s	Pu	Britain	ro. sid.	S co	Eng. bot. 241	
9734	braziliensis <i>Dec.</i>	Brazil	2 in.s	Pu	R. Janeiro	1824.	S co		
9735	microcarpa <i>Desf.</i>	small-fruited	2 in.s	Pu	Egypt	1823.	D co		
9736	parvisiflora <i>W.</i>	small-flowered	2 in.jl	Pu	Barbary	1779.	C co	Cav. dis. 2. t. 26. f. 1	
9737	verticillata <i>W.</i>	whorl-flowered	2 in.jl	Pu	China	1683.	S co	Cav. dis. 2. t. 25. f. 3	
9738	crispa <i>W.</i>	curled	5 in.au	W	Syria	1573.	S co	Cav. dis. 2. t. 23. f. 1	
9739	amœna <i>Sims.</i>	pleasant	3 ap.my	Pu	C. G. H.	1796.	C co	Bot. mag. 1998	
9740	virgata <i>W.</i>	twiggy	6 my.jl	Pu	C. G. H.	1727.	C co	Cav. dis. 2. t. 18. f. 2	
9741	capensis <i>W.</i>	Cape	10 ja.d	R	C. G. H.	1713.	C pl	Bot. reg. 295	
9742	balsamica <i>W.</i>	balsamic	4 my.s	Pu	C. G. H.	1800.	C co	Jac. ic. 1. t. 140	
9743	tridactylites <i>W.</i>	reflex-flowered	3 in.au	Pk	C. G. H.	1791.	C pl	Bot. rep. 135	
9744	divaricata <i>H. K.</i>	straddling	3 in.s	W.vy	C. G. H.	1792.	C co	Bot. reg. 182	
9745	retusa <i>W.</i>	blunt-leaved	4 mr.my	Pk	C. G. H.	1803.	C pl	Cav. dis. 2. t. 21. f. 1	
9746	calycina <i>W.</i>	large-calyxed	4 my.au	R	C. G. H.	1812.	S co	Bot. reg. 297	
9747	fragrans <i>W.</i>	fragrant	3 my.jl	Sc	C. G. H.	1759.	C co	Bot. reg. 296	
9748	stricta <i>W.</i>	upright	3 my.au	W.vy	C. G. H.	1805.	C co	Jac. schœ. 3. t. 294	
9749	bryoniifolia <i>W.</i>	Bryony-leaved	4 jl.au	Pu	C. G. H.	1731.	C co	W. hor. ber. 1. t. 4	
9750	grossularifolia <i>W.</i>	Gooseberry-lv.	3 my.s	Pk	C. G. H.	1732.	C pl	Bot. reg. 561	
9751	asperrima <i>W. en.</i>	roughest	3 in.s	R	C. G. H.	1796.	C co	Jac. schœn. 2. t. 39	
9752	lactea <i>W.</i>	panicked white	4 ja.f	W	Mexico	1780.	C co	Cav. ic. 1. t. 20	
9753	miniata <i>W.</i>	painted	4 my.jl	Ve	S. Amer.	1798.	C pl	Cav. ic. 3. t. 278	
9754	operculata <i>W.</i>	lid-capsuled	3 jl.au	R	Peru	1795.	C co	Cav. dis. 2. t. 35. f. 1	
9755	peruviana <i>W.</i>	Peruvian	2 in.au	Pu	Peru	1759.	S co	Jac. vind. 2. t. 156	
9756	limensis <i>W.</i>	blue-flowered	4 jl	B	Peru	1768.	S co	Jac. vind. 2. t. 141	
9757	capitata <i>W.</i>	various-leaved	1 n.d	R	Peru	1798.	S co	Ca. dis. 5. t. 137. f. 1	
9758	umbellata <i>Cav.</i>	umbelled	4 ja.mr	Cr	S. Amer.	1814.	C co	Bot. cab. 222	
9759	abutiloides <i>W.</i>	Bahama	4 in.s	W	Bahama I.	1725.	C co	Bot. mag. 2544	
9760	elogans <i>W.</i>	elegant	3 my.au	R	C. G. H.	1791.	C pl	Jac. col. 4. t. 6. f. 1	
9761	angustifolia <i>W.</i>	narrow-leaved	3 au	St	Mexico	1780.	C pl	Cav. ic. 1. t. 68	
9762	caroliniana <i>W.</i>	creeping	1 in.jl	R	Carolina	1723.	C co	Cav. dis. 2. t. 15. f. 1	
9763	prostrata <i>W.</i>	trailing	1 in.au	Pk	Brazil	1806.	S co	Bot. mag. 2515	
9764	decumbens <i>W. en.</i>	procumbent	1 in.s	Pk	S. Amer.	1815.	D co		

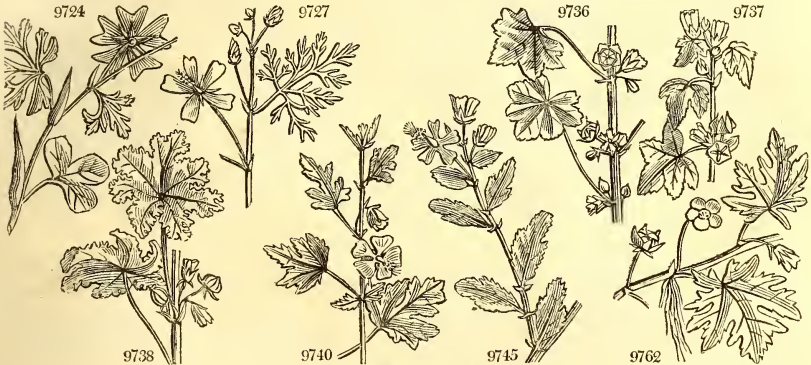


History, Use, Propagation, Culture,

1471. *Malope*. A name given by the Greeks to the Tree Mallow.
 1472. *Malva*. Altered by the Latins from the Greek word, *μαλαχη*, soft, in allusion to the soft mucilaginous qualities of the species. Some of the species are shewy plants, and *M. capensis* is valued in small greenhouses as flowering all the year. *M. sylvestris*, *Mauve*, Fr., has still a place in the *Materia Medica*, on account of its

POLYANDRIA.

- 9707 Leaves ovate crenate, Stipules oblong-linear
 9708 Leaves 3-nerved trifid toothed smooth : lobes acuminate
- 9709 Leaves oblong or ovate acute serrate, Flowers axillary clustered
 9710 Leaves ovate acute crenate serrate hairy, Fl. axillary subsolitary
 9711 Leaves ovate-lanceolate doubly toothed obsoletely 3-lobed beneath rough, Peduncles axillary 2-flowered
 9712 Leaves ovate crenate-serrate beneath velvety, Fl. axillary clustered
 9713 Leaves ovate acute coarsely toothed pubescent ; upper cuneate at base, Fl. axillary and terminal spiked
 9714 Leaves ovate acuminate serrate rough, Fl. axillary and terminal spiked
 9715 Leaves ovate or subcordate rough above downy beneath, Flowers in ovate spikes
 9716 Leaves cordate crenate blunt and branches downy, Flowers lateral heaped
 9717 Leaves subcordate acute toothed downy beneath, Fl. sessile, Lobes of calyx ovate
 9718 Leaves cordate acuminate serrated rough ; lower lobed, Pedunc. axillary, Flowers in heads
 9719 Leaves cordate blunt smooth, Flowers sessile heaped
 9720 Dwarfs, Leaves ovate toothed : adult smoothish ; younger hairy, Fl. axillary solitary on short stalks
 9721 Leaves reniform broadly crenate and branches leprous, Stems prostrate
 9722 Leaves cordate roundish 5-angled crenate villous, Pedicels longer than petiole
 9723 Leaves half orbicular crenate ; upper rhomboid, Stem erect hairy
 9724 Lower leaves 3-lobed entire ; upper multifid, Segm. trifid toothed at end
 9725 Leaves 3-parted, Segm. trifid ciliated toothed at end, Cor. less than calyx
 9726 Leaves 3-parted, Segm. trifid linear blunt, Cor. 3 times as large as calyx
 9727 Leaves many-parted : lobes trifid linear, Stem decumbent, Hairs stellated
 9728 Lower leaves angular ; upper 5-parted cut, Stems and calyxes velvety
 9729 Lower leaves reniform cut ; cauline many-parted, Segments linear, Stems and calyxes hairy
- 9730 Leaves palmated : lobes lanceolate toothed, Hairs simple, Pedicels longer than leaf
 9731 Stem erect, Leaves 5-lobed blunt, Pedicels and petioles smoothish or downy on the upper side
 9732 Stem erect, Leaves 5-7-lobed acute, Pedicels and petioles hairy
 9733 Stem prostrate, Leaves cord. orbic. bluntly 5-lobed, Pedicels in fruit drooping and petioles downy
- 9734 Stem diffuse, Lvs. cord. orbicular 7-lobed soft : lobes acute, Fls. aggreg. stalked, Leaves of involucre bristly
 9735 Stem erect, Leaves cordate roundish about 5-lobed crenate smooth, Fl. axillary sessile clustered
 9736 Stem spreading, Leaves roundish bluntly angular crenate smoothish, Fl. axillary sessile clustered
 9737 Stem erect, Leaves cordate roundish bluntly angular, Fls. axill. clustered sess. Cal. rough somew. inflated
 9738 Stem erect, Leaves angular toothed crisp smooth, Flowers axillary sessile
 9739 Pedicels 1-flowered aggregate shorter than leaf, Invol. ovate acuminate, Leaves 5-lobed hairy rugose
 9740 Pedicels 1-flowered solitary or twin longer than petiole, Invol. linear, Leaves cut crenate smooth rigid
 9741 Pedicels 1-fl. solitary or twin longer than petiole, Inv. ov. lanc. Lvs. 5-lobed or 3-lobed cren. toothed glutin.
 9742 Pedicels 1-fl. solitary longer than petiole, Invol. obl. linear, Lvs. sub-three-lobed acute unequally toothed
 9743 Pedicels 1-flowered solitary length of leaves, Leaves subsessile cuneiform trifid entire
 9744 Pedicels solitary longer than petiole, Leaves lobate plaited toothed roughish, Branches divaricating
 9745 Pedicels solitary longer than petiole, Invol. lanceolate, Leaves oblong very blunt 3-lobed toothed
 9746 Pedicels solitary 1-fl. twice as long as petiole, Invol. ovate acute very large, Leaves cordate crenate hairy
 9747 Pedicels solitary 1-fl. length of petiole, Invol. lanc. Leaves cordate 5-lobed toothed, Branches glutinous
 9748 Pedicels solitary 1-fl. length of petiole, Invol. nearly linear, Leaves ovate about 3-lobed toothed hairy
 9749 Pedicels solitary 1 or 2-fl. shorter than petiole, Leaves cordate about 5-lobed blunt rough with stellat. hair
 9750 Pedicels solitary 1-3-fl. length of petiole, Invol. obl. linear, Leaves sinuate lobed serrate rugose hairy
 9751 Pedicels 1-2-fl. solitary longer than petiole, Invol. linear, Leaves 5-lobed blunt rugose very rough
 9752 Leaves angular acute cordate villous, Petals obovate shorter than calyx, Pedunc. panicled
 9753 Leaves ovate 3-lobed toothed downy, Pedunc. axillary racemose few-flowered
 9754 Leaves angular 5-lobed ; middle lobe largest, Pedunc. axillary racemose, Flowers 1-sided
 9755 Leaves palmate, Spikes axillary 1-sided, Fruit toothletted
 9756 Leaves 7-lobed rugose, Spikes axillary 1-sided, Fruit smooth
 9757 Leaves 5-lobed : lobes pinnatifid sinuate toothed, Pedunc. corymbose capitate, Fruit with two beaks
 9758 Leaves subpeltate 5-lobed blunt, Pedunc. axillary umbelled, Invol. obovate stipitate deciduous
 9759 Leaves 5 angular downy, Pedunc. axillary bifid few-flowered, Invol. oblong small
 9760 Leaves 3-parted hoary, Segm. toothed at end ; middle trifid, Pedunc. axillary 1-flowered
 9761 Leaves lanceolate toothed downy, Pedunc. axillary 2 few-fl. Invol. setaceous deciduous
 9762 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit villous
 9763 Leaves palmate 5-lobed cut toothed, Pedicels solitary longer than petiole, Fruit smooth, Petals entire
 9764 Leaves ovate cut toothed lobed, Pedicels longer than petiole, Fruit villous, Petals entire



and Miscellaneous Particulars.

demulcent properties ; but it is greatly inferior to Althæa, and therefore little used. Malva was an excellent vegetable among the Romans, but what species is uncertain. A tree of the mallow kind is said, by Prosper Alpinus, to afford food to the Egyptians ; and the Chinese use some sort of mallow as food.

All the species are of the easiest culture and propagation.

1473. KITAIBELIA. W. KITAIBELIA.					Malvaceæ.	Sp. 1.							
9765 vitifolia W.	Vine-leaved	Δ	or	5	jl.s	W	Hungary	1801.	D	p.l	Bot. mag.	821	
1474. ALTHEA. W.	MARSH MALLOW.				Malvaceæ.	Sp. 11—20.							
9766 officinalis W.	common	Δ	m	6	jl.s	F	Britain	salt m.	D	co	Eng. bot.	147	
9767 narbonensis W.	Narbonne	Δ	or	6	au.s	Pk	S. Europe	1780.	D	co	Cav. dis. 2. t. 29. f. 2		
9768 cannabina W.	Hemp-leaved	Δ	or	6	jn. jl	Pu	S. Europe	1597.	D	co	Cav. dis. 2. t. 30. f. 1		
9769 hirsuta W.	hairy	Δ	or	6	jn. jl	Pu	S. Europe	1683.	S	co	Cav. dis. 2. t. 29. f. 1		
9770 Ludwigii W.	Ludwig's	Δ	or	6	jn. jl	Pk	Sicily	1791.	S	co	Cav. dis. 2. t. 30. f. 3		
9771 acutalis W.	stemless	Δ	or	1 1/2	jn. jl	Pu	Aleppo	1680.	S	co	Cav. dis. 2. t. 27. f. 3		
9772 rosea W.	Hollyhock	Δ	or	8	jl.s	R	China	1573.	S	co	Cav. dis. 2. t. 28. f. 1		
9773 pallida W.	pale-flowered	Δ	or	6	jl. au	W	Hungary	1805.	S	co			
9774 caribæa B. M.	West Indian	Δ	or	3	mr. ap	Pk	W. Indies	1816.	S	co	Bot. mag.	1916	
9775 flexuosa B. M.	Seringapatam	Δ	or	3	jn. au	Pk	E. Indies	1803.	D	co	Bot. mag.	892	
9776 ficifolia W.	Antwerp Hollyh.	Δ	or	6	jn.s	O	Levant	1597.	S	co	Cav. dis. 2. t. 28. f. 2		
1475. LAVATERA. W.	LAVATERA.				Malvaceæ.	Sp. 13—26.							
9777 arborea W.	Tree Mallow	Δ	or	6	jl.o	Pu	Britain	sea cl.	S	co	Eng. bot.	1841	
9778 micans W.	glittering	Δ	or	3	jn. jl	Pu	Spain	1796.	C	co	Mo. his. 1. t. 17. f. 9		
9779 O'liba W.	downy-leaved	Δ	or	3	jn.o	R. Pu	France	1570.	C	s.l	Cav. dis. 2. t. 32. f. 2		
9780 unguiculata P. S.	clawed	Δ	or	6	jl.s	Li	.....	1807.	C	co			
9781 hispida P. S.	hispid	Δ	or	6	jn. jl	Pk	Algiers	1804.	C	co	Bot. mag.	2541	
9782 triloba W.	three-lobed	Δ	or	3	jn. jl	L. Pu	Spain	1759.	C	s.l	Bot. mag.	2226	
9783 lusitânica W.	Portugal	Δ	or	3	au.s	Pu	Portugal	1731.	C	s.l			
9784 plebeia Sims.	vulgar	Δ	or	2	s	Pa	N. Hoil.	1820.	D	co	Bot. mag.	2269	
9785 maritima W.	sea-side	Δ	or	2	ap. jn	W	S. Europe	1597.	S	s.l	Cav. dis. 2. t. 32. f. 3		
9786 thuringiaca W.	large-flowered	Δ	or	4	jl.s	L.B	Germany	1731.	D	co	Bot. mag.	517	
9787 cretica W.	Creten	Δ	or	1	jl.s	L.B	Candia	1723.	S	co	Jac. vind. 1. t. 41		
9788 punctata W.	spotted-stalked	Δ	or	2	jl.s	Pa	Italy	1800.	S	co			
9789 trimestris W.	common annual	Δ	or	2	jl.s	F	S. Europe	1633.	S	co	Bot. mag.	109	
1476. MALACHRA. W.	MALACHRA.				Malvaceæ.	Sp. 3—14.							
9790 capitata W.	headed	un		1	au.s	W	W. Indies	1759.	S	lt. 1	C. dis. 2. t. 33. f. 1, 2		
9791 alceifolia W.	Hollyhock-lyd.	un		1	au.s	Y	Caraccas	1805.	S	lt. 1	Jac. ic. 3. t. 549		
9792 radiata W.	rayed	un		1	jl. au	W	St. Domin.	1794.	S	lt. 1	Cav. dis. 2. t. 33. f. 3		
1477. URENA. W.	URENA.				Malvaceæ.	Sp. 4—21.							
9793 lobata W.	angular-leaved	un		2	jn. jl	F	China	1731.	C	p.l	Ca. dis. 6. t. 185. f. 1		
9794 americana W.	American	un		2	...	W	Surinam	1816.	C	p.l	Sloane 1. t. 11. f. 2		
9795 sinuata W.	cut-leaved	un		3	jl. au	F	E. Indies	1759.	C	p.l	Ca. dis. 6. t. 185. f. 2		
9796 multifida W.	multiid	un		2	ja.o	Pu	E. Indies	1817.	C	p.l	Ca. dis. 6. t. 184. f. 2		
1478. PAVONIA. W.	PAVONIA.				Malvaceæ.	Sp. 7—24.							
9797 premorsâ W.	bitten-leaved	un		1/2	jn. au	W	C. G. H.	1774.	C	s.l	Bot. mag.	436	
9798 spinifex W.	prickly-seeded	un		2	jl. au	W	W. Indies	1778.	C	s.l	Jac. vind. 2. t. 103		
9799 odorata W.	fragrant	un		2	...	R	E. Indies	1807.	C	s.l			
9800 cocinea W.	scarlet	un		2	...	Sc	St. Domin.	1816.	C	s.l	Cav. dis. 3. t. 47. f. 1		
9801 columella W.	angular-leaved	un		2	jl	W. pu	Bourbon	1807.	C	s.l	Cav. dis. 3. t. 48. f. 3		
9802 urens W.	stinging	un		2	...	W	Mauritius	1801.	C	s.l	Jac. ic. 3. t. 522		
9803 zeylanica W.	Ceylon	un		3	jl.s	W	E. Indies	1790.	S	s.l	Cav. dis. 3. t. 48. f. 2		
1479. ACHA'NIA. W.	ACHANIA.				Malvaceæ.	Sp. 3—15.							
9804 Malvaviscus W.	scarlet	un		12	ja. d	S	Jamaica	1714.	C	p.l	Bot. mag.	2305	
9805 mollis W.	woolly	un		12	au.s	S	America	1780.	C	p.l	Bot. reg.	11	
9806 pilosa W.	hairy	un		12	o.n	R	Jamaica	1780.	C	p.l	Bot. cab.	829	
1480. HIBISCUS. W.	HIBISCUS.				Malvaceæ.	Sp. 46—125.							
9807 Moscheutos Ph.	swamp	un		2	au.o	Pu	N. Amer.	...	D	p.l	Cav. dis. 3. t. 65. f. 1		
9808 palustris Ph.	marsh	un		3	jl.s	Pk	N. Amer.	1759.	D	p.l	Cav. dis. 3. t. 65. f. 2		
9809 Patersonii H. K.	Norfolk Island	un		15	jn. au	Pu	Norfolk I.	1792.	C	s.p	Bot. rep.	286	



History, Use, Propagation, Culture,

1473. *Kitabelia*. Named after Dr. Paul Kitabel, professor of botany at Pest, in Hungary, and author, in conjunction with Count Waldstein, of a noble work upon the plants of that country. A tall mallow-like plant with vine-like leaves, and white flowers.

1474. *Althea*. From *al. thea*, to cure. The salutary effects of the mucilaginous root, are well known in medicine. *Guimauve*, Fr. A. officinalis has long been in repute as a demulcent. Its roots are sometimes used as an emollient suppurative cataplasm; and a decoction of the leaves forms a useful fomentation in external abrasions, and in cutaneous eruptions, accompanied with a sharp ichorous discharge.

A. rosea is the parent of nearly twenty splendid varieties of border flowers, which seed readily, and the offspring generally resembles the parent variety. All the species are of the easiest culture in common garden soil.

1475. *Lavatera*. In memory of two Lavaters, physicians of Zurich, neither the physiognomist, but two friends of Tournefort. The species resemble those of Malva, in general appearance and culture: much the handsomest is *L. arborea*, which is a magnificent plant in shrubberies, or in the back of wide borders.

9765 Leaves 5-lobed acute toothed

- 9766 Leaves soft on each side cordate or ovate toothed undivided or 3-lobed, Pedunc. axillary many-fl.
 9767 Leaves pubescent : lower 5-7-parted ; upper trifid, Peduncles many-fl. longer than leaf
 9768 Leaves downy hoary beneath : lower palmate ; upper 3-parted : lobes narrow coarsely toothed
 9769 Leaves cordate rough with hairs smooth above : lower blunt ; upper 5-lobed, Stem hispid
 9770 Leaves smooth cordate roundish lobed toothed, Pedicels axillary clustered 1-flowered
 9771 Leaves roundish cordate 5-angled crenate, Pedicels 1-fl. much shorter than petiole
 9772 Stem upright hairy, Leaves cordate 5-7-angled crenate rugose, Flowers axillary sessile
 9773 Stem erect hispid, Leaves roundish cordate, Invol. as long as calyx
 9774 Stem upright smoothish, Leaves rounded lobed crenulate serrate, Flowers solitary subsessile
 9775 Stem subflexuose hispid, Leaves cordate about 7-lobed blunt on long stalks, Flowers axillary solitary
 9776 Stem erect hairy, Leaves palmate 7-lobed beyond the middle : lobes oblong blunt irregularly toothed

- 9777 Leaves 7-angled downy plicate, Pedicels axillary 1-fl. clustered much shorter than petiole
 9778 Leaves 7-angled acute crenate plaited downy, Racemes terminal
 9779 Leaves soft hoary 5-lobed ; upper 3-lobed : middle lobe elongated ; upper oblong undivided
 9780 Leaves downy on each side acutely 5-lobed ; upper 3-lobed, Flowers solitary on short stalks
 9781 Stem hispid, Leaves hoary 5-lobed ; upper 3-lobed or undivided, Flowers subsessile
 9782 Stem and leaves downy subcordate sub-three-lobed round crenate, Pedicels aggregate, Calyxes acuminate
 9783 Leaves 7-angular downy plaited, Racemes terminal
 9784 Stem rough, Leaves 5-lobed downy beneath, Pedunc. axillary aggregate, Petals emarginate
 9785 Stem and leaves downy roundish bluntly angular crenate, Pedicels axillary solitary
 9786 Leaves somewhat downy : lower angular ; upper 3-lobed : middle lobe longer than the rest
 9787 Stem herbaceous hispid, Leaves 5-lobed acute, Pedicels axillary 1-flowered aggregate
 9788 Stem rough, Leaves somewhat downy : lower round cordate ; upper 3-lobed, Pedicels solitary 1-fl.
 9789 Stem herbaceous, Leaves smoothish roundish cordate ; upper angular, Pedicels solitary

- 9790 Leaves cordate roundish bluntly angular toothletted, Invol. stalked 3-leaved 7-flowered, Stem rough
 9791 Leaves cordate palmate 5-lobed, Heads stalked 5-leaved 10-flowered, Stem with scattered hairs
 9792 Leaves palmate-lobed, Heads stalked 5-leaved many-flowered, Invol. acuminate, Calyxes and stems hairy

- 9793 Leaves roundish very bluntly 3-lobed velvety on each side 7-nerved 1-glanded, Cal. oblong lanceolate
 9794 Lower leaves 3-lobed ; upper lanceolate panduriform beneath hoary netted with one gland
 9795 Leaves trifid downy pale beneath with 3 glands : lobes angular toothletted blunt
 9796 Leaves broad ovate cut lobed with narrow recesses : lobes acute coarsely and unequally toothed

- 9797 Leaves broadly obovate truncate crenate at end, Pedic. axillary 1-fl. longer than leaf
 9798 Leaves ovate acuminate subcordate doubly toothed, Pedicels axillary 1-fl.
 9799 Leaves ovate subcordate 3-pointed somewhat toothed and branches covered with viscid hairs
 9800 Leaves cordate 3-lobed serrate, Pedicels axillary 1-fl. ascending, Involucre 3-leaved
 9801 Leaves 5-angular : lobes toothed acuminate, Pedic. axillary 1-fl. much shorter than petiole
 9802 Leaves 7-angular acuminate toothed hairy, Fl. axillary subsessile clustered
 9803 Lower leaves roundish cord. crenate others 3-5-lob. Pedicels axillary 1-fl. Inv. 10-leaved setaceous ciliated

- 9804 Leaves cordate 3-5-lobed acuminate roughish, Leaflets of invol. erect
 9805 Leaves cordate about 3-lobed acuminate soft downy, Leaf. of invol. somewhat spreading
 9806 Leaves cordate crenate blunt or acuminate, Branches and petioles hairy

- 9807 Leaves ovate acuminate serrate downy beneath, Invol. and cal. downy
 9808 Leaves ovate toothed somewhat 3-lobed hoary with down beneath
 9809 Leaves lanceolate oblong entire white with scales beneath



and Miscellaneous Particulars.

1476. *Malachra*. A name under which Pliny speaks of a tree from the north of Persia, producing a certain gum. It had no reference to the plant called *Malachra* by the moderns. Sow in light rich soil, and transplant as with other stove annuals.

1477. *Urena*, the vernacular name in Malabar. The species are of easy culture, seed freely, or may be propagated by cuttings in sand under a hand-glass.

1478. *Pavonia*. In honor of Don José Pavon, the companion of Dombey, in his voyage to Peru, and one of the authors of *Flora Peruviana*. The species are free-growers, and seed readily : they are also increased by cuttings in sand under a hand-glass.

1479. *Achania*. From *αχαιος*, closed ; so called because the corolla does not open out as in most Malvaceous plants, but remains always rolled together.

1480. *Hibiscus*. One of the Greek names of the mallow. The species are for the most part showy plants, and not difficult of culture. All of them abound in mucilage, like many of the same natural family, and the

9810	<i>incanus Ph.</i>	hoary	△ or	3 s	Y	Carolina	1806.	D s.p	W.hort.ber. t.24
9811	<i>militaris Ph.</i>	smooth	△ or	3 au.s	Pu	Louisiana	1804.	D s.p	Bot. mag. 2385
9812	<i>populneus W.</i>	Poplar-leaved	□ or	15 ...	W	E. Indies	1770.	C p.l	Rhee.mal.1. t.29
9813	<i>tiliaceus W.</i>	Lime-tree-ldv.	□ or	10 jl.au	Pu	E. Indies	1730.	C p.l	Bot. reg. 232
9814	<i>elatus Sw.</i>	tall	□ or	20 ...	Pu	Jamaica	1790.	C p.l	
9815	<i>Lampas W.</i>	three-pointed	□ or	10 ...	Pk	E. Indies	1806.	C p.l	Cav.dis.3.t.56.f.2
9816	<i>Rosa Malabárica Ker.</i>	Malabar	□ or	2 au.s	Sc	E. Indies	1818.	C p.l	Bot. reg. 357
9817	<i>membranaceus W.</i>	leafy-calyced	□ or	10 ...	Pk	.....	1816.	C s.l	Cav.dis.3.t.57.f.2
9818	<i>lunarifolius W.</i>	Lunaria-leaved	□ or	10 ...	Pu	E. Indies	.....	C s.l	
9819	<i>Rosa-sinensis W.</i>	Chinese	□ or	10 jl.au	D.R	E. Indies	1731.	C p.l	Bot. mag. 158
	<i>β rubro-plenus</i>	double red	□ or	10 jl.au	D.R	E. Indies	.....	C p.l	Bot. cab. 519
	<i>γ flavo-plenus</i>	double buff	□ or	10 jl.au	Y	E. Indies	.....	C p.l	
	<i>δ variegatus plenus</i>	double striped	□ or	10 jl.au	St	E. Indies	.....	C p.l	Bot. cab. 963
	<i>ε tucnus</i>	double yellow	□ or	8 jl.au	Pu	E. Indies	1796.	C p.l	Bot. cab. 930
9820	<i>pheniceus W.</i>	purple-flowered	□ or	6 ...	Pu	E. Indies	1794.	C p.l	Bot. reg. 232
9821	<i>micranthus H. K.</i>	small-flowered	□ or	6 ...	Pu	C. G. H.	1774.	C p.l	Cav.dis.3.t.66.f.1
9822	<i>athyrius W.</i>	dwarf wedge-iv.	□ or	15 o.d	W	E. Indies	1630.	C p.l	Cav.dis.3.t.61.f.1
9823	<i>mutabilis W.</i>	changeable	□ or	15 o.d	W	E. Indies	.....	C p.l	Bot. rep. 228
	<i>α flore pleno</i>	double-flowered	□ or	8 au.s	Pu	Syria	1596.	L co	Bot. mag. 83
9824	<i>syriacus W.</i>	Althæa frutex	□ or	8 au.s	Ru	.....	.....	L co	
	<i>α purpureus</i>	purple-flowered	□ or	8 au.s	Ru	.....	.....	L co	
	<i>β ruber</i>	red-flowered	□ or	8 au.s	Ru	.....	.....	L co	
	<i>γ albus</i>	white-flowered	□ or	8 au.s	W	.....	.....	L co	
	<i>δ variegatus</i>	striped-flowered	□ or	8 au.s	St	.....	.....	L co	
	<i>ε albo-plenus</i>	double white	□ or	8 au.s	W	.....	.....	L co	
	<i>ζ purpureo-plenus</i>	double purple	□ or	8 au.s	Pu	.....	.....	L co	
9825	<i>acrifolius P. L.</i>	Maple-leaved	□ or	5 mr.jn	Pk	China	1798.	C s.l	Par. lond. c. ic.
9826	<i>diversifolius W.</i>	different-leaved	□ or	6 in.jl	Y	E. Indies	1798.	C s.l	Bot. reg. 381
9827	<i>ficulneus W.</i>	Fig-leaved	□ or	4 in.jl	W	Ceylon	1732.	C p.l	Cav.dis.3.t.52.f.2
9828	<i>Sabdariffa W.</i>	Indian	□ or	2 in.s	Y	E. Indies	1596.	C p.l	Ca.dis.6.t.198.f.1
9829	<i>speciosus W.</i>	superb	□ or	2 in.au	S	Carolina	1778.	C s.l	Bot. mag. 360
9830	<i>priricus B. R.</i>	stinging	□ or	3 jls	Y	E. Indies	1804.	C s.l	Bot. rep. 498
9831	<i>heterophyllus H. K.</i>	various-leaved	□ or	6 au.s	W.R	N. S. W.	1803.	C s.p	Bot. reg. 29
9832	<i>cannabinus W.</i>	Hemp-leaved	□ or	5 in.jl	Y	E. Indies	1759.	C s.l	Rox. cor. 2.t.190
9833	<i>surattensis W.</i>	prickly-stalked	□ or	2 jls	Y	E. Indies	1731.	S s.l	Bot. mag. 1356
9834	<i>radiatus W.</i>	rayed	□ or	2 in.au	Y	E. Indies	1790.	S s.l	Bot. mag. 1911
9835	<i>Manihot W.</i>	palmated	□ or	3 jls	Y	China	1712.	C p.l	Bot. mag. 1702
9836	<i>scaber Ph.</i>	scabrous	□ or	2 jls	Y	Carolina	1810.	D s.l	
9837	<i>furcatus W. cn.</i>	forked-calyced	□ or	2 jls	Y	E. Indies	1816.	C s.l	
9838	<i>digitatus Cav.</i>	digitate	□ or	2 jls	W.R	Brazil	1816.	S co	Bot. reg. 608
9839	<i>Abelmoschus W.</i>	Musk Okro	□ or	3 jls	Y	India	1640.	C r.m	Rhee.mal.2. t.38
9840	<i>pedunculatus W.</i>	long-peduncled	□ or	2 my.d	R	C. G. H.	1812.	C s.l	Bot. reg. 231
9841	<i>esculentus W.</i>	eatable	□ or	4 in.jl	Y	W. Indies	1692.	S r.m	Cav.dis.3.t.61.f.2
9842	<i>strigosus Lindl.</i>	strigose	□ or	6 in.jl	Pk	Peru	1820.	C s.l	Bot. reg. 860
9843	<i>glypeatus W.</i>	shield-capsuled	□ or	6 jl.au	Y	Jamaica	1759.	C p.l	Cav.dis.3.t.58.f.
9844	<i>undens Lindl.</i>	one-toothed	□ or	3 jl	Y	Brazil	1822.	C co	Bot. reg. 878
9845	<i>tubulosus W.</i>	tubular	□ or	2 jl.o	Y	E. Indies	1796.	C s.l	Cav.dis.3.t.68.f.2
9846	<i>vitifolius W.</i>	Vine-leaved	□ or	2 jl.o	Y	E. Indies	1690.	C p.l	Rhee.mal.6.t.46
9847	<i>virginicus W.</i>	Virginian	□ or	2 jls	Y	Virginia	1798.	D s.l	Jac. ic. 1. t. 142
9848	<i>pentacarpos W.</i>	angular-fruited	□ or	3 jls	L.R	Venice	1752.	S s.l	Jac. ic. 1. t. 143
9849	<i>vesicarius W.</i>	African	□ or	1½ jl.au	Y.Br	Africa	1713.	S co	Cav.dis.3.t.64.f.2
9850	<i>Trionum W.</i>	Bladder Ketmia	□ or	2 in.s	Y.Br	Italy	1596.	S co	Bot. mag. 209
9851	<i>hispidus Mill.</i>	hispid	□ or	1½ in.s	Y.Br	C. G. H.	.....	S co	Bot. reg. 806
9852	<i>Richardsoni Lindl.</i>	rough-leaved	□ or	3 in.s	Y	N. Holl.	1820.	S co	Bot. reg. 875



History, Use, Propagation, Culture,

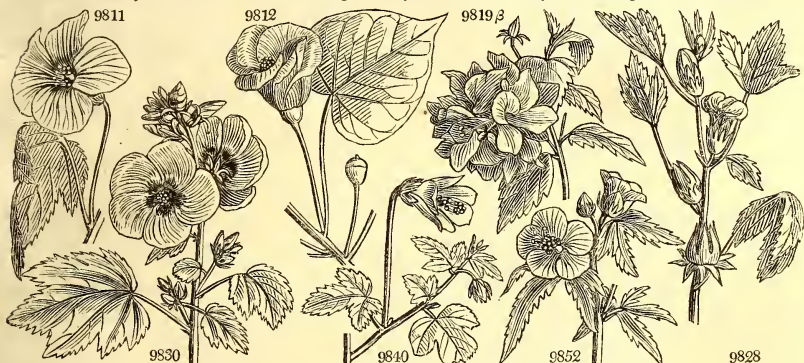
bark of the ligneous sorts may be manufactured into mats or cordage. Of *H. tiliaceus*, in the island of Otaheite, they make matting of the bark, as fine as our coarse cloth; also ropes and lines, from the size of an inch to that of a small packthread; and fishing nets. (*Hawks. Voy.* ii. 217.) Forster informs us, they also suck this bark for food, when the bread-fruit fails them; and in New Caledonia, the inhabitants frequently subsist on it, though it is an insipid food, affording very little nourishment.

H. Rosa-sinensis is extremely common in the gardens of China, and the East Indies; but its native country is unknown. Loureiro, however, affirms, that it is spontaneous as well as cultivated both in China and Cochín-China; and that it is so common in the latter, that they have entire hedges of it to their gardens. It has been long known from its appearance on Chinese screens and paper hangings. The variety with double flowers is most frequently cultivated, both in the East and in European hothouses: the plant is, indeed, rarely seen with single flowers. (*Smith, spicil.*)

H. syriacus is one of our most beautiful hardy shrubs, the more valuable as it is a free-flowerer, will grow in common garden soil, and propagates freely by seeds, layers, and even by cuttings.

H. Sabdariffa (the Turkish name) in the West Indies is called Red Sorrel. The calyxes and capsules, freed

- 9810 Leaves ovate acuminate bluntly serrate hoary on each side, Pedicels axillary 1-fl.
 9811 Leaves 3-lobed hastate acuminate serrate smooth on each side, Pedicels jointed in the middle
 9812 Leaves roundish cordate acuminate (*Thespesia* Dec.)
 9813 Leaves roundish cordate acuminate crenate hoary beneath, Invol. 10-toothed
 9814 Leaves roundish cordate entire hoary beneath, Pedunc. very short 1-flowered
 9815 Leaves cordate 3-pointed smooth dotted beneath, Pedicels solitary 1-fl. longer than petiole
 9816 Leaves cordate acutely serrate, Branches somewhat hairy
 9817 Leaves cordate ovate-lanceolate acuminate toothed, Pedicels twice as long as petiole
 9818 Leaves roundish cordate acuminate finely toothed hairy beneath, Pedicels thick villous
 9819 Leaves ovate acuminate smooth entire at base coarsely toothed at end, Pedicels length of leaf
- 9820 Leaves ovate acuminate serrate; lower subcordate 3-pointed, Pedicels jointed at end
 9821 Leaves ovate or roundish undivided serrated rough, Pedic. longer than leaf, Cor. reflexed
 9822 Leaves cuneiform about 5-toothed hairy, Pedicels longer than leaf, Invol. 8-10-leaved hispid
 9823 Leaves cordate angular 5-lobed acuminate toothed downy, Pedicels nearly as long as leaf
- 9824 Leaves cuneiform ovate 3-lobed toothed, Pedic. scarcely longer than petiole, Invol. 6-7-leaved
- 9825 Leaves cordate 5-lobed hairy: lobes acuminate subrepand, Inv. 6-7-leaved setaceous [undivided
 9826 Stem and petiol. prickly, Pedic. short unarmed very hairy, Lvs. 3-5-lobed blunt toothed; upper obl. lanc.
 9827 Stem prickly, Leaves palmate 5-lobed; upper 3-lobed: lobes blunt unequally toothed narrowed at base
 9828 Leaves toothed: lower ovate undivided; upper 3-lobed cuneate at base, Flowers subsess. Invol. 12-toothed
 9829 Leaves palmate 5-parted: lobes lanceolate acuminate subserrate at end, Pedicels jointed under the end
 9830 Stem hairy, Leaves on long stalks ovate about 3-lobed serrate membranous smoothish, Pedic. very short
 9831 Stem prickly, Leaves linear lanceolate acuminate usually lobed prickly-serrate, Inv. 10-leaved
 9832 Stem prickly, Leaves palmate 5-parted with 1 gland beneath, Fl. subsess. Cal. covered with glandul. hairs
 9833 Stem rough with recurved prickles, Stipules 3-cord. Leaves palmate 5-lobed, Pedicels length of petiole
 9834 Stem rough with recurved prickles, Stipules lanc. Leaves 5-7-parted with lanc. acuminate serrated lobes
 9835 Leaves smoothish palmate: lobes 5-7-acuminate coarsely toothed, Inv. hispid 4-6-leaved, Fls. declinate
 9836 Stem rough, Leaves rough roundish truncate at base; upper palmate-lobed: lobes dilat. crenate upwards
 9837 Stem petioles and calyx muricate, Leaves ovate at base trifid; lower 5-fid: lobes acuminate serrate
 9838 Leaves palmated: lobes lanceolate serrate, Petioles muricate, Fl. subsessile solitary, Inv. 7-fid
 9839 Leaves subpeltate cordate 7-angular acuminate serrate, Stem hispid, Pedicels longer than petiole
 9840 Leaves 3-5-lobed blunt crenate hairy, Pedic. twice as long as leaf. Inv. many-leaved, Cor. campanulate
 9841 Leaves cord. 5-lobed blunt toothed, Petioles longer than fl. Inv. 10-leaved decidu. Cal. bursting lengthwise
 9842 Stem strigose, Leaves 3-lobed angular cordate toothed downy, Peduncle longer than petiole
 9843 Leaves cord. angular sparingly toothed nearly smooth, Branches velvety, Caps. turbinate truncate hispid
 9844 Stem prickly, Leaves smoothish coarsely toothed without glands, Leaves of the invol. with a tooth inside
 9845 Leaves cordate unequally toothed beneath hoary: lower about 5-lobed; upper acum. Pedic. 1-fl. very short
 9846 Stem somew. prickly, Leaves smoothish toothed 5-angular acuminate, Fls. cernuous, Caps. 5-winged hairy
 9847 Leaves acuminate unequally toothed subvillous: lower undivided cordate; upper ovate-cordate 3-lobed
 9848 Leaves cordate oblong toothed bluish angular slightly 3-lobed smooth, Pedicels longer than petiole
 9849 Lvs. toothed: lower undivided; upper 5-fid: lobes oblong nearly equal blunt, Cal. inflat. membran. nerved
 9850 Lvs. toothed: lower undivided; upper 3-parted: lobes lanc. middle one very long, Cal. infl. membr. nerved
 9851 Leaves toothed: lower leaves 3-lobed; upper 5-parted blunt, Stem hispid
 9852 Leaves hairy 5-lobed: lobes linear oblong coarsely toothed, Cal. very villous longer than involucreum



and Miscellaneous Particulars.

from the seeds, make very agreeable tarts; and a decoction of them, sweetened and fermented, is commonly called sorrel cool drink. It is a small diluting liquor, much used in our sugar colonies, and reckoned very refreshing in those sultry climates. (*Braune's Jam.*) The bark of this species, and also of *H. cannabinus*, is full of strong fibres, which the inhabitants of the Malabar coast prepare and make into cordage; and it seems as if it might be wrought into fine strong thread of any size.

The leaves of *H. surattensis* are gratefully acid, and eaten in salads. The mucilage of the root of *H. manihot* is used in Japan for giving consistence to paper.

H. Abelmoschus, from the Arabic *Ab-el-Mosch*, grain or seed of musk, has large seeds of a very musky odor, and are frequently used as a substitute for animal musk in scenting powders and pomatums. In Arabia and Egypt they are ground and mixed with coffee, to render it more agreeable to the head and stomach.

H. esculentus, the Okro of the West Indies, is cultivated there, and in some parts of France, for the pods, which are gathered green and used in soups, or pickled like capers. They are full of a nutritive mucilage, and buttered and spiced make a very rich dish.

1481. GOSSYP'IIUM. <i>W.</i>	COTTON.				<i>Malvaceæ.</i>	<i>Sp.</i> 6—16.					
9853 herbæceum <i>W.</i>	common	☐	ag	3	jl	Y	E. Indies	1594.	S s.l	Ca. dis. 6. t. 164. f. 2	
9854 arboreum <i>W.</i>	tree	☐	or	12	jl. au	Y	E. Indies	1694.	C s.p	Cav. dis. 6. t. 193	
9855 vitifolium <i>W.</i>	Vine-leaved	☐	ag	3	...	Y	E. Indies	1805.	C s.p	Cav. dis. 6. t. 166	
9856 hirsutum <i>W.</i>	hairy	☑	ag	3	jl. au	Y	S. Amer.	1731.	C s.p	Cav. dis. 6. t. 167	
9857 religiosum <i>W.</i>	spotted-barked	☑	ag	3	jl	Y	India	1777.	C s.p	Ca. dis. 6. t. 164. f. 1	
9858 barbādense <i>W.</i>	Barbadoes	☑	ag	5	s	Y	Barbadoes	1759.	C s.p	Bot. reg. 84	
1482. REDOUTE'A. <i>Vent.</i>	REDOUTEA.						<i>Malvaceæ.</i>	<i>Sp.</i> 1—2.			
9859 heterophylla <i>Vent.</i>	various-leaved	☐	or	3	jn	Y	S. Amer.	1822.	S eo	Vent. cels. t. 11	
1483. PALA'VIA. <i>W.</i>	PALAVIA.						<i>Malvaceæ.</i>	<i>Sp.</i> 1—2.			
9860 malvifolia <i>W.</i>	Mallow-leaved	○	un	1½	jn. au	Pu	Peru	1794.	C co	Cav. dis. 1. t. 11. f. 4	
1484. CRISTA'RIA. <i>Cav.</i>	CRISTARIA.						<i>Malvaceæ.</i>	<i>Sp.</i> 1—4.			
9861 eoccinea <i>Ph.</i>	scarlet	☑	△	pr	½	jl. s	S	Missouri	1811.	D p	Bot. mag. 1673
1485. ANO'DA. <i>Cav.</i>	ANODA.						<i>Malvaceæ.</i>	<i>Sp.</i> 3—7.			
9862 hastata <i>W.</i>	halberd-leaved	☐	un	1½	jn. jl	B	Mexico	1799.	S s.p	Bot. mag. 1541	
9863 cristata <i>W.</i>	crested	☐	un	1½	jl. s	Pu	Mexico	1720.	S s.p	Cav. dis. 1. t. 10. f. 3	
9864 Dilleniana <i>W.</i>	Dillenius's	☐	un	1½	jn. n	B	Mexico	1725.	C eo	Bot. mag. t. 330	
1486. PERIP'TERA. <i>Dec.</i>	PERIPTERA.						<i>Malvaceæ.</i>	<i>Sp.</i> 1.			
9865 punicea <i>Dec.</i>	Shuttlecock	☑	□	pr	3	my. jn	Cr	N. Spain	1814.	C co	Bot. mag. 1644
1487. SI'DA <i>W.</i>	SIDA.						<i>Malvaceæ.</i>	<i>Sp.</i> 69—195.			
9866 linifolia <i>Cav.</i>	flax-leaved	☑	□	un	3	jl	Pk	Guiana	1822.	C eo	
9867 angustifolia <i>W.</i>	narrow-leaved	☑	△	un	1½	jl. s	Y	Brazil	1726.	C eo	L'Her. stirp. t. 52
9868 spinosa <i>W.</i>	prickly	☑	□	un	1½	jl. s	Y	E. Indies	1680.	C eo	Cav. diss. 1. t. 1. f. 9
9869 alba <i>W.</i>	white-flowered	☑	□	un	2	jn. jl	W	E. Indies	1732.	C eo	Dil. el. t. 171. f. 210
9870 bracteolata <i>Dec.</i>	bracteolate	☑	□	un	3	jl. s	Y	Chili	1824.	C eo	
9871 carpinifolia <i>W.</i>	Horn-bean-ldv.	☑	□	un	3	jl. s	Y	Canaries	1774.	C eo	Jac. ic. 1. t. 135
9872 erosa <i>Link.</i>	bitten	☑	△	un	2	jl. s	Y	Canaries	1824.	C eo	
9873 ciliaris <i>W.</i>	ciliated	☑	□	un	1½	jn. s	Y	Jamaica	1759.	C eo	Cav. diss. 1. t. 3. f. 9
9874 alnifolia <i>W.</i>	Alder-leaved	☑	□	un	2	jl. s	Y	E. Indies	1732.	C eo	Dil. el. t. 172. f. 211
9875 compræssa <i>Dec.</i>	compressed	☐	un	2	jn. s	Y	Nepal	1823.	S co		
9876 canariensis <i>W.</i>	Canary	☐	un	2	jn. s	W	E. Indies	1820.	S eo		
9877 rhomboid-ldv.	rhomboid-ldv.	☑	□	un	2	jn. au	Y	India	1732.	C co	Cav. dis. 1. t. 3. f. 12
9878 recta <i>Link.</i>	cut	☑	△	un	2	jn. au	Y	Brazil	1823.	C co	
9879 micans <i>Cav.</i>	glittering	☑	△	un	1½	jn. au	Y	E. Indies	1820.	C co	Cav. diss. 1. t. 3. f. 1
9880 pilosa <i>W.</i>	pilose	☑	□	un	1	jl. s	Y	St. Domin.	1793.	C co	Cav. diss. 1. t. 1. f. 8



History, Use, Propagation, Culture.

1481. *Gossypium*. Pliny says, that in Upper Egypt, on the borders of Arabia, grew a shrub called *gossypion* or *zylon*. Its fruit enclosed a sort of soft white wool, of which the garments of the Egyptian priests were manufactured. Golius remarks, that *goz*, which expresses in Arabia, a silky substance, may be the root of the word. An important genus, as furnishing the down used in the cotton manufacture. This down is found lining the capsules which contain the seeds. There are several species cultivated for this purpose in different parts of the world. *G. herbaceum* is the only species cultivated in Europe, especially in the Levant, and in Malta, Sicily, and Naples: it is also grown in many parts of Asia.

G. hirsutum is occasionally grown in the West Indies; but *G. barbādense* is the prevailing species there. In the East Indies and China, *G. herbaceum* and arboreum are cultivated, and some other species, especially that which produces the nankeen-colored down, not yet introduced to Europe. An oil is obtained from the seeds of all the species, while those of the *G. herbaceum* are eaten in the Levant, and esteemed wholesome and nutritive.

In the Levant, the herbaceous cotton is sown in well prepared land in Mareh, in lines at three feet distance, and the patches of seeds two feet apart in the lines. The plants are thinned out to two or three in a place, and the earth is stirred by a one-horse plough, or by manual labor with hoes, and irrigated once or twice a week by directing the water along the furrows between the rows. The flowering season is generally over about the middle of September, and then the ends of the shoots are pinched off to determine the sap to the capsules. The capsules are collected by hand as they ripen, a tedious process, which lasts till the end of November. The cotton and the seeds are then separated by manual labor, and the former packed in bales or bags for sale. The seeds are bruised for oil or eaten, and a portion kept for sowing.

The Barbadoes cotton plant is sown in the West Indies in rows, about five feet asunder, at the end of September, or the beginning of October; at first but slightly covered, but after it is grown up, the root is well moulded. The soil should not be stiff nor shallow, as this plant has a tap-root. The ground is hoed frequently, and kept very clean about the young plants, until they rise to a moderate height. It grows from four to six feet high, and produces two crops annually; the first in eight months from the time of sowing the seed; the second, within four months after the first; and the produce of each plant is reckoned about one pound weight. The branches are pruned or trimmed after the first gathering; and if the growth is over luxuriant,

- 9843 Leaves 5-lobed 1-glandular beneath : lobes round mucronate, Invol. serrate, Stem smooth
 9854 Leaves 5-lobed palmate : lobes lanceolate blunt mucronate with 1 gland beneath, Invol. nearly entire
 9855 Lower leaves 5-lobed palmate ; upper 3-lobed with 1 gland beneath, Inv. tern. Cal. with 3 glands at base
 9856 Upper leaves undivided cordate ; lower 3-5-lobed with 1 gland beneath, Branches and petioles hirsute
 9857 Upper leaves 3-lobed ; lower 5-lobed with 1 gland beneath, Branches and petioles spotted with black
 9858 Upper leaves 3-lobed ; lower 5-lobed with 3 glands beneath, Stem smoothish

9859 Leaves ciliated elliptical entire rarely trifid

9860 Smoothish prostrate, Peduncles nearly as long as petiole

9861 Leaves very casious, Stem very short

9862 Lower leaves cordate acuminate 5-angled somewhat toothed blunt ; upper hastate acuminate

9863 Leaves all crenate : lower roundish cordate blunt 5-angled ; upper round hastate acuminate

9864 Lower leaves triangular hastate crenate ; upper ovate lanc. nearly entire, Ped. sol. axill. length of leaves

9865 Lower leaves cord. about 5-lobed hastate : upper hastate, Petals erect spatulate somewhat toothed at end

1. Capsules 5-12, 1-seeded, not bladderly.

* Flower-stalks not longer than the leafstalk. Leaves oblong or ovate

9866 Leaves linear entire much longer than the diameter of the flower, Racemes terminal

9867 Leaves linear-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axill. subsidiary

9868 Leaves ovate-lanceolate toothed, A spiny tubercle at the base of the leaves, Pedic. axillary solitary

9869 Leaves oblong ovate subcordate blunt tooth, Pedicels as long as petiole

9870 Leaves ovate-lanceolate acuminate toothed smooth, Branches round downy, Rac. very short bracteolate

9871 Leaves ovate-oblong doubly serrate, Pedunc. axillary very short about 4-flowered, Branches flattened

9872 Leaves rhomboid narrowed at base serrate-toothed forwards beneath downy, Pedicels shorter than petiole

9873 Lvs. ellipt. subov. blunt toothed at end, Pedic. axill. solitary very short, Stipules ciliated longer than flow.

9874 Lower lvs. roundish ov. ; upp. obl. toothed cun. and nearly ent. at base, Pedic. axill. many shorter than pet.

** Flower stalks elongated, distinctly jointed. Leaves oblong or ovate

9875 Lvs. ovate lanc. acumin. toothed hoary beneath, Branches compr. dotted, Pedic. thrice as long as petiole

9876 Leaves lanceolate toothed smooth, Pedic. axillary 1-fl. length of leaf

9877 Leaves oblong-lanceolate toothed cuneate at base hoary beneath, Pedic. axillary 1fl. shorter than leaf

9878 Leaves somewhat rhomboid retuse crenate towards the end hoary beneath, Pedic. longer than petiole

9879 Leaves ovate blunt serrated downy shining, Pedic. axillary solitary much longer than petiole

*** Flower-stalks elongated. Leaves cordate at base, toothed, not lobed.

9880 Leaves ovate cordate blunt toothed, Pedicels solitary 1-flowered longer than petiole



and Miscellaneous Particulars.

this should be done sooner. When great part of the pods are expanded, the wool is picked, and afterwards cleared from the seeds by a machine called a gin, composed of two or three smooth wooden rollers of about one inch diameter, ranged horizontally, close and parallel to each other, in a frame ; at each extremity they are toothed or channelled longitudinally, corresponding one with the other ; and the central roller being moved with a treadle or foot-lath, resembling that of a knife-grinder, makes the other two revolve in contrary directions. The cotton is laid in small quantities at a time upon these rollers, whilst they are in motion, and readily passing between them, drops into a sack placed underneath to receive it, leaving the seeds, which are too large to pass with it, behind. The cotton thus separated from the seeds, is afterwards hand-picked and cleansed thoroughly from any little particles of the pods or other substances which may be adhering to it. It is then stowed in large bags, where it is well trod down, that it may be close and compact ; and the better to answer this purpose, some water is every now and then sprinkled upon the outside of the bag ; the marketable weight of which is usually three hundred pounds. An acre may be expected to produce from two hundred and forty pounds to that quantity ; or two hundred and seventy pounds on an average. (*Long's Jan.* vol. iii. p. 686. *§c.* and *Broune.*)

1482. *Redoutea*. Named after P. J. Redouté, a celebrated French botanical draughtsman, still living. His drawings are inferior to those of the Bauers as accurate representations of nature ; but they are generally tastefully arranged and please the eye, notwithstanding a coldness of coloring which often injures their effect.

1483. *Palavia*. In honor of Don Antonio Palau y Verdera, second professor of botany at Madrid, and author of an excellent translation of the Species Plantarum of Linnæus in Spanish.

1484. *Cristaria*. From *crista*, a crest, in allusion to the crested form of the capsules. A pretty plant, not very easily preserved. It answers better in a peat border than a pot, and is increased by division or seed.

1485. *Anoda*. Named by Cavanilles, from α , privative, and *nodus*, an articulation ; because the peduncles do not possess the joints which are found in *Sida*, from which the plants of this genus have been extracted.

1486. *Periptera*. So named from the resemblance of the flowers in form to a shuttlecock, $\pi\epsilon\rho\iota\tau\epsilon\rho\alpha$.

1487. *Sida*. A name of Theophrastus, said by some to have been applied to a Malvaceous plant ; but

9881 hámilis <i>W.</i>	dwarf	☐ un	1/2 jl.au	Y	E. Indies	1800.	S co	Cav.dis.5.t.134f.2
9882 supina <i>L'Her.</i>	procumbent	☐ un!	3/4 jl.au	Y	Jamaica	1821.	S co	Ca.dis.6.t.196.f.2
9883 argóta <i>W.</i>	smth. sharp-lvd.	☐ un	3/4 jl.au	Y	W. Indies	1732.	C co	
9884 cordifólia <i>W.</i>	heart-leaved	☐ un	1/2 jn.s	Y	C. G. H.	1732.	S co	Dil.el.t.171.f.209
9885 althæ'fólia <i>Swz.</i>	Althæa-leaved	☐ un	3/4 jn.s	Or	Jamaica	1820.	C co	Sloane 1.t.136.f.2
9886 úrens <i>W.</i>	stinging	☐ un	1/2 jn.s	Y	Jamaica	1781.	C co	Cav.diss.1.t.2.f.7
9887 dumósa <i>Swz.</i>	bushy	☐ un	2/4 jn.s	Y	Jamaica	1818.	C co	
9888 paniculáta <i>W.</i>	panicled	☐ un	1/2 jn.s	Pu	Jamaica	1795.	C co	Cav.dis.1.t.12.f.5
9889 tríloba <i>W.</i>	three-lobed	☐ un	3/4 jn.s	W	C. G. H.	1794.	C co	Jac.schee.2.t.142
9890 jatrophóides <i>W.</i>	Physic-nut-like	☐ un	4 au	V	S. Amer.	1787.	S co	L'Her.stir.1.t.55
9891 ricinoides <i>L'Her.</i>	Ricinus-like	☐ un	4 au	W	Peru	1818.	S co	Cav. diss.1.t.3.f.3
9892 Napá'a <i>Cav.</i>	smooth	☐ un	4 au.s	W	Virginia	1748.	D co	Bot. mag. 2193
9893 dioica <i>Cav.</i>	rough	☐ un	6 au.s	W	Virginia	1759.	D co	Ca.dis.5.t.132.f.2
9894 occidentális <i>W.</i>	downy	☐ un	1 1/2 jl.au	Y	America	1732.	S co	Dill. elt. 7. t.6.f.6
9895 fo'e'tida <i>W.</i>	stinking	☐ un	1 1/2 jl.au	Y	Peru	1795.	S co	L'Her.stir.1.t.53
9896 brévipes <i>Dec.</i>	short-stalked	☐ un	1 jl.au	Y	St. Martha	1822.	S co	
9897 periplocifólia <i>W</i>	Periploca-lvd.	☐ un	2 jl.au	Y	India	1691.	S co	Dill. elt. 4.t.3.f.2
β zeylánica	Ceylon	☐ un	2 jl.au	Y	Ceylon	...	S co	Pluk. t. 74. f. 7
γ caribæ'a	Caribbæe	☐ un	2 jl.au	Y	W. Indies	...	S co	Sloane t. 139. f. 2
9898 hernandioides <i>W.</i>	Hernandia-lvd.	☐ un	6 ...	Y	Hispanio.	1798.	C co	L'Her.stir.1.t.53
9899 nudifóra <i>W.</i>	naked-flowered	☐ un	3 my.jn	Y	Peru	1731.	C co	L'Her.stir.1.t.59
9900 polyántha <i>Link.</i>	many-flowered	☐ un	3 my.jn	Y	.....	1821.	C co	
9901 aurita <i>Walt.</i>	eared	☐ un	3 my.jn	Y	Bengal	1823.	C co	
9902 triquetra <i>W.</i>	triangular	☐ un	3 jl.au	Y.P	W. Indies	1775.	C co	Jac. vind. 2.t.118
9903 incana <i>Link.</i>	hoary	☐ un	3 jl.au	Y	Sandw. Is.	1818.	C co	
9904 umbelláta <i>W.</i>	umbelled	☐ un	1 1/2 jl.au	Y	Jamaica	1788.	S co	Jac. vind. 1. t. 16
9905 refléxa <i>W.</i>	reflex-flowered	☐ un	3 jl.au	R	Peru	1799.	C co	L'Her.stir.1.t.64
9906 crispa <i>W.</i>	curled	☐ un	1 jl.au	Y	Carolina	1726.	S co	Ca.dis.5.t.135.f.2
9907 arbórea <i>W.</i>	great-flowered	☐ un	6 jl.au	Y	Peru	1772.	C co	L'Her.stir.1.t.63
9908 mauritiána <i>W.</i>	Mauritius	☐ un	2 jn.s	Y	Mauritius	1789.	S co	Jac. ic. 1. t. 137
9909 grandifólia <i>W.</i>	large-leaved	☐ un	20 n.d	Y	.....	1816.	C co	Bot. reg. 360
9910 tiliaefólia <i>Fisch.</i>	lime-leaved	☐ un	2 jl.au	Y	China	1821.	S co	
9911 americána <i>W.</i>	woolly	☐ un	1 1/2 jl.au	Y	Jamaica	1730.	S co	
9912 Abútilon <i>W.</i>	broad-leaved	☐ un	1 1/2 jn.au	Y	India	1595.	S co	Houtt. syst. t. 61
9913 asiática <i>W.</i>	small-flowered	☐ un	1 1/2 jl.au	Y	E. Indies	1768.	S co	Cav.diss.1.t.7.f.2
9914 Sonneratiána <i>W.</i>	Sonnerat's	☐ un	2 jn.jl	Y	C. G. H.	1806.	C co	Cav.diss.1.t.6.f.4
9915 populifólia <i>W.</i>	Poplar-leaved	☐ un	1 jl.au	Y	E. Indies	1796.	S co	Cav.diss.1.t.7.f.9
9916 mollíssima <i>W.</i>	soft-leaved	☐ un	2 jn.jl	Y	Peru	1789.	C co	Cav.dis.2.t.14.f.1
9917 orbiculáta <i>Dec.</i>	orbicular	☐ un	3 jn.jl	Y	China	1820.	C co	
9918 índica <i>W.</i>	rough-capsuled	☐ un	1 1/2 jl.au	Y	India	1751.	S co	Cav.dis.1.t.7.f.10
9919 vesicária <i>W.</i>	bladdery	☐ un	3 jl.au	Y	Mexico	1822.	C co	Cav.dis.2.t.14.f.3
9920 álbida <i>W.</i>	whitish	☐ un	3 jl.au	W.Y	Canaries	1822.	C co	
9921 acerifólia <i>Lag.</i>	Maple-leaved	☐ un	3 jl.au	B	N. Spain	1822.	C co	
9922 Milléri <i>Dec.</i>	Miller's	☐ un	1 1/2 jl.au	Y	.....	1749.	S co	
9923 vimínea <i>Fisch.</i>	twiggly	☐ un	2 jn	Or	Brazil	1821.	C co	
9924 semicrenáta <i>Link.</i>	half crenate	☐ un	2 jn.s	Y	Manilla	1823.	C co	
9925 acarántha <i>Link.</i>	pointed	☐ un	3 jl	Y	Brazil	1820.	C co	
9926 spiræifólia <i>Link.</i>	Spiræa-leaved	☐ un	3 au.s	Y	.....	1824.	C co	
9927 brasiliénsis <i>Cav.</i>	Brazilian	☐ un	2 jn.s	Y	Brazil	1818.	C co	Cav.dis.1.t.34.f.1
9928 villósa <i>Müll.</i>	villous	☐ un	3 jl.au	Pa.Y	S. Amer.	1739.	C co	
9929 verruculáta <i>Dec.</i>	warted	☐ un	4 jl.au	Y	Brazil	1822.	C co	
9930 purpurascens <i>Link.</i>	purplish	☐ un	3 jl.au	Pk	Brazil	1822.	C co	
9931 pátnes <i>H. K.</i>	spreading	☐ un	3 jn.s	Y	Abyssinia	1806.	C co	Bot. rep. 571
9932 contractá <i>Link.</i>	contracted	☐ un	3 jn.s	Y	Madagas.	1823.	C co	
9933 conférta <i>Link.</i>	clustered	☐ un	4 au.s	Y	Brazil	1822.	C co	
9934 lasiostéga <i>Link.</i>	woolly	☐ un	3 au.s	Y	Brazil	1824.	C co	



History, Use, Propagation, Culture,

Adanson is of opinion, that our *Nymphæa* was the *Sida* of Theophrastus. The species are free-flowerers of no

- 9881 Leaves roundish cordate hairy above serrated, Pedicels subsolitary longer than petiole
 9882 Leaves roundish cordate bluntnish crenate softly velvety, Pedic. solitary 1-fl. longer than petiole
 9883 Leaves cordate serrate attenuated at end downy on the edge of the petiole and the nerves beneath
 9884 Leaves ovate cordate toothed smcw. angular bluntnish downy, Pedic. sol. 1-fl. a little shorter than petiole
 9885 Leaves cord, somewhat angular blunt serrate cren. downy on each side, Pedic. shorter than petiole 1-5-fl
 9886 Leaves ovate cordate acuminate toothed, Pedunc. 3-4-flowered very short
 9887 Leaves cordate ovate acuminate serrate smooth on each side, Peduncles many-fl.
 9888 Leaves ovate cordate toothed acuminate downy, Pedunc. loosely panicle capillary

**** *Leaves palmate, divided into 3-5-7-9 lobes.*

- 9889 Leaves cordate toothed 3-lobed; middle lobe acute long, Pedicels solitary nearly equal to the leaf
 9890 Leaves subpeltate 7-lobed: lobes lanceolate acuminate uninnatifid toothed, Peduncles many-fl.
 9891 Leaves subpeltate 5-lobed: lobes ovate acute toothed undivided, Peduncles about 1-flowered
 9892 Leaves palmate 5-lobed smooth: lobes oblong acuminate toothed, Peduncles many-fl.
 9893 Leaves palmate 7-lobed rough: lobes lanceolate cut-toothed, Pedunc. many-fl. bracteate corymbose

2. *Capsules 15-40, 1-seeded, bladderly.*

- 9894 Leaves oblong cordate toothed somewhat lobed, Pedicels solitary shorter than petiole
 9895 Lvs. cord. ovate acute toothed downy on each side, Petioles and pedicels hairy, Stip. setaceous spreading
 9896 Lvs. cord. roundish acumin. tooth. velvety, Petioles and branches with spreading hairs, Pedic. very short

3. *Capsules 5-10, many-seeded, often bladderly.*

* *Capsules 5-8.*

- 9897 Leaves cord. lanc. acuminate entire downy beneath, Pedicels divided slender longer than petiole
 β Leaves narrow rough above
 γ Leaves more cordate smooth and a little rugose above
 9898 Leaves subpeltate cordate ovate acuminate entire downy, Pedic. 1-fl. shorter than petiole
 9899 Leaves roundish cordate acuminate entire downy beneath, Panicle terminal racemose
 9900 Leaves cordate shortly acuminate subcrenate slightly downy and green on each side, Panicle leafless
 9901 Lvs. deeply cord. with a narr. base acumin. serrul. hairy above hoary beneath, Stips. broad-eared acumin.
 9902 Leaves cordate acuminate serrulate velvety on each side, Pedicels solitary 1-flowered
 9903 Leaves hoary cordate acuminate acutely crenate, Pedicels 1-fl. longer than petiole
 9904 Leaves roundish cordate toothed angular acuminate, Pedicels 4-fl. umbelled axillary

** *Capsules 9 or more.*

- 9905 Leaves roundish cordate acuminate crenate downy, Pedicels sol. longer than petiole
 9906 Leaves cordate acuminate crenate velvety; upper sessile, Pedicels sol. longer than petiole
 9907 Leaves round cordate acuminate crenate downy, Pedicels longer than petiole
 9908 Leaves roundish cordate acuminate toothed downy beneath, Pedicels longer than petiole
 9909 Leaves roundish cordate unequally toothed soft, Pedunc. 2-3-fl. shorter than petiole, Capsules acuminate
 9910 Leaves roundish cordate with a broad sinus acuminate toothed soft, Pedicels shorter than petiole
 9911 Leaves cordate oblong undivided downy, Pedicels shorter than leaf
 9912 Leaves roundish cordate acuminate toothed downy, Peduncles shorter than petiole
 9913 Leaves cordate ovate oblong toothed velvety on each side, Pedicels longer than petiole
 9914 Leaves roundish cordate acuminate toothed downy, Peduncles longer than leaves
 9915 Leaves roundish cordate acuminate unequally repand toothed downy, Peduncles longer than petiole
 9916 Leaves roundish cordate acuminate toothed velvety, Peduncles 2-flowered shorter than petiole
 9917 Leaves ovate orbicular reniform toothed hoary beneath, Pedicels longer than petiole
 9918 Leaves cordate somewhat lobed soft, Stipules reflexed, Pedicels erect 3 times as long as petiole
 9919 Leaves ovate cordate toothed trifid cuspidate, Pedicels twice as long as petiole
 9920 Leaves roundish cordate acuminate toothed hoary on each side, Pedicels length of petiole
 9921 Leaves cordate subpeltate 3-5-lobed unequally toothed villous, Pedicels 1-flowered longer than petiole

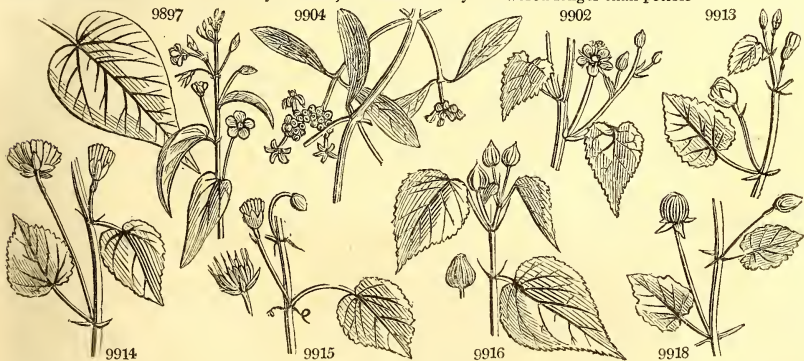
4. *Uncertain species.*

* *Leaves linear, oblong, ovate, or lanceolate.*

- 9922 Leaves linear lanceolate toothed villous beneath, Pedicels axillary 1-fl.
 9923 Leaves lanceolate very long entire hairy, Racemes terminal very short
 9924 Leaves broad lanceolate obtuse crenate entire at base 3-nerved; younger downy beneath
 9925 Middle leaves oblong blunt acutely crenate in front; upper lanceolate acute serrated in front
 9926 Leaves oblong lanceolate serrated entire at base smooth, Pedunc. axillary solitary longer than petiole
 9927 Leaves ovate acuminate 5-nerved scarcely toothletted; beneath and branches downy, Stipules filiform

** *Leaves cordate, undivided.*

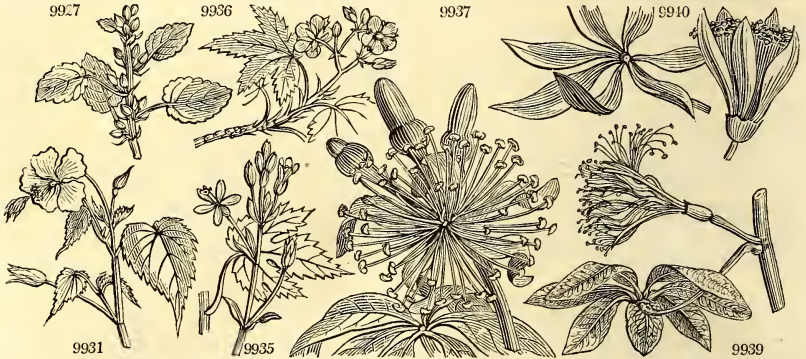
- 9928 Leaves subcordate sessile serrate subvillous, Flowers axillary clustered
 9929 Stem warted, Leaves cordate lanceolate acuminate acutely crenate downy
 9930 Leaves cordate acuminate crenate toothletted, and stems green and downy, Pedic. axillary 1-fl.
 9931 Leaves cordate acuminate cut serrate, Peduncles solitary longer than petiole
 9932 Leaves cordate acuminate repand rarely crenate hoary, Panicle contracted bracteate
 9933 Leaves cordate acute crenate rugose and stems yellow with down, Flowers subsessile aggregate
 9934 Leaves cordate acuminate hoary beneath, Pedicels axillary 1-flowered longer than petiole



and *Miscellaneous Particulars.*

great beauty. They are increased by seeds, which they produce freely, or by cuttings in sand under a hand-glass.

1488. LAGUNE'A. W.	LAGUNEA.				<i>Malvaceæ.</i>	Sp. 1-4.							
9937 lob'ata W.	Mapel-leaved	☐	un	3	jl.au	W	Bourbon	1787.	S	co	Ca. dis. 5. t. 136. f. 1		
1489. RUI'ZIA W	RUIZIA.												
9936 variabilis W.	various-leaved	☐	or	6	my	W	Bourbon	1792.	C	p. l	Jac. schœ. 3. t. 295		
1490. CAROLI'NEA. W.	CAROLINEA.												
9937 alba Lodd.	white	☐	spl	20	jl.au	W	Brazil	1817.	C	p. l	Bot. cab. 752		
9938 princeps W.	digitated	☐	spl	20	...	W	W. Indies	1787.	C	p. l	Aub. gui. t. 291. 2		
9939 minor H. K.	lesser	☐	spl	20	jl.au	W	Guiana	1798.	C	p. l	Bot. mag. 1412		
9940 insignis W.	great-flowered	☐	spl	20	...	R	W. Indies	1795.	C	p. l	Cav. diss. 5. t. 154		
1491. ADANSO'NIA. W.	ADANSONIA.												
9941 digitata W.	Sour Gourd	☐	ec	60	...	W	Senegal	1724.	C	p. l	Cav. diss. 5. t. 157		
1492. BOM'BAX. W.	SILK-COTTON-TREE.												
9942 eriánthos Cav.	woolly-fl.	☐	tm	60	...	W	Brazil	1818.	C	p. l	Ca. dis. 5. t. 152. f. 1		
9943 pentándrum W.	five-stamened	☐	tm	60	...	Y. W	E. Indies	1739.	C	p. l	Jac. am. pic. t. 176		
9944 Ceiba W.	five-leaved	☐	tm	100	...	W	India	1692.	C	p. l	Ca. dis. 5. t. 152. f. 2		
9945 heptaphýllum W.	seven-leaved	☐	tm	50	...	W	America	1699.	C	p. l	Piu. alm. t. 188. f. 4		
1493. MYRO'DIA. W.	MYRODIA.												
9946 turbinata W.	short-flowered	☐	or	6	...	W	W. Indies	1793.	C	p. l			
1494. GORDO'NIA. W.	GORDONIA.												
9947 Lasiánthus W.	smooth	☐	or	4	au.n	Y	N. Amer.	1739.	L	p. l	Bot. mag. 668		
9948 pubescens W.	pubescent	☐	or	4	au.n	W	Carolina	1774.	L	s. p	Vent. malm. t. 1		
	<i>Lacathæa florida</i> P. L. 56.												
1495. STUAR'TIA. W.	STUARTIA.												
9949 Malachodéndron W.	Common	☐	or	10	my.au	W	N. Amer.	1742.	L	p. l	Bot. rep. 237		
9950 pentágyina W.	curled	☐	or	9	jl.au	W	N. Amer.	1785.	L	p. l	Ekot. bot. 2. t. 110		
	<i>Malachodéndron ovátrum</i> Cav.												
1496. CAMEL'LIA. Ker.	CAMELLIA.												
9951 Bohéa	Bohea Tea	☐	clt	4	au.d	W	China	1768.	C	p. l	Bot. cab. 225		
9952 víridis	Green Tea	☐	clt	4	f.n	W	China	1768.	C	p. l	Bot. cab. 227		



History, Use, Propagation, Culture,

1488. *Lagunea*. Named after Andreas Laguna, a Spanish naturalist, who published, in 1543, a work upon plants. It may be treated like other tender annuals.

1489. *Ruizia*. In honor of Don Hippolito Ruiz, author of *Quinologia*, Madrid, 1792, and other works, and in conjunction with Pávon, of the famous Flora Peruviana. A plant of easy culture, but of little merit.

1490. *Carolinea*. Named by the younger Linnaeus, in honor of the Princess Sophia Caroline, of Baden; a name which, he says, will always be cherished by botanists. A splendid family, which thrive in loam; and large cuttings, well clothed with leaves, root in sand under a hand-glass.

1491. *Adansonia*. In honor of Michel Adanson, a famous French botanist, born in 1727, and author of various works, of which his voyage into Senegal, and *Familles des Plantes*, are the most remarkable. He was an eccentric man, but certainly far more learned for his time than many of his modern detractors. Monkeys'-bread, or Boabab, is considered the largest or rather broadest tree in the world. Several measured by Adanson were from sixty-five to seventy-eight feet in circumference, but not extraordinarily high. The trunks were from twelve to fifteen feet high, before they divided into many horizontal branches, which touched the ground at their extremities; these were from forty-five to fifty-five feet long, and were so large, that each branch was equal to a monstrous tree; and where the water of a neighbouring river had washed away the earth, so as to leave the roots of one of these trees bare and open to the sight, they measured one hundred and ten feet long, without including those parts of the roots which remained covered. It yields a fruit which resembles a gourd, and which serves for vessels of various uses; the bark furnishes a coarse thread, which they form into ropes, and into a cloth, with which the natives cover their middle from the girdle to the knees; the small leaves supply them with food in a time of scarcity, while the large ones are used for covering their houses, or, by burning, for the manufacture of good soap. At Sierra Leone this tree does not grow larger than an orchard apple-tree.

The ligneous part of this tree appears to be of little or no use as timber. In our stoves it grows in rich soil in heat, and cuttings root in sand, covered and plunged.

1492. *Bombax*. From *BoyaBoz*, one of the Greek names of the cotton; the seeds of the plants now so called are enveloped in a cottony substance. B. pentandrum bears oval fruit larger than a swan's egg, having a thick woody cover, which, when ripe, opens in five parts, and is full of a short dark cotton, inclosing many roundish seeds as large as small peas.

B. Ceiba has a spiny trunk, and is one of the tallest trees of both Indies; but the wood is very light, and not much valued, except for canoes. Their trunks are so large as, when hollowed, to make very large ones. In the West Indies they frequently carry from fifteen to twenty hogheads of sugar, and from six to twelve hundred weight each. When sawn into boards, and then well saturated with lime-water, the wood bears exposure to the weather many years; it is also formed into laths for roofs, curing-pots, and hoghead-heading. When the tree decays, it becomes a nest for the Macaca beetle, the caterpillar of which, gutted and fried, is esteemed by many persons one of the greatest delicacies. The down which is enclosed in the seed-vessels is seldom used, except by the poorer inhabitants to stuff pillows or chairs; and it is generally thought unwholesome to lie upon.

9935 Leaves cordate 3-lobed: lobes oval oblong acuminate toothed with a very narrow base

9936 Leaves of the flowering branches palmatifid; of the sterile palmate

9937 Leaves digitate, Filaments numerous forked united at base into a tube

9938 Leaflets 5-8 ovate-lanceolate acuminate

9939 Leaflets 7 elliptical-oblong acute at each end, Calyx truncate, Petals erect

9940 Leaflets 5-7 obovate oblong, Calyx sinuated, Petals erect spreading at base

9941 A tree with a very thick trunk with a diameter of 25 feet

9942 Anthers rectilinear, Leaflets 7, Corolla large woolly outside, Trunk prickly

9943 Anthers anfractuose, Leaflets entire, Trunk generally prickly

9944 Stem prickly, Leaves palmate, Leaflets 5, Fruit turbinate concave at end

9945 Stem prickly, Leaves palmate, Leaflets 7 entire acuminate, Fruit oblong blunt

9946 Leaves ovate-oblong, Calyxes turbinate, Column of stamens shorter than petals

9947 Pedicels axillary half as short as leaves, Leaves oblong coriaceous smooth serrated

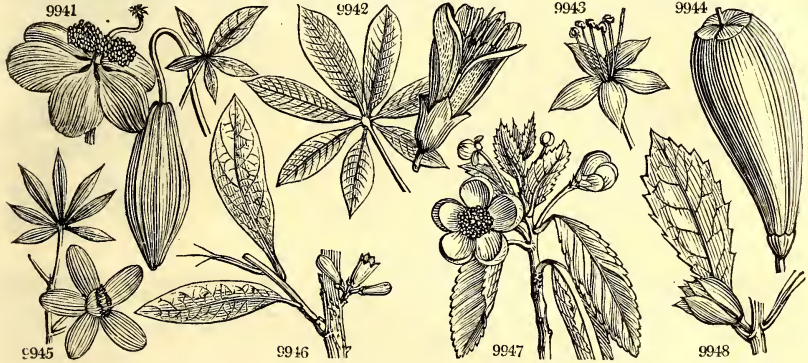
9948 Fls. subsessile, Leaves obov. lanc. downy beneath subserrate membranous, Petals and sepals silky outside

9949 Flowers large white, Filaments purple, Anthers blue

9950 Leaves ovate acute, Flowers solitary subsessile

9951 Leaves elliptical oblong subrugose twice as broad as long

9952 Leaves lanceolate flat three times as broad as long



and Miscellaneous Particulars.

1493. *Myrodia*. From $\mu\upsilon\sigma\sigma$, myrrh, and $\sigma\sigma\mu\eta$, smell. A tree which emits an odor similar to myrrh. (Linn.)

1494. *Gordonia*. In memory of James Gordon, an eminent nurseryman at Mile-End, near London, a correspondent of Linnaeus and other eminent botanists, and the introducer and successful cultivator of many new plants. *G. Lasianthus* (woolly flower, from $\lambda\alpha\sigma\iota\sigma$ and $\alpha\nu\theta\epsilon\sigma$), the loblobly-bay, is said to grow naturally in water or very moist situations. Miller, on that account, was unsuccessful in keeping the plant. Gordon and Lee, who, as Ellis relates, (*Corres. with Linnaeus*) were better cultivators than Miller, were probably more successful. Sweet says, the species are hardy enough to bear our winters in the open air; but the young shoots often get injured, and the summer is not long enough to flower them in perfection; it is therefore better to treat them as greenhouse plants. Peat soil suits them best, and a little loam mixed with it: they are readily propagated by layers, or ripened cuttings may be struck in sand under a hand-glass. (*Bot Cult.* 139.)

1495. *Stuartia*. So named by Linnæus, in honor of the Marquis of Bute, in memory of whom there also exists another genus named *Butea*, by Roxburgh. The species are handsome shrubs, grow in peat soil, and are most readily increased by layers.

1496. *Camellia*. In honor of George Joseph Kamel, (or *Camellus*) a Jesuit. His *Syllabus Stirpium in Insula Luzone Philippinarum*, forms the appendix to the third volume of Ray's *History*. This is a remarkable genus, as at once furnishing the domestic drug tea, in universal use, and flowering trees and shrubs as universally admired. The seeds of all the species are crushed for oil, which is used like that of hemp or poppy in cookery.

C. Bohea and *viridis* are the species which chiefly furnish the tea; but *C. Sasanqua* is also used, and sometimes the leaves of the other species are taken, though that practice is rather to be considered in the light of adulteration. The tea districts of China extend from the twenty-seventh to the thirty-first degree of north latitude. According to the missionaries, it thrives in the more northern provinces; and from Kämpfer, it appears to be cultivated in Japan as far north as latitude 45°. It seems, according to Dr. Abel's observation, to succeed best on the sides of mountains, where there can be but little accumulation of vegetable mould. The soils from which he collected the best specimens consisted chiefly of sandstone, schistus, or granite. The plants are raised from seeds sown where they are to remain. Three or more are dropped into a hole four or five inches deep; these come up without further trouble, and require little culture, except that of removing weeds, till the plants are three years old. The more careful stir the soil, and some manure it; but the latter practice is seldom adopted. The third year the leaves are gathered, at three successive gatherings, in February, April and June, and so on till the bushes become stunted or tardy in their growth, which generally happens in from six to ten years. They are then cut in to encourage the production of fresh roots.

The gathering of the leaves is performed with care and selection. The leaves are plucked off one by one: at the first gathering only the unexpanded and tender are taken; at the second those that are full grown; and at the third the coarsest. The first forms what is called in Europe imperial tea; but as to the other

9953 Sasánqua IV.	Lady Banks's	雙	pr	4	f.n	W	China	1811.	I	p.l	Bot. reg. 12
β plena	double	雙	pr	4	f.n	PK	China	1818.	I	p.l	Bot. reg. 547
9954 japónica IV.	common	雙	spl	10	my.jl	R	China	1739.	C	p.l	

Garden Varieties.

1 single red	雙	spl	10	my.jl	R	China	1739.	C	p.l	Bot. mag. 42
2 single white	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. cab. 633
3 semi-double red	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 559
4 double red	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. rep. 199
5 Middlemist's red	雙	spl	10	my.jl	R	China	...	I	p.l	
6 Myrtle-leaved	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. mag. 1670
7 Loddiges' red	雙	spl	10	my.jl	R	China	...	I	p.l	
8 Waratah	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 537
9 variegated Waratah	雙	spl	10	my.jl	St	China	...	I	p.l	Bot. reg. 887
10 Peony-flowered	雙	spl	10	my.jl	Bl	China	...	I	p.l	
11 double-striped	雙	spl	10	my.jl	Bl	China	...	I	p.l	Bot. rep. 91
12 Kew blush	雙	spl	10	my.jl	Bl	China	...	I	p.l	Bot. reg. 22
13 Hume's blush or buff	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 112
14 double white	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. rep. 25
15 Welbank's	雙	spl	10	my.jl	W	China	...	I	p.l	Bot. reg. 708
16 Lady Long's	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. reg. 633
17 Pomponé	雙	spl	10	my.jl	R	China	...	I	p.l	Bot. cab. 596
18 hexangular	雙	spl	10	my.jl	R	China	...	I	p.l	



History, Use, Propagation, Culture,

names by which tea is known, the Chinese know nothing; and the compounds and names are supposed to be made and given by the merchants at Canton, who, from the great number of varieties brought to them, have an ample opportunity of doing so. Formerly it was thought that green tea was gathered exclusively from *C. viridis*; but that is now doubtful: though it is certain there is what is called the green tea district, and the black tea district; and the varieties grown in the one district differ from those grown in the other. Dr. Abel was told by competent persons, that either of the two plants will afford the black or green tea of the shops, but that the broad thin-leaved plant (*C. viridis*) is preferred for making the green tea.

The tea leaves being gathered, are cured in houses which contain from five to ten or twenty small furnaces, about three feet high, each having at the top a large flat iron pan. There is also a long low table covered with mats, on which the leaves are laid, and rolled by workmen, who sit round it: the iron pan being heated to a certain degree by a little fire made in the furnace underneath, a few pounds of the fresh-gathered leaves are put upon the pan; the fresh and juicy leaves crack when they touch the pan, and it is the business of the operator to shift them as quick as possible with his bare hands, till they become too hot to be easily endured. At this instant he takes off the leaves with a kind of shovel resembling a fan, and pours them on the mats before the rollers, who, taking small quantities at a time, roll them in the palm of their hands in one direction, while others are fanning them, that they may cool the more speedily, and retain their curl the longer. This process is repeated two or three times, or oftener, before the tea is put into the stores, in order that all the moisture of the leaves may be thoroughly dissipated, and their curl more completely preserved. On every repetition the pan is less heated, and the operation performed more closely and cautiously. The tea is then separated into the different kinds, and deposited in the store for domestic use or exportation.

The different sorts of black and green arise not merely from soil, situation, or the age of the leaf; but after winnowing the tea, the leaves are taken up in succession as they fall; those nearest the machine being the heaviest, are the gunpowder tea; the light dust the worst, being chiefly used by the lower classes. That which is brought down to Canton then undergoes a second roasting, winnowing, packing, &c., and many hundred wemen are employed for these purposes.

As more select sorts of tea, the blossoms of the *C. sasanqua* appear to be collected; the buds also appear to be gathered in some cases. By far the strongest tea which Dr. Abel tasted in China, was that called *yutien*, used on occasions of ceremony. It scarcely colored the water, and on examination was found to consist of buds and half expanded leaves of the plant.

As substitutes for tea used by the Chinese, may be mentioned a species of moss common to the mountains of Shan-tung, an infusion of ferns of different sorts, and Dr. Abel thinks the leaves of the common camellia and oil camellia may be added. Du Halde observes, that all the plants called tea by the Chinese, are not to be considered as the true tea plant; and Kempter asserts, that in Japan a species of Camellia, as well as the *Olea fragrans*, is used to give it a high flavor.

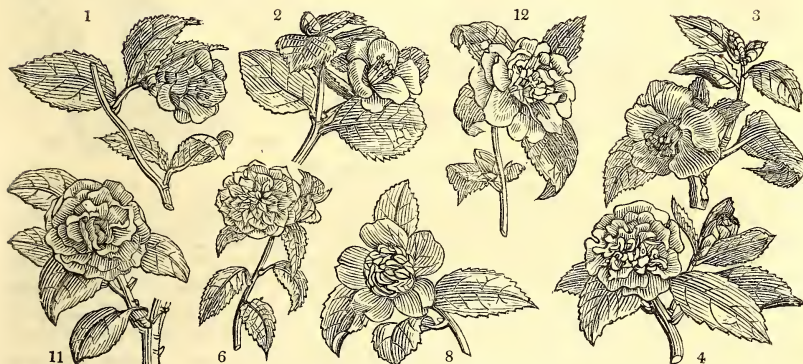
The oil-bearing Camellia, *C. oleifera*, is cultivated for its seeds, from which an oil is expressed, in very general use in the domestic economy of China. It grows best in a red sandy soil, attaining the height of six or eight feet, and producing a profusion of white blossoms and seeds. These seeds, as well as those of any of the other species, are reduced to a coarse powder, which is stewed or boiled in bags, and then pressed, when the oil is yielded. (*Dr. Abel's Nar. 176.*)

The culture of the tea Camellias in our greenhouses is very simple. The plants are very hardy, and may be preserved in a pit without fire-heat; they grow in loamy soil, or loam and peat well drained, and increase freely by layers, or cuttings of the young wood taken off when it begins to ripen, planted in sand, and covered with a hand-glass in a cool frame or pit.

C. japonica, in the groves and gardens of Japan, is a lofty tree, much admired for its fine form, rich clothing of shining deep green foliage, and elegant red or white flowers, single or double. It is equally admired in

9953 Leaves ovate-oblong bluntly serrated, Flowers terminal subsolitary, Petals orbiculate

9954 Leaves ovate acuminate acutely serrate, Flowers terminal subsolitary



and Miscellaneous Particulars

China as in Japan, and much cultivated in both countries. It is of frequent occurrence in Chinese paintings, with *Hibiscus* and *Chrysanthemum*, two of their great favorites. There are several varieties of *C. japonica* in China, most of which have been imported here, and their number considerably increased, and daily increasing, from seedlings raised in this country. The double white, double striped, and double Waratah, (from the central petals resembling those of the Waratah plant of New Holland, *Telopea speciosissima*), are considered the grandest and most marked varieties, and are also free-growers and flowerers; the pæony-flowered and fringed white, are also standard beauties; but all are much admired.

The single red *Camellia* is propagated by cuttings, layers, and seeds, for stocks; and on these the other sorts are generally inarched, and sometimes budded or grafted. The cuttings are formed of ripened or ripening shoots, taken off in August, cut smoothly across at a joint or bud, two or three of the lower leaves only taken off, and the cuttings then planted and made firm with a small dibber, in pans of sand or loam, or, by some cultivators, sand and peat, or sand alone. The pans are kept in a pit or cold frame, without being covered with glass, but shaded during powerful sunshine; and in the following spring such as are struck will begin to push, when they are to be placed in a gentle heat. In September or October following, the rooted plants will be fit to pot off; and in the second or third spring they may be used as stocks. Such is the practice in the London nurseries. Henderson, of Woodhall, near Edinburgh, puts in *Camellia* cuttings at any time of the year, excepting when they are making young wood. He puts fifty cuttings in a pot of sand eight inches in diameter, sets them in a cool place in the back of a vinery or peach-house for a month or six weeks, and then plunges them to the brim in a hot-bed where is a little bottom heat. A speedy mode of obtaining stocks is by planting stools in a pit devoted to that purpose, and laying them in autumn; the following autumn most of the layers will have produced roots, when they may be taken off and potted, and used as stocks in the succeeding spring. Inarching or grafting is performed early in spring, when the plants begin to grow; the chief care requisite is so to place and fix the pot containing the stock, as that it may not be disturbed during the connection of the scion with the parent plant. The graft being clayed over, is then covered with moss to prevent its cracking. When independent grafting is resorted to, the mode called side grafting is often used; but the operation of tonguing is generally omitted, as weakening the stock and unnecessary, with a view to prevent the scion from being blown off. A few seeds are sometimes obtained from the single red and semi-double *Camellias*, and from the single Waratah; these require two years to come up, but make the best stocks of any.

Before they are grafted they are often allowed to come into flower, in case some new variety should be produced; but the best cultivators, as Messrs. Loddiges, Sweet, and Mackay, regularly cross-impregnate the blossoms in Knight's manner, by cutting out the stamens before the anthers are mature, and when the stigma is in a proper state, dusting it with the pollen of the species or variety intended as the male parent.

C. Sasanqua seeds most readily, and is mostly employed as the female parent for raising new varieties. The plants, if well treated, flower in four or five years, and if nothing new is produced they still make excellent stocks.

Some cultivators grow the *Camellias* chiefly in peat. Messrs. Loddiges, who have the most numerous collection of this genus, formerly used loam, with a little sand and peat; and they are grown in a similar soil in Hammersmith nursery. Of late, Messrs. Loddiges find light loam alone to answer as well or better. In the Comte de Vandres garden at Bayswater, rotten dung is mixed with loam and peat. Sweet recommends sandy loam and peat. Henderson of Woodhall is one of the most successful growers of the *Camellia* in Scotland: his compost is as follows: take one part of light-brown mould, one part of river-sand, one part of peat-earth, one half part rotten leaves; mix them all well together, and when the *Camellias* require shifting, put some broken coal-char in the bottom of the pots, and some dry moss or hypnum over it. (*Caled. Mem.* iii. 316.)

Camellias have the best effect, and are grown to most advantage in a house entirely devoted to them. Such

9955 oleifera <i>Abcl.</i>	oil-seed	☉ □ pr	3	...	W	China	1830.	C r.m
9956 axillaris <i>Sims.</i>	axillary	☉ □ pr	3	f.mr	W	E. Indies	1818.	C r.m
1497. BARRINGTONIA. <i>W.</i>	BARRINGTONIA.				<i>Myrtaceae.</i>	<i>Sp. 1.</i>		
9957 speciosa <i>W.</i>	Laurel-leaved	☉ □ spl	20	...	S	E. Indies	1786.	S r.m Rum.am.3.t. 114
1498. GUSTAVIA. <i>W.</i>	GUSTAVIA.				<i>Myrtaceae.</i>	<i>Sp. 1-2.</i>		
9958 augusta <i>W.</i>	august	☉ □ spl	30	...	W	Guiana	1794.	C r.m Aub. gui. l.t.192
1499. CA'REYA. <i>Roxb.</i>	CAREYA.				<i>Myrtaceae.</i>	<i>Sp. 1-2.</i>		
9959 herbacea <i>Roxb.</i>	herbaceous	☉ □ spl	½	jl.au	R	E. Indies	1808.	D lp Rox. cor. 3.t.217



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a house should be rather lofty, as the plants never look so well as when six or eight feet high, trained in a conic form, and clothed with branches from the root upwards. The plants should be raised near to the glass by means of a stage, which should be so contrived, that, as they advance in height, it may be lowered in proportion: only the very best crown or patent glass should be used; because it is found from experience, that the least inequality of surface or thickness of material, so operates on the sun's rays, as to concentrate them, and burn or produce blotches on the leaves of the plants. Every cultivator must have observed that leathery shining leaves, like those of the orange, myrtle, &c. are more or less subject to this solar injury; but the leaves of the Camellia are particularly so. Some nurserymen recommend a roof which will not admit much light; others the use of green glass; of an opaque roof, with glass in front only; or of a house facing the north. Our opinion is, that a light house facing the south, or, better still, glass on all sides, is essential to the perfect growth of the plants; and that all solar accidents may be avoided, or at least rendered of no consequence, by using the best glass, and placing the plants as near it as possible.

To grow the Camellia to a high degree of perfection, considerable care is requisite. The roots are very apt to get matted in the pot, and, by the space they occupy, so to compress the ball of mould, as after a time to render it impervious to water. Hence frequent attention should be had, to see that the water poured on the pots moistens all the earth, and does not escape by the sides of the pot, moistening only the web of fibres. When the plants are in flower and in a growing state, they require to be liberally watered, and also a degree of heat somewhat greater than is usually given to greenhouse plants. If this heat is not given in November and December, the plants will not expand their blossoms freely; and if both water and heat are not regularly applied after the blossoming season, vigorous shoots and flower-buds will not be produced. To form handsome plants, they should be trained with single stems to rods, and pruned so as to make them throw out side branches from every part of the stem: to encourage these, the plants should not be set close together on the stage. In summer they may either be set out of doors on a stratum of scoria, or on a pavement, in a sheltered but open situation; or the glass roof may be taken off. The hardier sorts, as the double red, blush, peony-flowered, &c. answer very well when planted in the bed or border of a conservatory, provided the roof or entire superstructure can be removed in summer to admit the full influence of the weather. When this cannot be done, the Camellia and most other plants are better in portable utensils, which admit both of examining their roots, and placing them in the open air, or in a greater degree of heat at pleasure. The single and double red Camellia will endure the open air when trained against a south wall, and protected by mats in winter; and there can be no doubt that in time these and other species will be more perfectly inured to our climate.

Henderson of Woodhall gives the following account of his mode of treating the Camellia. "The best time for a regular shifting of the Camellias is the month of February or beginning of March. After shifting all those that require it, put them into the peach-house or vinery, when there is a little heat; if there be no peach-house, vinery, nor pinery, set them in the warmest part of the greenhouse. They will soon begin to make young wood. From the time they begin to make their young shoots, till they have finished their growth, give them plenty of water. They may be kept in the vinery or peach-house till they have formed their flower-buds at the extremity and sides of the young growths, when a few of them may be removed to a colder place, say behind the stage of the greenhouse; for the Camellias are fond of being shaded during

- 9955 Leaves thin ovate finely serrate pale-green, Branches slender twiggy
 9956 Leaves obovate oblong serrulate; upper entire, Flowers solitary subsessile subaxillary
 9957 Leaves oblong blunt large fleshy stalked shining tinged with red
 9958 Sepals 4 roundish petaloid, Petals 4, Leaves oblong acuminate toothed
 9959 Flowers stalked, Outer stamens longest sterile



9954



9956

and Miscellaneous Particulars.

strong sunshine. In three or four weeks after, a few more of the Camellias may be brought from the vinery or peach-house, and put into a cooler situation. This may be repeated three or four times, which will make as many different successions of flowering. Those that are wanted to come into flower early, may remain in the warm house till they are beginning to flower, when they should be taken to a cold place, say the coldest place of the greenhouse; then give them plenty of light only, and they will open their flowers well, and stand long. A Camellia cannot stand heat when in flower, indeed they seldom open their flowers fine when in heat, and, at all events, the flowers soon fall off. Those that are kept all the summer in the vinery, will come into flower by the first or middle of October, and a pretty large plant, having perhaps fifty or a hundred flower-buds, will continue in flower till the month of January. Those plants that are removed early from the vinery, will now be in flower, to succeed those that were in flower in October, and have now done flowering. These last should be immediately taken into the heat. They will make their young wood early, and they may remain in heat till they come into flower, which will perhaps be a month earlier next year. By attending to shifting the Camellia plants from the warm-house to the cold, a regular succession of flowers may thus be had from the first of October to the middle of July. I have even had them all the summer, but the flowers are best in the winter. Those produced in summer are far from being so fine, and do not stand half the time of those that come into flower in November, December, January, February, March and April. Camellias delight to be kept damp all the summer months, and a little shaded from the strong sun. Give them plenty of water while they are making their young shoots; they may also get a gentle sprinkling over the leaves once every week during the summer season, except when they are in flower. Camellias will stand a great deal of cold without being much injured, but they will not form many flower-buds without some artificial heat." (*Calcd. Mem. iii. 316.*)

1497. *Barringtonia*. In memory of the Hon. Daines Barrington, F. R. S., an active Fellow of the Society of Antiquaries, and author of several papers in their Transactions. A lofty tree, the handsomest in the equinoctial flora. It has thick shady bunches of long wedge-shaped coriaceous leaves, and large handsome purple and white flowers, which open at night, and fall at sunrise. They are succeeded by a reddish brown drupe, the seed of which mixed with the bait, inebriates fish in the same manner as *Cocculus indicus*. It grows on the sea shore and at the mouths of rivers, and is cultivated in the governor's garden at St. Helena. It is very rare in our stoves, though not difficult to manage. Sweet says, "a mixture of two-thirds loam and one-third peat, is a good soil for it. Cuttings taken off at a joint, when the wood is ripe, and put in a pot of sand under a hand-glass in moist heat, will strike root readily: none of the leaves should be taken off or shortened." (*Bot. Cult. 21.*)

1498. *Gustavia*. In memory of Gustavus III, king of Sweden, who presented a great collection of Indian plants to the elder Linnæus. A tree remarkable for its large white flowers, larger than those of the water-lily, but with a large naked bald receptacle between the corolla and the style. The flowers smell sweet, but the wood is extremely fetid. In Surinam it is used for hoops. In the stove it grows in sand and loam, and roots in sand under a hand-glass.

1499. *Careya*. Named after Dr. William Carey, the editor of Roxburgh's *Flora Indica*, and an English physician and botanist residing at Serampore. Beautiful Indian plants, with long red stamens.




CLASS XVII. — DIADELPHIA. STAMENS united in two separate parcels.

This class essentially requires, as its name implies, that the stamens should be united in two separate parcels. These may either be equal, each bearing more anthers than one, as in *Smithia*, *Eschynomene*, *Fumaria*, and others; or unequal, one parcel being reduced to a single stamen, and the other bearing several anthers, as in the greater number of genera included in the class. But besides the plants whose stamens are thus disposed, it has been the practice to admit other genera having papilionaceous flowers, but with their stamens united in one parcel only, such as *Platylobium*, *Bossia*, *Arachis*, and others. The propriety of this measure is extremely questionable. It has been before remarked in this work, that the value of an artificial arrangement of objects depends wholly upon the precision with which they are referred to those heads or divisions with the characters of which they agree. If this does not obtain, an artificial system ceases to be useful, and its only merit, that of facilitating the discovery of the name of a given object, cannot be said to exist. This principle is particularly applicable to the genera just mentioned. Their artificial character refers them to *Monadelphia*, but they are retained in *Diadelphia*, to which their artificial character does *not* refer them, because, as is alleged, of the natural relation which they bear to other genera in *Diadelphia*. If this reasoning, which is only applicable to an arrangement of plants according to their natural affinities, and which has no allowable reference to an artificial system, were to be admitted, it would follow that *Tamarindus*, actually included in *Monadelphia* by the most eminent Linnean botanists, and all the papilionaceous genera stationed in *Decandria*, should be referred hither also. With such objections attaching to the contrivance of this class, it is not easy to understand in what way it "does honor to the comprehensive powers of Linnæus's mind," as has been somewhere remarked by one of his most distinguished panegyrists.


The structure of the corolla of plants of this class is, for the most part, with the exception of *Fumaria* and its allies, what has been popularly termed papilionaceous; that is to say, it consists of five petals of different forms and direction, of which the upper, called the *vexillum* or standard, is larger than the rest, upon which it is incumbent; the two lateral, called the *alæ* or wings, are oblong, distinct, and parallel with the ovarium; and the two lower, called the *carina* or keel, are enclosed within the *alæ*, are also parallel with the ovarium, and cohere by their lower edges, so as together to form, as it were, one boat-shaped petal. To this common form of corolla there are, however, some exceptions, as in *Amorpha*, where the *alæ* and *carina* are absent, and in *Erythrina*, where the *alæ* are in some cases almost obliterated. In *Trifolium* the petals all cohere by their claws into an undivided tube.

With regard to the importance of *Diadelphous* plants as applicable to the purposes of mankind, they may be said to hold the very highest rank. All the numerous varieties of pulse, whether eaten by men or cattle, peas, beans, haricots, caravances, lentils, and others, are all produced by *Diadelphous* plants. The best of our artificial grasses, such as clover, nonesuch, cow-grass, lucerne, saintfoin, serradilla, &c. &c., belong to various *Diadelphous* genera. A large proportion of the class also consists of useful and ornamental trees and herbs, which will be noticed in their respective places.

Order 1. PENTANDRIA.  Stamens 5.

1500. *Monniera*. Cal. 5-parted, with the upper segment long. Cor. ringent. Stamens 2: upper with two anthers; lower with three. Caps. 5, 1-seeded.

1501. *Petalostemum*. Petals 4, between the stamens, all united into a slit tube. Vexillum none, but in its place a fifth petal. Legume surrounded by calyx, 1-seeded.

Order 2. HEXANDRIA.  Stamens 6.

1502. *Corydalis*. Pet. 4, 1-spurred at base. Pod 2-valved, compressed, many-seeded.


1503. *Cysticapos*. Petals 4, one gibbous at base. Capsule bladdery, many-seeded; the placentas connected by a membranous net work.

1504. *Diclytra*. Petals 4, two outer equally spurred or gibbous at base. Pod 2-valved, many-seeded.

1505. *Adumia*. Petals 4, united in a fungous monopetalous corolla, persistent, and with two protuberances at base. Pod 2-valved, many-seeded.

1506. *Sarcocapnos*. Petals 4, 1-spurred at base. Caps. 2-valved, not opening, 2-seeded. Valves 3-nerved, flattish.

1507. *Fumaria*. One petal gibbous or spurred at base. Cariopsis indehiscent, 1-seeded, not pointed with a style.


Order 3. OCTANDRIA.  Stamens 8.

1508. *Polygala*. Cal. of 5 leaves, two of them wing-shaped and colored. Caps. compressed, obcordate.

1509. *Muraltia*. Sepals 5, glumaceous, nearly equal. Petals 3, united, the middle bifid with blunt lobes. Ovary with 4 horns or tubercles, 2-valved, 2-celled.

1510. *Mundia*. Sepals 5, glumaceous, persistent, the two inner wing-shaped. Petals 3, scarcely united at base; the middle one cucullate, beardless. Stamens 7-8, somewhat villous, monadelphous at base, with a tube divided in front.

1511. *Securidaca*. Sepals 5, the two inner petaloid. Petals 5, united at base: three united into a 3-lobed keel; two oblong. Stamens 8, diadelphous.

Order 4. DECANDRIA.  Stamens 10.

1512. *Nissolia*. Cal. 5-toothed. Legume 1-seeded, ending in a ligulate wing.

1513. *Dalbergia*. Cal. absolutely 5-toothed. Legume leafy, flat, not opening. Seeds solitary or twin.

1514. *Pongamia*. Cal. colored, cyathiform, obliquely truncate, 5-toothed. Petals clawed. Vexillum spreading. *Alæ* and *carina* conniving. Legume substipitate, compressed, flat, rostrate, valvless, 1-2-seeded. Anthers ciliate, glandular at end.

1515. *Pterocarpus*. Cal. 5-toothed. Legume falcate, foliaceous, varicose, indehiscent, encompassed by a wing. Seeds a few, solitary.

1516. *Ecastaphyllum*. Cal. campanulate, sub-bilabiate: upper segment emarginate; lower trifid. Filaments equally diadelphous. Legume roundish, valvless, 1-seeded.

1517. *Geoffroya*. Cal. 5-fid. Drupe ovate. Kernel compressed.
 1518. *Dipteris*. Segm. of cal. 2, wing-shaped. Legume 1-celled, 1-seeded, coriaceous, 2-valved.
 1519. *Parivoa*. Cal. 3-4-fid. Vexillum ample. Alæ and carina O. Legume compressed, 1-seeded.
 1520. *Amerinum*. Cal. sub-bilabiate. Legume compressed, leafy, 2-valved, dehiscent. Some seeds, solitary.
 1521. *Erythrina*. Cal. bilabiate, $\frac{1}{2}$. Vexillum very long, lanceolate. Legume torulose.
 1522. *Butea*. Cal. sub-bilabiate. Vexillum very long, lanceolate. Legume compressed, membranous, one-seeded at end.
 1523. *Viborgia*. Cal. 5-toothed, with rounded recesses. Legume turgid, sulcate, winged.
 1524. *Piscidia*. Stigma acute. Legume with four wings.
 1525. *Platylobium*. Cal. bracteate, 2-lipped, upper lip round, large, bifid. Stam. all united. Legume stalked, compressed, winged at back, many-seeded.
 1526. *Borbonia*. Stigma emarginate. Calyx acuminate, spiny. Legume mucronate.
 1527. *Rafnia*. Cal. ringent : upper lip bifid ; lower spreading trifold ; the middle tooth narrowest. Legume lanceolate, compressed.
 1528. *Aspalathus*. Cal. 5-fid, upper segment largest. Legume ovate, blunt, about 2-seeded.
 1529. *Sarcophyllum*. Cal. campanulate, 5-parted, regular. Legume acinaciform, acute.
 1530. *Crotalaria*. Legume turgid, inflated, stalked. Filaments united with a dorsal fissure.
 1531. *Bossiaea*. Cal. 2-lipped, upper lip largest, half bifid, obtuse. Stam. all united. Legume plano-compressed, stalked, many-seeded, thickened at each edge. Seeds strophiolate.
 1532. *Scottia*. Cal. imbricated with bractes, 5-toothed, with nearly equal teeth. Vexillum complicate, shorter than alæ, which are as long as carina. Stam. all united. Legume stalked, compressed, thickened at each edge. Seeds 3-4, strophiolate.
 1533. *Templetonia*. Cal. bracteate, with 5 nearly equal teeth. Carina oblong. Stamens all united, with uniform anthers. Legume pedicellate, plano-compressed, many-seeded. Seeds strophiolate.
 1534. *Goodia*. Cal. with 2 nearly equal lips, upper half bifid, acute. Vexillum unfurled, large. Stamens all united. Legume stalked, compressed, about 2-seeded. Seeds strophiolate.
 1535. *Loddigesia*. Vexillum much shorter than alæ or carina.
 1536. *Hovea*. Cal. bilabiate, the upper lip half bifid, retuse. Stamens all united. Carina blunt. Legume sessile, roundish, ventricose, 2-seeded. Seeds strophiolate.
 1537. *Spartium*. Stigma longitudinal, villous above. Filaments adhering to ovary. Cal. lengthened at the base.
 1538. *Genista*. Cal. 2-lipped : upper one with 2 ; lower one with 3 teeth. Vexillum bent backwards from the rest of the flower.
 1539. *Lebeckia*. Cal. 5-parted, with acute segments and rounded recesses. Legume cylindrical, many-seeded.
 1540. *Ulex*. Cal. of 2 leaves, with a small scale at the base on each side. Legume turgid, scarcely longer than the calyx.
 1541. *Ononis*. Cal. 5-cleft, its divisions linear. Vexillum striated. Legume turgid, sessile. Filaments in one undivided set.
 1542. *Anthyllis*. Cal. inflated, 5-toothed, inclosing the small roundish 1-3-seeded legume.
 1543. *Arachis*. Cal. 2-lipped. Cor. resupinate. Filaments united. Legume gibbous, torulose, veiny, coriaceous.
 1544. *Lupinus*. Cal. 2-lipped. Anthers, 5 oblong, 5 round. Legume coriaceous, torulose, compressed.
 1545. *Amorpha*. Cal. campanulate, 5-fid. Vexillum ovate, concave. Alæ O. Carina O. Legume 2-seeded, falcate.
 1546. *Abrus*. Cal. obsolete 4-lobed, the upper broader. Filaments 9, united at base, opening at back. Stigma blunt. Seed spirally.
 1547. *Phaseolus*. Carina with the stamens and style twisted spirally.
 1548. *Teramnus*. Carina very small, inclosed in the calyx. Five alternate stamens fertile. Stigma sessile, capitate.
 1549. *Carpopogon*. Vexillum not callous. Flowers capitate. Pods short, broad, 1-seeded.
 1550. *Dolichos*. Vexillum with two calli at base, parallel, oblong, compressing the wings beneath.
 1551. *Stizolobium*. Cal. campanulate, 2-lipped : upper lip entire, erect ; lower trifold, with the middle segment longest. Vexillum ascending. Alæ dolabriform, lunate at base, the length of carina. Anthers 2-formed, hairy. Legume torose, 1-celled, with partitions. Seeds round, with a crested hilum.
 1552. *Glycine*. Cal. 2-lipped. Carina pushing back the vexillum with its end.
 1553. *Keneedia*. Cal. 2-lipped : upper emarginate ; lower trifold, equal. Vexillum reflexed, recurved. Alæ pressed to the carina. Carina remote. Stigma blunt. Legume oblong.
 1554. *Cyllista*. Cal. 4-fid, larger than cor. : upper segment bifid at end, or emarginate ; lower very large. Cor. persistent. Legume about 2-seeded.
 1555. *Galactia*. Cal. 4-toothed, with 2 bractes. Petals all oblong ; the vexillum broadest and incumbent upon the others. Stigma obtuse. Legume round. Seeds roundish.
 1556. *Clitoria*. Cor. resupinate, with a large spreading vexillum overshadowing the wings.
 1557. *Orobus*. Style linear, cylindrical, downy above. Cal. obtuse at the base, its upper segments deeper and shorter.
 1558. *Lathyrus*. Style plane, downy above, broader upwards. Cal. with its two upper segments shortest.
 1559. *Ochrus*. Cal. with the two upper segments conniving. Vexillum with two teeth at the sides. Style flat, villous above. Legume having a membranous wing upon the seed-bearing suture.
 1560. *Pisum*. Style triangular, keeled above, downy. Two upper segments of calyx shorter than the rest.
 1561. *Vicia*. Style bearded beneath the stigma.
 1562. *E. vum*. Stigma capitate, hairy all over on the outside.
 1563. *Ervilia*. Like *Vicia*, but the ovary is plaited in folds.
 1564. *Cicer*. Cal. 5-parted, length of cor ; four upper segments incumbent on the vexillum. Legume turgid, 2-seeded.
 1565. *Liparia*. Cal. 5-fid, with the lower segment long. Alæ 2-lobed below. Three teeth of the larger stamens shorter than the rest. Legume ovate.
 1566. *Cytisus*. Cal. 2-labiate, 2-3. Legume attenuated at base.
 1567. *Mullera*. Cal. 4-toothed. Loment moniliform, with fleshy 1-seeded globules cohering by a thread.
 1568. *Robinia*. Cal. 4-fid ; upper segment 2-parted. Legume gibbous, long. Leaves unequally pinnate.
 1569. *Caragana*. Cal. subcampanulate. Stigma smooth, truncate. Legume cylindrical. Leaves abruptly pinnate.
 1570. *Swainsonia*. Cal. 5-toothed. Vexillum unfurled, larger than the blunt carina. Stigma terminal. Style bearded lengthwise in front, not bearded at back. Legume turgid, not bladderly.
 1571. *Sutherlandia*. Cal. 5-toothed. Vexillum without callosities, folded back at edge, shorter than oblong carina. Stigma terminal. Style with a longitudinal beard behind, a transverse one before. Legume inflated, scariose.
 1572. *Lessertia*. Cal. half 5-fid. Vexillum unfurled. Carina blunt. Stigma capitate. Style bearded transversely at end in front, beardless behind. Legume scariose without valves (compressed or inflated).
 1573. *Colutea*. Cal. 5-toothed. Vexillum with two callosities, unfurled, larger than the blunt carina. Stigma lateral under the hooked end of the style, which is longitudinally bearded behind. Legume inflated, scarious.
 1574. *Glycyrrhiza*. Cal. bilabiate, 3-1. Legume ovate, compressed.
 1575. *Liquoritia*. Cal. tubular, equal, 5-parted. Vexillum erect, reflexed at sides. Alæ spreading. Carina bifid. Legume oblong, smooth, 3-4-seeded.

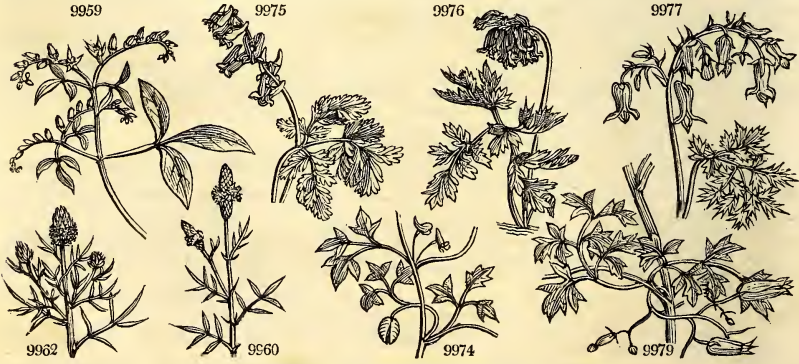
1576. *Coronilla*. Cal. 2-lipped, 2-3. Upper teeth connate. Vexillum scarcely longer than alæ. Loment round, jointed, straight.
 1577. *Hippocrepis*. Loment compressed, with many notches on one edge, curved.
 1578. *Orrhthopus*. Legume jointed, curved, cylindrical.
 1579. *Scorpiurus*. Loment intercepted by divisions, revolute, round.
 1580. *Smithia*. Stamens divided into two equal bundles. Legume jointed, plaited, included in the bifid calyx.
 1581. *Sesbania*. Cal. 5-toothed. Legume long (round or linear), 2-valved, many-celled, with transverse partitions.
 1582. *Æschynomene*. Stamens divided into two equal bundles. Legume jointed, straight, exserted. Cal. 2-parted, with toothed lips.
 1583. *Stylosanthes*. Cal. tubular, very long, bearing the corolla. Ovarium below the corolla. Loment one or two-jointed, hooked.
 1584. *Haltia*. Cal. 5-parted, regular. Legume 1-seeded, 2-valved.
 1585. *Lespedeza*. Cal. 5-parted, nearly equal. Carina transversely blunt. Legume lenticular, unarmed, 1-seeded.
 1586. *Flemingia*. Cal. 5-fid. Vexillum striated. Legume sessile, oval, turgid, 2-valved, 2-seeded. Seeds spherical.
 1587. *Zornia*. Cal. campanulate, 2-lipped. Cor. inferior. Vexillum cordate, revolute. Anthers alternately oblong and round. Legume jointed, hispid.
 1588. *Hedysarum*. Cal. 5-fid. Carina transversely blunt. Loment with 1-seeded compressed joints.
 1589. *Indigofera*. Cal. spreading. Carina with a spreading subulate spur on each side.
 1590. *Tephrosia*. Cal. with subulate nearly equal teeth. Stamens monadelphous. Legume compressed, subcoriaceous.

PENTANDRIA.

1500. MONNIERIA. *W.* MONNIERIA. *Rutaceæ. Sp. 1.*
 9959 trifolia *W.* three-leaved ☐ un 1½ jl.au W Guiana 1792. S s.l Aub. gui. 2. t. 293
 1501. PETALOSTEMUM. *Mi.* PETALOSTEMUM. *Leguminosæ. Sp. 4-5.*
 9960 candidum *Ph.* white ½ Δ pr 1 jl.au W N. Amer. 1811. D l.p Mi. am. 2. t. 37. f. 1
 9961 carneum *Ph.* flesh-colored ½ Δ pr ½ jl.au Pk N. Amer. 1811. D l.p
 9962 violaceum *Ph.* purple ½ Δ pr 1 jl.s V N. Amer. 1811. D l.p Bot. mag. 1707
 9963 corymbosum *Ph.* corymbose ½ Δ pr 1½ jl.s W N. Amer. 1811. D l.p
Dálea Kuhnistéra W.

HEXANDRIA.

1502. CORYDALIS. *Vent.* CORYDALIS. *Fumariaceæ. Sp. 10-31.*
 9964 nobilis *P. S.* great-flowered ½ Δ or 1 my L.Y Siberia 1783. D p.l Bot. mag. 1953
 9965 tuberosa *Dec.* hollow-rooted ½ Δ or ½ f.ap Pu.W Europe 1596. D co Bot. m. 232. 2340
 9966 fabacea *W. en.* Bean-leaved ½ Δ or ½ f.ap Pu Germany 1815. D co Fl. dan. 1304
 9967 sglida *Smith* solid-rooted ½ Δ or ½ f.ny Pk Britain groves. D co Eng. bot. 1471
 9968 sempervirens *P. S.* glaucous ½ Δ or 2 jl.au Y.Pu N. Amer. 1683. D co Bot. mag. 179
 9969 aërea *W. en.* golden ½ Δ or 1 my.jl Y N. Amer. 1812. D co Bot. reg. 66
 9970 lutea *P. S.* yellow ½ Δ or 1½ ap.o Y England old w. D co Eng. bot. 588
 9971 uralensis *Fisch.* Ural ½ Δ or 1 au Pa.Y Altai 1824. S co Bot. reg. 66
 9972 capnoides *P. S.* white-flowered ½ Δ or 2 my.o R.y S. Europe 1596. S co Plu. alm. t. 90. f. 2
 9973 claviculata *W.* climbing ½ Δ or 6 jn.jl W.y Britain thick. S co Eng. bot. 103
 1503. CYSTICAPNOS. *W. en.* CYSTICAPNOS. *Fumariaceæ. Sp. 1.*
 9974 africana *W. en.* African ½ Δ or 4 jn.jl Y C. G. H. 1696. S s.l Boer. lug. 1. t. 300
Fumária vesicária H. K.
 1504. DICLYTRA. *Dec.* DICLYTRA. *Fumariaceæ. Sp. 4-8.*
 9975 Cucullaria *Dec.* naked-stalked ½ Δ or ½ jn.jl W N. Amer. 1731. D s.p Bot. mag. 1127
 9976 formosa *Dec.* bluish ½ Δ or 1 jn.jl F N. Amer. 1796. D p.l Bot. mag. 1335
 9977 eximia *Dec.* choice ½ Δ or 1½ jn.jl F N. Amer. 1812. D p.l Bot. reg. 51
 9978 canadensis *Dec.* Canadian ½ Δ or ½ jn.jl Pk N. Amer. 1819. D co
 1505. ADLUMIA. *Raf.* ADLUMIA. *Fumariaceæ. Sp. 1.*
 9979 cirrhosa *Raf.* spongy-flower'd ½ Δ or 15 jn.s W.pu N. Amer. 1778. D s.l Vent. Choix. t. 19



History, Use, Propagation, Culture,

1500. *Monnieria*. In memory of Monsieur Le Monnier, professor of botany in the garden of plants at Paris. He published, in 1745, "Observations sur les Plantes dangereuses des Pyrénées et du Roussillon."
 1501. *Petalostemum*. From *πταλον*, a petal, and *στημον*, a stamen; in allusion to the union of these two parts into a tube.
 1502. *Corydalis*. *Κορυδαλις* is an ancient Greek name for the Fumitory, from which genus this has been separated. Pretty little plants, well adapted for rock-work or growing on pots. They are easily cultivated and increased.

1591. *Galega*. Cal. with subulate nearly equal teeth. Legume with oblique streaks between the seeds.
 1592. *Phaca*. Cal. 5-toothed, two upper teeth most distant. Legume half 2-celled, inflated.
 1593. *Oxytropis*. Carina ending in a mucro. Legume 2-celled or half-2-celled, with the upper suture turned inwards.
 1594. *Astragalus*. Legume 2-celled, more or less gibbous, with the lower suture turned inwards. Carina blunt.
 1595. *Biserrula*. Legume 2-celled, flat, with a contrary dissepiment serrated on each edge.
 1596. *Dalea*. Alæ and carina adhering to the column of stamens. Stamens 5-10, united, without a separate filament. Legume 1-seeded.
 1597. *Psoralea*. Cal. the length of pod. Stamens diadelphous. Legume 1-seeded, subrostrate, valvless.
 1598. *Melilotus*. Cal. tubular, 5-toothed. Carina simple, shorter than alæ and vexillum. Legume longer than calyx, rugose.
 1599. *Lupinaster*. Cal. campanulate, 5-toothed, with setaceous teeth. Stigma uncinatè. Legume not knotted, round, many-seeded.
 1600. *Trifolium*. Legume (in general) shorter than the cal., 1 or many-seeded, indehiscent, deciduous. Flowers more or less capitate.
 1601. *Lotus*. Legume cylindrical, straight. Alæ of the cor. cohering by their upper edge. Filaments dilated upwards.
 1602. *Tetragonolobus*. The characters of *Lotus*, but the pod square with 4 wings.
 1603. *Trigonella*. Vexillum and alæ nearly equal, spreading, in the form of a tripetalous corolla.
 1604. *Dorycnium*. Cal. 5-toothed, 2-lipped. Filaments subulate. Stigma capitate. Legume turgid, 1 or 2-seeded.
 1605. *Medicago*. Legume falcate or spirally twisted, compressed, membranaceous.
 1606. *Hymenocarpus*. Like *Medicago*, but the legumes reniform, winged at edge.

PENTANDRIA.

9959 Stem dichotomous, Leaves ternate, Spike bifid

- 9960 Spike cylindrical stalked, Bractes longer than flower, Leaves in 3 pairs lanceolate
 9961 Spike cylindrical stalked, Bractes subulate length of calyx, Leaflets lanceolate
 9962 Spike cylindrical stalked, Bractes nearly as long as calyx, Leaves in 2 pairs linear
 9963 Heads with a scaly involucre, Calyxes plumose, Leaflets linear pointless

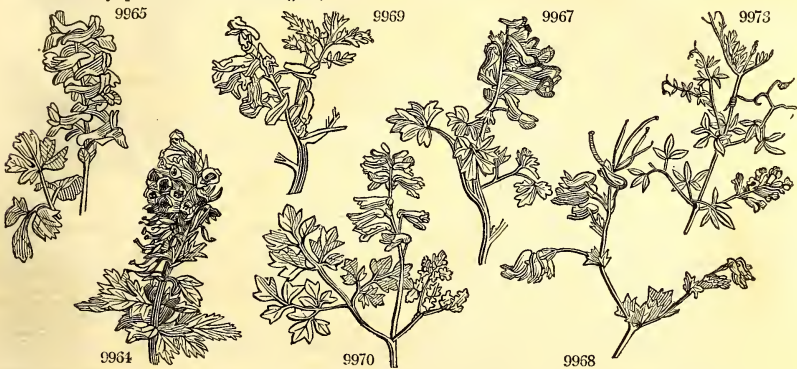
HEXANDRIA.

- 9964 Stem erect simple without scales, Leaves bipinnate, Lobes cuneate cut at end, Bractes acute
 9965 Stem simple without scales, Lvs. 2 biternate, Segm. cuneate multifid, Bractes ovate entire, Roots hollow
 9966 Stem subsimple erect with scales below the lowest leaf, Leaves 3-4-stalked biternate, Segments obl. blunt
 9967 Stem subsimple erect with scales below the lowest leaf, Lvs. 3-4-stalk. bitern. cut, Segm. cuneate or oblong
 9968 Stem erect branched, Leaves glaucous decompose, Segm. stalked cuneate trifid, Pods linear
 9969 Stem branched diffuse, Leaves glaucous bipinnate, Lobes obl. linear, Bractes lanceol. linear acuminate
 9970 Pods roundish shorter than peduncle, Stems angular, Bractes minute, Spur very short and round
 9971 Stem erect somewhat branched scarcely longer than radical lvs. Lvs. on long stalks 3-cut, Raceme few-fl.
 9972 Stem branched diffuse, Lvs. bipinnate, Segm. obov. cuneate trifid, Pods lin. scarcely longer than pedicel
 9973 Stem branched climbing, Leaves bipinnate, Petioles cirrhose, Segm. oval entire

9974 The only species

- 9975 Spurs 2 straight acute, Scape naked, Raceme simple
 9976 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 2 angles
 9977 Spurs 2 incurved blunt, Scape naked, Raceme compound, Stigma with 4 angles
 9978 Spurs 2 short blunt, Scape naked simple few-fl. Leaves multifid

9979 The only species. — *Fumaria fungosa*, Hort.



and Miscellaneous Particulars.

1503. *Cysticapnos*. From *κυστις*, a bladder, and *καπνος*, fumitory. A genus divided from *Fumaria* on account of its bladder fruit.

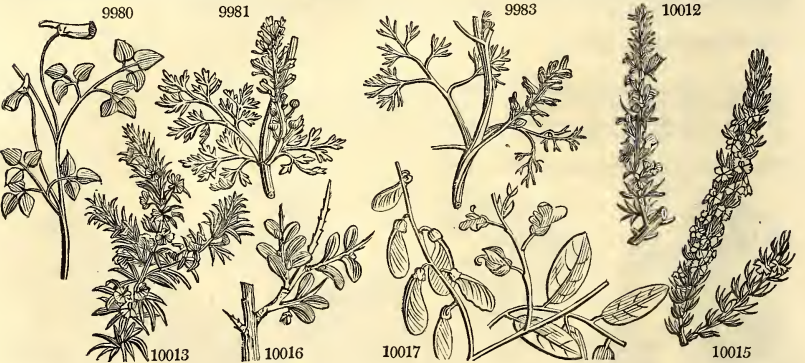
1504. *Diclytra*. So named by Borchhausen, a German botanist, on account of the two spurs or pouches of the flower. Handsome herbaceous plants, frequently cultivated among choice collections of rare flowers. Their roots are impatient of cold and wet, and should therefore be planted in a warm dry border well exposed to the southern sun.

1505. *Adumia*. A name unexplained by its author, M. Rafinesque Schmalz. A tall climbing annual plant of little beauty in its flowers, but covering a large space in the course of a summer.

1506. SARCOCAPNOS.	Dec. SARCOCAPNOS.			<i>Fumariaceæ.</i>	<i>Sp. 1—2.</i>			
9980 enneaphylla Dec.	nine-leaved	Δ	or	1 my.jl	P.Y	Spain	1714.	D co Bocc. 2. t. 73. f. 1
1507. FUMARIA. P. S.	FUMITORY.			<i>Fumariaceæ.</i>	<i>Sp. 4—10.</i>			
9981 officinalis P. S.	common	○	w	2 my.au	Pk	Britain	cul.gr.	S co Eng. bot. 589
9982 capreolata P. S.	ramping	○	w	4 my.s	F	Britain	corn fi.	S co Eng. bot. 943
9983 parviflora P. S.	small-flowered	○	w	2 au.s	Pk	England	corn fi.	S co Eng. bot. 590
9984 spicata P. S.	narrow-leaved	○	w	8 jl.au	F	S. Europe	1714.	S co M.his.3. t.12.f.11

OCTANDRIA.

1508. POLYGALA. W.	MILKWORT.			<i>Polygalææ.</i>	<i>Sp. 27—163.</i>			
9985 incarnata W.	flesh-colored	○	or	1 jn.jl	Pk	N. Amer.	1812.	S co Pluk. t. 438. f. 5
9986 amara W.	bitter	Δ	or	1 jn	B	Europe	1775.	D l.p Bot. mag. 2437
9987 vulgaris W.	common	○	or	1 my.jn	B	Britain	dry pa.	D s.l Eng. bot. 76
9988 major W.	large Austrian	○	or	1 jl.au	R	Austria	1739.	D s.l Jac. aust.5. t.41C
9989 paucifolia W.	naked-stalked	○	or	1/2 my.au	Pu	N. Amer.	1812.	D s.l
9990 bracteolata W.	spear-leaved	○	or	6 my.o	Pu	C. G. H.	1713.	S s.p Bot. mag. 345
9991 speciosa B. M.	showy	○	or	6 my.o	Pu	C. G. H.	1814.	C s.p Bot. reg. 150
9992 teretifolia W.	columnar-lvd.	○	or	3 my.au	Pu	C. G. H.	1791.	S s.p Bot. rep. 379
9993 purpurea H. K.	purple	○	or	1 my.jn	Pu	N. Amer.	1791.	C s.p
9994 virgata Th.	twiggy	○	or	3 my.au	Pu	C. G. H.	1812.	C s.p
9995 myrtifolia W.	Myrtle-leaved	○	or	3 my.au	Pu	C. G. H.	1707.	S p.l Bot. reg. 669
9996 oppositifolia W.	opposite-leaved	○	or	2 my.au	R	C. G. H.	1790.	C s.p Bot. mag. 492
9997 cordifolia W.	heart-leaved	○	or	3 mr.au	Pu	C. G. H.	1791.	C s.p Bot. mag. 2438
9998 tomentosa W.	woolly-leaved	○	or	2 mr.au	Pu	C. G. H.	1812.	C s.p
9999 Chamæbuxus W.	Box-leaved	○	or	1/2 my.jn	Y	Austria	1658.	Sk s.l Bot. mag. 316
10000 latifolia Ker.	broad-leaved	○	or	1/2 my.jn	Pu	C. G. H.	1820.	C s.l Bot. reg. 645
10001 ligularis Ker.	strap-leaved	○	or	1/2 my.au	Pu	C. G. H.	1820.	C s.p Bot. reg. 637
10002 filiformis W.	filiform	○	or	1/2 my.d	Pu	C. G. H.	1812.	C s.p
10003 micrantha W.	small-flowered	○	or	1/2 ja.d	Pu	C. G. H.	1800.	S s.p Bot. rep. 324
10004 paniculata W.	panicled	○	or	1/2 jl.au	Pa.pu	S. Amer.	1822.	S co Bot. reg. 761
10005 Senega W.	Rattlesnake root	○	or	1/2 jl	Y	N. Amer.	1739.	S co Bot. mag. 1051
10006 lutea W.	golden	○	or	1/2 jn.jl	Y	N. Amer.	1739.	S co Piu.am.t.438.f.6
10007 viridescens W.	greenish-flower.	○	or	1 jl.au	G.Pu	N. Amer.	1815.	S co
10008 humilis Lodd.	dwarf	○	or	1/2 my	Pk	C. G. H.	1817.	C s.p Bot. cab. 490
10009 sanguinea W.	purple-spiked	○	or	1 jls	Pu	N. Amer.	1739.	S co Pluk. t. 438.f.5
10010 verticillata W.	whorl-leaved	○	or	1/2 jl.au	W	N. Amer.	1739.	S co Pluk. t. 438. f. 4
10011 cruciata W.	four-leaved	○	or	1/2 jn.jl	G.Pu	N. Amer.	1739.	S co
1509. MURAL'TIA. Neck.	MURALTIA.			<i>Polygalææ.</i>	<i>Sp. 4—37.</i>			
10012 Heistéria W.	Furze-leaved	○	or	6 ja.d	Pu	C. G. H.	1787.	C s.p Bot. mag. 340
10013 alopecuroides W.	Foxtail	○	or	3 my.au	Pu	C. G. H.	1800.	S s.p Bot. mag. 1006
10014 stipulacea W.	stipuled	○	or	3 aps	R	C. G. H.	1801.	C s.p Bot. mag. 1715
10015 mixta W.	Heath-leaved	○	or	3 ja.d	Pu	C. G. H.	1791.	C s.p Bot. mag. 1714
1510. MUN'DIA. Kunth.	MUNDIA.			<i>Polygalææ.</i>	<i>Sp. 1.</i>			
10016 spinosa W.	spiny	○	or	3 ja my	Pu	C. G. H.	1780.	C s.p
1511. SECURIDA'CA. W.	SECURIDACA.			<i>Polygalææ.</i>	<i>Sp. 1—8.</i>			
10017 volubilis W.	climbing	○	ft	10 ...	W	W. Indies	1739.	C p.l Ja.am.t.183.f.38



History, Use, Propagation, Culture.

1506. *Sarcocapnos*. From σαρκος, flesh, and καπνος, fumitory. So named by Decandolle on account of the fleshy substance of the leaves of the plants contrasted with those of other allied genera.

1507. *Fumaria*. From *fumus*, smoke; in allusion to the disagreeable smell of the plant. The French, with the same meaning, call it *Fumeterre*, whence our English word *Fumitory*. The species are handsome weeds. *F. officinalis* was formerly considered a valuable antiscorbutic, and much used in obstructions of the viscera.

1508. *Polygala*. From πολυ, much, and γαλα, milk. Dioscorides says, that the plant was believed to excite the lactal secretions in women. The species are handsome free-flowering plants. The greenhouse kinds are highly ornamental, and some of them continue in bloom all the winter: *P. stipulacea* all the year. They grow freely in sandy loam, or loam and peat; and are readily increased by cuttings of the young wood, in sand, under a bell-glass.

P. vulgaris was thought to possess something of the properties of *P. Senega*. Sir J. E. Smith found that an infusion of the herb taken in a morning, fasting, about a quarter of a pint daily, promoted expectoration, and was good in a catarrhus cough. He tried it at Montpellier by the advice of Professor Gouan with success, and has since known it useful. Foreign writers celebrate it as a grateful and nutritious food for cattle. According to the Swedish experiments, kine, sheep, and goats eat it, but swine refuse it.

P. Senega has a woolly, branched, contorted root, about half an inch thick, and covered with ash-colored

9980 Leaves with a branched stalk triternate, Segments ovate angular

9981 Pods round retuse, Pedicels of fruit erect twice as long as bractes, Racemes lax

9982 Pods globose, Pedicels of fruit recurved longer than bract, Racemes oblong

9983 Pods globose with a little point, Pedicels of fruit erect longer than bract

9984 Pods compressed oval smooth, Raceme spiked, Pedicels much shorter than bract

OCTANDRIA.

9985 Flowers crested spiked, Stem herbaceous branched erect, Leaves alternate subulate

9986 Fl. crested racem. Wings of cal. 3-nerved blunt longer than cor. Stems erect, Lvs. blunt: rad. obovate

9987 Fl. crested racem. Wings of cal. 3-nerved blunt length of cor. Stems procumb. Leaves linear-lanc. acute

9988 Fl. crested. Racem. Wings of cal. many-nerv. blunt mucron. short. than cor. Stems erect, Lvs. lin. lanc. acute

9989 Fl. crested term. in threes, Stems quite simple erect naked beneath, Leaves ovate

9990 Fl. crested, Racem. term. Wings of cal. cuspidate many-nerv. Stem erect shrubby, Lvs. lin. lanc. smooth

9991 Fl. crest. Appendage double, Racemes without bractes subterm. many-fl. Lvs. altern. obl. cuneate smooth

9992 Fl. crest. Racem. term. few-fl. Wings of cal. ovate acute many-nerved, Stem shrubby, Lvs. linear subulate

9993 Fl. crested somewhat umbelled, Leaves ovate fleshy

9994 Fl. crested racemose, Bractes 3-leaved, Leaves obovate oblong

9995 Fl. crested, Racemes few-fl. term. Keel falcate, Stem shrubby, Leaves obl. bluntish smooth

9996 Fl. crested, Stem shrubby, Leaves opposite ovate acute

9997 Fl. crested, Racem. terminal, Stem shrubby, Branches downy, Leaves cordate mucronate opposite

9998 Fl. crested whorled, Leaves cordate downy beneath

9999 Fl. beardless, Pedunc. terminal and axill. about 2-fl. Stem shrubby, Leaves obl. lanceolate acute

10000 Fl. crested, Branches downy, Leaves decussating coriaceous glaucous ovate downy beneath

10001 Fl. crest. Branches vill. Lvs. scattered lingulate smooth, Outer lobe of the petals of vexillum very short

10002 Fl. beardless lateral, Leaves solitary 3-cornered mucronate

10003 Fl. beardless axillary sessile, Leaves linear mucronate

10004 Fl. crested, Racemes axillary on long stalks, Stems erect branched upwards, Leaves linear acute

10005 Fl. beardless, Spike terminal filiform, Stem erect herbaceous quite simple, Leaves oblong lanceolate

10006 Fl. beardless, Racem. cylindr. capitate terminal, Stem simple, Leaves obl. lanc. acute

10007 Fl. beardless globose capitate terminal, Stem erect simple, Leaves linear bluntish

10008 Leaves ovate-lanceolate imbricated, Stem branched decumbent

10009 Flowers beardless, Pedunc. squarrose, Stem branched erect

10010 Flowers beardless distant, Leaves linear whorled, Stem branched

10011 Flowers beardless in headed spikes, Leaves in fours linear-lanceolate, Stem somewhat branched erect

10012 Fl. beardless lateral, Stem arborescent, Leaves 3-cornered mucronate spiny

10013 Fl. beardless, Peduncles solitary axillary, Leaves fascicled ovate mucronate ciliated at edge

10014 Fl. beardless lateral, Leaves in threes linear acute

10015 Fl. beardless sessile, Leaves round mucronate very close

10016 Leaves obovate or oval, Branches short spiny

10017 Branches a little downy, Leaves oval-obl. acute, Racemes lateral



and Miscellaneous Particulars.

bark. It is inodorous; the taste is at first sweetish and nauseous, but after being chewed for less than a minute, becomes pungent and hot, producing a very peculiar tingling sensation in the fauces. Medically, it is considered stimulating, expectorant, and diuretic, and in large doses emetic and cathartic: it increases absorption, and consequently augments the natural excretions, particularly that of urine, and frequently occasions a copious pytalism. It was introduced to the notice of physicians by Dr. Tennant, who, having discovered that it was the antidote employed by the Senegare Indians against the bite of the rattle-snake, and reasoning from the effects of the poison, and of the remedy in removing these, was induced to try it in pneumonic affections, and found it useful. On account of its stimulant properties, however, it can be employed in these complaints only after the resolution of the inflammation by bleeding and evacuations. It proves more directly useful in humoral asthma, chronic catarrh, and some kinds of dropsy. (*Thomson's London Dispensatory*, p. 450.)

1509. *Muraltia*. Named after John Von Muralt, a Swiss botanist, who lived in the commencement of the eighteenth century. Handsome bushes, of easy cultivation in a greenhouse, or even in a good pit.

1510. *Mundia*. So named, in allusion, we presume, to the neatness (*munditia*) of its appearance. No explanation of the word is given by its author. Pretty little Cape bushes, easily cultivated in a good pit.

1511. *Securidaca*. From *securis*, a hatchet, in allusion to the form of the end of the pod. It grows freely in light loam, or loam and peat; and cuttings root in sand covered with a glass.

DECANDRIA.

1512. NISSOLIA. <i>W.</i>	NISSOLIA.	Leguminosæ.	Sp. 3—6.				
10018 fruticosa <i>W.</i>	shrubby	♂	□	or	15	jl.n	Y S. Amer. 1766. S p.l Jac. vind.2. t.167
10019 retusa <i>W. en.</i>	blunt	♀	□	or	6	...	... S. Amer. 1819. C s.l
10020 glabrata <i>Link.</i>	polished	♀	□	or	12	...	... W 1823. C s.l
1513. DALBERGIA. <i>W.</i>	DALBERGIA.	Leguminosæ.	Sp. 4—9.				
10021 latifolia <i>W.</i>	broad-leaved	♂	□	or	30	...	... W E. Indies 1811. C s.l Rox. cor.2. t.113
10022 rubiginosa <i>W.</i>	climbing	♂	□	or	10	...	... W E. Indies 1811. C s.l Rox. cor.2. t.115
10023 paniculata <i>W.</i>	panicled	♂	□	or	30	...	... W E. Indies 1811. C s.l Rox. cor.2. t.114
1514. PONGAMIA. <i>Vent.</i>	PONGAMIA.	Leguminosæ.	Sp. 1—3.				
10024 glabra <i>P. S.</i>	smooth-leaved	♂	□	or	30	...	... W E. Indies 1699. C s.l Vent.malm. t.23
1515. PTEROCARPUS. <i>W.</i>	PTEROCARPUS.	Leguminosæ.	Sp. 3—9.				
10025 Marsipium <i>W.</i>	emarginate-lyd.	♂	□	or	40	...	... W E. Indies 1811. C s.l Rox. cor.2. t.116
10026 lunatus <i>W.</i>	crescent-podded	♂	□	or	6	...	... W S. Amer. 1792. C s.l Lam.ill. t.602.f.5
10027 santalinus <i>W.</i>	Red Saunders Wood	♂	□	or	60	...	... Y E. Indies 1800. C s.l
1516. ECASTAPHYL/LUM. <i>Rich.</i>	ECASTAPHYLLUM.	Leguminosæ.	Sp. 1—4.				
10028 Brow'nei <i>Rich.</i>	oval-leaved	♂	□	or	10	...	... W W. Indies 1733. C r.m Br. jam. t. 32. f.1
1517. GEOFFROYA. <i>W.</i>	BASTARD CABBAGE-TREE.	Leguminosæ.	Sp. 1—5.				
10029 inermis <i>W.</i>	smooth	♂	□	or	8	...	... Jamaica 1778. C p.l Ph.tran.1777.t.10
1518. DIP'TERIX. <i>W.</i>	TONQUIN BEAN.	Leguminosæ.	Sp. 1—2.				
10030 odorata <i>W.</i>	sweet-scented	♂	□	or	60	...	... Pu Guiana 1793. C l.p Aub. gui.2. t.296
1519. PARIVOA. <i>Aubl.</i>	PARIVOA.	Leguminosæ.	Sp. 1.				
10031 grandiflora <i>Aubl.</i>	large-flowered	♂	□	or	30	...	... Pu Guiana 1821. C r.m Aub. gui. t. 303
1520. AMERIM'NUM. <i>W.</i>	AMERINNUM.	Leguminosæ.	Sp. 3—5.				
10032 Brownei <i>W.</i>	Browne's	♂	□	or	10	...	... W W. Indies 1793. C r.m Ja.am. t.180. f.58
10033 latifolium <i>W.</i>	broad-leaved	♂	□	or	12	...	... Y S. Amer. 1814. C l.p Ja.am. t.177. f.50
10034 E'benus <i>W.</i>	Jamaica Ebony	♂	□	or	12	jl.au	Y W. Indies 1713. C r.m Br. jam. t. 31. f.2
1521. ERYTHRINA. <i>W.</i>	CORAL TREE.	Leguminosæ.	Sp. 10—21.				
10035 herbacea <i>W.</i>	herbaceous	♀	□	or	3	jn.s	S Carolina 1724. C l.p Bot. mag. 877
10036 carnea <i>W.</i>	flesh-colored	♀	□	or	12	my	Pk Vera Cruz 1733. S r.m Trew. ehret. t. 8
10037 Corallodendrum <i>W.</i>	smooth-leaved	♀	□	or	20	my.jn	S W. Indies 1690. S r.m Com.hor.1. t.108
10038 indica <i>W.</i>	Indian	♀	□	or	20	...	... S E. Indies 1814. S r.m Rheed.mal.6. t.7
10039 fusca <i>W.</i>	brown-flowered	♀	□	or	20	...	... S E. Indies 1800. C l.p Run.amb.2. t.8
10040 caffra <i>W.</i>	Cape	♀	□	or	6	...	... S C. G. H. 1816. C l.p Bot. reg. 736
10041 picta <i>W.</i>	prickly-leaved	♀	□	or	6	...	... S E. Indies 1696. S r.m Run.amb.2. t.77
10042 speciosa <i>H. K.</i>	large-flowered	♀	□	or	10	au.o	S W. Indies 1805. S r.m Bot. rep. 443



History, Use, Propagation, Culture,

1512. *Nissolia*. In honor of William Nissolle, an industrious French botanist. He was a member of the academy of Montpellier, and author of some papers in its Transactions. He was born in 1647, and died in 1735. Cuttings root in sand, but not very readily.

1513. *Dalbergia*. Nicholas Dalberg was surgeon in ordinary to the king of Sweden, and published in 1755 a work upon the Metamorphoses of Plants. Another Dalberg, a pupil of Linnæus, travelled in Dutch Guiana, whence he communicated specimens to his preceptor. Ripened cuttings root in sand.

1514. *Pongamia*. An alteration of the vernacular name of the plant in India.

1515. *Pterocarpus*. From πτερον, a wing, and καρπος, fruit. Its pods have membranous wings. *P. santalinus* is a lofty tree, with alternate branches, and a bark resembling that of the common alder; it yields the true official red saunders wood, first detected by Koenig in India. It is brought home in billets, which are very heavy, and sink in water. Red saunders wood has an aromatic odor, and is nearly insipid. It is extremely hard, of a fine grain, takes a high polish, and a bright garnet red color, which deepens on exposure to the air. It yields its coloring matter, which appears to be of a resinous nature, to ether and alcohol, but not to water. (*Thomson's London Dispensatory*, 458.)

The sap yields one sort of *Sanguis draconis*. Many of the red Indian woods trasude a blood red juice through the clefts of the bark, which hardens into a red resin, not differing from *Sanguis draconis*, which, therefore, is collected from several trees, and from this among others. (*Linn. Suppl.*) This drug, however, is chiefly obtained from the *P. Draco*, and the fruit of *Calamus Rotang*.

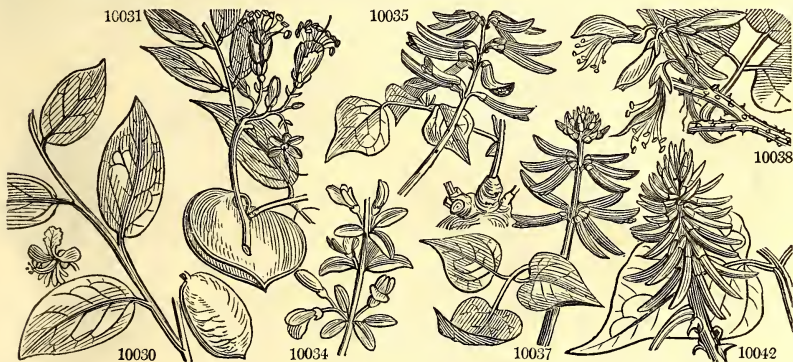
In our stoves these plants thrive in light loamy soil; and cuttings, with their leaves untouched, will root in sand under a common hand-glass.

1516. *Ecastaphyllum*. From εκατος, every one, and φυλλον, a leaf; that is to say, a leaf which is always simple, and not compounded of several others, as those of neighbouring genera.

1517. *Geoffroya*. In honor of Etienne Francois Geoffroi, Memb. Acad. Par., Professor of botany at the Jardin du Roi, and a foreign member of the Royal Society of London. He was the author of several medical botanical works, especially of a *Materia Medica*. He was born in 1672, and died in 1731. A tree, branchy at top, with a smooth grey bark and pinnate leaves; and, what is remarkable in papilionaceous plants, a drupe for a fruit.

DECANDRIA.

- 10018 Stem shrubby twining, Leaves pinnated, Leaflets ovate acute smoothish
 10019 Leaves pinnated, Leaflets ovate-oblong emarginate
 10020 Leaves ternate and quinately, Leaflets oval acuminate smooth, Fl. racemose
- 10021 Leaves pinnated, Leaflets roundish emarginate, Fruit lanceolate
 10022 Leaves pinnated, Leaflets obl. obtuse, Branches and petioles downy
 10023 Leaves pinnated, Leaflets ellipt. emarginate smooth, Panicle terminal, Fruit lanceolate
- 10024 Leaves pinnated, Leaflets ovate acuminate smooth, Fruit ovate acute veinless
- 10025 Leaves pinnated, Leaflets elliptical emarginate, Stipules none, Panicle termin.
 10026 Leaves pinnated, Spines stipulary, Fruit lunate
 10027 Leaves ternate roundish blunt quite smooth, Petals crenate wavy
- 10028 Leaves simple cordate-ovate downy beneath
- 10029 Unarmed, Leaflets ovate-lanceolate
- 10030 Leaves alternate, Raceme terminal
- 10031 Leaves pinnated, Flowers smooth
- 10032 Unarmed, Leaves simple stalked alternate subcordate ovate, Racemes compound axillary and lateral
 10033 Leaves pinnated, Leaflets ovate acuminate, Stem arboreous
 10034 Spiny, Leaves subsessile aggregate obovate oblong, Peduncles 2-flowered
- 10035 Leaves ternate rhomboid smooth, Stem herbaceous unarmed, Calyxes fruncate
 10036 Leaves ternate smooth, Stem arboreous prickly, Calyxes campanulate truncate
 10037 Leaves ternate unarmed, Stem arboreous prickly, Calyxes truncate 5-toothed
 10038 Leaves ternate unarmed, Stem arboreous prickly, Calyxes spatheaceous
 10039 Leaves ternate unarmed lanceolate, Stem arboreous prickly, Calyxes bifid
 10040 Leaves ternate unarmed, Leaflets blunt, Stem arboreous prickly
 10041 Leaves ternate prickly, Stem arboreous prickly
 10042 Leaves ternate prickly beneath, Petioles unarmed, Stem prickly



and Miscellaneous Particulars.

This drupe is large, subovate, and incloses a woody nut. The bark, which has a mucilaginous sweetish taste and a disagreeable smell, was first noticed as a vermifuge by Peter Duguid; but Dr. Wright, who resided a long time at Jamaica, has communicated the fullest information concerning this tree. According to him, the bark is powerfully medicinal; and its anthelmintic effects have been established at Jamaica by long experience.

1518. *Dipterix*. From $\delta\iota\varsigma$, double, and $\pi\tau\epsilon\rho\upsilon\varsigma$, a wing, in allusion to the two appendages of the calyx. A tree much branched at top, with large alternate pinnate leaves, and racemes of flowers succeeded by almond-like fruits. The kernels of these are very fragrant, and are put by the Creoles into chests of clothes, in order to drive away insects, and communicate a grateful odor. They are in their own country called *Tonga*, and are the sweet-scented seed sold in shops under the corrupted name of *Tonquin* bean, for perfuming snuff and other substances. Ripened cuttings root in sand in moist heat.

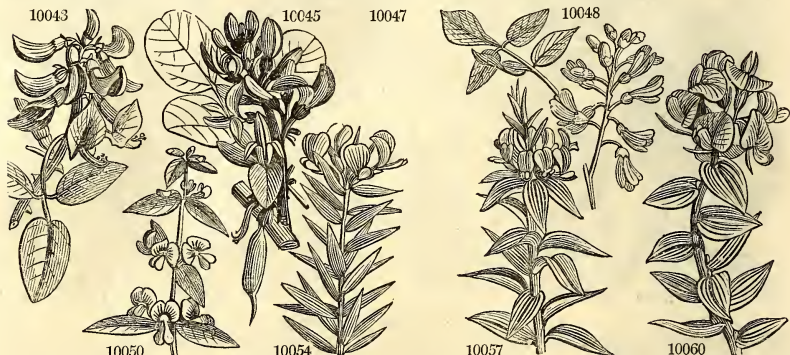
1519. *Parivoa*. The name of the tree in Guiana. A very handsome tree.

1520. *Amerimnum*. One of the names given to the Houseleek by the Greeks. It is derived from α , private, and $\mu\epsilon\sigma\iota\mu\epsilon\nu\alpha$, care, because the plants require no attention. It is not easy to tell why the name was applied to this genus, which has nothing in common either with the Houseleek or its ancient name. *A. Ebenus* is common in the West Indies, and the wood is sent to Europe under the name of *American Ebony*. Though not the true ebony, yet being of a fine greenish-brown color, and polishing well, it is much coveted by the instrument makers, and is of a very hard durable nature. The flowers of *Amerimnum latifolium* are yellow, and smell like new hay. In our stoves the species may be treated like *Pterocarpus*.

1521. *Erythrina*. From $\epsilon\rho\upsilon\theta\rho\omicron\varsigma$, red; nearly all the species being remarkable for the brilliant scarlet color of their flowers. The species are small trees, prickly or unarmed, or else shrubs, sometimes almost herbaceous; leaves, as in *Dolichos*, ternate, stipulaceous, the petiolules jointed and awned, or glandular, very seldom simple; flowers in fascicles from the axils, or in spikes at the end of the stem and branches, often scarlet. (*Jussieu*.)

In our stoves they thrive well in a light loamy soil. "The best way to flower them," Sweet observes, "is to place them on a dry shelf in winter, when they have no leaves, and give them scarcely any water; when they show flower-buds, they may be plunged in a moist heat, which will make the flowers finer than they

10043	Crista-galli <i>W.</i>	Cock's-Comb	♂	□	or	40	my,jl	S	Brazil	1771.	S	r,m	Exot. bot. 2. t. 95
10044	ovális <i>Wull.</i>	oval	♂	□	or	6	...	S	Nepal	1820.	C	l,p	
1522.	BU'ŦEA. <i>W.</i>	BUTEA.							<i>Leguminosæ.</i>	Sp. 2.			
10045	frondósa <i>W.</i>	downy-branch.	♂	□	spl	30	...	S	E. Indies	1796.	C	r,l	Roxb. cor. 1. t. 21
10046	supérba <i>W.</i>	smooth-branch.	♂	□	spl	30	...	S	E. Indies	1798.	C	r,l	Roxb. cor. 1. t. 22
1523.	VIBOR'GIA. <i>W.</i>	VIBORGIA.							<i>Leguminosæ.</i>	Sp. 1-4.			
10047	sericea <i>W.</i>	silky	♂	□	or	3	jl,au	Y	C. G. H.	1780.	C	l,p	
1524.	PISCIDIA. <i>W.</i>	PISCIDIA.							<i>Leguminosæ.</i>	Sp. 1-5.			
10048	Erythrina <i>W.</i>	Jamaica Dogw.	♂	□	tm	25	...	W	W. Indies	1690.	S	p,l	Lam. ill. t. 605
1525.	PLATYLO'BIIUM. <i>Sm.</i>	FLAT-PEA.							<i>Leguminosæ.</i>	Sp. 3-5.			
10049	formósum <i>H. K.</i>	large-flowered	♂	□	or	4	jn,au	Or	N. S. W.	1790.	S	s,p	Bot. mag. 469
10050	parviflorum <i>H. K.</i>	small-flowered	♂	□	or	4	my,s	Or	N. S. W.	1792.	S	s,p	Bot. mag. 1520
10051	trianguláre <i>H. K.</i>	triangular-lyd.	♂	□	or	4	jn,s	Or	V. Di. L.	1805.	S	s,p	Bot. mag. 1508
1526.	BORBO'NIA. <i>W.</i>	BORBONIA.							<i>Leguminosæ.</i>	Sp. 9-11.			
10052	ericifolia <i>W.</i>	Heath-leaved	♂	□	or	4	jl,au	Y	C. G. H.	1812.	C	l,p	
10053	trinervia <i>W.</i>	three-nerved	♂	□	or	6	jl,au	Y	C. G. H.	1759.	S	p,l	Phu. alm. t. 297. f. 4
10054	lanceolata <i>W.</i>	many-nerved	♂	□	or	5	jl,au	Y	C. G. H.	1752.	C	p,l	Jac. schœ. 2. t. 217
10055	perfoliata <i>W.</i>	perfoliate	♂	□	or	6	jl,au	Y	C. G. H.	1812.	C	p,l	
10056	undulata <i>W.</i>	wave-leaved	♂	□	or	4	jl,au	Y	C. G. H.	1812.	C	p,l	
10057	cordata <i>W.</i>	heart-leaved	♂	□	or	6	jl,s	Y	C. G. H.	1759.	S	p,l	Jac. schœ. 2. t. 218
10058	crenata <i>W.</i>	notched-leaved	♂	□	or	6	jn,au	Y	C. G. H.	1774.	S	p,l	Bot. mag. 274
10059	lævigata <i>B. C.</i>	polished	♂	□	or	3	jl,au	Y	C. G. H.	1799.	S	p,l	Bot. cab. 247
10060	ruscifolia <i>B. M.</i>	Butcher's Broom	♂	□	or	3	jl	Y	C. G. H.	1790.	S	p,l	Bot. mag. 2128
1527.	RAF'NIA. <i>Th.</i>	RAFNIA.							<i>Leguminosæ.</i>	Sp. 1-4.			
10061	triiflora <i>W.</i>	three-flowered	♂	□	or	3	jn,jl	Pu	C. G. H.	1786.	S	s,l	Bot. mag. 482
1528.	ASPA'LATHUS. <i>W.</i>	ASPALATHUS.							<i>Leguminosæ.</i>	Sp. 18-75.			
10062	Chenopodia <i>W.</i>	Goosefoot	♂	□	pr	3	jl,au	Y	C. G. H.	1759.	C	p,l	Breyn. cent. t. 11
10063	ábens <i>W.</i>	silky	♂	□	pr	4	jl,au	W	C. G. H.	1774.	C	p,l	
10064	pedunculata <i>H. K.</i>	small-leaved	♂	□	pr	6	jl,au	Y	C. G. H.	1775.	S	p,l	Bot. mag. 344
10065	ericifolia <i>W.</i>	Heath-leaved	♂	□	pr	2	jl,au	Y	C. G. H.	1789.	C	p,l	Pl. man. t. 413. f. 6
10066	asparagoides <i>W.</i>	Asparagus-lyd.	♂	□	pr	3	jl,au	Y	C. G. H.	1812.	C	p,l	
10067	carnea <i>W.</i>	fleshy-leaved	♂	□	pr	3	my,jn	Y	C. G. H.	1795.	C	p,l	Bot. mag. 1289
10068	crassifolia <i>B. Rep.</i>	bristle-pointed	♂	□	pr	2	jl,au	Y	C. G. H.	1800.	S	p,l	Bot. rep. 353
10069	ciliaris <i>W.</i>	ciliated	♂	□	pr	3	jl,au	Y	C. G. H.	1799.	C	p,l	Bot. mag. 2233
10070	uniiflora <i>W.</i>	single-flowered	♂	□	pr	3	jl,au	Y	C. G. H.	1812.	C	p,l	Pl. man. t. 414. f. 7
10071	subulata <i>W.</i>	awl-leaved	♂	□	pr	1	jl,au	Y	C. G. H.	1789.	C	p,l	
10072	globosa <i>B. Rep.</i>	globular	♂	□	pr	3	jn,jl	Or	C. G. H.	1802.	S	p,l	Bot. rep. 510
10073	araneosa <i>W.</i>	cobweb	♂	□	pr	3	jn,jl	Y	C. G. H.	1795.	S	p,l	Bot. mag. 829
10074	indica <i>W.</i>	Indian	♂	□	pr	3	jl,au	R	E. Indies	1759.	S	p,l	Rhœc. mal. t. 37
10075	argentea <i>W.</i>	silver-leaved	♂	□	pr	2	jl,au	Y	C. G. H.	1759.	C	p,l	
10076	candicans <i>H. K.</i>	white	♂	□	pr	2	jn,jl	Y	C. G. H.	1774.	C	l,p	
10077	callosa <i>W.</i>	oval-spiked	♂	□	pr	3	jl,au	Y	C. G. H.	1812.	C	l,p	Bot. mag. 2329
10078	mucronata <i>W.</i>	thorny-branch.	♂	□	pr	3	jn,jl	Y	C. G. H.	1796.	C	l,p	
10079	africanus <i>Thunb.</i>	kindred	♂	□	pr	3	jn,jl	Y	C. G. H.	1822.	C	l,p	



History, Use, Propagation, Culture,

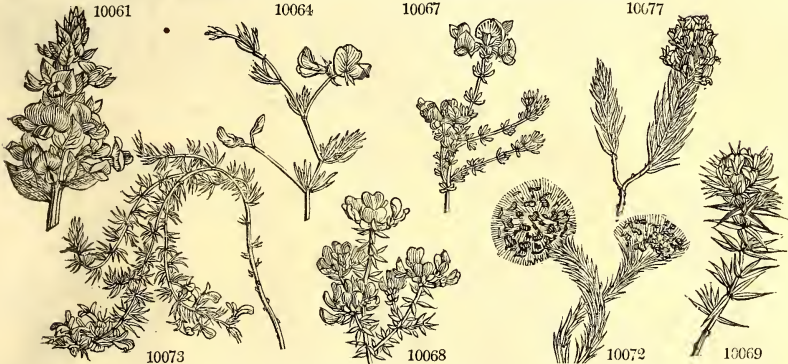
would be, if the plants stay out till they are in bloom. Cuttings taken off at a joint, and planted in sand, without being deprived of any of their leaves, strike root readily under a hand-glass in moist heat." (*Bot. Cult.* 54.)

1522. *Butea*. Named in honor of the late Earl of Bute, a munificent patron of botanical science. This splendid genus, though of free growth and easy propagation, is yet rare in British collections. From *B. frondosa* is obtained the *Gum lac* of commerce. Infusions of the flowers dye cotton cloth, previously impregnated with a solution of alum, or of alum and tartar, of a beautiful yellow color. The plant grows in loam and peat, and "cuttings should be taken off at a joint, and planted in a pot of sand, without being deprived of any of their leaves: one pot is enough under a hand-glass, as the leaves take up much room, and, if too confined, are apt to damp off. They should be plunged in a moist heat." (*Bot. Cult.* 50.)

1523. *Viborgia*; usually written *Wiborgia*, received its name after M. Eric Viborg, a learned and acute Danish botanist, author of several botanical treatises in his own language in the end of the eighteenth century. The species, like those of the four preceding genera, may be treated as *Scotia*.

1524. *Piscidia*. From *piscis*, a fish; the inhabitants of America use the bark as a fish poison. This tree has spreading branches and pinnate leaves, and is very common in Jamaica, where it is reckoned one of the best timber-trees in the island. The wood is very hard and resinous, and lasts almost equally in or out of water. It is of a light-brown color, coarse, cross-grained, and heavy. (*Brownæ*.) It makes excellent piles for wharfs. The stakes soon form a good live fence. The bark of the trunk is very astringent; a decoction of it stops the immoderate discharge of ulcers, especially when it is combined with the mangrove bark; it cures the mange in dogs, and would probably answer well for tanning leather. (*Long*, 824.) The bark of the root is used for the same purposes and with the same effects as the leaves and branches of Surinam poison; it is pounded and mixed with the water in some deep and convenient part of a river or creek, when ce it may spread itself;

- 10043 Leaves ternate, Petioles prickly glandular, Stem arboreous unarmed
 10044 Leaves ternate oblong oval blunt
- 10045 Branches downy, Leaflets roundish emarginate
 10046 Branches smooth, Leaflets obovate roundish blunt
- 10047 Leaflets and twiggy branches pubescent
- 10048 Leaves unequally pinnate, Leaflets ovate
- 10049 Leaves cordate ovate, Ovary hairy
 10050 Leaves lanceolate ovate, Ovary smooth
 10051 Leaves deltoid or hastate with spiny angles
- 10052 Leaves sublinear acute villous beneath, Heads terminal
 10053 Leaves lanceolate 3-nerved entire
 10054 Leaves lanceolate many-nerved entire
 10055 Leaves amplexicaul. entire netted
 10056 Leaves amplexicaul. wavy with a redexed mucro
 10057 Leaves cordate many-nerved entire
 10058 Leaves cordate many-nerved toothletted
 10059 Leaves ovate cordate acuminate pungent, Stem hirsute
 10060 Leaves rigid pointed pungent oblong dense
- 10061 Leaves ovate smooth, Branches angular, Peduncles 3 lateral 1-flowered
- 10062 Leaves fascicled 3-angular mucronate stiff hairy, Heads hairy
 10063 Leaves fascicled filiform silvery blunt, Racemes leafy, Flowers not hairy
 10064 Leaves fascicled subulate smooth, Pedunc. filiform twice as long as leaf
 10065 Leaves fascicled filiform blunt hairy, Flowers somewhat racemose
 10066 Leaves fascicled 3-cornered mucronate hairy, Flowers lateral
 10067 Leaves fascicled fleshy round smooth, Fl. lateral and terminal, Flowers smooth
 10068 Leaves fascicled fleshy round smooth setaceous at end, Fl. capitate terminal
 10069 Leaves fascicled scabrous somewhat hairy, Heads terminal
 10070 Leaves fascicled filiform mucronate smooth, Flowers lateral
 10071 Leaves fascicled 3-cornered mucronate smooth
 10072 Leaves linear downy imbricated, Heads terminal crowded
 10073 Leaves fascicled filiform lax hairy, Heads hairy
 10074 Leaves quinque sessile, Peduncles 1-flowered
 10075 Leaves ternate and fascicled ovate silky, Heads downy, Stem dichotomous
 10076 Leaves ternate and fascicled filiform silky, Fl. somewhat lateral, Vexillum naked
 10077 Leaves three 3-cornered smooth, Spikes ovate
 10078 Leaves ternate, Leaflets blunt, Branches spiny
 10079 Leaves fascicled fleshy round smooth, Flowers lateral without bractes, Branches twiggy



and Miscellaneous Particulars.

in a few minutes the fish that lie hid under the rocks or banks rise to the surface, where they float as if they were dead; most of the large ones recover after a time, but the smaller fry are destroyed. The eel is not intoxicated with common doses, though it is affected very sensibly; for the moment the particles spread where it lies, it moves off with great agility. Jacquin observes that this quality of intoxicating fish is found in many other American plants.

It is a very free grower in our stoves, but is seldom allowed to grow large enough to flower. Cuttings root in sand under a hand-glass.

1525. *Platylobium*. From *πλατυς*, broad, and *λοβος*, a pod, in allusion to the form of the pod. Handsome free-flowering plants, which grow in sandy loam and peat; and are increased by cuttings in sand under a hand-glass, or by seeds.

1526. *Borbonia*. In memory of Gaston Bourbon, Duke of Orleans, son of Henry IV. of France, a great lover and patron of botany. See *Gastonia*. Shrubs of easy culture and propagation.

1527. *Rafnia*. Named, according to Sir James Smith, after Mr. C. G. Rafn of Copenhagen, author of a Flora of Denmark and Holstein, published in 1796 and 1800, in two octavo volumes. A genus of Cape plants, separated from the Linnean *Crotalaria* and *Liparia*.

1528. *Aspalathus*. A native of the island *Aspalathus* on the coast of Lycia. It was a common practice with the ancients to fix the names of places upon certain plants, as *Cytisus*, *Lycium*, and others. It is not certain what plant the ancients intended by their *Aspalathus*. Shrubs and under-shrubs, with fasciculate linear leaves, and yellow flowers, all of which grow freely in a mixture of sandy loam and peat; and young cuttings, planted in sand under bell-glasses will strike root freely, if the glasses are wiped occasionally, otherwise they are liable to damp off. Some species ripen seeds freely, by which young plants are readily produced. (*Bot. Cult.* 140.)

1529. SARCOPHYLLUM. Th. Sarcophyllum.	Leguminosæ. Sp. 1.								
10080 carnosum Th. jointed-leaved	my.au Y	C. G. H.	1812.	C	s.l	Bot. mag.	2502		
1530. CROTALARIA. W. CROTALARIA.	Leguminosæ. Sp. 40-87.								
10081 sagittalis W. Virginian	jn.jl Y	America	1731.	S	co	Plu.am.t.169.f6			
10082 prostrata W. en. prostrate	jl Y	E. Indies	1804.	S	co				
10083 floribunda B. C. many-flowered	jl.au Y	C. G. H.	1810.	C	co	Bot. cab. 509			
10084 rubiginosa W. ferruginous	jl Or	E. Indies	1807.	S	co				
10085 platycarpa Link. flat-podded	jl Y	N. Amer.	1823.	S	co				
10086 anthylloides H. K. large-fl.-cupped	4 au.s Y	E. Indies	1789.	C	s.l	Bot. rep. 593			
10087 tetragona H. K. square-stalked	2 on Y	E. Indies	1806.	S	co				
10088 paulina Schranck. St. Pauls	2 au.s Y	Brazil	1823.	S	s.l				
10089 parviflora Roth. small-flowered	2 au.s Y	E. Indies	1817.	S	co				
10090 benghalensis P. S. Bengal	2 jn.jl Y	E. Indies	1806.	S	s.l	Plu.alm.t.169.f5			
10091 junca W. striated-stalked	1 jn.jl Y	E. Indies	1700.	S	p.l	Bot. rep. 422			
10092 diffusa Link. diffuse	un Y	.....	.....	S	co				
10093 nepalensis Link. Nepal	un jn.jl B	Nepal	1823.	S	co				
10094 fenestrata B. M. window-calyxed	un 2 jn.jl Y	E. Indies	1815.	S	p.l	Bot. mag. 1933			
10095 sericea W. silky	un 1 1/2 jn.jl Y	E. Indies	1807.	S	p.l				
10096 retusa W. wedge-leaved	un 1 jn.jl Y.Pu	E. Indies	1731.	S	p.l	Bot. rep. 253			
10097 verrucosa W. blue-flowered	un 1 jl.au B	E. Indies	1731.	C	r.m	Bot. rep. 308			
10098 micans Link. glittering	un 2 jl.au Pa.Y	.....	1820.	C	co				
10099 curtata Link. short-keeled	un 1 ap.my Y	.....	.....	S	co				
10100 pulchra H. K. short-podded	un 2 mr.my Y	E. Indies	1800.	S	p.l	Bot. rep. 601			
10101 semperflorans P. S. ever-blowing	un 3 mr.s Y	E. Indies	1816.	S	p.l	Vent. cels. t. 17			
10102 hirta W. en. hairy	un 1 1/2 jn.au Y	E. Indies	1816.	S	p.l				
10103 biflora W. two-flowered	un 1 1/2 jl.au Y	E. Indies	1790.	S	p.l	Bur. ind t.48. f.2			
10104 micrantha Link. small-flowered	un 1 jl.au Y	Ceylon	1823.	S	p.l				
10105 vitellina Ker. Yolk of egg	un 2 2 my.jn Y	Brazil	1819.	C	co	Bot. rep. 447			
10106 pulcherrima B. M. Mysore	un 2 2 jn.jl Y	Mysore	1814.	C	co	Bot. mag. 2027			
10107 paniculata W. panicked	un 3 3 or Y	E. Indies	1807.	C	lp				
10108 lotifolia W. Lotus-leaved	un 3 3 jn.jl Y.G	Jamaica	1732.	S	co	Dil.el.t.102.f.121			
10109 laburnifolia W. Laburnum-lyd.	un 5 5 jls Y	E. Indies	1739.	S	co	Rhee.mal.9.t.27			
10110 cordifolia W. heart-leaved	un 8 ap.jn Y	Pu	1790.	C	p.l				
10111 purpurea H. K. dark-purple	un 4 mr.my Pu	C. G. H.	1790.	C	p.l	Bot. rep. 128			
10112 pulchella H. K. large-flowered	un 3 jl.au Y	C. G. H.	1800.	C	p.l	Bot. mag. 1699			
10113 Saitiana B. Kcp. Salt's	un 3 jn.jl Y	Abyssinia	1810.	C	p.l	Bot. rep. 648			
10114 axillaris W. axil-flowered	un 1 1/2 jl.au Y	Guinea	1781.	S	p.l				
10115 orixensis W. en. strigose	un 1 1/2 jl.au Y	E. Indies	1816.	S	p.l				
10116 incanescens W. spreading	un 6 jn.o Y	C. G. H.	1774.	S	s.p	Jac. vind. 3. t. 64			
10117 incana W. hoary	un 2 jn.jl G.v	W. Indies	1714.	S	s.p	Bot. rep. 377			
10118 pallida W. pale-flowered	un 2 jn.jl Pa.Y	Africa	1775.	S	s.p				
10119 angustifolia W. narrow-leaved	un 1 1/2 my.s Pa.Y	C. G. H.	1815.	S	s.p	Jac.schœ.2.t.219			
10120 quinquefolia W. five-leaved	un 1 jn.jl Y	E. Indies	1792.	C	s.p	Rhee. mal.9. t.28			
1531. BOSSIAEA. Sm. BOSSIAEA.	Leguminosæ. Sp. 8-12.								
10121 Scolopendrium H. K. Plank-plant	un 10 my.jl Y	N. S. W.	1792.	C	s.l.p	Bot. rep. 191			
10122 rufa H. K. red-flowered	un 6 jn.s R	N. Holl.	1803.	C	s.l.p				
10123 heterophylla V. various-leaved	un 3 my.d Y	N. S. W.	1792.	C	s.l.p	Bot. mag. 1144			
10124 inophylla H. K. narrow-leaved	un 3 jls Or	N. Holl.	1803.	C	s.l.p	Bot. mag. 2491			
10125 prostrata H. K. procumbent	un 1 1/2 jls Y	N. S. W.	1803.	C	s.l.p	Bot. mag. 1493			
10126 cinerea H. K. downy sharp-ly.	un 3 my.jl Y	V. Di. Isl.	1803.	C	s.l.p	Bot. rep. 306			
10127 microphylla H. K. small-leaved	un 3 my.au Y	N. S. W.	1803.	C	s.l.p	Bot. cab. 656			
1532. SCOTIA. R. Br. SCOTIA.	Leguminosæ. Sp. 1.								
10128 dentata R. Br. tooth-leaved	un 3 jn.s N. Holl.	1803.	C	s.p					
1533. TEMPLETONIA. H. K. TEMPLETONIA.	Leguminosæ. Sp. 2.								
10129 retusa H. K. wedge-leaved	un 2 mr.jn R	N. Holl.	1803.	C	s.p	Bot. mag. 2334			
10130 glauca B. M. glaucous	un 2 ap.my R	N. Holl.	1818.	C	s.p	Bot. rep. 859			



History, Use, Propagation, Culture,

1529. *Sarcophyllum*. From σαρκ, flesh, and φλλον, a leaf. The leaves are thick and fleshy. A somewhat succulent plant, easily injured by over-watering; but otherwise not difficult to preserve or increase.

1530. *Crotalaria*. Κροταλον was the name of a noisy Greek musical instrument, similar to the cymbals of the present day. The pods of this genus are inflated, and rattle, when shaken, in a similar manner. The species are all of easy culture, mostly free-flowerers; but they are shabby plants under cultivation, and possess no good quality which can render them objects of interest or beauty.

1531. *Bossiaea*. Named by Ventenat, after M. Boissieu-Lamartinière, who accompanied the unfortunate La Pérouse in his voyage round the world. This beautiful genus, according to Sweet, "thrives best in an equal mixture of sandy loam and peat; if not very sandy, some sand must be added to it to have the plants in health. The pots must be well drained with broken potsherds, as nothing injures them more than too much

10080 The only species

- 10081 Leaves simple obl. lanceolate, Stipules lanceolate acuminate decurrent, Racemes opposite the leaves
 10082 Leaves simple lanc. ellipt. blunt downy beneath, Racemes opposite the leaves
 10083 Leaves very small ternate glaucous, Racemes few-flowered, Vexillum reflexed
 10084 Leaves simple lanc. villous, Upper stipules lanc. decurrent, Racemes opposite the leaves, Cal. villous
 10085 Branches winged upwards, Lower leaves obl. : upper lanc. acute hairy, Racemes lateral
 10086 Leaves simple lin. lanc. acute villous beneath, Flowers and pods inclosed in hairy calyx
 10087 Leaves simple long-lanc. Pods downy, Raceme terminal, Stem square
 10088 Leaves obl. lanceolate silky beneath, Fl. racemose, Bractes linear much shorter than pedicel
 10089 Leaves simple lanc. Upper stipules decurrent with 2 short teeth, Racemes opposite the leaves
 10090 Leaves lanceolate subsessile, Lower lip of cal. 3-parted beyond the middle, Stem virgate simple
 10091 Leaves simple lanc. subsessile, Pods smooth, Raceme terminal, Stem furrowed
 10092 Leaves lanceolate blunt hairy, Fl. terminal, Calyx hairy as long as corolla
 10093 Leaves lanceolate, Raceme terminal, Cal. very villous as long as corolla
 10094 Leaves simple ov. lanceolate silky ciliated, Standard large erect pointed
 10095 Leaves simple lanc. beneath, Pods silky, Raceme terminal, Stem furrowed
 10096 Leaves simple obl. cuneiform retuse, Raceme terminal
 10097 Leaves simple ovate retuse, Stipules lunate declinate, Raceme term. Branches square
 10098 Leaflets 3 oval acute, Hairs shining scattered, Racemes opposite the leaves
 10099 Leaflets 3 oval blunt with scattered hairs, Raceme terminal long, Keel shorter than vexillum
 10100 Leaves simple obovate oblong silky on each side, Pod 4-seeded length of calyx
 10101 Stems round striated, Leaves oval emarginate mucronate, Stipules lunate amplexical
 10102 Leaves simple lin.-lanceolate blunt hairy, Pedunc. terminal subsolitary, Stem branched diffuse
 10103 Leaves simple obl. blunt hairy, Stems prostrate herbaceous, Pedunc. 2-3-fl. axillary
 10104 Leaflets 3 oblong blunt mucronate with scattered hairs beneath, Raceme terminal, Calyxes silky
 10105 Leaves ternate, Leaflets oval-lanc. acute twice as long as villous petiole, Pods pendulous
 10106 Leaves obovate cuneate silky, Racemes term. Bractes and calyx colored
 10107 Leaves obl. blunt silky villous, Stipules linear subulate reflexed, Panic. terminal bracteate
 10108 Leaves ternate, Leaflets cuneiform emarginate silky beneath, Peduncles axillary solitary 1-flowered
 10109 Leaves ternate ovate acuminate smooth, Stipules none, Raceme terminal, Pods stalked pendulous
 10110 Leaves ternate obovate mucronate, Flowers corymbose, Stem shrubby
 10111 Leaves ternate, Leaflets obovate retuse, Racemes terminal
 10112 Leaves ternate, Leaflets linear lanceolate acute half as long again as petiole downy beneath
 10113 Leaves ternate on long stalks, Leaflets oval downy, Racemes axillary lax, Standard blunt
 10114 Leaves ternate obl. lanceolate acute silky beneath, Stipules lanceolate subulate, Pedunc. axill. 1-flowered
 10115 Leaves ternate obovate strigose beneath, Stipules lanceol. and bractes ovate reflexed, Racemes terminal
 10116 Leaves ternate obovate, Stipules leaf-like stalked, Racemes terminal, Pods stalked
 10117 Leaves ternate oval villous beneath, Racemes spiked, Keel downy at edge, Pods sessile hairy
 10118 Leaves ternate lanceolate smooth, Racemes terminal spiked
 10119 Leaves ternate lanc. hoary silky shorter than petiole, Raceme terminal
 10120 Leaves quinately

- 10121 Branches flat linear leafless, Denticulations flower-bearing, Keel naked, Calyx smooth
 10122 Branches flat linear leafless, Denticulations flower-bearing, Keel fringed, Calyx smooth
 10123 Branches leafy compressed, Leaves obovate and linear flat, Pod many-celled with spongy septa
 10124 Branches leafy compressed, Leaves linear with recurved edges, Pod 1-celled
 10125 Branches leafy filiform, Leaves oval smooth, Stipules shorter than petiole, Pod 1-celled
 10126 Branches leafy round, Stem erect much branched, Leaves ovate-lanc. rough above
 10127 Branches leafy spiny round, Leaves obovate cuneiform

10128 The only species

- 10129 Leaves green retuse
 10130 Leaves glaucous blunt



and Miscellaneous Particulars.

water. Cuttings, not too ripe, will strike root if planted in sand under a bell-glass, not too close together, as they are apt to damp; when rooted, they must be potted off in little pots and kept in a close frame, and hardened to the air by degrees." (*Bot. Cult.* 151.)

1532. *Scottia*. Named in memory of Robert Scott, M. D., formerly professor of botany at Dublin. A shrub found by Mr. Brown upon the south-west coast of New Holland. Young cuttings root in sand under a bell-glass.

1533. *Templetonia*. Named after John Templeton, Esq., of Orange Grove, near Belfast, a gentleman to whom the editor of the English Botany was under frequent obligations for Irish plants during the progress of that work.

1534. GOOD'IA. <i>R. Br.</i>	GOODIA.				<i>Leguminosæ.</i>	<i>Sp. 2.</i>			
10131 lotifolia <i>H. K.</i>	smooth	叁	┌	or	3	ap.jl	Y	V. Di. Isl.	1793. S s.p
10132 pubescens <i>H. K.</i>	downy	叁	┌	or	3	ap.jl	Y	V. Di. Isl.	1805. S s.p
1535. LODDIGE'SIA. <i>B. M.</i>	LODDIGESIA.				<i>Leguminosæ.</i>	<i>Sp. 1.</i>			
10133 oxalidifolia <i>B. M.</i>	Oxalis-leaved	卅	┌	pr	1½	my.s	Pa.pu	C. G. H.	1802. C p.l
1536. HO'VEA. <i>H. K.</i>	HOVEA.				<i>Leguminosæ.</i>	<i>Sp. 5.</i>			
10134 linearis <i>H. K.</i>	linear-leaved	叁	┌	or	3	mr.jl	Pu	N. S. W.	1796. S s.p
10135 longifolia <i>H. K.</i>	long-leaved	叁	┌	or	3	jn.s	Pu	N. S. W.	1805. S s.p
10136 lanceolata <i>B. M.</i>	spear-leaved	叁	┌	or	3	mr.jl	Pu	N. Holl.	1805. S s.p
10137 elliptica	oval-leaved	叁	┌	or	3	mr.jl	Pu	N. Holl.	1817. C s.p
10138 Cel'si <i>Bonpl.</i>	Cel's	叁	┌	or	4	mr.jl	B	N. Holl.	1818. C s.p
1537. SPAR'TIUM. <i>W.</i>	BROOM.				<i>Leguminosæ.</i>	<i>Sp. 21—37.</i>			
10139 juncum <i>W.</i>	Spanish	叁	┌	ec	6	jl.s	Y	S. Europe	1548. S co
β flore-pleno	double-flowered	叁	┌	or	6	jl.s	Y	S. Europe	1548. S co
10140 monospermum <i>W.</i>	white single-seed.	叁	┌	or	4	jn.jl	W	S. Europe	1690. S p.l
10141 sphaerocarpon <i>W.</i>	yellow single-seed.	叁	┌	or	4	jn.jl	Y	S. Europe	1731. S p.l
10142 procerum <i>W. en.</i>	tall	叁	┌	or	8	jn.jl	Y	Portugal	1816. C s.l
10143 congestum <i>W. en.</i>	close-branched	叁	┌	or	4	ap.jl	Y	Teneriffe	...
10144 virgatum <i>W.</i>	long-twiggd	叁	┌	or	5	mr.jn	Y	Madeira	1777. C p.l
10145 purgans <i>W.</i>	purging	叁	┌	or	4	jn.jl	Pa.Y	S. France	1768. S p.l
10146 umbellatum <i>W.</i>	umbelled	叁	┌	or	3	ap.jn	Y	Barbary	1799. C p.l
10147 Scörpius <i>W.</i>	Scorpion	叁	┌	or	4	mr.ap	Y	S. Europe	1570. S p.l
10148 sericeum <i>Vent.</i>	silky	叁	┌	or	3	my.au	Y	Mogadore	1812. C p.l
10149 multiflorum <i>W.</i>	white Portugal	叁	┌	or	6	my	W	Portugal	1752. S co
10150 angulatum <i>W.</i>	small-flowered	叁	┌	or	3	my.jn	Y	Levant	1739. C p.l
10151 patens <i>W.</i>	woolly-podded	叁	┌	or	4	jn.jl	Y	Portugal	1752. S p.l
10152 pilocarpum <i>Link.</i>	hairy-fruited	叁	┌	or	4	jn.jl	Y	.....	1823. S co
10153 cinereum <i>W.</i>	cinereous	叁	┌	or	4	jn.jl	Y	S. Europe	...
10154 nubigenum <i>W.</i>	cluster-flower'd	叁	┌	ft	6	my.au	W	Teneriffe	1779. C p.l
10155 linitifolium <i>W.</i>	Flax-leaved	叁	┌	or	3	ja.jn	Y	Spain	1739. C p.l
10156 scoparium <i>W.</i>	common	叁	┌	ec	6	ap.jn	Y	Britain	dry hil. S co
10157 radiatum <i>W.</i>	starry	叁	┌	or	1½	jn.jl	Y	Italy	1758. S s.p
10158 ferox <i>W.</i>	fierce	叁	┌	or	1½	jn.jl	Y	Barbary	1800. C p.l
10159 spinosum <i>W.</i>	prickly	叁	┌	or	2	jn.jl	Y	S. Europe	1596. C p.l
1538. GENIS'TA. <i>W.</i>	GENISTA.				<i>Leguminosæ.</i>	<i>Sp. 21—42.</i>			
10160 canariensis <i>W.</i>	Canary	叁	┌	ft	2	my.s	Y	Canaries	1656. S s.l
10161 cándicans <i>W.</i>	hoary	叁	┌	or	2	ap.jl	Y	Spain	1735. C s.l
10162 viscosa <i>W.</i>	clammy	叁	┌	or	2	ap.jl	Y	Canaries	1815. C s.l
10163 triquetra <i>W.</i>	triangular	叁	┌	or	3	my.jn	Y	Corsica	1770. C s.p
10164 sagittalis <i>W.</i>	jointed	叁	┌	or	3	my.jn	Y	Germany	1570. L co
10165 triangularis <i>W.</i>	three-sided	叁	┌	or	2	my.jn	Y	Hungary	1815. C co
10166 tinctoria <i>W.</i>	Green-weed	叁	┌	or	3	jn.au	Y	Britain	dry pa. S co
10167 sibirica <i>W.</i>	Siberian	叁	┌	or	2	jn.au	Y	Siberia	1785. L co
10168 ovata <i>W.</i>	oval-leaved	叁	┌	or	3	jn.au	Y	Hungary	1816. C co
10169 scariosa <i>Viviant</i>	scariosa	叁	┌	or	6	jn.jl	Y	Italy	1821. C co



History, Use, Propagation, Culture.

1534. *Goodia*. In memory of Peter Good, an industrious gardener employed by the Kew garden in collecting seeds in New Holland, where he died.

1535. *Loddigesia*. Named in compliment to Mr. Conrad Loddiges, a successful cultivator of plants, an assiduous collector, and a most worthy man, whose virtues are inherited by his sons.

1536. *Hovea*. In honor of Mr. Anthony Pantaleon Hove, a Polish botanist, who travelled in the Crimea and Persia, whence many plants were sent to Kew garden. He is still alive, and naturalized in England. Pretty plants, easily cultivated in sandy loam and peat, and rooted in sand under a hand-glass.

1537. *Spartium*. From *σπαστρον*, cordage; the earliest ropes were made of this and similar tough plants. The species are shrubs thick-set with verdant flexible rush-like twigs, which are very ornamental in winter, and generally profusely covered with shewy white or yellow odoriferous and mellifluous blossoms in summer. *S. juncum* is grown as a green food for sheep in the south of France, and there and in Spain it affords a thread from its fibres, which is sometimes wove into cloth, but more generally twisted into cordage. Bees are very fond of the flowers, as they are of those of most of the species.

S. monospermum, is a very handsome shrub, remarkable for its numerous snow-white flowers. Osbeck remarks, that it grows like willow-bushes along the shore of Spain, as far as the flying sands reach, where scarcely any other plant exists except the *Ononis repens*, or creeping Restharrow. The use of this shrub is very great in stopping the sand. The leaves and young branches are delicious food for goats. It converts the most barren spot into a fine odoriferous garden by its flowers, which continue a long time. It serves to shelter hogs and goats against the scorching heat of the sun. The twigs are used for tying bundles; and all kinds of herbs that are brought to market are fastened together with them. Forskahl found it in Arabia; and Desfontaines in Barbary, on the sandy coast. The Spaniards call it *Retamas*, from the Arabic name *Retam*.

- 10131 Leaflets obovate and calyxes smooth, Pod varicose
 10132 Leaflets obovate cuneate and calyxes downy, Pod smooth

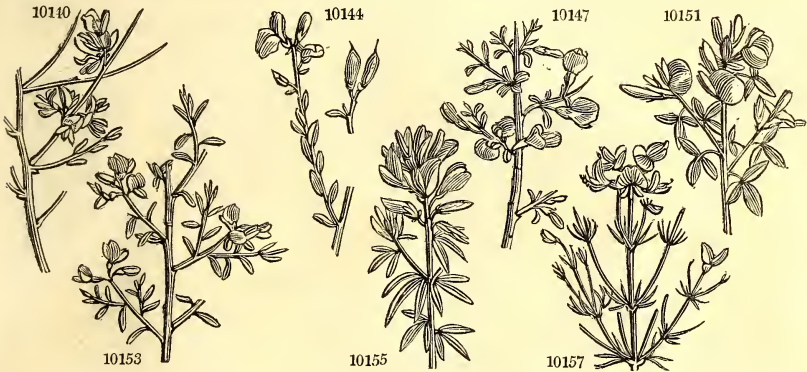
10133 The only species

- 10134 Leaves linear hairy beneath, Pods smooth
 10135 Leaves long linear; beneath veiny, Pods downy
 10136 Branches twiggly, Leaves lanc. mucronate downy beneath, Fl. axill. twin
 10137 Leaves elliptic oblong
 10138 Leaves lanc. somewhat rhomboid blunt at end mucronate, Peduncles axillary many-flowered

10139 Branches opposite round flowering at end, Leaves lanceolate

- 10140 Branches round striated, Racemes lateral few-fl. Flowers subaggregate, Leaves lanceolate silky
 10141 Branches round striated, Racemes lateral many-fl. Flowers remote, Leaves lanc. sessile a little hairy
 10142 Branches round striated, Fl. solitary axillary, Pods villous, Leaves lanceolate hairy
 10143 Branches round striated very close, Fl. terminal racemose, Vexillum smooth, Leaves lanc. silky
 10144 Branches round striated, Fl. axill. solitary subracemose, Standard and keel downy, Lvs. obl. lanc. silky
 10145 Branches round striated, Fl. axillary solitary, Leaves lanc. silky st' bræssile
 10146 Branches round striated, Fl. term. capitate, Leaves lin. lanc. silky
 10147 Branches round striated spreading spiny, Pedunc. axill. many-fl. Leaves obl. acute silky
 10148 Leaves lanc. silky beneath, Corolla silky, Branches erect round
 10149 Leaves ternate and simple silky, Twigs straight striated flowering on all sides
 10150 Leaves solitary and ternate linear lanceolate hoary, Branches hexangular flowering at the ends
 10151 Leaves ternate stalked obovate, Branches round striated, Lateral flowers twin nodding
 10152 Branches angular, Leaves simple lanceolate silky beneath, Fl. racemose, Pods hairy
 10153 Branches round with ten furrows, Flowers axillary solitary downy
 10154 Leaves ternate lanc. hairy stalked, Fl. lateral fascicled, Pods smooth, Branches round striated
 10155 Leaves ternate sessile linear silky beneath, Raceme terminal, Branches round furrowed
 10156 Leaves ternate and solitary oblong, Fl. axillary, Pods hairy at edge, Branches angular
 10157 Leaves ternate linear, Petioles dilated persistent, Racemes capitate term. Branches angl. opp. clustered
 10158 Leaves ternate and simple oblong mucronate, Raceme terminal, Branches striated round spiny
 10159 Leaves ternate obovate, Peduncles axillary, Cal. and pods smooth, Branches angular spiny

- 10160 Leaves tern. obl. downy beneath with spreading hairs, Pedunc. many-fl. terminal, Branches angular
 10161 Leaves ternate obovate downy with closely pressed hairs, Pedunc. many-fl. terminal, Branches angular
 10162 Leaves ternate obl. smooth, Racemes terminal, Cal. and pods glandular viscid, Branches round striated
 10163 Leaves ternate: upper simple, Branches triquetrous procumbent
 10164 Branches 2-edged membranous jointed, Leaves ovate lanceolate
 10165 Leaves lanceolate mucronate smooth, Branches 3-cornered ascending, Pods smooth
 10166 Leaves lanceolate smooth, Branches round striated erect, Pods smooth
 10167 Leaves lanceolate smooth, Branches equal round erect
 10168 Leaves oblong ovate and pods hairy, Branches round striated -
 10169 Quite smooth, Leaves not ciliated, Cor. 5 lines long, Calyx smooth



and Miscellaneous Particulars.

S. scoparium, though in some places a troublesome weed in old pastures, is a very ornamental shrub in garden scenery: it is also useful in agriculture, domestic economy, and medicine. It is sometimes used as winter food for sheep, frequently for thatching cottages and ricks, and as litter. Bees are fond of the flowers: the flower-buds, just before they become yellow, are pickled in the manner of capers: the branches are said to be capable of tanning leather, and of being manufactured into coarse cloth; when tender, they are mixed with hops in brewing: the old wood furnishes the cabinet-maker with a beautiful material for veneering. The twigs, when bruised, smell disagreeably, which perhaps may be one reason why our broom is generally rejected by cattle (*Curtis*); but they have also a nauseous bitter taste. The plant when burnt affords a tolerably pure alkaline salt. Broom tops are diuretic and cathartic; the seeds are said to be emetic. The effects of this plant have been very long known to the common people; and both Mead and Cullen found them useful in dropsy. The usual mode of exhibiting them is in the form of decoction, made by boiling the green tops in water. Speaking of this decoction, of which two table spoonfuls were given every hour till it operated by stool, Cullen says, "it seldom fails to operate both by stool and urine, and by repeated exhibition every day, or every second day, some dropsies have been cured." (*Thompson's London Dispensatory*, 514.)

1338. *Genista*. *Gen.* signifies, in Celtic, a small bush, whence also *Gânet*, French. The species are shrubs or undershrubs, some of them evergreen, and many with numerous flexible rush-like green twigs like the brooms. They are of easy culture and free flowerers. *G. tinctoria* is common in most parts of Europe, in unimproved pastures on dry gravelly soils. When cows feed on it, their milk, and the butter or cheese made from it, are said to be very bitter. A bright yellow color may be prepared from the flowers; and for wool that is to be dyed green with woad, the dyers prefer it to all others. A dram and a half of the powdered seeds operates as a mild purgative. A decoction of the plant is sometimes diuretic, and therefore

10170 flórida W.	Spanish	or	6	jn.au	Y	Spain	1752.	S	co	
10171 procumbens W.	procumbent	or	1½	jn.au	Y	Hungary	1816.	C	co	
10172 decumbens W.	trailing	or	½	my.jn	Y	France	1775.	L	p.1	Bot. cab. 718
10173 pilósa W.	hairy green-weed	or	6	my.jn	Y	England	san.he.	S	co	Eng. bot. 208
10174 diffúsa W.	diffuse	or	3	my.jn	Y	Italy	1816.	C	co	Jac. ic. 3. t. 555
10175 sericea W.	silky	or	3	my.jn	Y	Austria	1812.	S	s.1	Jac. ic. 3. t. 556
10176 ánglica W.	Petty whin	or	2	my.jn	Y	Britain	moi.he.	S	co	Eng. bot. 132
10177 germánica W.	German	or	2	jn.au	Y	Germany	1773.	L	co	
10178 hispánica W.	dwarf-prickly	or	2	jn.jl	Y	Spain	1759.	C	co	Cav. ic. 3. t. 211
10179 lusitánica W.	Portugal	or	2	mr.my	Y	Portugal	1771.	C	co	Bot. rep. 419
10180 bracteoláta Link.	bracteolate	or	2	mr.my	Y	.....	1823.	C	co	
1539. LEBECKIA. W.	LEBECKIA.					Leguminosæ.	Sp. 4-12.			
10181 contamináta W.	narrow-leaved	or	5	ap.my	Br	C. G. H.	1787.	S	p.1	
10182 sericea W.	silky	or	2	ap	Y	C. G. H.	1774.	S	p.1	
10183 cytisoides W.	Cytisus-leaved	or	3	ap	Pk	C. G. H.	1774.	S	p.1	Com. hor. 2. t. 107
10184 subternáta Link.	yellow-flowered	or	3	jn.jl	Y	C. G. H.	1824.	C	co	
1540. U'LEX. W.	FURZE.					Leguminosæ.	Sp. 2.			
10185 europæus W.	common	ag	6	ap.au	Y	Britain	san.he.	S	co	Eng. bot. 742
10186 nánuus W.	dwarf	or	2	aud	Y	Britain	dry.he.	S	co	Eng. bot. 743
1541. ONO'NIS. W.	REST-HARROW.					Leguminosæ.	Sp. 24-73.			
10187 antiqúorum W.	tall	un	1	jn.jl	Pu	S. Europe	1790.	D	co	Lob. ic. 28
10188 spinósa W.	common	un	1	jn.au	F	Britain	.....	D	co	Eng. bot. 682
10189 hircína W.	stinking	un	1½	my.au	R	Italy	1596.	D	co	Jac. vind. 1. t. 93
10190 répens W.	creeping	un	1	jn.au	Pk	Europe	.....	D	co	Dill. elt. t. 25. f. 28
10191 Colúmnæ W.	small-flowered	un	1	jn.jl	Y	S. Europe	1732.	D	co	Jac. aust. 3. t. 240
10192 mitissíma W.	cluster-flowered	un	1	jn.jl	Pu	Portugal	1732.	S	co	Dill. elt. t. 24. f. 27
10193 alopecuróides W.	Fox-tail	un	1	jl.au	Pu	Portugal	1696.	S	co	Lap. pyr. 1. t. 9
10194 variegáta W.	variegated	un	1	jl.au	Y	Spain	1784.	S	co	Desf. atl. 2. t. 185
10195 pubéscens W.	downy	un	1	jn.au	Pu	S. Europe	1680.	S	co	
10196 cérnuá W.	hanging-podded	un	2	jl.s	Y	C. G. H.	1774.	C	co	Com. hort. 2. t. 82
10197 gemináta W.	two-flowered	un	1½	jl.s	Pk	C. G. H.	1787.	S	p.1	
10198 reclináta W.	spreading	un	1	jn.au	St	S. Europe	1800.	S	p.1	
10199 cenisia W.	narrow-leaved	un	1	jn.au	Pk	Italy	1759.	D	co	Al. ped. 1. t. 10. f. 2
10200 vaginális P. S.	sheathed	un	2	jn.au	Y	Egypt	1815.	C	co	Vent. cels. t. 32
10201 Cherléri W.	dwarf	un	1	jn.jl	Pu	S. Europe	1771.	D	p.1	
10202 viscósa W.	clammy	un	1	jl.au	Y	S. Europe	1759.	S	s.1	Barr. ic. 1230
10203 ornithopodioides W.	Bird's-foot	un	1½	jl.au	Y	Sicily	1713.	S	co	Cav. ic. 2. t. 192
10204 pinguis W.	greasy	un	1½	jl	Y	S. Europe	1739.	C	co	
10205 Nátrix W.	yellow-shrubby	un	1	mys	Y	S. Europe	1683.	S	p.1	Bot. mag. 329
10206 hispánica W.	Spanish	or	1	mys	Y	Spain	1799.	C	p.1	
β oligophylla Tenore	few-leaved	un	1½	mys	Y	Naples	1823.	C	p.1	Bot. mag. 2450
10207 tridentáta W.	three-toothed	or	1½	jn.au	Pu	Spain	1752.	C	p.1	Cav. ic. 2. t. 152
10208 crispá W.	curl-leaved	un	2	jn.au	Y	Spain	1739.	S	p.1	Magn. mons. t. 17
10209 fruticósa W.	shrubby	pr	2	my.jn	Pk	S. France	1680.	S	s.1	Bot. mag. 317
10210 rotundifólia W.	round-leaved	un	1	my.jl	Pk	Switzerl.	1570.	C	s.1	Bot. mag. 335
1542. ANTHYL/LIS. W.	KIDNEY VETCH.					Leguminosæ.	Sp. 14-35.			
10211 tetraphýlla W.	four-leaved	or	1	jl.au	W	S. Europe	1640.	S	co	Bot. mag. 168
10212 Vulnerária W.	common	or	½	my.au	Y	Britain	ch.pas.	D	s.1	Eng. bot. 104
β rubra	red-flowered	or	½	my.au	R	.....	...	D	s.1	



History, Use, Propagation, Culture,

has proved serviceable in dropsical cases. A salt prepared from the ashes is recommended in the same disorder.

G. triquetra is the handsomest hardy species: it is evergreen, and produces a vast profusion of bloom. 1539. *Lebeckia*. Named by Thunberg: possibly in honor of some forgotten botanist. Young cuttings root freely in sand under close cover.

1540. *Ulex*. A word of very obscure meaning. De Theis derives it from *ac*, a point in Celtic. *U. europæus*, *Jonc-marin*, Fr., is a beautiful evergreen shrub, which flowers freely, both when wild and cultivated, the greater part of the year. It abounds in some places, and there it is despised by the common people; but the greatest botanists have admired its deep green shoots and leaves, brilliant yellow flowers, and tufted picturesque shape. About Petersburg, it forms one of their most valuable greenhouse plants, flowering in winter. Linnæus lamented that he could hardly preserve it alive in a greenhouse. Many parts of Germany are wholly destitute of the furze bush, inasmuch that Dillenius was in a perfect extasy when he first saw our commons covered with its golden flowers. And Gerarde relates, that about Dantzic, Brunswick, and in Poland, there was not a branch of it growing, except some few plants and seeds that he sent, which were most curiously kept in their fairest gardens. As an agricultural plant the furze has been sown in several parts of the island as hedges; but excepting when it occupies a breadth of ten or twelve feet on a raised mound, it does not last long, getting naked below. Sown on a mound the sides may be cut, and the prunings used as fuel or as green food, and the fence thus rendered close at bottom and durable. It is sown in fields, and

- 10170 Leaves lanceolate silky, Branches striated round, Racemes 1-sided
- 10171 Leaves lanceolate acute, Pedunc. axill. 3 longer than leaves, Cor. smooth, Branches striated round
- 10172 Leaves lanceolate blunt silky beneath, Pedunc. axillary as long as leaf, Cor. silky, Branches angular
- 10173 Leaves lanceolate complicate, Pedunc. axill. very short, Cor. hairy, Stem warted striated procumbent
- 10174 Leaves lanceolate smooth subciliate, Pedunc. axillary, Cor. smooth, Branches 3-cornered procumbent
- 10175 Leaves lanceolate silky beneath, Fl. terminal somewhat racemose, Cor. silky, Branches erect round
- 10176 Spines simple or compound, Flowering branches unarmed, Leaves oblong smooth, Racemes leafy tern.
- 10177 Spines warted compound, Fl. branches unarmed, Lvs. lanc. hairy, Racemes tern. naked, Keel pubesc.
- 10178 Spines compound pungent, Leaves lanceolate villous, Racemes terminal subcapitate
- 10179 Stem leafless, Spines crossing each other
- 10180 Leaflets ternate obovate, Racemes short, Bractes linear under the flower

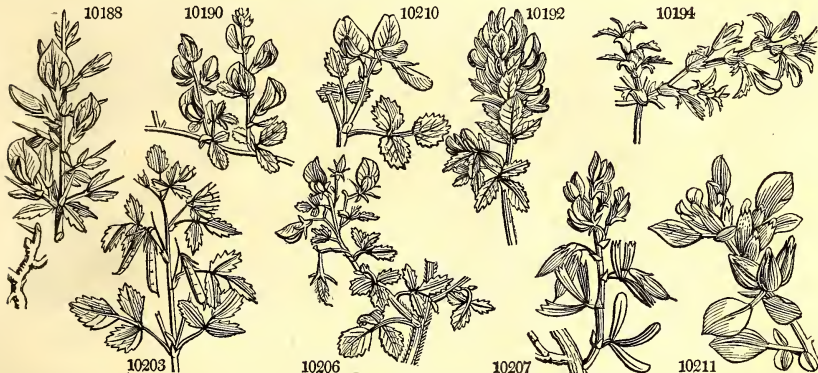
- 10181 Leaves simple linear filiform smooth, Flowers umbelled
- 10182 Leaves ternate silky, Leaves linear, Flowers racemose
- 10183 Leaves ternate villous, Raceme long terminal
- 10184 Leaves simple binate or ternate sessile lanceolate acute rough

- 10185 Teeth of cal. conniving, Bractes ovate loose
- 10186 Teeth of cal. distant, Bractes minute appressed

- 10187 Fl. solitary larger than leaflet, Lower leaves ternate lanceolate toothed at end, Branches spiny smooth
- 10188 Fl. twin axillary, Lower leaves ternate lanc. serrate, Branches spiny villous
- 10189 Fl. twin, Lower leaves ternate ellipt. serrate pubescent, Stem unarmed villous viscid
- 10190 Fl. solitary axill. Lower leaves ternate roundish serrate, Branches ascending spiny villous
- 10191 Fl. subsess. lateral, Leaves ternate obl. pubesc. Stipules lanc. toothletted, Cal. scarious longer than cor.
- 10192 Fl. sessile spiked, Bractes stipular ovate ventricose scarious imbricated
- 10193 Fl. subsess. lateral spiked, Leaves simple ovate blunt, Stipules dilated, Cal. larger than smooth corolla
- 10194 Fl. somewhat stalked axill. Lvs. simple obov. striated serrated, Stipules ovate toothed, Stem procumbent
- 10195 Pedunc. unarmed very short, Upper leaves simple, Stipules ovate lanc. entire
- 10196 Racemes straight, Leaves cuneiform, Pods nodding linear recurved
- 10197 Leaves ternate obovate, Pedunc. lateral 2-flowered
- 10198 Pedunc. unarmed 1-fl. Leaves ternate roundish crenate, Pods cernuous
- 10199 Pedunc. unarmed 1-fl. Leaves ternate cuneate, Stipules serrate, Stems prostrate
- 10200 Pedunc. 1-fl. awned, Leaves sessile ternate, Stipules sheathing toothed
- 10201 Pedunc. 1-fl. awned, Leaves tern. cuneate toothed at end villous viscid, Cal. larger than corolla
- 10202 Pedunc. 1-fl. awned length of leaves, Leaves simple oblong serrated viscid : lower ternate
- 10203 Pedunc. 2-fl. awned shorter than petiole, Leaves tern. oblong, Pods linear cernuous
- 10204 Pedunc. 1-fl. awned longer than leaf, Awns length of cor. Leaves ternate lanc. serrated at end
- 10225 Pedunc. 1-fl. awned longer than leaf, Leaves ternate viscid obl. toothed at end
- 10206 Pedunc. awned about 1-fl. Leaves all ternate channelled recurved wholly serrated

- 10207 Shrubby, Leaves tern. linear fleshy 3-toothed, Pedunc. 2-flowered
- 10208 Shrubby, Leaves tern. roundish wavy toothed viscid, Pedunc. 1-flower unarmed
- 10209 Shrubby, Leaves sessile ternate lanceolate serrated, Stipules sheathing, Pedunc. 3-flowered
- 10210 Shrubby, Leaves tern. ovate toothed, Cal. with 3 bractes, Pedunc. 3-flowered

- 10211 Herbaceous, Leaves quaternate-pinnate, Flowers lateral
- 10212 Herbaceous, Leaves pinnate unequal, Head double



and Miscellaneous Particulars.

allowed to grow three or four years, and then it is cut down for fuel or for heating ovens; but the most profitable application of furze, whether sown or grown wild, is that of using it as green food for cattle. For this purpose, the shoots should not be more than two years old, and they require to be passed between rollers to bruise the ligneous parts and the thorns. It has been tried in this way by a number of agriculturists, and found a highly nutritive food for horses, oxen, and kine. Though a hardy plant and enduring the sea breeze, yet it is frequently killed by severe winters. It is never found on wet-bottomed clays, but generally on dry rocky or stony soils. There is a very luxuriant variety called the Irish whin, and one with double flowers found a few years ago in Devonshire, and now in propagation by cuttings in the nurseries.

U. nanus greatly resembles the common species, but is smaller in all its parts. It flowers from August to January, which renders it valuable in shrubberies as a successor to the other.

1541. *Ononis*. From *ovos*, an ass, because asses only feed upon so prickly a plant. *O. spinosa*, *Arrête boeuf*, Fr., *Rest harrow*, Eng., was formerly very troublesome in corn fields, on account of its long ligneous roots obstructing the progress of the plough, and its thorny branches the harrow: but in all properly cultivated lands the plant has disappeared. It is frequent in aboriginal pastures on dry soils, and is eaten by cows, sheep, and goats, but not freely by horses. All the species are of easy culture, and the greenhouse kinds are readily increased by young cuttings under a bell-glass in sand.

1542. *Anthyllis*. From *ανθος*, a flower, and *ιουλος*, a beard. So called from the silky appearance of its heads of flowers; whence also one species is called *Barba Jovis*. *A. Vulneraria* is recommended as a herbage

10213	montána W.	mountain	3	Δ	or	1	jn.jl	Pu	S. Europe	1759.	D	s.l	Bot. cab. 578
10214	sericea W.	wing-leaved	3	Δ	or	1	jl.au	W	Barbary	1786.	C	p.l	Desf.ac.par.1.t.3
10215	cornicina W.	horny	1	Δ	or	1	jl.au	W	Spain	1759.	S	p.l	Cav.ic.1.t.39.f.2
10216	lotoides W.	Lotus-like	1	Δ	or	1	jn.jl	Y	Spain	1739.	S	co	Cav. ic. 1. t. 40
10217	Gerardi W.	Gerard's	1	Δ	or	1	jn.au	Y	Provence	1806.	S	co	Ger. prov. t. 18
10218	Bárba-jóvis W.	Jupiter's Beard	3	Δ	or	3	mr.my	Pa. Y	S. Europe	1640.	C	p.l	Bot. mag. 1927
10219	crética W.	Cretan	1	Δ	or	1	jn.jl	Pk	Candia	1737.	C	p.l	Bot. mag. 1092
10220	heterophýlla W.	various-leaved	1	Δ	or	1	jn.jl	Pk	S. Europe	1768.	C	p.l	
10221	cytisioides W.	downy-leaved	2	Δ	or	2	ap.jn	W	Spain	1731.	C	p.l	Barr. ic. 1182
10222	Hermánnea W.	Lavender-ld.	1	Δ	or	1	ap.jl	W	Levant	1739.	C	p.l	Alp. exot. t. 26
10223	tragacanthoides P.s.	Goat's-thorn-like	1	Δ	or	1	jn.jl	W	Barbary	...	C	p.l	Desf. atl. 2. t.194
10224	erinácea W.	prickly	1	Δ	or	1	ap.my	Pu	Spain	1759.	C	s.p	Bot. mag. 676
1543.	A'RACHIS. W.	EARTH-NUT.							<i>Leguminosae.</i>	Sp. 1—2.			
10225	hypogæ'a W.	American	2	Δ	clt	2	my.jn	Y	S. Amer.	1712.	O	s.l	Trew.pl.rar.3.t.3
1544.	LUPI'NUS. W.	LUPINE.							<i>Leguminosae.</i>	Sp. 14—16.			
10226	perénis Ph.	smooth-perenn.	3	Δ	or	2	my.jl	B	N. Amer.	1638.	D	p.l	Bot. mag. 902
10227	nootkaténsis Ph.	hairy-perennial	3	Δ	or	6	jn.au	Pu	NootkaSo.	1794.	D	p.l	Bot. mag. 1311
10228	álbus W.	white	3	Δ	ag	3	jl.au	W	Levant	1596.	S	co	
10229	Thérmis W.	Egyptian	3	Δ	or	3	jn.jl	W	Egypt	1802.	S	co	
10230	várius W.	small-blue	3	Δ	or	3	jl.au	B.w	S. Europe	1596.	S	co	
10231	hirsútus W.	great-blue	2	Δ	or	2	jl.au	B	S. Europe	1629.	S	co	
10232	microcárpus B. M.	small-fruited	1	Δ	or	1	ap	B	Chili	1821.	S	co	Bot. mag. 2413
10233	micéxanus Lag.	Mexican	2	Δ	or	2	f	B	Mexico	1819.	S	co	Bot. reg. 457
10234	pílosus W.	rose	3	Δ	or	3	jl.au	F	S. Europe	1710.	S	co	
10235	angustifólius W.	narrow-leaved	2	Δ	or	2	jl.au	B	Spain	1686.	S	co	Knor.del.2.t.I.7.
10236	linifólius W.	Flax-leaved	2	Δ	or	2	jl.au	B	.....	1799.	S	co	Roth. abb.14.t.5
10237	líteus W.	yellow	2	Δ	or	2	jl.au	Y	Sicily	1596.	S	co	Bot. mag. 140
10238	villósus W.	villous	4	Δ	or	4	jl.au	Pk	Carolina	1787.	R	s.l	
10239	arbóreus H. K.	tree	6	Δ	or	6	jl.au	Y	.....	1793.	R	s.l	Bot. mag. 682
1545.	AMOR'PHA. W.	BASTARD-INDIGO.							<i>Leguminosae.</i>	Sp. 6.			
10240	fruticósa W.	shrubby	6	Δ	or	6	jn.jl	Pu	Carolina	1724.	S	s.p	Bot. reg. 427
	β emarginata	emarginate-ld.	6	Δ	or	6	jn.jl	Pu	Carolina	1724.	C	s.p	
10241	microphýlla Ph.	dwarf	2	Δ	or	2	jl.au	Pu	Missouri	1811.	C	s.p	
10242	pubéscens Ph.	pubescent	3	Δ	or	3	jn.jl	B	Carolina	1803.	C	s.p	Bot. cab. 689
10243	canéscens Ph.	canescent	3	Δ	or	3	jl.au	B	Missouri	1812.	C	s.p	
10244	nána Nutt.	pygmy	1	Δ	or	1	jl.au	B	Missouri	1811.	C	s.p	Bot. mag. 2112
10245	créceo-lanáta Wats.	yellow-haired	5	Δ	or	5	jl.au	Pu	N. Amer.	1820.	C	s.p	Dend. brit. 139
1546.	A'BRUS. W.	WILD-LIQUORICE.							<i>Leguminosae.</i>	Sp. 1.			
10246	precatórius W.	Jamaica	12	Δ	or	12	mr.my	W.	Indies	1680.	S	s.p	Rhee. mal.3.t.39
1547.	PHASE'OLUS. W.	KIDNEY-BEAN.							<i>Leguminosae.</i>	Sp. 20—55.			
10247	vulgáris W.	common	1	Δ	cul	1	jn.s	W	India	1597.	S	co	Lob. ic. 2. p. 59
10248	multifólius W.	scarlet	12	Δ	cul	12	ils	S	S. Amer.?	1633.	S	co	Sch. ha.2. t.199. a
10250	lunátus W.	scymetar-podded	12	Δ	cul	12	jn.jl	G	E. Indies	1779.	S	co	H.n.h.10.t.63.f.1
10251	inamé'nus W.	various-colored	6	Δ	cul	6	jl.au	G	Africa	1794.	S	co	Jac. vind. 1. t.66
10251	farínósus W.	mealy	3	Δ	cul	3	jl.au	Pk	E. Indies	1759.	C	co	N.ac.p.170. t.42
10252	vexilátus W.	sweet-scented	3	Δ	cul	3	jl.au	G	W. Indies	1732.	S	co	Jac. vind. 2. t.102
10253	hévolus W.	pale red	3	Δ	cul	3	jl.au	Pa.R	Carolina	1732.	S	co	Dil.ct.t.233.f.300



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plant by some agricultural writers, as A. Young; and is by others confounded with Birdsfoot trefoil (*Lotus corniculata*, and major), and with the Liquorice-vetch (*Astragalus glycyphyllos*), to which, to a cursory observer, it bears considerable resemblance. Linnaeus observes, that in Oeland, where the soil is a red calcareous clay, the flowers of *Anthyllis vulneraria* are red; but that in Gothland, where the soil is white, the flowers also are white; ours are yellow.

A. *Barba Jovis* is a silvery looking bush, with white and hairy leaves, pale yellow flowers, and woolly pods. Like most of the Leguminosae, this genus seeds freely; but in default of seeds, increase may be effected by "young cuttings planted under a bell-glass in sand; which are not difficult to root: the glasses must be kept wiped, or the dew is apt to make them mouldy, which destroys them." (*Bot. Cult.* 135.)

1543. *Arachis*. *Araeos*, or *Aracidna*, is a name applied by Pliny to a plant which had neither stem nor leaves, but was all root. The moderns have applied it to a plant, the fruit of which is borne underground. The specific name *hypogæa* (*γρη γη*, below ground), is in allusion to the curious circumstance of the pods, as they increase in size, forcing themselves into the earth, where they ripen their seeds, thence called earth-nuts. The plant is generally cultivated in the warmer parts of North and South America, but is supposed to be originally from Africa. In South Carolina the seeds are used as chocolate; in the eastern countries as almonds, and in Cochin-China they furnish an oil used for lamps, and as a substitute for oil of olives. About Paris it is raised on hotbeds and transplanted into the open garden, where it ripens its seeds, which are used as other legumes. It has also been brought to maturity in a stove in England, and proved very prolific. (See *Hort. Trans.* vol. v. p. 372.)

1544. *Lupinus*. Said to be derived from *lupus*, a wolf, because this plant devours, as it were, all the fertility

- 10213 Herbaceous, Leaves pinnated equal, Head terminal 1-sided, Flowers oblique
 10214 Herbaceous, Leaves pinnated equal silky, Spike peduncled ovate
 10215 Herbaceous, Leaves pinnated unequal, Head solitary stalked, Pods hooked blunt shorter than calyx
 10216 Herbaceous, Cauline leaves ternate: radical pinnate unequal trifid or simple
 10217 Herbaceous, Leaves pinnated unequal, Pedunc. lateral longer than leaf, Heads leafless
 10218 Shrubby, Leaves pinnated equal silky, Branches as long as globose many-flowered head
 10219 Shrubby, Leaves pinnated equal and ternate villous, Flowers spiked
 10220 Shrubby, Leaves pinnated: floral ternate
 10221 Shrubby, Leaves ternate unequal, Calyxes woolly lateral
 10222 Shrubby, Leaves ternate linear-cuneate somewhat stalked, Calyxes campanulate, Branches spiny
 10223 Shrubby, Petioles spiny, Leaves pinnated, Flowers axillary subsessile, Cal. inflated
 10224 Shrubby spiny, Leaves simple

10225 Leaves in fours cuneate rounded, Stipules undivided, Stem nearly smooth

- 10226 Cal. altern. without appendage: upper lip emarginate; lower entire
 10227 Cal. whorled without appendage: lower lip entire, Stem and leaves hairy
 10228 Cal. altern. without appendage: upper lip entire; lower 3-toothed
 10229 Cal. altern. with an appendage: upper lip entire; lower 3-toothed
 10230 Cal. half-whorled with an appendage: upper lip bifid; lower about 3-toothed
 10231 Cal. altern. with an appendage: upper lip 2-parted; lower 3-toothed
 10232 Leaves digitate, Cal. whorled without append. Upper lip emarg.; lower bifid, Pods 2-seeded
 10233 Cal. altern. with an appendage: upper lip half-bifid; lower obscurely 3-toothed
 10234 Cal. whorled with an appendage: upper lip 2-parted; lower entire
 10235 Cal. altern. with an appendage: upper lip 2-fid; lower entire, Leaflets linear-lanceolate flat
 10236 Cal. altern. with an appendage: upper lip 2-fid; lower subtrifid, Leaflets linear channelled
 10237 Cal. whorled with an appendage: upper lip 2-parted; lower 3-toothed
 10238 Cal. half-whorled with an appendage: upper lip 2-fid; lower undivided, Leaves simple obl. villous
 10239 Shrubby, Cal. whorled without appendage stalked: lips acute entire

10240 Teeth of calyx 4 blunt, one acuminate

- β Leaflets emarginate, Calyxes hoary
 10241 Smoothish, Leaves on short stalks blunt at each end, Spikes solitary short, Pods 1-seeded
 10242 Leaves on short stalks without a point obtuse smooth, Spikes long paniced downy
 10243 Hoary, Leaflets subsessile ovate-elliptical acute mucronate, Spikes paniced hoary
 10244 Said to be the same as *A. microphylla*
 10245 Ferruginous, Spikes simple clustered, Leaflets ovate-lanceolate downy mucronate

10246 The only species

- 10247 Raceme solitary shorter than leaves, Pedunc. 2, Bractes less than cal. spreading, Pods pendulous
 10248 Raceme solitary length of leaves, Pedunc. 2, Bractes less than cal. appressed, Pods pendulous
 10249 Pods scymetar-shaped somewhat lunate smooth
 10250 Vexillum of flowers revolute, Calyxes whole colored
 10251 Peduncles subcapitate, Seeds 4-cornered cylindrical powdery
 10252 Peduncles thicker than petiole capitate, Wings subfalcate deformed, Pods linear straight
 10253 Flowers capitate, Cal. bracteat, Vexill. short, Wings expanded very large, Leaflets deltoid oblong



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of the soil: but this is a very doubtful explanation. The species are border flowers, in much esteem for their velvet-like leaves and fine large flowers. They are vigorous growing plants, and most of them would afford the agriculturist a considerable bulk of herbage.

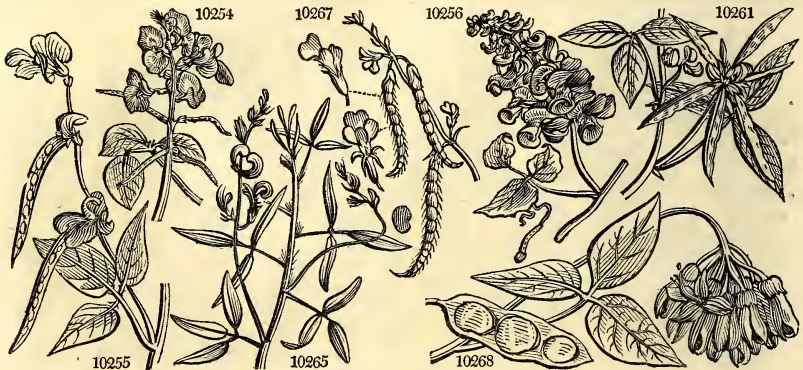
L. albus is supposed to be the species that was cultivated for this purpose by the Romans; though *L. luteus* is what is at present grown in the fields in the south of Italy as human food. In the south of France, it is grown in poor dry extensive plains, as a meliorating crop to be ploughed in where no manure is to be had, and the ground is too sterile for clover or other better plants. (*Villars*.) The perennial and ligneous species may be increased by pieces of the root, but they all seed freely.

1545. *Amorpha*. From α , privative, and $\mu\omega\sigma\phi\eta$, form, in allusion to the deformity of the corolla, which has neither ala or carina. *A. fruticosa* was once used in Carolina as an indigo plant, but is now neglected. All the species are of easy cultivation, and increase by seeds or cuttings in sand.

1546. *Abrus*. From $\alpha\beta\rho\sigma$, elegant. The roots are used in the West Indies similarly to those of our liquorice, and the seeds are strung and worn as beads for ornaments, and also as rosaries, whence the specific name *preparatorius*. They are frequently thrown, with other West Indian seeds, on the north-west coast of Scotland. *Linnaeus* affirms, that they are very deleterious; but they are eaten in Egypt, though the hardest and most indigestible of the pulse tribe. In our stoves the plant requires a good deal of room and heat in order to flower freely. It is generally raised from seed, but cuttings will root in sand plunged in heat.

1547. *Phaseolus*. From *phascolus*, a little boat, which the pods may easily be supposed to resemble. *P. vulgaris* and *multiflorus*, *Haricot*, Fr., *Schminkbohne*, Ger., *Fagiolo*, Ital., are well known culinary legumes. The dwarf kidney bean is earlier than the other, and better adapted for forcing; but much the largest crop

10254	<i>semierectus W.</i>	dark red winged	pr 2	jl	R	W. Indies	1732.	S	co	Bot. reg. 743
10255	<i>alatus W.</i>	Snail-flower	un 3	jl	Pu	Carolina	1732.	C	s.l	Dil. el. t. 235. f. 303
10256	<i>Caracalla W.</i>	Aconite-leaved	cu 2	jn. au	G	India	1690.	S	r.m	Bot. rep. 341
10257	<i>aconitifolius W.</i>	three-lobed	un 2	jl. au	Pk	E. Indies	1731.	S	s.l	Jac. obs. 3. t. 52
10258	<i>trilobus W.</i>	large-stipuled	un 2	jl. au	G	E. Indies	1777.	S	s.l	Bur. ind. t. 50. f. 1
10259	<i>stipularis W.</i>	common dwarf	un 1	jn. s	Y, Br	Peru	1805.	S	s.l	
10260	<i>nanus W.</i>	rayed	un 1	jn. jl	W	India	1732.	S	s.l	Dil. el. t. 235. f. 304
10261	<i>radiatus W.</i>	hairy-podded	cul 1	jn. jl	G	India	1758.	S	s.l	Rum. am. 5. t. 140
10262	<i>Max W.</i>	small-fruited	cul 1	jn. jl	Y	India	1790.	S	s.l	
10263	<i>Mungo W.</i>	various-leaved	un 1	jn. jl	Pu	N. Amer.	1806.	S	s.l	
10264	<i>diversifolius P. S.</i>	Lathyrus-like three-lobed	or 2	jl. au	Sc	Jamaica	1786.	S	s.l	Slo. ja. 1. t. 116. f. 1
10265	<i>lathyroides W.</i>	hook-podded	or 10	...	Y	Brazil	1824.	S	co	
10266	<i>subtrilobus Link.</i>	hook-podded	or 10	...	Y	Jamaica	1824.	C	r.m	
1548.	<i>TERAMNUS, Browne.</i>	<i>TERAMNUS.</i>	<i>Leguminosae. Sp. 1-2.</i>							
10267	<i>volubilis Swz.</i>	hook-podded	or 10	...	Y	Jamaica	1824.	C	r.m	
1549.	<i>CARPOPO'GON, Rox.</i>	<i>CARPOPOGON.</i>	<i>Leguminosae. Sp. 2.</i>							
10268	<i>giganticus Rox.</i>	gigantic	or 20	...	Pu	E. Indies	1815.	C	lp	
10269	<i>imbricatius Rox.</i>	imbricated	or 10	...	Pu	E. Indies	1815.	C	lp	
1550.	<i>DO'LICHOS, W.</i>	<i>DOLICHOS.</i>	<i>Leguminosae. Sp. 23-76.</i>							
10270	<i>Láblab W.</i>	black-seeded	un 8	jn. jl	Pu	Egypt	1694.	S	s.l	Bot. mag. 896
10271	<i>sinensis W.</i>	Chinese	pr 6	jl. au	Pu	India	1776.	S	s.l	Bot. mag. 2232
10272	<i>lutóolus Ph.</i>	yellow	un 4	jl. au	Y	America	1805.	S	s.l	Jac. hort. t. 90
10273	<i>unguiculatus W.</i>	Bird's-foot	un 3	jn. jl	Y	W. Indies	1780.	S	s.l	Jac. vind. 1. t. 23
10274	<i>tranquebáricus W.</i>	Tranquebar	un 3	jn. jl	Y	E. Indies	1801.	S	s.l	Jac. vind. 3. t. 70
10275	<i>gladiátus W.</i>	sabre-podded	pr 6	au	Pk	E. Indies	1790.	S	s.l	Jac. ic. 3. t. 560
10276	<i>tetragonólobus W.</i>	square-podded	un 4	sn Y	Y	E. Indies	1816.	S	s.l	
10277	<i>sesquipedális W.</i>	long-podded	un 6	au	Pap, k	W. Indies	1781.	S	s.l	Jac. vind. 1. t. 67
10278	<i>hirsútus W.</i>	hirsute	or 10	jn	Pu	China	1802.	C	s.l	Jac. impf. ic. t. 41
10279	<i>pilósus W.</i>	hairy-podded	un 3	au	Pa	E. Indies	1790.	S	s.l	
10280	<i>minimus W.</i>	small	un 1	jl. au	Y	Jamaica	1776.	S	s.l	Kæc. obs. 1. t. 22
10281	<i>traspérmus W.</i>	four-seeded	un 3	my. au	Pa, Y	E. Indies	1816.	S	s.l	
10282	<i>scarabæoíolus W.</i>	silver-leaved	un 2	jn. jl	Pa	E. Indies	1773.	S	s.l	Flu. alm. t. 53. f. 3
10283	<i>reticulátus W.</i>	net-leaved	un 3	jn. jl	Pa	N. S. W.	1781.	C	s.l	
10284	<i>bulbósus W.</i>	bulbous	un 4	jl	Pu	W. Indies	1781.	S	s.l	Rum. am. 5. t. 132
10285	<i>purpúreus W.</i>	purple	or 12	aus.	Pu	E. Indies	1790.	S	s.l	Bot. reg. 830
10286	<i>lignósus W.</i>	woody	or 12	jl. au	Pu	E. Indies	1776.	S	p.l	Bot. mag. 380
10287	<i>lúteus W.</i>	yellow-flowered	un 8	jl. au	Y	Jamaica	1812.	S	s.l	
10288	<i>ensifórmis W.</i>	scymetar-podded	un 3	jl. au	Pu	E. Indies	1778.	S	s.l	Jac. ic. 3. t. 559
10289	<i>Sója W.</i>	Soy	cul 3	jl. au	Pk	E. Indies	1790.	S	s.l	Jac. ic. 1. t. 145
10290	<i>Cat íang W.</i>	small-fruited	cul 3	jl. au	Pa	E. Indies	1793.	S	s.l	Rhee. mal. 8. t. 41
10291	<i>bitórus W.</i>	two-flowered	un 3	jl. au	Pa, Y	E. Indies	1776.	S	s.l	Flu. alm. t. 213. f. 4
10292	<i>róseus W.</i>	Rose-colored	pr 3	jl. au	Pk	Jamaica	1812.	S	s.l	
1551.	<i>STIZOLO'BIUM, P. S.</i>	<i>COW-AGE, OR COW-ITCH.</i>	<i>Leguminosae. Sp. 3-8.</i>							
10293	<i>altíssimum P. S.</i>	tall	or 50	...	Pu	Martinico	1779.	C	lp	Ja. am. t. 182. f. 85
10294	<i>árens P. S.</i>	broad-podded	cu 12	jn. jl	Y	W. Indies	1691.	C	lp	Plum. ame. t. 107
10295	<i>prúriens P. S.</i>	common	cu 12	...	Pu	India	1680.	C	lp	Jac. amer. t. 122



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is produced by the twining species. Neither sorts can be safely planted in the open air before the end of April, or first week of May, and the leaves are blackened by the first frosts of autumn. But in a stove or pit, green pods of the dwarf kinds may be gathered all the winter, and with this advantage over forced productions of the fruit kind required to be ripened, that the pods are as good from plants in the stove in midwinter, as from those in the open garden in midsummer. The garden culture of both species is so easy and universally known, that we shall not occupy ourselves with details. Though in this country the green pods only are used, on the continent the ripened seeds are as much the object of culture. In Holland, the twiner is grown in every cottage garden for both purposes; and in France and Switzerland, it is grown chiefly for the ripened seeds; in the latter countries it grows on very poor dry soil. On the first blackening of the leaves with frost, the plants are pulled up, dried like tobacco leaves under the dripping eaves of the houses; and in winter threshed out for the seeds, to be boiled and eaten with cream or butter, stewed in haricots, or put in soups. According to the analysis of Einhoff, 3840 parts of kidney bean afforded 1805 parts of matter analogous to starch, 857 of vegeto-animal matter, and 799 parts of mucilage: from which it is to be inferred, that it is the most nourishing of all the legumes.

The perennial stove species thrive best in a light rich soil, and may be propagated readily from cuttings or from seed. *P. caracalla*, or *Snail-flower*, is a very curious species, and will grow and flower freely, if kept clear from the red spiders. This species was so named by the Portuguese, who first brought it from South America, in consequence of its hooded flower. *Caracalla* (from the Celtic words *car*, a head, and *cal*, a covering) was the name of a hooded dress much worn by the Gauls, and gave his nickname to the Emperor Marcus Aurelius Antoninus, who was accustomed to wear the dress.

- 10254 Flowers spiked, Cal. without bractes, Wings expanded larger, Leaflets ovate
 10255 Flowers loosely spiked, Wings the length of vexillum
 10256 Vexillum and keel spirally twisted together
 10257 Stem hairy, Lateral leaflets 3-lobed : terminal 5-parted, Segm. lanceol. Peduncles 3-fl. shorter than petiole
 10258 Stem smooth, Lateral leaf 2-lobed : terminal 3-lobed : segments ovate, Pedunc. 3-fl. longer than petiole
 10259 Stem smooth, Leaf blunt : lateral sinuose; terminal hastate 3-lobed, Peduncles longer than leaf spiked
 10260 Stem smooth, Bractes larger than calyx, Pods pendulous compressed rugose
 10261 Stem round, Flowers capitate, Pods cylindrical horizontal
 10262 Stem angular hispid, Pods pendulous hairy
 10263 Stem flexuose round hairy, Pods capitate hairy
 10264 Downy, Lower leaves rhomboid oval : upper 3-lobed, Heads on long stalks, Pods round subulate

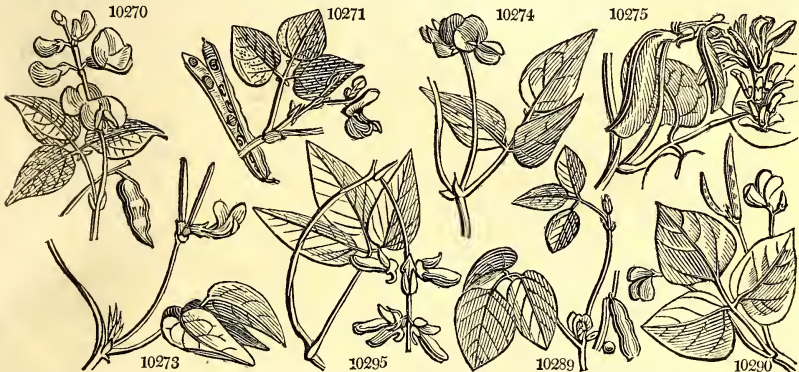
 10265 Leaflets oblong acuminate, Peduncles elongated, Pods round subulate
 10266 Leaflets about 3-lobed, Lobes acuminate, Racemes axillary

 10267 Leaflets ovate-lanceolate downy

 10268 Leaflets ternate smooth, Flowers in heads, Calyxes hairy campanulate
 10269 Flowers imbricated

 10270 Pods ovate acinaciform, Seeds ovate with a hilum curved towards one end
 10271 Pods pendulous cylindrical torulose, Peduncles erect many-flowered
 10272 Pods capitate many cylindrical, Seeds rounded
 10273 Pods capitate subcylindrical with a recurved concave end
 10274 Pods capitate few cylindrical with a mucronate straight point
 10275 Pods racemose ensiform with 3 keels at back straight at point, Seeds with an arillus
 10276 Pods membranous quadrangular
 10277 Pods subcylindrical smooth very long
 10278 Pods racemose compressed hairy, Outer leaflets 2-lobed
 10279 Pods subracemose linear hairy, Leaflets ovate-lanceolate downy
 10280 Pods racemose compressed 4-seeded, Leaflets rhomboid
 10281 Pods racemose acinaciform 4-seeded, Leaflets rhomboid smooth
 10282 Leaves ovate downy, Flowers solitary, Seeds 2-horned
 10283 Leaves ovate acute rugose netted villous, Racemes few-flowered
 10284 Leaves smooth toothed with many angles
 10285 Stem smooth, Petioles downy, Wings of corolla spreading
 10286 Peduncles capitate, Pods straight linear
 10287 Flowers somewhat spiked, Pods subcylindrical smooth, Leaves roundish rhomboid blunt entire smooth
 10288 Pods acinaciform with 3 keels
 10289 Racemes axillary erect, Pods pendulous hispid about 2-seeded
 10290 Pods twin linear nearly erect
 10291 Stem smooth, Peduncles 2-flowered, Outer leaflets somewhat angular
 10292 Stem creeping, Leaflets roundish shining, Fl. racemose, Pods with 3 keels at back

 10293 Pods racemose hairy equal, Seeds surrounded by the nilum, Leaves smooth on each side
 10294 Pods racemose with transverse lamellæ hairy, Seeds surrounded by the hilum
 10295 Pods racemose : valves keeled hairy, Peduncles in threes



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1548. *Teramnus*. So called by Browne, apparently in allusion to its delicately-shaped legume, *περαμνωτός* being used particularly to express the tenderness of eatable pulse; *απεραμνωτός* was a weed hostile to leguminous plants.

1549. *Carpopogon*. From *καρπός*, fruit, and *παργών*, a beard; the pods being bearded. Rapid growing climbers of the easiest culture.

1550. *Dolichos*. A name under which Dioscorides describes a plant supposed to have been the kidney bean of the moderns. The species are climbers, some of them to the height of the highest trees. The pods of most of them are eatable, but far inferior to the kidney bean. Some of them have tuberous roots which may be eaten. The seeds of *D. Soja* (*Soja*, Jap.), which are usually called *Miso* in Japan, are put into soups, and are the most common dish there, inasmuch that the Japanese frequently eat them three times a day. The *Soja* of the Japanese, which is preferred to the Kitjap of the Chinese, is prepared from these seeds, and is used in almost all their dishes instead of common salt. The Chinese also have a favorite dish made of these seeds, called *Tau hu* or *Tau hu*, which looks like curd, and though insipid in itself, yet with proper seasoning is agreeable and wholesome. (*Thumb.* and *Loureira*.)

The perennial kinds are easily increased by cuttings, and all the species seed freely. *D. purpureus* and *liguosus* have the handsomest flowers, but none of them can be considered of much beauty.

1551. *Stizolobium*. From *στίζω*, to prick, and *λόβος*, a pod. *S. urens* and *pruriens* produce on the outside of their pods the irritating substance used in medicine as a vermifuge, under the name of Cowhage. The species are twining shrubs of the West Indies, with long bunches of yellow scentless flowers. The seeds of *S. urens* are often seen in cabinets of curiosities: many qualities are attributed to them by the superstitious Crooles. The French settlers call them *Yeux bourrique*, asses' eyes. *S. pruriens* is considered a powerful diuretic.

1552. GLYCINE. L.	GLYCINE.			Leguminosæ.	Sp. 19—55.			
10296 sarmentosa W.	sarmentose	△	un	2 jn.au	Pa	Carolina	1805.	S s.l
10297 monóica W.	pale-flowered	△	cu	4 s	F	N. Amer.	1781.	C s.p
10298 angustifolia W.	narrow-leaved	△	un	6 jn.au	Pa	C. G. H.	1795.	C p.l
10399 débilis W.	hairy	△	un	13 jn.jl	Y	E. Indies	1778.	S p.l
10300 comosa W.	tufted	△	un	13 jl.s	B	N. Amer.	1812.	C p.l
10301 tomentosa Ph.	downy	△	un	13 jn.s	Y	N. Amer.	1732.	C p.l
10302 reniformis Ph.	Kidney-leaved	△	pr	2 jl.au	Y	Carolina	1806.	C p.l
10303 suavolens W.	sweet-scented	△	or	3 jl.s	Y.r	E. Indies	1816.	C p.l
10304 reticulata W.	net-leaved	△	or	6 jl.s	Y	Jamaica	1779.	C p.l
10305 caribæa W.	trailing	△	or	2 s.o	Y	W. Indies	1742.	C p.l
10306 bituminosa W.	clammy	△	pr	4 aps	Y	C. G. H.	1774.	C p.l
10307 parviflora P. S.	small-flowered	△	un	3 jl	Pa	E. Indies	1812.	C p.l
10308 sagittata W. en.	arrow-leaved	△	un	4 my.au	Y	Havannah	1815.	C p.l
10309 rhombifolia W.	rhomb-leaved	△	un	6 my.au	...	E. Indies	1815.	C p.l
10310 vinentina Ker.	St. Vincent's	△	pr	2 my.au	Y	St.Vincen.	1822.	C co
10311 phaseoloides Swz.	Kidn.-bean-like	△	un	2 jn.jl	Br	Jamaica	1818.	C p.l
10312 sinensis B. M.	Chinese	△	or	15 my.jn	B	China	1818.	L r.m
10313 A'pios W.	tuberous-rooted	△	ft	6 au.s	Pk	N. Amer.	1640.	C s.p
10314 frutescens Ph.	shrubby	△	or	10 jn.s	Pu	N. Amer.	1724.	R s.p
1553. KENNEDIA. Vent.	KENNEDIA.			Leguminosæ.	Sp. 6.			
10315 rubicanda V.	dingy-flowered	△	or	10 mr.au	Br	N. S. W.	1788.	S s.p
10316 coccinea V.	manly-flowered	△	or	10 my.au	S	N. Holl.	1803.	S s.p
10317 prostrata H. K.	single-flowered	△	or	4 mr.jn	S	N. S. W.	1790.	C s.p
10318 Comptoniana B. R.	Compton's	△	or	12 mr.jn	B	N. Holl.	1803.	C s.p
10319 monophylla V.	simple-leaved	△	or	10 mr.jn	Pu	N. S. W.	1790.	S s.p
10320 ovata B. M.	ovate	△	or	6 my.au	Pu	N. Holl.	1818.	C s.p
1554. CYLISTA. W.	CYLISTA.			Leguminosæ.	Sp. 3.			
10321 villosa H. K.	Cape	△	or	6 ap.any	Y	C. G. H.	1776.	S p.l
10322 albigera B. M.	white-flowered	△	or	6 ap.my	W	Mauritius	...	C p.l
10323 scariola W.	Coromandel	△	or	4 ...	Y	E. Indies	1806.	S p.l
1555. GALACTIA. Mi.	GALACTIA.			Leguminosæ.	Sp. 1—5.			
10324 pendula Pers.	pendulous	△	pr	6 jl.au	R	Jamaica	1794.	C l.p
1556. CLITORIA. W.	CLITORIA.			Leguminosæ.	Sp. 8—16.			
10325 Ternatea W.	wing-leaved	△	or	4 jl.au	B	E. Indies	1739.	C s.p
10326 heterophylla Lam.	various-leaved	△	or	1 jl.au	B	E. Indies	1812.	S s.p
10327 brasiliána W.	Brazilian	△	or	4 jl.au	Pu	Brazil	1759.	S s.p
10328 virginiana W.	small-flowered	△	or	6 jl.au	B	America	1732.	C s.p
10329 mariána W.	Maryland	△	or	3 au	B	N. Amer.	1759.	C s.p
10330 arboræscens H. K.	tree	△	or	8 au.s	Pk	Trinidad	1804.	C s.p
10331 Plumieri Pers.	Plumier's	△	or	6 s.n	W.r	W. Indies	...	C s.p
10332 mexicana Link.	Mexican	△	or	3 s.n	Pu	Mexico	1823.	S co
1557. O'ROBUS. W.	BITTER-VETCH.			Leguminosæ.	Sp. 16—42.			
10333 lathyroides W.	upright	△	or	13 jn	L.B	Siberia	1758.	R p.l
10334 luteus W.	yellow	△	or	13 jn.jl	L.Y	Siberia	1759.	R h.l
10335 digitatus Bieb.	digitate	△	or	13 my	Pu	Tauria	1823.	R co
10336 vernus W.	spring	△	or	1 mr.ap	Pu	Europe	1629.	R s.l
10337 tuberosus W.	tuberous	△	cul	1 my.jn	Pu	Britain	heaths.	R p.l
10338 pallæscens Bieb.	pallid	△	or	1 my	W	Tauria	1823.	R co
10339 canescens L.	hoary	△	or	13 my.jn	W.B	France	1816.	R co
10340 albus W.	white-flowered	△	or	1 my.jn	W	Austria	1794.	R s.l
10341 varius Schneev.	particolored	△	or	13 my.jn	Y.r	Italy	1759.	R p.l
10342 lacteus Bieb.	milk-white	△	or	13 my.jn	W	Caucasus	1820.	R co
10343 hirsutus L.	hairy	△	or	1 my.jn	B	Thrace	1822.	R co



History, Use, Propagation, Culture,

1552. *Glycine*. From γλυκος, sweet. G. monoica perfects its seeds under ground like *Arachis hypogæa*, *Trifolium subterraneum*, and *Lathyrus subterraneus*. They are all of easy culture, like their preceding and following allies. G. frutescens, and especially G. sinensis, are most beautiful hardy climbing shrubs, with long pendulous brauches of blue flowers, like the Laburnum.

1553. *Kennedia*. Named after Mr. Kennedy, a nurseryman of celebrity in the vicinity of London. Handsome conservatory climbers of the easiest culture.

1554. *Cylista*. From κυλισ, a calyx, that of the species so called being very large.

1555. *Galactia*. From γαλα, milk; the plant is milky in all its parts. A pretty flowering climber of easy culture in the soil indicated, and increased by cuttings in sand under a bell-glass.

1556. *Clitoria*. A name derived from an anatomical term, a resemblance to the subject of which has been fancied to exist in the flower. C. Ternatea was first brought to Europe from Ternate, one of the Moluccæ Islands, which induced Tournefort to adopt Ternatea as a generic appellation, and it was continued by Linnaeus as a specific one.

- 10296 Leaves ternate ovate smooth, Racemes filiform about 3-fl. Flowers apetalous, Pods oblong 2-seeded
 10297 Leaves ternate ovate smooth, Stem hairy, Racemes pendulous, Fls. of stem with cor. of root apetalous
 10298 Leaves ternate, Leaflets linear lanceolate silky, Fl. axillary solitary, Pods 2-seeded
 10299 Leaves ternate, Leaf. oval hairy beneath, Pods subsolitary linear many-seeded, Style persistent straight
 10300 Leaves ternate hairy, Racemes lateral
 10301 Leaves ternate tomentose, Racemes axillary very short, Pods 2-seeded
 10302 Downy, Leaves simple reniform rounded rugose netted, Racemes few-flowered
 10303 Leaves ternate ovate acute hairy viscid, Peduncles jointed 1-2-fl. Pods oblong
 10304 Leaves tern. ovate rhomboid pubesc. beneath netted tomentose, Racemes axillary, Pods subpubescent
 10305 Leaves ternate ovate rhomboid beneath dotted with resin, Racemes longer than leaf
 10306 Leaves ternate, Flowers racemose, Pods tumid villous
 10307 Leaves ternate ovate somewhat hairy, Racemes axillary, Pods linear hooked at end
 10308 Leaves simple sagittate, Petioles winged, Stem twining shrubby
 10309 Leaves tern. roundish rhomboid smooth beneath dotted with resin, Racemes 1-sided longer than leaf
 10310 Leaves pinnate, Leaflets 5 oblong apiculate, Flowers 3 axillary
 10311 Leaves ternate villous beneath, Racemes terminal
 10312 Leaves pinnate, Leaflets 11 ovate lanceolate silky, Raceme terminal nodding lax many-flowered
 10313 Root tuberous, Lvs. pinn. Leaf. 5-7 ov. lanc. narrowed towards the end, Spikes dense shorter than leaves
 10314 Leaves pinnate, Leaflets 9 ovate downy, Racemes dense terminal with bractea, Pods coriaceous
- 10315 Leaves ternate, Leaflets ovate, Pedunc. about 3-fl. Pods very hairy
 10316 Leaves ternate, Leaflets obovate, Flowers capitate, Pods smoothish
 10317 Leaves ternate, Leaflets obovate villous, Pedunc. 1-2-fl. Keel longer than obl. wings, Stem prostrate
 10318 Leaves ternate, Leaflets ovate retuse netted, Racemes erect many-flowered
 10319 Leaves simple smooth netted subcordate at base, Flowers racemose
 10320 Leaves simple ovate, Racemes axillary few-flowered

- 10321 Cal. membranous, Upper segment bifid
 10322 Down rusty, Cal. half 5-fid, Bractes ovate acuminate, Cor. larger than cal.
 10323 Cal. scarious, Upper segment emarginate

- 10324 Leaves ternate, Raceme erect, Flowers pendulous

- 10325 Leaves quinate pinnate, Peduncles axillary 1-flowered
 10326 Leaves pinnate, Leaflets 5 round lanceolate or linear
 10327 Leaves ternate, Calyxes solitary campanulate
 10328 Leaves ternate, Calyxes twin campanulate
 10329 Leaves ternate, Calyxes cylindrical
 10330 Leaves ternate, Peduncles many-flowered, Ovary downy, Style villous
 10331 Leaves ternate, Leaflets ovate-oblong acuminate, Cal. campanulate shorter than ovate bractes
 10332 Leaves ternate, Leaflets mucronate glaucous beneath hairy, Cal. cylind. much larger than bractes

- 10333 Leaves conjugate sessile, Stipules toothed
 10334 Leaves pinnate in 4 or 5 pairs obl. glaucous beneath, Stipules half sagittate toothed at base
 10335 Leaves of 2 pairs linear subulate approximating, Stip. half-sagittate subulate 1-toothed at base
 10336 Leaves pinnate in 3 pairs ovate acuminate, Stipules half-sagittate entire, Stem simple
 10337 Leaves pinnate in 3 or 4 pairs lanceolate, Stipules half-sagittate entire, Stem winged
 10338 Leaves of 2 pairs linear-subulate downy, Stip. half-sagittate subulate nearly entire, Stem simple downy
 10339 Stem branched, Leaves in 2 pairs linear, Stipules half sagittate subulate
 10340 Leaves in 2 pairs ensiform stalked, Stipules simple, Stem simple
 10341 Leaves in 4 pairs lin. lanc. Stipules half-sagittate entire, Stem winged branched upwards
 10342 Leaves of 2 pairs lin-lanc. mucronate stalked nerved, Stipules half-sagittate toothed at base
 10343 Leaves conjugate stalked, Stipules entire, Plant covered with long hairs



and Miscellaneous Particulars.

1557. *Orobis*. From α_{24} , to excite, and β_{55} , an ox; that is to say, a food nourishing to cattle. Handsome plants, and free flowerers. *O. luteus* Haller considers as one of the handsomest of the papilionaceous tribe. *O. tuberosus*, according to Lightfoot, is in great esteem among the Highlanders of Scotland for the tubercles of the root; they dry and chew them in general to give a better relish to their liquor; they also affirm them to be good against most disorders of the thorax, and that by the use of them they are enabled to repel hunger and thirst for a long time. In Breadalbane and Ross-shire, they sometimes bruise and steep them in water, and make an agreeable fermented liquor with them. They have a sweet taste, something like the roots of liquorice, and when boiled are well flavored and nutritive, and in times of scarcity have served as a substitute for bread. (*Lightfoot*.)

Boiled well, a fork will pass through them, and dried slightly and roasted, they are served up in Holland and Flanders in the manner of chestnuts, which they resemble in flavor. *Dickson* (*Hort. Trans.* ii. 359.) recommends cultivating them in a bed or border of light rich soil, paved at the depth of twenty inches, to prevent their roots from running down. Plant the tubers six inches apart, and three inches below the surface;

10344	<i>angustifolius W.</i>	narrow-leaved	Δ	or	1	my.jn	W	Siberia	1766.	R	s.l	Gmel. sib. 4. t. 5	
10345	<i>niger W.</i>	black	Δ	or	3	jn.jl	Pu	Europe	1596.	R	p.l	Bot. mag. 2261	
10346	<i>pyrenæicus W.</i>	Pyrenean	Δ	or	2	my.jn	Pu	Spain	1699.	R	p.l	Pl. alm. t. 210. f. 2	
10347	<i>sylvaticus W.</i>	wood	Δ	or	2	my.jl	Cr	Britain	m.w.o.	R	p.l	Eng. bot. 518	
10348	<i>ochroleucus W. & K.</i>	sulphur-colored	Δ	or	2	my.jl	Pa.Y	Hungary	1816.	R	p.l	Pl.rar.hu.2.t.118	
1558.	L.A'THYRUS. W.	LATHYRUS.						<i>Leguminosæ.</i>	<i>Sp. 30—57.</i>				
10349	<i>Aphaca W.</i>	yell. Vetchling	⊖	or	3	jn.jl	Y	England	san.fi.	S	co	Eng. bot. 1167	
10350	<i>Nissolia W.</i>	crimson	⊖	or	2	my	Cr	England	bus.pl.	S	co	Eng. bot. 112	
10351	<i>amphicarpus W.</i>	Earth Pea	⊖	cu	1½	jn.jl	Ap	Levant	1680.	S	co	Mo.his.2.t.23.f.1	
10352	<i>Cicera W.</i>	flat-podded	⊖	or	2	jn.jl	R	S. Europe	1633.	S	co	Ger. emac. f. 3	
10353	<i>sativus W.</i>	Chickling Vetch	⊖	ag	3	jn.jl	L.B	S. Europe	1640.	S	co	Bot. mag. 115	
10354	<i>inconspicuous W.</i>	small-flowered	⊖	un	1	jl.au	Pu	Levant	1739.	S	co	Jac.vind.1.t.86?	
10355	<i>setifolius W.</i>	bristle-leaved	⊖	or	1	jn.jl	Sc	S. Europe	1739.	S	co		
10356	<i>coccineus P. S.</i>	scarlet	⊖	or	2	jn.jl	Cr	Italy	1800.	S	co		
10357	<i>sphaericus W.</i>	round-seeded	⊖	or	2	jn.jl	Sc	S. Europe	1801.	S	co		
10358	<i>angulatus W.</i>	angular-seeded	⊖	or	2	jn.jl	R	S. Europe	1683.	S	co	Bu.cen.3.t.42.f.2	
10359	<i>spurius W. en.</i>	bastard	⊖	or	2	jn.jl	Pu	.....	1815.	S	co	
10360	<i>monanthos W.</i>	one-flowered	⊖	or	2	my.jl	Pk	Russia	1731.	S	co		
10361	<i>articulatus W.</i>	joint-podded	⊖	or	4	jl.au	F.w	S. Europe	1640.	S	co	Bot. mag. 253	
10362	<i>odoratus W.</i>	Sweet Pea	⊖	ft	4	jn.jl	W	Sicily	1700.	S	r.m	Bot. mag. 60	
10363	<i>grandiflorus B. M.</i>	perennial	⊖	Δ	or	4	jn.au	Pu	S. Europe	1814.	R	co	Bot. mag. 1938
10364	<i>annuus W.</i>	two-flowered	⊖	or	4	jn.au	Y	S. Europe	1621.	S	co		
10365	<i>tingitanus W.</i>	Tangier	⊖	or	4	jn.au	D.P	Barbary	1680.	S	co	Bot. mag. 100	
10366	<i>Clymenum W.</i>	various-flower.	⊖	or	4	jn.jl	Pu	Levant	1713.	S	co	Plu.alm.t.114.f.6	
10367	<i>hirsutus W.</i>	rough-podded	⊖	or	4	jl	Pu	England	bor.fi.	S	co	Eng. bot. 1255	
10368	<i>magellanicus W.</i>	Ld. Anson's Pea	⊖	or	6	jn.jl	Y	Cape Horn	1744.	S	co		
10369	<i>tuberosus W.</i>	tuberous	⊖	cul	2	jl.au	R	Holland	1596.	R	co	Bot. mag. 111	
10370	<i>tumidus L.</i>	tumid	⊖	or	1	jl.au	R	.....	1820.	S	co	
10371	<i>rotundifolius Bieb.</i>	round-leaved	⊖	or	1½	jl.au	Pu	Tauria	1822.	S	co		
10372	<i>pratensis W.</i>	meadow	⊖	or	3	jn.au	Y	Britain	me.pa.	R	co	Eng. bot. 670	
10373	<i>sylvestris W.</i>	Wood Everlasting Pea	⊖	or	3	ils	Pu	Britain	moi.w.	R	co	Eng. bot. 805	
10374	<i>latifolius W.</i>	broad-lvd. Everlasting	⊖	or	6	ils	Pk	Er.gland	woods.	R	co	Eng. bot. 1108	
10375	<i>heterophyllus W.</i>	various-leaved	⊖	or	4	ils	F	Europe	1731.	R	co		
10376	<i>palustris W.</i>	marsh	⊖	or	4	jl.au	B	Britain	moi.w.	R	co	Eng. bot. 169	
10377	<i>incurvus W.</i>	curve-podded	⊖	or	2	jl.au	B	Russia	1802.	R	co	Bux.cent.4.t.46	
10378	<i>pisiformis W.</i>	Siberian	⊖	or	3	jn.jl	W.B	Siberia	1759.	R	co	Lin. fil. dec. t. 20	
1559.	O'CHRUS. Bauh.	OCRUS.						<i>Leguminosæ.</i>	<i>Sp. 1.</i>				
10379	<i>pallida P. S.</i>	yellow-flowered	⊖	or	3	jn.jl	Y	S. Europe	1633.	S	s.l	Sch. han.2. t.200	
	<i>Pisum O'chrus W.</i>												
1560.	PYSUM. W.	PEA.						<i>Leguminosæ.</i>	<i>Sp. 3.</i>				
10380	<i>sativum W.</i>	common	⊖	cu	3	jn.s	W	S. Europe	...	S	co	Lam. ill. t. 633	



History, Use, Propagation, Culture,

the second year some will be fit to gather, and by taking only the largest, the bed will continue productive for several years, adding some fresh compost every year.

1538. *Lathyrus.* A name employed by Theophrastus to designate a leguminous plant. It is said by his commentator Bodæus a Stapel, to have been derived from *λα*, an augmentative particle, and *θηρ*, any thing which is exciting; and to have been applied to this plant in consequence of certain aphrodisiac qualities ascribed to it. *L. sativus*, *Geese*, Fr., is frequently sown in Switzerland for soiling horses. In several parts of the continent, a white light pleasant bread is made from the flour of this pulse, but it produced such dreadful effects in the last century, that the use of it was forbid by an edict of George, Duke of Wurtemberg, in 1671; and this not being observed, was enforced by two other edicts under his successor Leopold, in 1705, and 1714.

Mixed with wheat flour in half the quantity, it makes a very good bread, that appears to be harmless. But bread made with this flour only has brought on a most surprising rigidity of the limbs in those who have used it for a continuance; inasmuch that the exterior muscles could not by any means be reduced, or have their natural action restored. These symptoms usually appeared on a sudden, without any previous pain; but sometimes they were preceded by a weakness and disagreeable sensation about the knees. Baths, both hot and cold, fomentations and ointments of various kinds have been tried without effect; inasmuch that it is regarded as incurable, and being neither very painful nor fatal, those who are seized with it usually submit to it with patience.

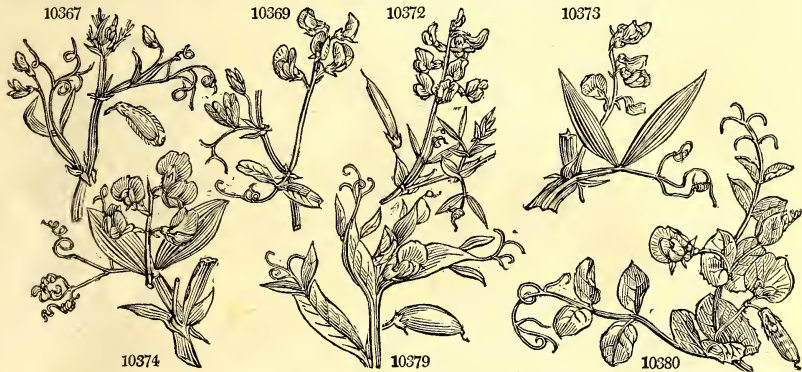
Swine fattened with this meal lost the use of their limbs, but grew very fat lying on the ground. A horse fed some months on the dried herb, was said to have his legs perfectly rigid. Kine are reported to grow lean on it, but sheep not to be affected. Pigeons, especially young ones, lose the power of walking by feeding on the seed. Poultry will not readily touch it, but geese eat it without any apparent damage. In some parts of Switzerland, cattle feed on the herb without any harm. It would be worth enquiring, therefore, whether the soil may not contribute something to the ill qualities of the plant: and it is remarked that the seed from a strong, fat, moist soil, is much more deleterious than from a light dry one. (*Duvernoy.*)

Fabroni, from Florence, in 1786, says, that the government there has cautioned the peasants against the

- 10344 Leaves in 2 pairs ensiform, Stipules subulate, Stem simple
 10345 Stem branched, Leaves in 6 pairs ovate oblong
 10346 Stem branched, Leaves in 2 pairs lanceolate nerved, Stipules somewhat spiny
 10347 Leaves pinnate hairy of many pairs ovate lanc. Stip. half-sagitt. Stem branched decumbent hairy
 10348 Leaves pinnate smooth of many pairs elliptical, Stipules ovate lanceol. Stem branched erect hairy
 10349 Peduncles 1-flowered, Tendrils leafless, Stipules sagittate cordate
 10350 Peduncles many-flowered, Leaves simple, Stipules subulate
 10351 Peduncles 1-flowered longer than calyx, Tendrils 2-leaved simple
 10352 Peduncles 1-flowered, Tendrils 2-leaved, Pods ovate compressed channelled at back
 10353 Peduncles 1-flowered, Tendrils 2-leaved and 4-leaved, Pods ovate compressed with 2 edges at back
 10354 Peduncles 1-flowered shorter than calyx, Tendrils 2-leaved simple, Leaflets lanceolate
 10355 Peduncles 1-flowered, Tendrils 2-leaved, Leaflets setaceous linear
 10356 Peduncles 1-flowered as long as cal. Petioles 2-leaved, Leaflets lanc. Pods linear roughish mucronate
 10357 Peduncles 1-flowered awned, Tendrils 2-leaved simple ensiform
 10358 Peduncles 1-flowered awned, Tendrils 2-leaved simple, Leaflets linear
 10359 Peduncles 1-flowered, Tendrils 4-leaved, Petioles winged, Pods compressed
 10360 Peduncles 1-flowered awned, Tendrils many-leaved, Leaflets linear truncate mucronate
 10361 Peduncles about 1-fl. Tendrils many-leaved, Leaflets alternate lanceolate, Petioles winged
 10362 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ovate oblong, Pods hairy
 10363 Peduncles 2-flowered naked, Tendrils 2-leaved, Leaflets obovate wavy, Stems rigid 4-angled
 10364 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets ensiform, Pods smooth, Stipules 2-parted
 10365 Peduncles 2-flowered, Tendrils 2-leaved, Leaflets altern. lanc. smooth, Stipules lunate
 10366 Peduncles 2-flowered, Tendrils many-leaved, Leaflets lanceolate, Stipules toothed
 10367 Peduncles about 3-flowered, Tendrils many-leaved, Leaves lanc. Pods hairy, Seeds rough
 10368 Peduncles long many-fl. Stipules broad cordate sagittate, Tendrils 2-leaved
 10369 Pedunc. many-fl. Tendrils 2-leaved, Leaflets oval, Joints naked
 10370 Pedunc. 1-fl. shorter than stipules, Tendrils 2-4-leaved, Stip. toothed, Pods erect turgid and villous
 10371 Pedunc. many-fl. Tendrils 2-leaved, Leaflets roundish, Joints membranous
 10372 Pedunc. many-fl. Tendrils 2-leaved quite simple, Leaflets lanceolate
 10373 Pedunc. many-fl. Tendrils 2-leaved, Leaflets ensiform, Joints membranous
 10374 Pedunc. many-fl. Tendrils 2-leaved, Leaflets lanceolate, Joints membranous
 10375 Pedunc. many-fl. Tendrils 2-leaved and 4-leaved, Leaflets lanc. Joints membranous
 10376 Pedunc. many-fl. Tendrils many-leaved, Leaflets linear lanc. acute
 10377 Pedunc. many-fl. Tendrils many-leaved, Leaf. lanc. obl. blunt mucronate, Joints membran. Pods curved
 10378 Pedunc. many-fl. Tendrils many-leaved, Leaf. ellipt. blunt, Stipules half-sagitt. ovate broader than leaflet

10379 Petioles decurrent membranous 2-leaved, Peduncles 1-flowered

10380 Petioles round, Stipules rounded below crenate, Peduncles many-flowered



and Miscellaneous Particulars.

use of *Lathyrus sativus*; swine having lost the use of their limbs, and become pitiable monsters by being fed on this pulse exclusively. The peasants, however, eat it boiled, or mixed with wheat flour, in the quantity of one-fourth, without any harm.

The poisonous *Lathyrus* from Barbary, is *L. semine punctato* of Casp. Bauhin, and seems to be only a variety; for in the crops of *L. sativus* in Italy, they find black seeds striped with white, as in the African seed. Fabroni suspects it to be a mule between *L. sativus* and *Cicera*, for the flower and seed partake of the characters of both; having a black seed marked with white; and a white banner with a red keel to the corolla. (*Fabroni's Letters in MSS. Banks.*)

L. odoratus is one of our most esteemed border annuals, and is extensively grown in pots for decorating chambers and windows. *L. tingitanus*, *articulatus*, and *annuus* are also sown as border annuals.

L. tuberosus produces tubers on the roots, like those of the earth nut (*Bunium bulbocastanum*); these are sold in the markets of Holland, like those of *Orobus tuberosus* and *Trapa natans*, and their flavor is highly esteemed.

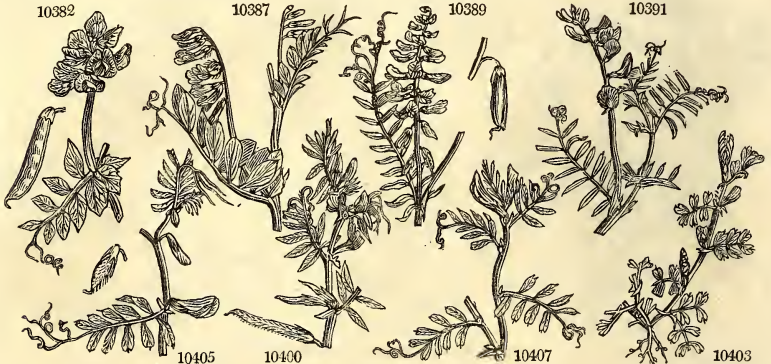
L. latifolius is a very shewy plant for shrubberies, arbors, and trellis work, and yields a great quantity both of green fodder and seeds, which some botanists have suggested might be applied to agricultural purposes.

1559. *Ochrus*; *oxyges*, yellow, in allusion to the color of its flowers. A small annual plant with yellow flowers, native of hedges in the south of Europe.

1560. *Pisum*. From the Celtic *pis*, a pea. *P. sativum*, *Pois*, Fr., *Erbse*, Ger., and *Pisello*, Ital., is the most valuable of culinary legumes. Like most domestic plants of great antiquity, its native country is unknown, though it is commonly referred to the south of Europe. The varieties of the pea are numerous, and differ widely among themselves from the early frame, a low plant bearing only one white blossom on each footstalk, to the crown-bearing, having pink blossoms on a terminating corymb. The rouncival grows ten or twelve feet high, and the imperial not two feet. The sugar-pea has pods in which the inner film is wanting, or much less tough than usual, which admits of boiling the pods entire, and eating them in the same manner as kidney beans.

In the open garden, the pea is sown at intervals from January to the middle of July, and a succession of

Number	Common Name	Field	Sea	Ag	3	jn.s	R	S. Europe	...	S	co	
10381	arven'se W.	field		Δ	or	3	jn.s	R	S. Europe	...	S	co
10382	maritimum W.	sea		Δ	or	1 1/2	jl	B	England	sea sh.	D	s.l
1561	VICIA W.	VETCH							Leguminosae.	Sp. 38-100.		
10383	pisiformis W.	Pea-shaped		Δ	or	2	jl.au	Pa.Y	Austria	1739.	R	co
10384	dumetorum W.	great-wood		Δ	or	1	my.jn	Pu	France	1752.	R	co
10385	sylvatica W.	common-wood		Δ	or	6	jl.au	W	Britain	moi.w.	R	co
10386	cassubica W.	Cassubian		Δ	or	3	jn.jl	L.B	Germany	1711.	R	co
10387	atropurpurea W.	dark-purple		Δ	or	3	jn.jl	Pu	Algiers	1815.	R	co
10388	villosa W.	villous		Δ	or	3	jn.jl	D.Pu	Germany	1815.	S	co
10389	Crac'ca W.	tufted		Δ	or	2	jn.au	V	Britain	hed.	R	co
10390	tenuifolia W.	slender-leaved		Δ	or	1 1/2	jn.jl	Pu	Germany	1799.	R	co
10391	onobrychioides W.	Saintfoin		Δ	or	2	jn.jl	V	S. Europe	1789.	S	co
10392	biennis W.	biennial		Δ	or	2	jl.s	Pu	Siberia	1753.	S	co
10393	nissoliána W.	red-flowered		Δ	or	3	jn.jl	D.Pu	Levant	1773.	S	co
10394	benghalensis W.	Bengal		Δ	or	3	jn.jl	D.Pu	E. Indies	1792.	S	co
10395	canescens W.	hoary		Δ	or	1	jn.au	B	Libanus	1800.	S	co
10396	capensis W.	Cape		Δ	or	1	jn.au	Pa	C. G. H.	1802.	R	co
10397	pellúcida W.	pellucid		Δ	or	1	jn.au	Pa	C. G. H.	1812.	R	co
10398	bitóbra W.	two-flowered		Δ	or	1 1/2	jn.au	B	Algiers	1801.	S	co
10399	globósa W.	globular		Δ	or	1 1/2	jn.au	B	.....	1804.	S	co
10400	sativa W.	common		Δ	or	3	my.jn	Pu	Britain	corn fi.	S	h.l
	β segetális	hedge		Δ	or	3	my.jn	Pu	Britain	corn fi.	S	h.l
	γ nemorális	wood		Δ	or	3	my.jn	Pu	Britain	corn fi.	S	h.l
10401	angustifolia W.	narrow-leaved		Δ	or	1 1/2	jn.jl	R	Germany	.....	S	co
10402	amphicarpus W.	subterraneous		Δ	or	1	my.jn	B	France	1815.	S	co
10403	lathyroides W.	spring		Δ	or	1 1/2	ap.jn	Pu	Britain	fall.fi.	S	h.l
10404	lútea W.	yellow		Δ	or	1 1/2	jn.au	Y	Britain	sea sh.	R	co
10405	hýbrida W.	hairy-flowered		Δ	or	1 1/2	jn.au	Y	England	thick.	R	co
10406	striáta Bieb.	streaked		Δ	or	1 1/2	jn.au	Pu	Tauria	1823.	R	co
10407	lævigáta W.	smooth-podded		Δ	or	1 1/2	jl.au	Pa.Y	England	sea sh.	R	co
10408	megalospérma Bieb.	Taurian		Δ	or	2	jl.au	Pu	Tauria	1798.	S	co
10409	articuláta W. en.	jointed		Δ	or	1 1/2	jl.au	Pu	.....	1798.	S	co
10410	pannónica W.	Hungarian		Δ	or	1 1/2	jn.jl	Pu	Hungary	1658.	S	co
10411	sórdida W.	sordid		Δ	or	1	jn.jl	Y	Hungary	1802.	S	co
10412	Michauxii W. en.	white-flowered		Δ	or	1 1/2	jl.au	Pu	.....	1803.	S	co
10413	peregrina W.	broad-podded		Δ	or	1 1/2	jl.au	Pu	France	1779.	S	co
10414	monántha W.	single-flowered		Δ	or	2	jl.au	R	Barbary	1790.	R	co
10415	sepium W.	bush		Δ	or	2	my.jn	B	Britain	hed.	R	h.l
10416	bitýnycia W.	purple		Δ	or	1 1/2	jl.au	Pu	England	san.fi.	S	co
10417	platycarpus W.	flat-podded		Δ	or	1 1/2	jl.au	Pu	Germany	1723.	S	co
10418	naronóensis W.	broad-leaved		Δ	or	3	jn.jl	Pu	France	1596.	S	co
10419	serratifolia W.	saw-leaved		Δ	or	3	jn.jl	Pu	Hungary	1723.	S	h.l
10420	Faba W.	Garden Bean		Δ	or	3	jn.jl	Pa	Egypt	...	S	h.l
	β equina	Horse Bean		Δ	or	3	jn.jl	Pa	.....	...	S	co



History, Use, Propagation, Culture,

crops is thus obtained from the end of May to the beginning of November. By raising in hotbeds and transplanting, the first crop may be gathered in the beginning of May; and by raising and maturing in pits, peas may be gathered in April. The pea, however, does not force well, and requires extraordinary attention to giving air, otherwise the blossoms will not set. The culture of the pea is known to every countryman.

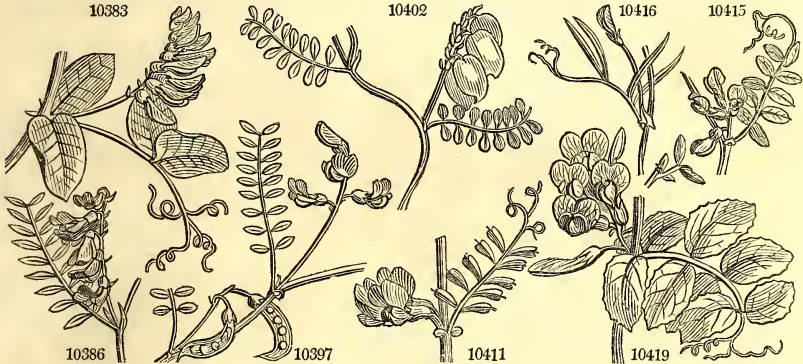
The grey pea, cultivated in agriculture, is by some considered as a species, though it is obviously a mere variety, not further removed from the frame pea than is the blue Prussian, or the crown pea. A dry soil and season is essential for a good crop, unless the plants can be supported by sticks like the garden crops. The seed is chiefly used for feeding pigs, and splitting for soup. In boiling split peas, some samples, without reference to variety, fall or moulder down freely into pulp, while others continue to maintain their form. The former are called boilers. This property of boiling depends on the soil; stiff land, or sandy land that has been limed or marled, uniformly produces peas that will not melt in boiling, no matter what the variety may be. Pease straw cut green and dried, is reckoned as nourishing as hay, and is considered as excellent for sheep. The produce of peas in flour is as three to two of the bulk in grain, and husked and split for soups as four to two. A thousand parts of pea flour afforded Sir H. Davy 57 1/4 parts of nutritive or soluble matter; viz. 501 of mucilage, or vegetable animal matter, 22 of sugar, 35 of gluten, and 16 of extract, or matter rendered insoluble during the operation.

P. maritimum has seeds of a bitterish disagreeable taste, but are reported nevertheless to have been eaten in times of scarcity. (Turner's Herbal.)

1561. *Vicia*. From *gwig*, Celtic; whence *βίσιον*, Greek, *vicia*, Latin, *vesce*, French, *vetch*, English, &c. *V. sylvatica* and *cracca*, where they occur in meadows, are considered valuable herbage plants. They yield great bulk of fodder, which is allowed to be very nutritive. Some have proposed to cultivate them alone, but Curtis observes, they would probably in that case choke themselves for want of support.

V. sativa, the winter and summer tare, fetch or vetch, is a valuable agricultural plant. Some consider the winter variety as a distinct species; but Professor Martyn proved, by cultivating both, that they were not

- 10381 Petioles 4-leaved, Stipules crenate, Peduncles 1-flowered
 10382 Petioles flat above, Stem angular, Stipules sagittate, Peduncles many-flowered
- 10383 Peduncles many-fl. Petioles many-leaved, Leaflets ovate : lower sessile
 10384 Peduncles many-fl. Leaflets reflexed ovate mucronate, Stipules somewhat toothed
 10385 Peduncles many-fl. longer than leaf, Leaflets ellipt. Stipules lunate with setaceous teeth
 10386 Peduncles many-fl. shorter than leaf, Leaflets oblong subpubesc. Stipules half sagittate entire lanceolate
 10387 Peduncles many-fl. shorter than leaf, Teeth of calyx setaceous very villous, Leaflets lanceolate villous
 10388 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaflets obl. ovate villous, Stip. half-sagittate
 10389 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lanc. blunt, Stip. half-sagitt. lin. subulate
 10390 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lin. smoothish 3-nerved, Stip. lin. entire
 10391 Peduncles many-fl. longer than leaf, Flowers imbricated, Leaf. lin. Stip. half-sagitt. lin. lanc. toothed at base
 10392 Peduncles many-fl. Petioles sulcate 12-leaved, Leaflets lanc. smooth, Stip. half-sagittate stalked
 10393 Peduncles many-fl. Leaflets obl. Stipules entire, Pods villous ovate oblong
 10394 Peduncles many-fl. Leaves entire, Stipules entire, Pods nearly erect
 10395 Peduncles many-fl. long, Upper leaves subcirrhous, Stipules half-sagittate entire, Leaf. oval-obl. hoary
 10396 Peduncles many-fl. long, Leaves not cirrhous, Leaf. obl. lanc. silky beneath, Stip. lanceol. entire
 10397 Peduncles many-fl. shorter than leaf which is not cirrhous, Leaflets obovate emarginate, Stip. oblong
 10398 Peduncles 2-flowered awned shorter than leaf, Leaflets linear narrowed at each end, Stip. half-sagittate
 10399 Pods subsessile solitary, Leaflets ovate, Stipules marked 4-toothed
 10400 Pods sessile sub-binate, Leaflets obl. ovate truncate mucronate, Stipules toothed marked
- 10401 Pods sessile sub-binate spreading, Lower leaflets ovate emarginate : upper lin. entire, Seeds globose
 10402 Pods sessile : lower subterranean, Leaflets linear truncate, Stipules half-sagittate
 10403 Pods sessile solitary erect smooth, Leaflets 6 : lower subcordate
 10404 Pods sessile solitary reflexed hairy, Stems diffuse, Stipules colored, Standard smooth
 10405 Pods sessile solitary reflexed hairy 5-seeded, Standard villous
 10406 Pods stalked reflexed, Standard silky, Stipules lanceolate marked, Upper leaflets obl. elliptical acute
 10407 Pods sessile solitary reflexed smooth, Stems nearly erect, Leaves quite smooth
 10408 Pods sessile solitary reflexed downy, Leaflets linear blunt, Stipules half-sagittate entire
 10409 Pedunc. 1-fl. in fruit longer than leaf and awned, Leaflets linear blunt mucronate, Stipules multifid
 10410 Pods stalked about 3, and the standard hairy, Stipules lanceolate marked
 10411 Pods subsessile twin reflexed smooth, Leaflets obl. ovate retuse, Stipules marked
 10412 Pedunc. 1-fl. very short, Leaf. lin. lanc. truncate, Stipules lanc. undivided, Pods finely downy
 10413 Pods subsessile pendulous smooth 4-seeded, Leaflets linear emarginate
 10414 Pedunc. 1-fl. awned, Leaflets lanceolate blunt, Stipules bifid
 10415 Pods stalked about 4 erect, Leaflets ovate entire
 10416 Pods stalked solitary erect, Leaflets 4 oval-lanceolate, Stipules toothed
 10417 Pods subsessile solitary compressed somewhat inflated, Leaflets ovate toothed at end, Stip. cil. toothed
 10418 Pods subsessile subternate compressed, Leaflets ovate entire, Stipules ciliate toothed at base
 10419 Pods subsessile subternate, Leaves and stipules serrate
 10420 Pods subsess. subtern. torulose, Leaflets ovate entire, Petioles not cirrhous, Stip. sagittate toothed at base



and Miscellaneous Particulars.

even very distinct varieties. The winter variety is sown in September and October, and the summer at different periods, from February to June, for successional cuttings. The soil requires to be in a good heart, otherwise they will produce but a poor crop of herbage : on a good soil they will yield ten or twelve tons, which is found excellent for milch cows and working stock. The crop is seldom left to ripen its seeds, but when seeds are wanted ; the only use made of them being for sowing or feeding pigeons.

V. narbonensis and *serratifolia* are cultivated in Germany in the same manner as our tare. *Vicia sepium* has been recommended to be sown among clover for mowing.

V. Faba is a well known legume both of the garden and the field. The garden varieties are numerous ; the earliest is a small seeded variety, the Mazagan, and the largest the Windsor. Beans are planted at the various times in which pease are sown ; but the late sowings of this plant do not answer so well as those of the pea. When the ground is properly pulverised and in good heart, they succeed well when transplanted ; and where a first crop is injured by insects, if the stems are cut down to the ground during their flowering season, they will send up a succession of shoots, which will bear a crop. In this way, according to some, the bean may be rendered perennial, as it is certain the scarlet kidney bean may by merely protecting the roots from the frost.

The field bean, of which there is a larger and smaller sort, the latter called *ticks*, is sown in drills by a machine, so as to admit of horse hoeing, and otherwise ploughing or stirring between the rows. By this means a larger crop is produced, and the land cleaned and brought into a better state for a succeeding corn crop. Beans are excellent food for hard working horses, and for fattening hogs for bacon. The flower of beans and pease is more nutritive than that of oats, but less easy of digestion. A bushel of beans is supposed to yield fourteen pounds more of flour than a bushel of oats, and a bushel of pease eighteen pounds more, or, according to some, twenty pounds. A thousand parts of bean flour were found, by Sir H. Davey, to yield 570 parts of nutritive matter, of which 426 were mucilage or starch, 103 gluten, and 41 extract, or matter rendered insoluble during the process.

		TARE.		Leguminosæ.		Sp. 4-16.								
1562.	ERVUM. W.			○	clt	1	my	Pa	France 1548.	S	r.m	Rivini tet. t. 35		
10421	Lens L.			⊗	un	1½	jn	Pu	Britain	corn f.	S	h.l	Eng. bot. 1223	
10422	tetraspermum W.			⊗	un	2	jn	B	Britain	corn f.	S	h.l	Eng. bot. 970	
10423	hirsutum W.			⊗	un	1½	jn	Pa	E. Indies	1802.	S	co		
10424	dispersum W.			⊗	un	1½	jn	Pa	E. Indies	1802.	S	co		
1563.	ERVILIA. Link.	ERVILIA.		Leguminosæ.		Sp. 1.								
10425	sativa Link.		common	⊗	clt	1½	jn	Pa	S. Europe	1596.	S	co	Black. t. 208. f. 3	
1564.	CYCER. W.	CHICK-PEA.		Leguminosæ.		Sp. 1.								
10426	arietinum W.		common	⊗	clt	1	jl	au	Pa	S. Europe	1548.	S	co	Bot. mag. 2274
1565.	LIPARIA. W.	LIPARIA.		Leguminosæ.		Sp. 8-13.								
10427	sphaerica W.		globe-flowered	⊗	or	4	jl	au	Or	C. G. H.	1794.	S	p.l	Bot. mag. 1241
10428	capitata W.		headed	⊗	or	3	jl	au	Y	C. G. H.	1812.	C	co	Bot. reg. 802
10429	tomentosa W.		downy	⊗	or	3	jl	au	Y	C. G. H.	1812.	C	co	Bot. rep. 382
10430	vestita W.		concave-leaved	⊗	or	3	my	jn	Y	C. G. H.	1800.	S	p.l	Bot. mag. 426
10431	graminifolia W.		narrow-leaved	⊗	or	3	jn	jl	Y	C. G. H.	1800.	C	co	Bot. mag. 1387
10432	villosa W.		woolly	⊗	or	3	jn	jl	Y	C. G. H.	1774.	C	co	Ho.n.h.5.t.29.f.1
10433	hirsuta W.		shaggy-stem'd	⊗	or	3	ap	d	Y	C. G. H.	1792.	S	p.l	Bot. reg. 8
10434	sericea W.		silky-leaved	⊗	or	3	jn	jl	Y	C. G. H.	1794.	S	p.l	
1566.	CYTISUS. W.	CYTISUS.		Leguminosæ.		Sp. 24-41.								
10435	Laburnum W.		comm. Laburn.	⊗	tm	15	my	jn	Y	Switzerl.	1596.	S	co	Bot. mag. 176
10436	alpinus W. en.		Scotch Laburn.	⊗	tm	30	jn	Y	Europe	1596.	S	co		
10437	tomentosus B. R.		tomentose	⊗	or	1½	jl	au	Y	C. G. H.	1798.	S	p.l	Bot. rep. 237
10438	nigricans W.		black-rooted	⊗	or	3	jn	jl	Y	Austria	1730.	S	s.l	Bot. reg. 802
10439	foliolosus W.		leafy	⊗	or	2	jl	au	Y	Canaries	1779.	C	p.l	Bot. mag. 426
10440	divaricatus W.		clammy	⊗	or	3	jl	au	Y	S. Europe	1676.	S	s.l	Bot. mag. 1387
10441	sessilifolius W.		common	⊗	or	6	my	jn	Y	Italy	1629.	S	s.l	Bot. mag. 255
10442	wolgáricus W.		wing-leaved	⊗	or	2	my	jn	Y	Siberia	1786.	S	s.l	Pall. ross. 1. t. 47
10443	Cájan W.		Pigeon-Pea	⊗	or	2	jl	au	Y	E. Indies	1687.	S	s.l	Rhee. mal. 6. t. 13
10444	nánus W. en.		dwarf	⊗	or	½	my	jn	Y	Levant	1816.	S	s.l	Dend. brit. 81
10445	hirsutus W.		hairy	⊗	or	5	jn	au	Y	S. Europe	1739.	S	co	Jac. obs. 4. t. 96
10446	capitatus W.		cluster-flowered	⊗	or	3	jn	jl	Y	Austria	1774.	S	s.l	Bot. cab. 497
10447	austriacus W.		Austrian	⊗	or	3	jn	s	Y	Austria	1741.	S	s.l	Jac. aust. 1. t. 21
10448	leucánthus W.		cream-colored	⊗	or	4	jn	jl	Pa.Y	Hungary	1806.	C	s.l	Bot. mag. 1438
10449	purpúreus W.		purple-flowered	⊗	or	3	my	au	Pu	Austria	1792.	S	s.l	Bot. mag. 1176
	β albiflorus		white-flowered											
10450	supinus W.		trailing	⊗	or	1	my	au	Y	S. Europe	1755.	S	s.l	Jac. aust. 1. t. 20
10451	bidiflorus W.		two-flowered	⊗	or	3	my	jn	Y	Hungary	1760.	S	s.l	Bot. reg. 308
10452	falcatus W. & K.		sickle-shaped	⊗	or	3	jn	au	Y	Hungary	1816.	S	s.l	Bot. cab. 520
10453	triflorus W.		three-flowered	⊗	or	4	jn	jl	Y	Spain	1640.	S	s.l	
10454	elongatus W. & K.		long-branched	⊗	or	4	my	jn	Y	Hungary	1804.	C	s.l	Pl.rar.hu.2.t.183
10455	rhombifolius Ph.		rhomb-leaved	⊗	or	3	.....	Y	Louisiana	1811.	C	s.l		
10456	proliferus W.		silky	⊗	or	2	ap	my	Y	Canaries	1779.	C	p.l	Bot. reg. 121
10457	argenteus W.		silver-leaved	⊗	or	3	au	Y	France	1739.	S	s.l		
10458	calycinus Bieb.		few-flowered	⊗	or	2	au	Y	Tauria	1820.	C	co	Bot. cab. 673	
	pauciflorus W.													



History, Use, Propagation, Culture,

1562. *Ervum*. From *erw*, tilled land; in Celtic; to which this plant is a pest. *E. lens* (from *lentil*, Celtic), *Lentille*, Fr., *Lentze*, Ger., and *Lenticcia*, Ital., is a legume of the greatest antiquity, being in esteem in Esau's time, and much prized in eastern countries ever since. In Egypt and Syria they are parched in a frying-pan and sold in the shops, and considered by the natives as the best food for those who undertake long journeys. There are three varieties of lentils cultivated in France and Germany; the small brown, which is the lightest flavored, and the best for haricots and soups; the yellowish, which is a little larger, and the next best; and the lentil of Provence, which is almost as large as a pea, with luxuriant straw, and more fit to be cultivated as a tare, than for the grain as human food. A dry warm sandy soil is requisite for the lentil; it is sown rather later than the pea, at the rate of a bushel, or one and a half bushel, to the acre; in other respects its culture and harvesting are the same, and it ripens sooner. The produce of the lentil in grain is about a fourth less than that of the tare; and in straw it is not a third as much, the plants seldom growing above one and a half foot high. The straw is, however, very delicate and nourishing, and preferred for lambs and calves; and the grain, on the continent, sells at nearly double the price of pease. Einhoff obtained from 3840 parts of lentils, 1260 parts of starch, and 1433 of a matter analogous to animal matter.

1563. *Ervilia*. A word with the same meaning as *Ervum*. See that word.
 1564. *Cicer*. All authors agree in deriving the name from *κικυος*, force; on account of the eminent qualities the ancients attributed to it. It grows naturally in the South of Europe, and is cultivated there for the same purposes as the lentil, but it is too delicate for field culture in this country. It is called *Arietinum*, because the young seed bears a very curious resemblance to a ram's head.
 1565. *Liparia*. From *λιπαρος*, brilliant, in allusion to the surface of the leaves. "The species," Sweet observes, "thrive very well in a mixture of loam and peat, and do not require so much water as some other genera of the order. *L. villosa*, *vestita*, *sericea*, and some others, if they get too much water over their leaves

- 10421 Pedunc. 2-fl. Seeds compressed, Leaflets entire
 10422 Pedunc. about 2-fl. Pods smooth 4-seeded, Leaflets oblong truncate
 10423 Pedunc. many-fl. Pods hairy 2-seeded, Leaflets lin. blunt
 10424 Pedunc. 2-fl. awned, Pods smooth 2-seeded, Leaflets lin. lanceolate downy
 10425 Pedunc. awned shorter than leaf, Leaflets obl. truncate smooth, Stipules hastate
 10426 Pedunc. 1-fl. Seeds globose gibbous, Leaflets serrated
 10427 Flowers capitate, Leaves lanceolate nerved smooth
 10428 Flowers capitate: head erect, Leaves lanceolate smooth
 10429 Flowers capitate, Leaves lanceolate downy
 10430 Flowers capitate, Leaves ovate concave woolly beneath
 10431 Flowers spiked hairy, Leaves lanceolate, and angular stem smooth
 10432 Flowers fascicled, Leaves ovate villous downy
 10433 Flowers racemose, Leaves obovate oblong smooth, Stem hairy
 10434 Flowers somewhat spiked, Leaves ovate villous downy
 10435 Racemes simple pendulous, Leaflets ovate oblong, Pods hairy
 10436 Racemes simple pendulous, Leaflets ovate oblong rounded at base, Pods quite smooth
 10437 Racemes lateral erect, Branches round spreading, Leaflets ovate downy
 10438 Racemes terminal erect, Calyxes hairy: teeth minute, Leaflets ellipt. hairy
 10439 Racemes terminal erect, Calyxes villous: segments falcate, Leaf. obovate oblong
 10440 Racemes terminal erect, Calyxes and pods viscid, Leaflets oblong
 10441 Racemes erect, Calyx with a triple bractea, Floral leaves sessile
 10442 Racemes terminal 1-sided, Leaves pinnated hoary, Leaflets roundish elliptical
 10443 Racemes axillary erect, Leaflets sublanceolate downy: the middle one in a long stalk
 10444 Raceme term. 1-sided 4-fl. Leaflets obovate downy beneath, Calyxes deeply 3-parted
 10445 Pedunc. aggregate subterminal, Calyxes hairy trifid, Leaflets obov. mucronate hairy beneath
 10446 Flowers capitate, Branches straight round villous, Leaflets ovate ellipt. villous, Bract linear
 10447 Fl. in term. umbels, Stems erect, Leaflets lanc. strigose pubescent
 10448 Fl. umbelled term. Stems erect, Leaflets ellipt. smooth acute
 10449 Fl. axillary solitary stalked, Stems procumbent, Leaflets obovate, Pods linear repand
 10450 Fl. stalked sub-binate axillary, Stem decumbent, Leaflets obovate blunt
 10451 Pedunc. sub-binate axillary, Stems diffuse-erect, Leaflets oblong lanceolate
 10452 Stems stalked lateral about 3 erect, Stem declinate branched, Leaflets obovate mucronate
 10453 Flowers stalked axillary about 3, Calyxes campanulate, Leaflets obovate blunt hairy
 10454 Flowers stalked lateral about 4, Stem erect, Branches long, Cal. tubular, Leaflets obovate
 10455 Racemes term. erect, Leaflets obl. rhomboid blunt, Stipules rounded ovate oblique
 10456 Flowers in lateral umbels, Stems erect, Leaves ellipt. erect silky beneath, Calyxes woolly
 10457 Pedunc. about 3 term. Leaflets oblong lanceolate silky, Pods linear silky, Stems decumbent
 10458 Flowers umbelled terminal, Cal. 3-parted: lower tooth trifid, Leaflets rounded obovate, Stems ascending



and Miscellaneous Particulars.

will be killed. Very young tops, taken off for cuttings, and planted under a bell-glass, in sand, are not difficult to root. (*Bot. Cult.* 217.)

1566. *Cytisus*. Pliny says it was so called because found in *Cythus*, one of the Cyclades. The *Cytisus* of the ancients is believed to have been our *Medicago arborea*. A genus of ornamental trees and shrubs, of which the *Laburnum*, *Cytise des alpes*, Fr., *Bohnenbaum*, Ger., are well known and universally admired examples. There are two species of *Laburnum*, which are so much alike, that in most nurseries they are confounded together, or only one in cultivation. *C. alpinus* is the tree *Laburnum*, whose timber (the false ebony of the French) is much prized by cabinet-makers and turners, for its hardness, beauty of grain, and durability. The tree is frequently sown in plantations infested with hares and rabbits, who will touch no other tree so long as a twig of *laburnum* remains. "Though eaten to the ground in winter," as Boucher observes, "it will spring again next season, and thus afford a constant supply for these animals, so as to save the other trees till of a size to resist their attacks. The timber has been sold for upwards of half a sovereign per foot." It becomes most valuable in light loams and sandy soils.

C. wolgarius and *purpureus* are very handsome shrubs; and make a fine appearance when grafted on stocks of *laburnum* five or six feet in height.

C. cajan (an alteration of the Malay name, *Catjang*), *Pois d'Angola*, Fr., is frequently planted in the West India Islands, chiefly in rows as a fence to the sugar plantations, and will thrive on barren land. The seed is much eaten by poor people and negroes, and is esteemed a wholesome pulse. In the island of Martinico even the better sort of people hold it in estimation, and prefer it to the European pea. The chief use of it in Jamaica is for feeding pigeons, whence its name. The branches, with the ripe seed and leaves, are given to feed hogs, horses, and other cattle, which grow very fat on them. (*Sloane and Jacq. Obs.*)

1567. MULLE'RA. <i>W.</i>	MULLERA.				<i>Leguminosæ.</i>	<i>Sp. 1.</i>						
10459 moniliformis <i>W.</i>	bracelet	♂	or	20	.....	Y	Guiana	1792.	C	lp	Merian. sup. t.35	
1568. ROBIN'IA. <i>W.</i>	ROBINIA.				<i>Leguminosæ.</i>	<i>Sp. 6-10.</i>						
10460 Pseudacacia <i>W.</i>	comm. Acacia	辛	tm	40	my.jn	Pa.pu	N. Amer.	1640.	S	s.l	Schmid.ar.1.t.32	
β inermis <i>W.</i>	smooth large-tn.	辛	tm	40	my.jn	Pa.pu	N. Amer.	...	S	s.l		
10461 viscosa <i>W.</i>	clammy	辛	tm	30	jn.au	Pk	N. Amer.	1797.	G	s.l	Bot. mag. 560	
10462 violacea <i>W.</i>	Ash-leaved	辛	or	12	.....	V	W. Indies	1759.	S	p.l		
10463 purpurea <i>Link.</i>	purple	辛	or	15	jl.au	Pu	.....	1810.	G	co		
10464 guineen'sis <i>W. en.</i>	Guinea	辛	or	6	...	Y	S. Leone	1822.	C	p.l		
10465 hispida <i>W.</i>	Rose-acacia	辛	or	10	my.s	Pk	Carolina	1743.	G	s.l	Bot. mag. 311	
β rosea	upright	辛	or	10	my.s	Pk	.....	...	G	s.l		
1569. CARAGA'NA. ROYEN. SIBERIAN PEA-TREE.	common	辛	or	15	ap.my	Y	Siberia	1752.	S	co	Schm.arb.1.t.33	
10466 sibirica <i>Roy.</i>	Robinia Caragana L.				<i>Leguminosæ.</i>	<i>Sp. 11-13.</i>						
10467 arenaria <i>Downe</i>	sand	辛	or	1	jn.jl	Y	Siberia	1802.	Sk	s.l	Bot. mag. 1886	
10468 grandiflora <i>Bieb.</i>	large-flowered	辛	or	2	jn.jl	Y	Iberia	1823.	G	s.l		
10469 Altargána <i>Bieb.</i>	flat-podded	辛	or	2	ap.jn	Y	Siberia	1789.	G	s.l	L'her.stirp.t.76	
10470 jubata <i>W.</i>	bearded	辛	or	1½	.....	Y	Siberia	1796.	G	s.l	Bot. cab. 522	
10471 tragacanthoides <i>W.</i>	Goat's thn.-like	辛	or	4	ap.my	Y	Siberia	1816.	G	s.l	Pa.act.pct.10.t.7	
10472 spinosa <i>W.</i>	thorny	辛	or	6	ap.my	Y	Siberia	1775.	L	sp	Schm.arb.1.t.36	
10473 Halodendron <i>W.</i>	salt-tree	辛	or	6	my.jn	Pu	Siberia	1779.	R	s.l	Bot. mag. 1016	
10474 Chamlagu <i>W.</i>	shining	辛	or	4	my.jn	Y	China	1773.	G	co	L'her.stirp.t.77	
10475 frutescens <i>W.</i>	shrubby	辛	or	2	ap.my	Y	Siberia	1752.	L	co	Schm.arb.1.t.34	
10476 pygmaea <i>W.</i>	dwarf	辛	or	1	ap.my	Y	Siberia	1751.	Sk	sp	Schm.arb.1.t.37	
1570. SWAINSON'IA. H. K. SWAINSONIA.					<i>Leguminosæ.</i>	<i>Sp. 2.</i>						
10477 galeifolia <i>H. K.</i>	red-flowered	辛	or	2	jl.au	R	N. S. W.	1800.	S	sp	Bot. mag. 792	
10478 coriillifolia <i>H. K.</i>	purple-flowered	辛	or	2	jl.au	Pu	N. S. W.	1802.	S	sp	Bot. mag. 1725	
1571. SUTHERLAN'DIA. H. K. SUTHERLANDIA.					<i>Leguminosæ.</i>	<i>Sp. 1.</i>						
10479 frutescens <i>H. K.</i>	scarlet	辛	or	3	jn.jl	Sc	C. G. H.	1683.	S	s.l	Bot. mag. 181	
1572. LESSERT'IA. H. K. LESSERTIA.					<i>Leguminosæ.</i>	<i>Sp. 4.</i>						
10480 annua <i>H. K.</i>	annual	辛	or	1	jn.jl	R	C. G. H.	1751.	S	s.l	Ex. fl. 84	
10481 diffusa <i>H. K.</i>	procumbent	辛	or	1	jn.au	R	C. G. H.	1792.	S	s.l	Jac. ic. 3. t. 576	
10482 perennans <i>H. K.</i>	perennial	辛	or	1	au	R	C. G. H.	1753.	C	s.l	Jac. vind. 3. t. 3	
10483 pulchra <i>B. M.</i>	pretty	辛	pr	1½	my	R	C. G. H.	1817.	S	co	Bot.mag. 2064	
1573. COLUTE'A. L. BLADDER-SENNA.					<i>Leguminosæ.</i>	<i>Sp. 4-12.</i>						
10484 arborecens <i>W.</i>	common	辛	or	10	jn.au	Y	France	1568.	S	co	Bot. mag. 81	
10485 media <i>W. en.</i>	smaller	辛	or	10	jn.au	Or	.....	...	L	co	Dend. brit. 140	
10486 cruenta <i>W.</i>	oriental	辛	or	4	jn.jl	Sc	Levant	1710.	L	co	Schm. arb. t. 119	
10487 Pocockii <i>W.</i>	Pocock's	辛	or	6	my.o	Y	Levant	1752.	S	co	Schm. arb. t. 120	



History, Use, Propagation, Culture,

1567. *Mullera.* In honor of Otho Frederick Müller, a Dane, one of the editors of the *Flora Danica*. There have also lived four other Müllers, Germans, and botanists. The fruit is remarkable for its form, which is that of a necklace; a number of little balls being united by stalks, and not opening as in other leguminosæ, but always remaining closed. The flowers are pink, and the size of a bunch of Laburnum.

1568. *Robinia.* In memory of Jean Robin, herbarist to Henry IV. of France, author of *Histoire des Plantes*, &c., Paris, 1620. His son, Vespasian, was subdemonstrator at the *Jardin de Roi*, and was the first person who cultivated the *R. pseudacacia* in Europe.

R. pseudacacia is a thorny fast-growing tree, of middling stature, of no great beauty as a tree, but ornamental when young, and very well adapted for copse-wood and rough timber. The leaves come out late in spring, and fall off early in autumn, like those of the ash. The timber is much valued in North America, and said to be superior to that of the laburnum; "being close-grained, hard, and finely veined; and in America more valued by the cabinet-maker than any other native timber whatever. Pursh, in his *Flora*, asserts, that being nearly incorruptible, it is equally useful for posts and gates. We are informed by a friend, that gate-posts of this timber, on a property near Baltimore, have remained fresh for nearly a century. The finest pinnated leaves, and pendulous white odoriferous flowers, add greatly to its beauty. Its value is scarcely known in this country." (*Caled. Mem. ii. 414.*) It prefers a deep sandy soil, and rather sheltered situation; being very apt to throw up suckers from the running roots, and as it stoles freely, it seems peculiarly calculated for copse-woods. *Beatson (Com. to Board of Agr.)* has cultivated it in this way to great advantage.

In North America the use of the locust-tree has hitherto been confined to treils, on account of its scarcity, but were it as plentiful as oak, it would be applied for more purposes by the shipwright, such as knees, floor-timbers, and foot-hooks, being much superior to oak for its strength and duration, and, from the tree spreading into branches, affords full as large a proportion of crooks or compass timber as oak.

A cubic foot of acacia, in a dry state, weighs from 48 to 53 pounds avoirdupois. If we compare its toughness in an unseasoned condition with that of oak, it will not be more than 8-100 less. Its stiffness is equal to 99-100 of oak; and its strength nearly 96-100; but were it properly seasoned, it might, possibly, be found much superior to oak in strength, toughness, and stiffness. A piece of unseasoned acacia, two feet six inches long, and an inch square in the vertical section, broke when loaded with a weight of 247 pounds avoirdupois. Its medium cohesive force is about 11,500 pounds. (*Dict. of Archi.*)

10459 The only species

10460 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Stipules spiny, Pods smooth

10461 Racemes with 1-fl. pedicels, Leaves pinnated with an odd one, Branches and pods viscid with glands

10462 Racemes with 2-fl. pedicels, Cal. truncate, Leaves pinnated with an odd one, Stem unarmed

10463 Petioles somewhat spiny, Leaflets lanceolate mucronate downy, Pedic. 1-flowered

10464 Racemes axillary few-flowered, Calyxes and branchlets finely bristly

10465 Racemes axillary, Leaves pinnate with an odd one, Stem hispid

10466 Pedunc. simple several, Leaves in 4 pairs, Petioles unarmed, Pods cylindrical

10467 Leaves about 4 pair; leaflets obovate, Peduncles twin shorter than flower

10468 Pedunc. simple, Leaves 4 stalked hoary terminated by a weak spine, Pods downy

10469 Pedunc. simple solitary, Leaves in about 8 pairs, Stipules spiny, Pods compressed

10470 Pedunc. simple, Leaves in many pairs downy, Petioles filiform spiny, Branches villous

10471 Pedunc. simple, Leaves in 2 pairs, Leaf. obl. lanc. silky, Stipules and petioles spiny

10472 Pedunc. simple, Leaves in 4 pairs, Leaf. cuneate smooth, Stipules and petioles spiny

10473 Pedunc. 3-fl. Leaves in 2 pairs silky, Petioles spiny persistent, Pods bladderly

10474 Pedunc. simple, Leaves in 2 pairs, Leaflets obovate shining, Stipules and petioles spiny

10475 Pedunc. simple, Leaves about 4 somewhat petiolated terminated by a weak spine

10476 Pedunc. simple, Leaves 4 sessile

10477 Stalk of pod longer than persistent filaments

10478 Stalk of pod shorter than persistent filaments

10479 Leaflets obl. blunt hoary beneath, Stem shrubby, Branches silky with down

10480 Leaflets linear emarginate smooth, Stem weak, Raceme axillary

10481 Leaflets linear emarginate hairy, Cal. without bractes with black hairs

10482 Leaf. obl. downy, Stem erect, Racemes terminal

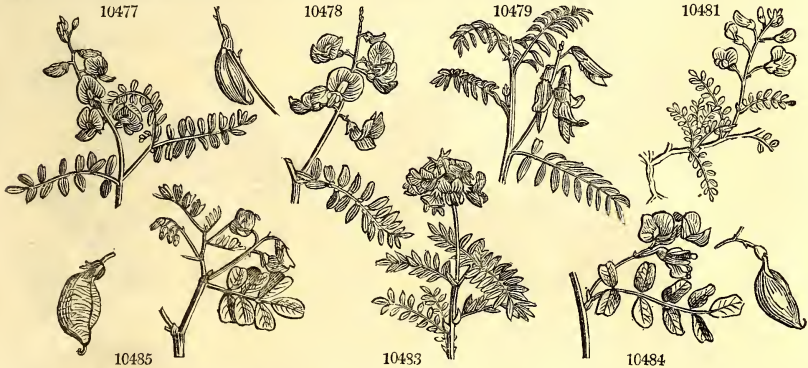
10483 Leaflets in 7 pairs ovate acute smoothish, Racemes axillary subcapitate 1-sided

10484 Leaflets ellipt. retuse, Prominences of the standard short

10485 Leaflets obovate glaucous, Pedunc. about 6-flowered, Pods closed at end

10486 Leaf. obovate emarginate glauc. Prom. of standard blunt very small, Pods open at end

10487 Leaf. roundish ellipt. very blunt mucronate, Prom. of standard long ascending, Stem shrubby



and Miscellaneous Particulars.

R. hispida is a very handsome shrub, but it requires a sheltered situation, otherwise the branches are very liable to be shattered or blown off by high winds. In young trees grafted above ground, the fracture commonly takes place at the graft, so that a good preventative is to graft on the root a little below the surface. Grafts in this manner are also much more certain of success.

R. viscosa resembles, in its leaves and flowers, the common acacia; but is, altogether, a much handsomer tree. 1569. *Caragana*. This genus has been confounded by Linnæus and his followers with *Robinia*. The name is derived from the appellation of the most common species in Tartary, where it is called among the Moguls, *Carachanâ*. *Altagana*, the name of another species, is in like manner a slight alteration of the Tartar name *Aldachanâ*.

C. spinosa, on account of the length and toughness of the branches, and its large stout thorns, is admirably adapted to form impenetrable hedges, and is sufficiently hardy to bear our climate. About Pekin, they stick the bushes in clay on the tops of their walls, to prevent persons from getting or looking over them. (*Pallas*.)

C. Halodendron is a handsome shrub, and grows in Siberia on dry naked salt-fields, and it is probably from the want of this principle in our garden soils, that it so seldom flowers here.

C. pygmaea is a weak low shrub, with a shining yellow bark, with wood of a deep bay, almost as hard as horn. *C. frutescens* is used by the Tartars for the same purposes as osiers, for which its tough shoots render it proper.

C. jubata is remarkable plant, its shoots always remaining covered by the persistent brown stipulae of the fallen leaves. It is extremely difficult to propagate, and is rarely even seen in this country. The most successful cultivators of it are Messrs. Loddiges and Son.

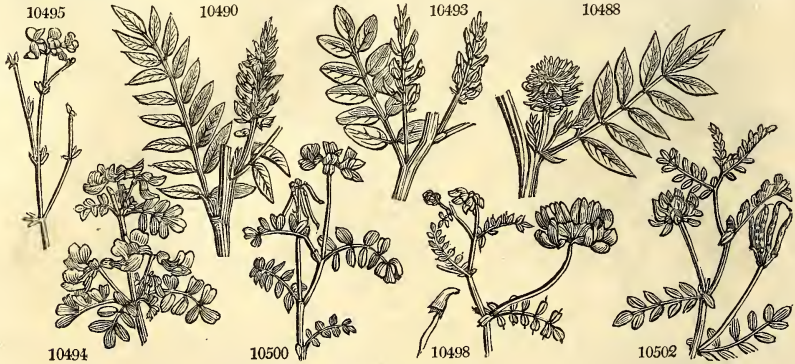
1570. *Swainsonia*. Named after the late Mr. Isaac Swainson, who had a botanic garden at Twickenham.

1571. *Sutherlandia*. In honor of Mr. James Sutherland, who published, in 1683, an 8vo. catalogue of the Physic Garden at Edinburgh. This and the former genus seed freely, and may also be readily increased by cuttings.

1572. *Lessertia*. Named by Decandolle in honor of M. Stephen Delessert, to whose mother Rousseau's Letters on Botany were addressed.

1573. *Colutea*. An ancient name of a bush with sweet-scented flowers; probably similar to the genus now

1574. GLYCYRRHIZA. <i>W.</i> GLYCYRRHIZA.					<i>Leguminosæ.</i> Sp. 5-6.				
10488 chináta <i>W.</i>	prickly-headed	Y Δ or	3	jn.s	Pa	Italy	1596.	R s.p	Bot. mag. 2154
10489 glandulifera <i>W.</i>	glandulous	Y Δ or	3	jn.au	Pa	Hungary	1805.	R l.p	Plrar.hi. 1. t. 21
10490 lepidóta <i>Ph.</i>	silky-leaved	Y Δ or	3	jl.au	Pa	Missouri	1811.	R s.l	Bot. mag. 2150
10491 aspérrima <i>W.</i>	rough	Y Δ cjt	2	jl.au	L.B	Siberia	1795.	R s.p	Pall. i.ap.t.M.f.3
10492 hírsúta <i>W.</i>	hairy	Y Δ cjt	3	jl.au	Pa	Levant	1739.	R s.p	
1575. LIQUORITIA. <i>Mónch.</i> LIQUORICE.						<i>Leguminosæ.</i> Sp. 1.			
10493 officínalis <i>Mónch.</i>	common	Y Δ cjt	4	jl.au	L.B	S. Europe	1562.	R r.m	Lam. ill.t.625.f.2
1576. CORONIL/LA. <i>H. K.</i> CORONILLA.						<i>Leguminosæ.</i> Sp. 12-25.			
10494 E'merus <i>W.</i>	Scorpion Senna	Y or	3	ap.jn	R	France	1596.	L co	Bot. mag. 445
10495 júncea <i>W.</i>	Rush	Y or	3	jn.jl	Y	France	1656.	C r.m	Bot. cab. 235
10496 valentina <i>W.</i>	nine-leaved	Y or	2	mr.n	Y	S. Europe	1596.	C r.m	Bot. mag. 185
10497 gláuca <i>W.</i>	seven-leaved	Y or	2	my.s	Y	France	1722.	C r.m	Bot. mag. 13
10498 vimínalis <i>H. K.</i>	slender	Y or	3	my.n	Y	Mogador	1798.	C l.p	Par. lond. 13
10499 coronáta <i>W.</i>	large-headed	Y Δ or	2	jn.jl	Y	S. Europe	1776.	C co	Bot. mag. 907
10500 mínima <i>W.</i>	least	Y Δ or	2	jl	Y	S. Europe	1658.	C co	Bot. mag. 2179
10501 argéntea <i>W.</i>	silvery-leaved	Y or	2	my.jn	Y	Crete	1664.	L s.l	Mil.ic.2.t. 289.f.1
10502 vária <i>W.</i>	purple	Y or	4	jl.n	Pu	Europe	1597.	C co	Bot. mag. 258
10503 crética <i>W.</i>	Cretan	Y or	2	jn.jl	St	Candia	1731.	C s.l	Jac. vind. 1. t. 25
10504 Securidáca <i>W.</i>	Hatchet-Vetch	Y or	1½	jl.au	Y	Spain	1562.	C co	G.de.f.2.153.f.3
10505 íberica <i>Bieb.</i>	Iberian	Y or	2	jl.au	Y	Iberia	1822.	C co	Bot. cab. 789
1577. HIPPOCREPIS. <i>W.</i> HORSESHOE-VETCH.						<i>Leguminosæ.</i> Sp. 4-7.			
10506 nisiiliquósa <i>W.</i>	single-podded	Y or	1	jn.jl	Y	Italy	1570.	S co	Lam.ill.t.630
10507 multiiliquósa <i>W.</i>	many-podded	Y or	1	jl.au	Y	S. Europe	1683.	S co	Schk. ha. 2.t.206
10508 haleférica <i>W.</i>	shrubby	Y or	2	my.jn	Y	Minorca	1776.	C r.m	Bot. mag. 427
10509 comósa <i>W.</i>	tufted	Y Δ pr	½	ap.au	Y	England	ch.hil.	D s.l	Eng. bot. 31
1578. ORNITHOPUS. <i>W.</i> BIRD'S-FOOT.						<i>Leguminosæ.</i> Sp. 6-10.			
10510 perpusillus <i>W.</i>	common	Y or	½	my.au	R	Britain	dry pas.	S co	Eng.bot. 369
10511 ebraceátus <i>Brot.</i>	round-podded	Y or	½	my.jn	Vy	Portugal	...	S co	Cav. ic. 1. t. 41
<i>O. durus</i> Cav.									
10512 compréssus <i>W.</i>	hairy	Y or	½	jn.jl	Vy	S. Europe	1730.	S co	
10513 scorpíoides <i>W.</i>	Purslane-leav'd	Y or	½	jn.jl	Vy	S. Europe	1596.	S co	Cav. ic. 1. t. 37
10514 repándus <i>P. S.</i>	repand	Y or	½	jn.jl	Vy	Barbary	1805.	S co	Lam. ill.t.631.f.2
10515 satívus <i>P. S.</i>	Serradilla	Y or	3	jn.jl	Vy	Portugal	1818.	S co	
1579. SCORPIURUS. <i>W.</i> CATERPILLAR.						<i>Leguminosæ.</i> Sp. 4.			
10516 vermiculáta <i>W.</i>	common	Y or	2	jn.jl	Y	S. Europe	1621.	S co	Mor.hi.2.t.11.f.3
10517 muricáta <i>W.</i>	two-flowered	Y or	2	jn.jl	Y	S. Europe	1640.	S co	Mor.hi.2.t.11.f.4
10518 sulcáta <i>W.</i>	three-flowered	Y or	2	jn.jl	Y	S. Europe	1596.	S s.l	
10519 subvillósa <i>W.</i>	four-flowered	Y or	2	jn.jl	Y	S. Europe	1731.	S co	Mor.hi.2.t.11.f.2
1580. SMITHIA. <i>Salisb.</i> SMITHIA.						<i>Leguminosæ.</i> Sp. 1-2.			
10520 sensitiva <i>Sal.</i>	annual	Y un	½	jl.s	Y	E. Indies	1785.	S s.l	Par. lond. 92



History, Use, Propagation, Culture,

so called. Shrubs with membranaceous inflated pods, free-growers and flowerers, well adapted to introduce in extensive shrubberies.

C. arborescens grows on Mount Vesuvius, even in the ascent to the crater, where there are scarcely any other plants. The leaves are recommended as answering all the purposes of senna, and Allioni has given particular directions for the preparation of them. A larger dose seems to be required to produce the same effect. The seeds, in a quantity of a drachm or two, excite vomiting. It is said by Haller and Ray to afford food grateful to cattle.

1574. *Glycyrrhiza*. From γλυκυσ, sweet, and ρίζα, a root; the sweet taste of the liquorice root is well known. But the species from which the name is derived now constitutes a different genus. See *Liquiritia*.

1575. *Liquoritia*. A Latinized appearance of our common English word *Liquorice*, which in its turn is said to be an alteration or corruption of the French word *Reglisse*, itself a corruption of *Glycyrrhiza*. So, at least, says De Theis. To others, however, it is appears more probable that the name alludes to the quantity of *liquor* or *liquid* which the roots contain, and which constitutes their great value.

L. officinalis is a deep-rooting perennial, which has long been much cultivated in Spain; and since Elizabeth's time has been grown in different parts of England. The soil should be a deep sandy loam, trenched by the spade or plough, or with the aid of both, to two and a half or three feet in depth, and manured, if necessary. The plants are procured from old plantations, and consist of the side-roots, which have eyes or buds. These may be taken off, either in autumn, when a crop of liquorice is taken up for use, and laid in earth till spring; or taken from a growing plantation, as wanted for planting. The planting season may be either October, or February and March. In general the latter is preferred. The plants are dibbled in, in rows three feet apart, and from eighteen inches to two feet in the row, according to the richness of the soil. The after-culture consists in horse-hoeing and deep stirring, in weeding, and in cutting over and carrying away the haulm every autumn, after it is completely withered. As the plants do not rise above a foot the first season, a crop of onions or beans is sometimes taken in the intervals. The plants must have three summers' growth, at the

- 10488 Pods echinate, Fl. capitate, Stipules lanc. Leaflets smooth oblong mucronate
 10489 Pods glandular echinate, Fl. racemose, Stipules withering, Leaf. oblong lanc. emarg. clammy beneath
 10490 Leaflets oblong acute silky, Pods racemose oblong hispid
 10491 Pods smooth moniliform, Raceme term. Stipules lanc. Leaf. obovate emarg. rough beneath
 10492 Pods hirsute, Leaf. obl. lanc. Flowers racemose

10493 Pods smooth, Stipules O, Leaflets ovate retuse clammy beneath

- 10494 Pedunc. about 3-fl. Claws of cor. three times as long as calyx, Stem angular
 10495 Leaves 5-nate and 3-nate linear lanceolate fleshy blunt
 10496 Leaflets about 9, Stipules nearly round
 10497 Leaflets 7 very blunt, Stipules lanceolate
 10498 Leaflets 6-10 pair more or less obovate and retuse, Pods very long curved upwards
 10499 Leaves 9 ellipt. : inner close to stem, Stipules opp. the leaves lanceolate
 10500 Procumbent, Leaf. 9 ovate, Stipule opp. the leaf emarg. Pods angular knotty
 10501 Leaflets 11 silky : the outer the largest
 10502 Leaflets several lanceolate smooth, Pods rounded erect
 10503 Leaflets 15 cuneate retuse, Pods rounded erect 5 together
 10504 Leaflets several obl. cuneate, Pods compressed ensiform
 10505 Leaflets 9 very blunt somewhat emarginate, Stipules round toothletted

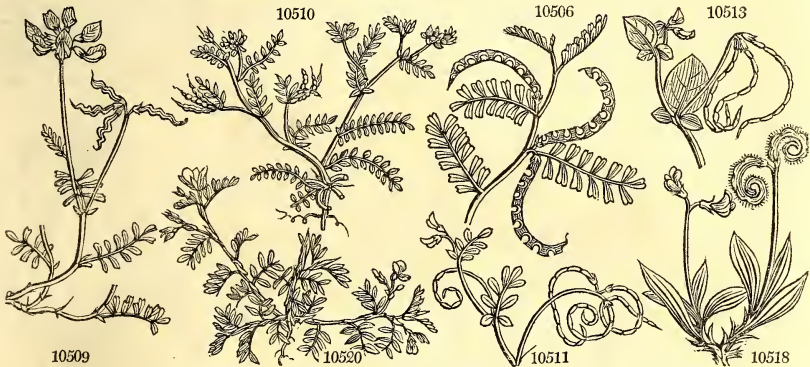
- 10506 Pods sessile solitary erect
 10507 Pods stalked clustered circular : lobed on one edge
 10508 Pods stalked clustered smooth lobed on the outer edge, Leaves and cal. hairy
 10509 Pods stalked clustered arcuate rough sinuated on one side

- 10510 Leaves pinnated, Flowers capitate with a bractea, Pods roundish incurved
 10511 Leaves pinnated, Flowers capitate without a bractea, Pods round incurved

- 10512 Leaves pinnated, Flowers capitate with a bractea, Pods compressed recurved rugose
 10513 Leaves ternate subsessile : the odd one very large
 10514 Leaves ternate or quinate : the odd one largest, Stipules large membranous 2-toothed
 10515 Leaves pinnated, Pods rugose pendulous scarcely bowed, Joints compressed roundish

- 10516 Pedunc. 1-fl. Pods covered over with blunt scales
 10517 Pedunc. 2-fl. Pods bluntly aculeate outwardly
 10518 Pedunc. about 3-fl. Pods bearing outwardly distinct acute spines
 10519 Pedunc. about 4-fl. Pods bearing outwardly clustered acute spines

10520 Lips of calyx entire, Racemes stalked few-flowered



and Miscellaneous Particulars.

end of which the roots may be taken up by trenching over the ground. The roots are either immediately sold to the brewers' druggists, or to common druggists, or preserved, like carrots or potatoes, in sand, till wanted for use. They are used in medicine and porter-brewing.

1576. *Coronilla*. From *corona*, a crown. Its pretty flowers are disposed in little tufts like coronets. Handsome free-flowering shrubs, of easy culture. *C. valentina*, glauca, and *viminalis* are valuable as flowering in winter, and often all the summer. *C. argentea* bears a profusion of flowers, which have a strong sweet scent. The silvery color of this plant is occasioned by its growing on a poor dry soil; and if it is removed into better ground, it will take a glaucous color; and the contrary. *C. emerus* is a popular shrub of much beauty.

C. varia is a strong coarse-growing plant, and has been grown as an adjunct to clover, lucern, &c. Curtis says, it is bitter; but others have found horses and cows to eat it greedily.

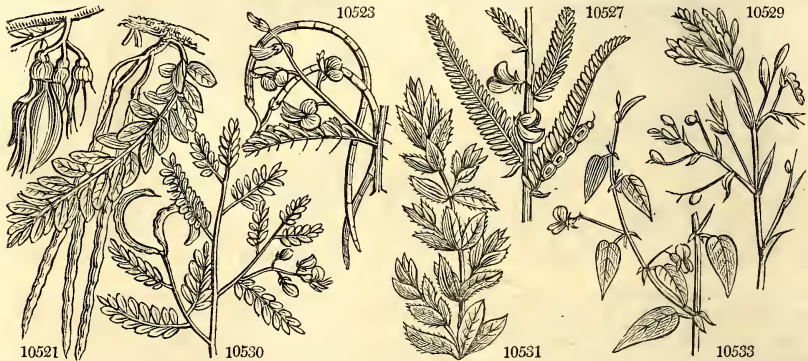
1577. *Hippocrepis*. From *ἵππος*, an horse, and *κρηπίς*, a shoe; in allusion to the form of its pod. Pretty little annual plants, with bright yellow flowers.

1578. *Ornithopus*. From *οἰς*, a bird, and *πυς*, a foot. The pods are twisted and curved in such a manner as to resemble the claws of a small bird. Curious on account of their jointed pods, but not worth culture as plants of ornament. *O. sativus* is a most valuable agricultural plant. It was introduced for purposes of field culture about the year 1818, from Portugal, under the name of Serradilla. Sown upon the barren, light, sandy downs of Thetford, in Norfolk, it produced an abundant crop of most excellent fodder, where nothing else would grow. It is exceedingly like *O. scorpioides*, except that it arrives at the height of two feet instead of as many inches.

1579. *Scorpiurus*. From *σκορπιος*, a scorpion, and *ουρα*, a tail; on account of the twisted pod, which is very like the tail of some reptile.

1580. *Smithia*. In memory of Sir James Edward Smith, M. D., F. R. S., knight, president of the Linnean Society, possessor of the Linnean herbarium, and author of various elementary and other useful botanical works. These are inconspicuous worthless weeds, possessing little interest beyond their irritable foliage.

1581. SESBA'NIA. H. K.	SESBA'NIA.	Leguminosæ. Sp. 5—9.						
10521 grandiflora H. K.	great-flowered	10 jlau Or	E. Indies 1768.	C	lp	Rhee.mal.1.t.51		
10522 ægyptiaca H. K.	Egyptian	4 jlau Y	Egypt 1680.	S	co	Al.ægypt.81.t.82		
10523 aculeata H. K.	prickly	4 jlau Y	E. Indies 1690.	S	co	Jac. ic. 3. t. 564		
10524 cannabina P. S.	Hemp	4 jlau Y	E. Indies 1800.	S	co			
10525 picta Cav.	painted	6 jlau Y	W. Indies 1823.	C	co	Bot. reg. 873		
1582. ÆSCHYNO'MENE. H. K.	ÆSCHYNOMENE.	Leguminosæ. Sp. 5—27.						
10526 sensitiva W.	shrubby	3 ... Y	W. Indies 1733.	C	s.l	Plum. ic. t. 149		
10527 aspera W.	rough-stemmed	2 jn.jl Y	E. Indies 1759.	S	s.l	Breyn.cent.t.52		
10528 hispida W.	hispid	2 au Y	N. Amer. 1803.	S	s.l			
10529 americana W.	hairy	2 jlau Y	Jamaica 1732.	S	s.l	Sloa.h.1.t.118.f.3		
10530 indica W.	Indian	2 jn.jl Y	E. Indies 1799.	S	s.l	Rhee.mal.9.t.18		
1583. STYLOSAN'THES. Swz.	STYLOSANTHES.	Leguminosæ. Sp. 1—7.						
10531 procumbens Swz.	procumbent	1 jlau Y	W. Indies 1821.	S	co	Slo.jam.t.110.f.2		
1584. HAL'LIA. Th.	HALLIA.	Leguminosæ. Sp. 3—10.						
10532 flaccida W.	long-leaved	1 1/2 aus Pu	C. G. H. 1789.	C	lp			
10533 cordata W.	heart-leaved	2 au Pu	C. G. H. 1787.	D	lp	Jac.schœ.3.t.296		
10534 imbricata W.	imbricated	1 1/2 au Pu	C. G. H. 1812.	C	s.l	Bot. mag. 1850		
1585. LESPEDE'ZA. Mich.	LESPEDEZA.	Leguminosæ. Sp. 7—14.						
10535 fruticosa P. S.	shrubby	4 jlau Pu	Virginia 1739.	C	lp	Jac. vind. 3. t. 89		
10536 sessiliflora Ph.	sessile-flowered	3 jl Pu	N. Amer. ...	D	lp			
10537 juncæ P. S.	slender branch.	2 jlau W	India 1776.	D	lp	Lin. fil. dec.1.t.4		
10538 capitata Ph.	headed	2 jn.jl W	N. Amer. 1739.	D	lp			
10539 polystachia Ph.	hairy	3 jn.au Pu	N. Amer. 1789.	D	lp	Mic.amer. 2.t.40		
10540 violacea Ph.	violet-flowered	2 jlau Pu	N. Amer. 1789.	D	lp			
10541 lagopodioides P. S.	Hare's foot-like	2 my.jn Pa	China 1790.	D	s.l	Bur. ind. t.53.f.2		
1586. FLEMING'IA. Rox.	FLEMINGIA.	Leguminosæ. Sp. 6—10.						
10542 stricta H. K.	straight	2 jls Pu	India 1798.	D	s.p			
10543 semialata H. K.	many-spiked	3 jlau Pu	Nepaul 1805.	S	lp			
10544 congesta H. K.	crowded-spiked	3 jls Pu	India 1802.	C	lp			
10545 nana H. K.	dwarf	1 1/2 au Pu	India 1804.	C	lp			
10546 lineata H. K.	branch-spiked	2 jlau Pu	E. Indies 1793.	C	lp	Bur. ind. t.53.f.1		
10547 strobilifera H. K.	Beech-leaved	3 jlau Pu	E. Indies 1787.	C	lp	Bot. reg. 617		
1587. ZOR'NIA. Mich.	ZORNIA.	Leguminosæ. Sp. 2—7.						
10548 pulchella P. S.	neat-Indian	1 1/2 jlau Pu	E. Indies 1799.	C	lp	Burm. zeyl. t. 52		
10549 diphylla P. S.	two-leaved	1 jlau Pu	India 1733.	S	lp	Rhee.mal.9.t.82		
1588. HEDY'SARUM. W.	HEDYSARUM.	Leguminosæ. Sp. 56—220.						
10550 Alhagi W.	prickly-stem.	2 jlau R	Levant 1714.	C	s.l	Rauw. it. 94.t.14		
10551 bupleurifolium W.	Hare's-ear-iv.	1 jlau Pu	India 1793.	S	lp	Koxb.cor.2.t.194		
10552 nummularifolium W.	Money-wort.lv.	1 jls Pu	India 1777.	S	lp	Pet. gaz. t. 26.f.3		
10553 styracifolium W.	Storax-leaved	2 ... Pu	E. Indies 1796.	C	lp			
10554 gangeticum W.	oval-leaved	1 1/2 jlau Pa,Y	E. Indies 1762.	S	rm	Bur.zeyl.t.49.f.2		
10555 triquetrum W.	triangul-stalk.	1 jlau Pu	E. Indies 1802.	S	lp	Bur. ind. t.52.f.2		
10556 maculatum W.	spotted	1 jlau Pu	India 1732.	S	lp	Dil.el.t.141.f.168		
10557 vaginifolium W.	sheathed	1 jlau R	E. Indies 1790.	S	lp	Bur.zeyl.t.49.f.1		
10558 sagittatum P. S.	arrow-leaved	3 ... R	E. Indies 1807.	C	lp			
10559 vespertilionis W.	bat-winged	1 jlau W	C. China 1780.	C	rm	Jac. ic. 3. t. 566		



History, Use, Propagation, Culture,

1581. *Sesbania*. The Arabic name *Sesban*, a little Latinized. Most of these plants are ornamental. *S. grandiflora* is a beautiful plant; it grows in peat and loam, and cuttings root in sand under a hand-glass.

1582. *Æschynomene*. A name given by Pliny to a plant which withdrew its leaves from the contact of the hand. It is derived from *αἰσχνομα*, to be modest. One of the species of *Æschynomene* is sensitive, but it is not the plant of Pliny.

1583. *Stylosanthes*. From *στυλος*, a style, and *ανθος*, a flower: a flower with a very long style. Worthless tropical weeds.

1584. *Hallia*. Named after Birger Martin Hale, a pupil of Linnaeus, and the student under whose name the thesis called *Nectaria florum* stands in the *Amoenitates Academicæ*.

1585. *Lespedeza*. Named by Michaux, in honor of Lespedez, a governor of Florida, who protected that botanist in his botanical researches. Herbaceous, chiefly North American plants with little merit.

1586. *Flemingia*. Named after Dr. John Fleming, president of the East India Company's Medical Board at Bengal.

1587. *Zornia*. Supposed to have been named after Mr. John Zorn, an apothecary at Kempten, in Bavaria, author of a work called *Icones Plantarum Medicinalium*, in five volumes, octavo, between the years 1779 and 1784. There was also a Dr. Bartholomew Zorn, of Berlin, author of *Botanologia Medica*, 1714, &c. &c.

1588. *Hedysarum*. From *ἡδύς*, sweet, and *αρωμα*, smell; some the species have fragrant flowers. A

- 10521 Racemes about 3-fl. Leaf. obl. emarg. smooth, Pods filiform straight compressed
 10522 Racemes many-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth, Pods filiform round
 10523 Racemes few-fl. Leaf. linear blunt mucronate, Rachis of leaves prickly, Pods filiform round
 10524 Pedunc. 1-fl. Leaf. lin. blunt mucronate, Rachis of leaves smooth
 10525 Racemes many-fl. pendulous, Leaf. lin. blunt, Pods filiform round moniliform
- 10526 Stem smooth, Leaf. lin. blunt, Racemes few-flowered, Pods smooth
 10527 Stem rough below, Leaf. lin. blunt, Racemes comp. hispid, Joints of pod rough in middle
 10528 Stem hispid, Leaf. lin. blunt, Racemes simple, Pods hispid
 10529 Stem hispid, Leaf. lin. falcate acuminatè, Racemes simple, Joints of pods roundish distinct smooth
 10530 Stem smooth, Pods smooth torose on one side and blunt, Leaflets blunt
- 10531 Leaves ovate lanc. smooth, Spikes many-fl. Bractes smooth mucronate, Stem downy
- 10532 Leaves lanc. mucronate smooth, Pedunc. 1-fl. the length of leaves
 10533 Leaves cordate obl. acute smooth, Pedunc. the length of leaves
 10534 Leaves cordate ovate convolute imbricated, Flowers axillary sessile
- 10535 Leaf. subovate villous beneath, Flowers in sessile fascicles, Stem shrubby
 10536 Leaf. oblong, Fascicles of flowers sessile numerous, Pods nearly naked acute
 10537 Leaf. somewhat lin. hairy beneath, Racemes axillary, Pods smooth length of calyx
 10538 Simple, Leaf. ellipt. Spikes capitate on short stalks axillary and terminal, Cal. vill. length of cor.
 10539 Branched villous, Leaf. round oval, Spikes axillary on long stalks, Cor. as long as calyx
 10540 Branched diffuse, Leaf. ellipt. blunt hairy beneath, Racemes short umbellèd
 10541 Leaves ternate ovate, Racemes oblong, Pods inflexed, Calyx hairy
- 10542 Stem subsimple upright, Leaf. broad lanc. smooth, Racemes axill. sol. length of petiole
 10543 Branched nearly upright, Leaf. ellipt. smooth, Petioles winged, Racemes panicled term. and axillary
 10544 Nearly erect, Leaf. broad-lanc. Racemes axillary clustered
 10545 Somewhat branched, Leaf. obovate, Petioles winged, Racemes clustered, Pods gland. viscid
 10546 Erect branched, Leaf. obovate cuneate, Racemes axill. on long stalks dichotomous
 10547 Leaves simple, Spikes like cones, Bractes cuculate foliaceous netted
- 10548 Leaves ternate large, Bractes numerous orbicular lined
 10549 Leaves binate ovate-lanc. Bractes ovate acute
- 10550 Leaves simple lanc. blunt, Stem spiny
 10551 Leaves simple lanc. acute, Stem unarmed, Stipules scarious
 10552 Leaves simple obovate roundish, Stipules scarious shorter than petiole, Pods smooth netted
 10553 Leaves simple cordate-roundish blunt smooth above downy beneath
 10554 Leaves simple ovate acute with stipules
 10555 Leaves simple cordate oblong stalked winged, Branches 3-cornered
 10556 Leaves simple ovate blunt
 10557 Leaves simple cordate oblong, Petioles simple, Stipules sheathing
 10558 Leaves simple cordate lanc. sagittate, Flowers solitary, Pedunc. capillary very long
 10559 Leaves simple and ternate intermediate 2-lobed: lobes spreading lanc. Joints of pod wavy plaited



and Miscellaneous Particulars.

numerous genus, not remarkable for beauty, but containing two curious species, the manna plant, and the turning *Hedysarum*; and one of considerable importance in European agriculture, the Saint-foin.

H. Alhagi is a thorny shrub, with lanceolate leaves, and coriaceous, subcylindric, and scarcely jointed pods. It is on this plant that *Manna Trunbergii* is found in Mesopotamia (*Russ. Aleppo*) and other eastern countries. It is chiefly gathered about Tauris, where the shrub grows plentifully. Sir George Wheeler found it growing in Tinos; Tournefort also found it in many plains of Armenia and Georgia, and made a distinct genus of it, under the name of *Alhagi*, from the Arabic *Aghul* or *Al-gul*.

H. gyrans is a native of Bengal near the Ganges; and is called there *Burram Chadali*, or *Burram Chandali*. This is a wonderful plant, Linnæus observes, on account of its voluntary motion, which is not occasioned by any touch, irritation, or movement in the air, as in *Mimosa*, *Oxalis*, and *Dionea*; nor is it so evanescent as in *Amorpha*. No sooner had the plants raised from seed acquired their ternate leaves, than they began to be in motion this way and that; this movement did not cease during the whole course of their vegetation, nor were they observant of any time, order or direction; one leaflet frequently revolved, whilst the other on the same petiole was quiescent; sometimes a few leaflets only were in motion, then almost all of them would be in movement at once: the whole plant was very seldom agitated, and that only during the first year. It continued to move in the stove during the second year of its growth, and was not at rest even in winter. (*Suppl. Linn.*) Swartz observes, that the motion is irregular, and that it sometimes ceases entirely; that in a very hot day it is immovable, being agitated only in the evening, and that slowly. In our climate, the leaves, in

10560	tomentosum W.	woolly	△	un	1 1/2	jn.jl	Pu	China	1782.	C	lp	
10561	umbellatum W.	umbel-flowered	△	un	3	...	W	E. Indies	1801.	C	lp	Jac. schœ. 3.t. 297
10562	biarticulatum W.	two-jointed	△	un	3	...	Pu	E. Indies	1808.	C	lp	Bur. zeyl.t. 50.f. 2
10563	latifolium Roxb.	broad-leaved	△	pr	2	au	Pu	China	1818.	C	lp	Bot. reg. 353
10564	unicinatum Jacq.	hooked	△	un	2	...	Pu	Caraccas	1823.	C	co	Jac. schœn. t. 298
10565	lagocéphalum Link.	woolly-headed	△	un	2	jl	Y	Brazil	1824.	C	co	
10566	aparinis Link.	Bedstraw	△	un	2	jn.jl	Pu	Mexico	1823.	C	pl	
10567	malacophyllum Link.	soft-leaved	△	un	2	jn.jl	Pu	Manilla	1822.	C	pl	
10568	grýans W.	Moving-plant	△	un	3	jl.au	Pu	E. Indies	1775.	S	pl	Jac. ic. 3. t. 565
10569	trigónum W.	three-sided	△	un	1	jl.au	Pu	Jamaica	1733.	D	sl	
10570	canadense W.	Canadian	△	un	6	jl.au	Pu	N. Amer.	1640.	D	sl	Corn. canad. t. 45
10571	canescens W.	hoary	△	un	2	jl.au	W.pu	N. Amer.	1733.	D	sl	
10572	marilandicum W.	Maryland	△	un	1 1/2	jl.o	Pu	N. Amer.	1725.	D	sl	Dil. el. t. 144. f. 171
10573	obtusum W.	obtuse	△	un	2	jl.au	V	N. Amer.	1805.	D	sl	
10574	capitatum W.	headed	△	un	3	jl	Pu	Ceylon	...	C	sl	Bur. ind. t. 54. f. 2
10575	tortuosum W.	twisted-podded	△	un	3	jl.au	Pu	Jamaica	1781.	C	sl	Slo. ja. l. t. 116. f. 2
10576	viridiflorum W.	green-flowered	△	un	3	jl.s	G	N. Amer.	1787.	D	sl	Plu. alm. t. 308. f. 5
10577	paniculatum W.	panicked	△	pr	2	jl	Pu	N. Amer.	1781.	C	sl	Pl. mant. t. 432. f. 6
10578	tuberosum W.	tuberous	△	un	3	...	Pu	E. Indies	1806.	D	sl	
10579	cuspidatum W.	sharp-pointed	△	un	1 1/2	jl.au	V	N. Amer.	1806.	D	sl	
10580	glutinósum W.	glutinous	△	un	1 1/2	jl.au	Pu	N. Amer.	1805.	D	sl	
10581	serotinum W. en.	late-flowering	△	un	1 1/2	jl.s	V	.....	...	D	sl	
10582	triflorum W.	three-flowered	△	un	2	jn.jl	Pu	India	1796.	S	sl	Bur. ind. t. 54. f. 2
10583	volubile W.	twining	△	un	3	jl.s	Pu	N. Amer.	1727.	C	sl	Dil. el. t. 143. f. 170
10584	pictum W.	painted-leaved	△	un	6	...	Pu	E. Indies	1788.	C	pl	Jac. ic. 3. t. 567
10585	argenteum L.	silver-leaved	△	un	1 1/2	jl.au	Pa.pu	Siberia	1796.	D	sl	Pall. it. 2. t. 9
10586	fruticosum W.	Siberian-shrub.	△	el	4	jn.jl	Pu	Siberia	1782.	C	sl	Pall. it. 3. t. 5 f. 1
10587	sennoides W.	Senna-like	△	un	3	jl.au	Pu	.....	1823.	C	co	
10588	alpinum W.	alpine	△	el	4	jn.jl	Pu	Siberia	1798.	D	sl	Bot. reg. 808
10589	obscurum W.	creeping-rooted	△	el	1 1/2	jl.au	Pu	Alps of Eu.	1640.	D	sl	Bot. mag. 282
10590	tauricum W.	Taurian	△	pr	1 1/2	jl	Pa.pu	Tauria	1804.	D	sl	
10591	roseum H. K.	Rose-colored	△	pr	1 1/2	jl.au	Pk	Caucasus	1803.	S	sl	Bot. mag. 996
10592	coronaríum W.	Fr. Honeysuckle	△	sp	4	jn.jl	Sc	Italy	1596.	S	co	
10593	flexuosum W.	wave-podded	△	un	1	jl.au	Pu	Asia	1680.	S	sl	Sk. hand. 2. t. 207
10594	humile W.	dwarf	△	un	1 1/2	jl.au	Pu	Spain	1640.	D	sl	
10595	muricatum W.	prickly-podded	△	un	1 1/2	jn.jl	Y	Patagonia	1793.	D	sl	Jac. ic. 3. t. 568
10596	spinosissimum W.	thorny	△	un	1	jl.au	Pa.pu	Spain	1731.	S	sl	Plu. alm. t. 50. f. 2
10597	Onobrychis W.	Saint-foin	△	ag	1	jn.jl	Pk	Britain	ch.pa.	D	sl	Eng. bot. 96
10598	saxatile W.	rock	△	or	1	jn.au	L.Y	S. Europe	1790.	D	sl	All. ped. 1. t. 19. f. 1
10599	album W.	white	△	un	1	jn.au	W	Hungary	1804.	D	sl	Pl. rar. hu. 2. t. 111
10600	ascendens Swz.	ascending	△	un	1 1/2	jn.au	Pu	Jamaica	1818.	C	sl	
	β cæruláum Lindl.	blue	△	un	2	jn.au	B	W. Indies	1818.	C	sl	Bot. reg. 815
10601	grandiflorum Bieb.	large-flowered	△	or	1 1/2	jn.au	Pu	Tauria	1821.	D	co	Bieb cent. t. 63
10602	candidum Bieb.	white	△	pr	1 1/2	my.jn	Pu	Tauria	1824.	D	co	
10603	Caput-galli W.	Cock's-head	△	pr	1 1/2	jl.au	F	France	1731.	S	sl	
10604	Crista-galli W.	Cock's-comb	△	pr	1	jn.au	F	S. Europe	1710.	S	sl	
10605	erinitum W.	crook-podded	△	un	4	jl.s	Pk	E. Indies	1780.	C	sl	Burm. ind. t. 53



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general, only make a faint and feeble attempt towards the middle of the day at exerting their extraordinary faculty. (Shaw.)

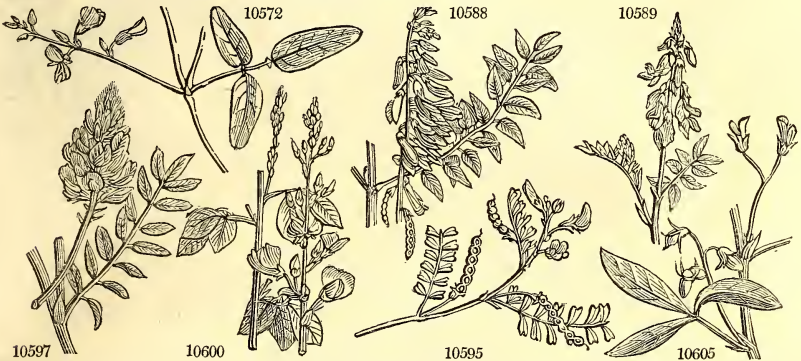
This motion does not depend upon any external cause that we can trace, and we are not able to excite it by any art that we possess. It is not the action of the sun's rays, for this plant is fond of shade, and the leaves revolve well on rainy days, and during the night: exposed to too much wind or sun, it is quiet. Perhaps, says Linnæus, there may be some part in vegetables, as in animals, where the cause of motion resides.

H. coronarium, Sulla, or Saintfoin à bouquets, Fr., is an esteemed border biennial, and some speculative agriculturists recommend it for cultivation as a field plant. In Calabria it grows wild in great luxuriance, near four feet high, affording excellent nourishment to horses and mules, both green and made into hay: but it does not well bear the spring in the north of Italy: we may presume, therefore, that it will scarcely bear our climate well enough to answer the purposes of husbandry. Osbeck mentions, that he saw it brought into Cadiz in great bundles, as food for cattle.

H. Onobrychis, L'esparcet, Fr., Esparzette, Ger., and Cedrangolo, Ital., is a deep rooting perennial, with branching spreading stems, compound leaves, and shewy red flowers. It is a native of many parts of Europe, but never found but on dry warm chalky soils, where it is of great duration. It has been long cultivated in France, and in other parts of the continent, and as an agricultural plant, a good deal in England, in the chalky districts; and its peculiar value is, that it may be grown on soils unfit for being constantly under tillage, and which would yield little undergrass. This is owing to the long and descending roots of the saint-foin, which will penetrate and thrive in the fissures of rocky and chalky understrata. Its herbage is said to be equally suited for pasturage or for hay, and eaten green it is not so apt to swell or hove cattle as the clovers or lucern. Arthur Young says, that upon soils proper for this grass no farmer can sow too much of it, and in

- 10560 Leaves ternate downy beneath, Stem angular downy, Racemes axillary
 10561 Leaves ternate roundish ovate and branches 3-cornered hairy, Pedunc. umb. axill. shorter than petiole
 10562 Leaves ternate oblong, Stem branched, Raceme terminal, Pods with 2 joints strigose
 10563 Leaves simple reniform cordate repand, Racemes axillary with hooked hairs
 10564 Leaves ternate ovate villous, Stem climbing, Racemes terminal
 10565 Leaf. roundish hairy beneath, Panic. term. contracted bracteate, Pedunc. and cal. very hairy
 10566 Leaves tern. Stem hairy rough, Leaf. roundish and obl. pale beneath somew. hairy, Racemes terminal
 10567 Leaves tern. obl. subcordate pale and soft beneath, Raceme terminal
 10568 Leaves tern. oval-lanc. blunt: lateral very minute, Panicle terminal, Pods repand below pendulous
 10569 Leaves tern. ovate acute hairy, Stem climbing 3-cornered, Racemes very long axillary
 10570 Leaves tern. obl. lanc. Stipules filiform, Fl. racemose, Pods hispid
 10571 Leaves tern. roundish downy beneath, Stipules ovate acuminate, Stem angl. cil. hispid
 10572 Leaves tern. oblong villous beneath, Stipules subulate, Racemes paniced, Pods with 3 joints
 10573 Leaves tern. ovate blunt subcordate at base, Stipules lanc. subulate, Panicle terminal
 10574 Leaves tern. roundish obovate downy beneath, Stipules lanc. Racemes axillary
 10575 Leaves tern. ovate-obl. blunt smoothish, Racemes erect axillary, Pods tortuous
 10576 Leaves tern. ovate-obl. rough beneath, Stip. lanc. cuspid. Racemes paniced with bractes
 10577 Leaves tern. oblong lanc. smooth, Panic. term. Joints of pod rhomboid downy
 10578 Leaves tern. ovate acute, Raceme term. very long, Pods repand villous
 10579 Leaves tern. ovate acum. Panicle term. Joints of pod netted downy at edge
 10580 Leaves tern. roundish ovate acuminate, Panicle scape-like from the base of stem, Peduncles viscid
 10581 Leaves tern. ellipt. blunt beneath and petioles hirsute, Raceme term. simple
 10582 Leaves tern. obcordate, Stem procumb. Pedunc. 1-fl. axillary, Pods with upper edge repand
 10583 Leaves tern. lanc. blunt, Racemes axillary, Stem twining
 10584 Leaves pinnate lanc. Raceme very long spiked, Joints of pod ellipt. plaited
 10585 Leaves pinnate oval broader at base silky beneath, Cal. shorter than corolla, Joints of pod downy rough
 10586 Leaves pinnate, Leaf. ellipt. blunt downy beneath alternate, Joints of pod netted
 10587 Leaves pinn. Leaf. altern. smooth obovate retuse, Racemes axill. few-fl.
 10588 Leaves pinn. ovate lanc. smooth, Racemes long axill. Bractes shorter than peduncle
 10589 Leaves pinn. ovate smooth, Racemes axill. Bractes longer than peduncle
 10590 Leaves pinn. lanc. linear downy beneath, Joints of pod roundish roughish
 10591 Leaves pinn. in 7 pairs ellipt. Racemes capitate axillary stalked, Standard striped
 10592 Leaves pinn. roundish ellipt. Joints of pod roundish aculeate naked
 10593 Leaves pinn. oblong, Pods flexuose, Joints prickly
 10594 Leaves pinn. linear cuneiform, Wings very short, Joints of pod roundish hairy prickly
 10595 Leaves pinn. obovate emarg. hispid at edge, Raceme term. Pods with many joints muricated
 10596 Leaves pinn. obovate emarg. Flowers in capitate racemes, Joints of pod round villous acuminate
 10597 Leaves pinn. cuneate smooth, Wings as long as calyx, Pods smooth 1-seeded prickly
 10598 Leaves pinn. linear smooth, Wings shorter than calyx, Pods smooth 1-seeded prickly
 10599 Leaves pinn. linear silky beneath, Wings shorter than cal. Pods downy 1-seeded prickly-toothed
 10600 Leaves ternate roundish downy beneath, Stem round, Branches declinate ascending hairy

- 10601 Leaves pinnate ellipt. silky, Cal. as long as wings, Joints of pod villous
 10602 Leaves pinnate silky shining roundish ovate, Cal. length of corolla, Joints of pod rugose downy
 10603 Leaves pinnate obl. smooth, Wings shorter than cal. Pods 1-seeded prickly, Teeth of crest subulate
 10604 Leaves pinnate obl. smooth, Petals nearly equal, Pods 1-seeded prickly, Teeth of crest lanceolate
 10605 Leaves pinnate, Racemes long, Pods inflexed



and Miscellaneous Particulars.

The Code of Agriculture, it is said to be "one of the most valuable herbage plants we owe to the bounty of providence."

The deeper the soil is stirred previously to sowing the better; the seed is generally put in broad cast, at the rate of three or four bushels the acre, and sometimes a little red clover is sown afterwards to produce a crop the second season, when the saint-foin plants are but small. When saint-foin is annually mown, it should be top-dressed with manure; but if only occasionally mown, the benefits derived from the grazing of sheep or cattle will, to a considerable extent, answer for surface dressings in a plant that derives a part of its nutriment from the subsoil. Saint-foin is highly nutritive, either cut green or made into hay. The produce, on a medium of soils and cultivation, may probably be estimated at from about one and a half to two tons the acre. And on the poorer and thinner staple sorts of land, it will perhaps seldom afford less than from a ton to a ton and a half on the acre. One thousand parts of saint-foin afforded Sir H. Davy thirty-nine of nutritive matter, which is the same as that afforded by the red and white clover.

The usual duration of saint-foin, in a profitable state, is from eight to ten years. It usually attains its perfect growth in about three years, and begins to decline towards the eighth or tenth on calcareous soils, and about the seventh and eighth on gravels. There are instances, however, of fields of saint-foin, which had been neglected and left to run into pasture, in which plants have been found upwards of fifty years from the time of sowing. It has been cultivated upwards of a century on the Cotswold hills, and there roots of it have been traced down into stone quarries from ten to twenty feet in length, and in Germany, Von Thier found them attain the length of sixteen feet. In general, the great enemy to the endurance of saint-foin, is the grass which accumulates, and forms a close turf on the surface, and thus chokes up the plant.

1589. INDIGOFERA. <i>W.</i> INDIGO.		Leguminosæ. <i>Sp.</i> —									
10606	filifolia <i>W.</i>	naked-stalked	or	1	jl.o	Pu	C. G. H. 1812.	C	s.l	Bot. reg. 104	
10607	linifolia <i>W.</i>	Flax-leaved	or	1	jl.au	Pu	E. Indies 1792.	S	s.l	Rox. cor. 2.t.194	
10608	psoraloides <i>W.</i>	long-piked	or		jl.s	R	C. G. H. 1758.	S	s.p	Bot. mag. 476	
10609	candicans <i>W.</i>	white-leaved	or		my.s	R	C. G. H. 1774.	C	s.p	Bot. mag. 198	
10610	amœna <i>W.</i>	scarlet-flowered	or		mr.ap	Pu	C. G. H. 1774.	C	s.p	Bot. reg. 300	
10611	incana <i>W.</i>	hoary	or	2	my.jl	Sc	C. G. H. 1812.	C	s.p		
10612	sarmentosa <i>W.</i>	dwarf	or	3	jn.jl	Pu	C. G. H. 1786.	C	s.p		
10613	denuata <i>W.</i>	smooth-leaved	or		my.jl	Pu	C. G. H. 1790.	C	s.p	Bot. cab. 500	
10614	trita <i>W.</i>	oval-leaved	or	1	jn.jl	Pk	E. Indies 1802.	C	s.p		
10615	microphylla <i>Lam.</i>	small-leaved	or		ja.d	Pu	C. G. H. 1812.	C	s.p		
10616	coriacea <i>W.</i>	leathery-leaved	or	3	jl.au	Pu	C. G. H. 1774.	C	s.p		
10617	enneaphylla <i>W.</i>	trailing	or	4	jl.au	Pu	E. Indies 1776.	C	s.p	Bur. ind. t. 55.f.1	
10618	cytisoides <i>W.</i>	angular-stalked	or		jl.au	R	C. G. H. 1774.	C	s.p	Bot. mag. 742	
10619	stricta <i>W.</i>	upright	or	3	jl.au	Pu	C. G. H. 1812.	C	s.p	Jac. schœ. 2.t. 236	
10620	hirsuta <i>W.</i>	hairy-leaved	or	3	...	Pu	E. Indies 1759.	C	s.p	Burm. zeyl. t. 14	
10621	angustifolia <i>W.</i>	narrow-leaved	or		jn.o	Pu	C. G. H. 1774.	C	s.p	Bot. mag. 465	
10622	australis <i>W.</i>	Botany-Bay	or		mr.jn	Pu	N. S. W. 1790.	S	s.p	Bot. cab. 149	
10623	viscosa <i>W.</i>	clammy	or	1	jn.jl	Pk	E. Indies 1806.	C	s.p	Sert. han. 2. t. 12	
10624	A nil <i>W.</i>	West-Indian	or	3	jl.au	Pu	W. Indies 1731.	C	s.p		
10625	tinctoria <i>W.</i>	East-Indian	or	3	jl.au	Pu	E. Indies 1731.	C	s.p	Rhe. mal. 1. t. 54	
10626	argentea <i>W.</i>	silver-leaved	or	2	jl.au	Pu	W. Indies 1776.	C	s.p	L'Her. stirp. t. 79	
10627	endecaphylla <i>W.</i>	eleven-leaved	or	4	jl.au	Sc	S. Leone 1823.	S	co	Bot. reg. 789	
10628	stipularis <i>Link.</i>	large-stipuled	or		...	...	C. G. H. 1824.	C	s.p	
10629	aphylla <i>Link.</i>	leafless	or	1	...	...	C. G. H. 1825.	C	s.p	
1590. TEPHROSIA. <i>P. S.</i> TEPHROSIA.		Leguminosæ. <i>Sp.</i> —									
10630	toxicaria <i>P. S.</i>	Fish-Poison	or	3	...	Pu	S. Amer. 1791.	S	s.p	Plum. ic. t. 135	
10631	virginiana <i>Ph.</i>	Virginian	or	4	jn.au	Pk	N. Amer. 1765.	C	s.p	Plu. alm. t. 23.f.2	
10632	grandiflora <i>P. S.</i>	Rose-colored	or	4	my.s	Pk	C. G. H. 1774.	C	p.l	Bot. reg. 769	
10633	stricta <i>P. S.</i>	straight-podded	or	3	my.jn	Pk	C. G. H. 1774.	C	p.l	Scop. insub. I. t. 3	
10634	pallens <i>P. S.</i>	pale-flowered	or	3	jn.au	Pk	C. G. H. 1787.	C	p.l		
10635	villosa <i>P. S.</i>	vilous	or	2	jn.jl	W	E. Indies 1779.	S	p.l	Plu. alm. t. 59.f. 6	
10636	piscatoria <i>P. S.</i>	woolly	or	2	jn.jl	Pu	India 1778.	C	lp		
10637	purpurea <i>P. S.</i>	purple	or	2	jl.au	Pu	E. Indies 1768.	C	lp	Burm. zeyl. t. 32	
10638	capitulata <i>Link.</i>	capitellate	or	1	jl.au	Pu	Owhyhee 1823.	C	co		
19039	lanceolata <i>Link.</i>	lance-leaved	or	3	jl.au	Pa.Y	..... 1820.	C	co	
1591. GALE'GA. <i>P. S.</i> GOAT'S-RUE.		Leguminosæ. <i>Sp.</i> —									
10640	officinalis <i>W.</i>	official	or	4	jn.s	B	Spain 1568.	D	co	Sc. ha. 2.t. 208.a.	
	<i>β alba</i>	white-flowered	or	4	jn.s	W	Spain ...	D	co		
10641	orientalis <i>W.</i>	oriental	or	4	jn.au	W	Levant 1801.	C	p.l	Bot. mag. 2192	
10642	caribæa <i>W.</i>	Caribbean	or	3	jn.jl	Pa	Caribbes 1786.	C	lp	Jac. amer. t. 125	
10643	crocheteda <i>W.</i>	sulphur-colored	or	3	jn.jl	Pa.Y	..... 1799.	C	lp	Jac. ic. 1. t. 150
10644	mucronata <i>Thunb.</i>	mucronate	or	2	jn.jl	Pa	C. G. H. 1823.	C	lp		



History, Use, Propagation, Culture,

1589. *Indigofera*. That is to say, a plant bearing *indigo*. The species are elegant little shrubs, free-flowerers, and of easy culture. Most of them will yield the dye, but those chiefly cultivated for this purpose are the 1. Anil (*Anyl*, Arab.), in the West Indies, and the 1. tinctoria, argentea, and some other species in the East Indies. The indigo is one of the most profitable articles of culture in Hindustan; because an immense extent of land is required to produce but a moderate bulk of the dye; because labor and land here are cheaper than any where else; and because the raising of the plant and its manufacture may be carried on without even the aid of a house. The first step in the culture of the plant is to render the ground, which should be friable and rich, perfectly free from weeds, and dry if naturally moist. The seeds are then sown in shallow drills about a foot apart. The rainy season must be chosen for sowing, otherwise if the seed is deposited in dry soil, it heats, corrupts, and is lost. The crop being kept clear of weeds, is fit for cutting in two or three months, and this may be repeated in rainy seasons every six weeks. The plants must not be allowed to come into flower, as the leaves in that case become dry and hard, and the indigo produced is of less value; nor must they be cut in dry weather, as they would not spring again. A crop generally lasts two years. Being cut, the herb is first steeped in a vat till it has become macerated and parted with its coloring matter; then the liquor is let off into another, in which it undergoes the peculiar process of beating, to cause the fecula to separate from the water. This fecula is let off into a third vat, where it remains some time, and is then strained through cloth bags, and evaporated in shallow wooden boxes placed in the shade. Before it is perfectly dry, it is cut in small pieces of an inch square; it is then packed in barrels, or sowed up in sacks for sale. Indigo was not extensively cultivated in India before the British settlements were formed there; its profits were at first so considerable, that, as in similar cases, its culture was carried too far, and the market glutted with the commodity. The indigo is one of the most precarious of oriental crops; being liable to be destroyed by hail storms, which do comparatively little injury to the sugar-cane and other plants.

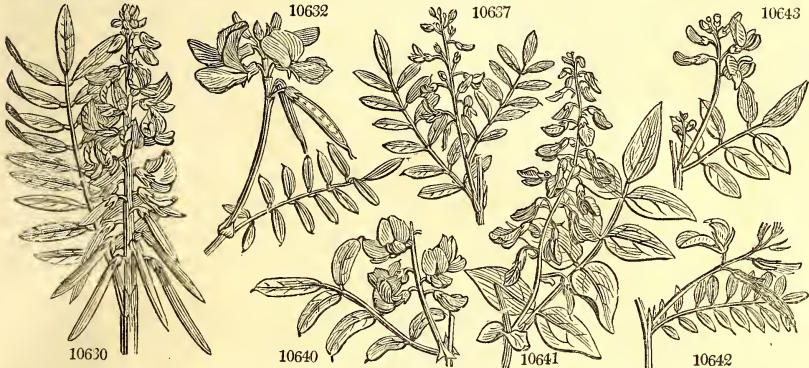
The indigo cultivated in the West Indies, thrives best in a free rich soil, and a warm situation, frequently refreshed with moisture. Having first chosen a proper piece of ground, and cleared it, hoe it into little

- 10606 Leaves simple filiform, Flowers racemose
- 10607 Leaves simple linear hoary, Pods globose
- 10608 Leaves ternate lanc. silky beneath, Racemes longer than leaf, Pods pendulous
- 10609 Leaves ternate lin. lanc. silky beneath, Racemes longer than leaf few-fl. Pods straight
- 10610 Leaves ternate oblong downy beneath, Racemes longer than leaf, Pods reflexed appressed
- 10611 Leaves ternate obovate silky beneath, Raceme term. long, Stem decumbent
- 10612 Leaves ternate, Leaf. ovate mucronate sessile, Pedunc. axill. about 2-fl. Branches filiform spreading
- 10613 Leaves ternate obovate smooth, Racemes longer than leaf, Pods pendulous
- 10614 Leaves ternate ovate acute, Racemes short, Stem erect
- 10615 Leaves ternate obovate on short stalks, Pedunc. long filiform, Pods pendulous
- 10616 Leaves quinate obovate mucronate hairy, Stipules subulate, Pods straight smooth
- 10617 Leaves pinnate cuneate 7, Racemes as long as leaves, Pods 4-cornered 2-seeded
- 10618 Leaves pinnate 5 or 7 oblong narrowed at each end, Racemes longer than leaf
- 10619 Leaves pinnate 7 or 9 oblong downy beneath, Racemes about 5-flowered sessile, Stem straight
- 10620 Leaves pinnate of 4 or 5 pairs hoary beneath, Racemes length of leaves spiked, Pods 4-cornered villous
- 10621 Leaves pinnate linear, Racemes axillary, Stem shrubby downy
- 10622 Leaves pinnate smooth of many pairs oblong, Racemes shorter than leaf, Standard smooth
- 10623 Leaves pinnate of 6 pairs obovate strigose, Racemes shorter than leaf, Pods pendulous, Stem viscid
- 10624 Leaves pinnate oblong of 3 pairs, Racemes shorter than leaf, Pods falcate
- 10625 Leaves pinnated obl. smooth of 4 pairs, Racemes shorter than leaf, Pods round arcuate
- 10626 Leaves simple ternate and pinnate silky, Pods torulose pendulous
- 10627 Leaves pinn. obl. smooth, Racemes spiked shorter than leaf, Pods 4-cornered reflexed
- 10628 Stem muricate downy, Leaf. oval hairy, Stip. oval acute, Racemes longer than leaves
- 10629 Leaves about 3, Leaf. lanc. blunt mucronulate smooth deciduous, Petioles persistent

- 10630 Leaf. obl. lanc. blunt downy beneath, Raceme terminal long, Pods round spreading
- 10631 Pods falcate backwards compressed villous spiked, Calyces woolly, Leaf. oval-obl. acuminate
- 10632 Leaf. obl. mucronate downy beneath, Stip. ovate acuminate, Raceme 4-fl. terminal, Pods pendulous
- 10633 Leaf. cuneate-obl. recurved mucronate villous beneath, Stipules subulate, Raceme few-fl.
- 10634 Pods straight spreading ciliated, Stip. subulate, Leaf. 9-11 obl. acute downy beneath
- 10635 Leaf. lanc. cuneate retuse silky beneath, Stip. setaceous, Pods falcate backwards villous pendulous
- 10636 Pods straight ascending villous, Stip. subulate, Pedunc. 2-edged, Leaf. obl. blunt
- 10637 Leaf. obl. cuneate emarg. mucronate smooth, Stip. subulate, Pods racemose straight ascending
- 10638 Leaf. inversely lanc. obtuse emarg. silky beneath, Racemes terminal short
- 10639 Leaf. inversely lanc. emarg. mucronate hairy, Stip. subulate, Racemes terminal

10640 Leaf. lanc. mucronate smooth, Stip. lanc. sagittate, Pods erect straight

- 10641 Leaf. ovate acuminate smooth, Stip. ovate, Flowers cernuous
- 10642 Leaf. obl. acute downy beneath, Stip. subulate, Pods smooth racemose pendulous
- 10643 Leaf. ovate acute downy, Stip. subulate, Pods straight pendulous smooth racemose
- 10644 Leaves pinn. ovate mucron. villous, Stem erect, Branches downy



and Miscellaneous Particulars.

trenches, not above two inches, or two inches and a half in depth, not more than fourteen or fifteen inches asunder. In the bottom of these, at any season of the year, strew the seeds pretty thick, and immediately cover them. As the plants shoot, they should be frequently weeded, and kept constantly clean, until they spread sufficiently to cover the ground. Those who cultivate great quantities, only strew the seeds pretty thick in little shallow pits, hood up irregularly, but generally within four, five, or six inches of one another, and covered as before. Plants raised in this manner, are observed to answer as well, or rather better, than the others; but they require more care in the weeding. They grow to full perfection in two or three months, and are observed to answer best when cut in full blossom. The plants are cut with reaping hooks, a few inches above the root, tied in loads, carried to the works, and laid by strata in the steeper. Seventeen negroes are sufficient to manage twenty acres of indigo; and one acre of rich land, well planted, will, with good seasons and proper management, yield five hundred pounds of indigo in twelve months, for the plant ratoons (i. e. it sends out stolones), and gives four or five crops a year; but must be replanted afterwards.

Indigo has long been cultivated in Spain, but is on the decline in that country, owing to the more favorable circumstances of the East and West Indies. It was tried in the south of France and Italy, during the Buonaparte dynasty, but found not worth following for the same reason.

1590. *Tephrosia*. From *τεφρος*, ash-colored, in allusion to the color of the foliage. *T. toxicaria* is a spreading shrubby plant. The leaves and branches, well pounded, and thrown into a river or pond, very soon affect the water, and intoxicate the fish, so as to make them float on the surface, as if dead; and most of the large ones recover after a short time, but the greatest part of the small fry perish on these occasions. It has been introduced to Jamaica, and cultivated there, on account of its intoxicating qualities. (*Brown*)

1591. *Galaga*. A name of unexplained meaning. *Ruellius* says, it is the word *Glauz*, Italianized! *G. officinalis* was formerly accounted cordial and sudorific, but is now out of repute. The species are handsome border flowers.

1592. PHA'CA. W.		BASTARD VETCH.		Leguminosæ. Sp. 6—14.					
10645	bœ'tica W.	hairy	Δ Δ pr	4	jl R	Spain	1640.	R s.l	Moris. s. 2.t.8.f.1
10646	frigida W.	small	Δ Δ pr	1	jl Y	Austria	1795.	R s.l	Jac. aust. t. 166
10647	alpina W.	smooth-Alpine	Δ Δ pr	2	jl Y	Austria	1759.	R s.l	Jac. ic. 1. t. 151
10648	austrâlis W.	trailing	Δ Δ pr	3	my.jn B	S. Europe	1779.	R s.l	Bot. cab. 490
10649	arenâria P. S.	sand	Δ Δ pr	3	jl.au B	Siberia	1796.	R s.l	Pal.it.3. t.cc.f.1.2
10650	astragalina P. S.	procumbent	Δ Δ pr	1	jn.jl W.B	N. Europe	1771.	R s.l	Bot. cab. 429
1593. OXYTROPIS. Dec. OXYTROPIS.									
10651	montâna Dec.	mountain	Δ Δ pr	1	jl.au Pu	Austria	1581.	D s.l	Bot. mag. 843
10652	Lamberti Ph.	Lambert's	Δ Δ pr	1	aus. Pu	Missouri	1811.	D s.l	Bot. mag. 2147
10653	uralensis P. S.	silky	Δ Δ pr	3	jl Pu	Siberia	1800.	D s.l	Pall. astrag. t. 42
10654	sôrdida P. S.	hairy-mountain	Δ Δ pr	3	my.au Y.Pu	Scotland	...	D s.l	Eng. bot. 466
1594. ASTRAGALUS. Dec. MILK VETCH.									
10655	campêstris Dec.	field	Δ Δ pr	1	jn.jl Pu	Germany	1778.	S s.l	Pl.rar.hu.2.t.130
10656	uncâta Dec.	Aleppo	Δ Δ pr	1	jl.au W	Aleppo	1768.	D co	Pall. astrag. t.45
10657	altâica Dec.	Altaic	Δ Δ pr	1	jl.s B	Siberia	1802.	S co	Pall. astrag. t.45
10658	cymbicârpos Dec.	boat-podded	Δ Δ pr	1	jl.au Pa	Portugal	1800.	S co	Pall. astrag. t.45
10659	pilôsa Dec.	pale-flowered	Δ Δ pr	1	jn.au Pa.Y	Siberia	1732.	D s.l	Bot. cab. 544
10660	dealbâta Dec.	mealy	Δ Δ pr	1	jl.au Pu	Caucasus	1803.	D s.l	Pal. ast.t.23.f.2,3
10661	deflexa Dec.	small-flowered	Δ Δ pr	1	jn.jl Pu	Siberia	1800.	D s.l	Jac. ic. 1. t. 153
10662	dichôptera Dec.	pubescent	Δ Δ pr	1	jn.jl Pu	Siberia	1815.	D s.l	Pall. astrag. t.39
1594. ASTRAGALUS. Dec. MILK VETCH.									
10663	christianus W.	great-yellow	Δ or	3	jl Y	Armenia	1737.	D s.l	Tourm.it.2.t.254
10664	tomentosus W.	downy-leaved	Δ or	3	jl Y	Egypt	1800.	C p.l	Dec. astrag. t.29
10665	alopécuroides W.	Fox-tail-like	Δ or	2	jn.jl L.Y	Spain	1737.	C s.l	Pall. astrag. t. 8
10666	vulpinus W.	Fox-tail	Δ or	2	jn.jl L.Y	Siberia	1815.	C s.l	Pall. astrag. t. 7
10667	narbonensis W.	French	Δ or	3	jn.jl Pa.Y	S. Europe	1789.	C s.l	Pall. astrag. t.10
10668	capitatus W.	headed	Δ or	3	jl.au Pa.Y	Levant	1759.	C s.l	Pall. astrag. t.10
10669	salcatus W.	furrowed	Δ or	4	jl L.B	Siberia	1785.	C co	Jac. vind. 3. t. 40
10670	mellilotoides W.	Mellilot-like	Δ pr	3	jn.jl Pu	Siberia	1785.	C co	Pall. astrag. t.41
10671	virgatus W.	twiggy	Δ pr	3	my.au Vi	Siberia	1806.	C co	Pall. astrag. t.18
10672	tenuifolius W.	fine-leaved	Δ pr	1	jl.au Pu	Siberia	1780.	C p.l	Sweet fl. g. 73
10673	as'per W.	rough Astracan	Δ pr	3	jl.au Pa.Y	Astracan	1796.	C p.l	Jac. ic. t. 152
10674	galegiformis W.	Goat's-Rue-lv.	Δ or	2	jn.au Y.G	Siberia	1729.	C s.l	Pall. astrag. t.29
10675	chinensis W.	upright Chinese	Δ or	1	jn.jl R	China	1795.	C p.l	Lin. fil. dec. t.3
10676	virescens Dec.	green-flowered	Δ or	3	jn.jl G.Y	Siberia	1737.	D p.l	Pall. astrag. t.26
10677	falcatus Dec.	sickle-podded	Δ or	3	jn.jl Pa.Y	Siberia	...	D p.l	Dec. astrag. t. 26
10678	uliginosus W.	marsh	Δ or	2	jn.au L.B	Siberia	1752.	D p.l	Pall. astrag. t.26
10679	carolinianus W.	Carolina	Δ or	1	jl.au G.Y	N. Amer.	1732.	D s.l	Dill. elt. t.39.f.45
10680	caudâensis W.	woolly	Δ or	1	jn.jl Y	N. Amer.	1732.	D s.l	Dodar.mem.t.64
10681	semibilocularis Dec.	semibilocular	Δ or	1	jn.au Pa.Y	Siberia	1804.	D s.l	Dec. astrag. t.23
10682	Cicer W.	bladdered	Δ or	2	jn.jl Y	Europe	1570.	D s.l	Jac. aus. t. 251
10683	carnosus Ph.	fleshy-podded	Δ or	2	jn.jl W	Louisiana	1811.	D s.l	Jac. aus. t. 251
10684	caryocarpus B. reg.	swelled-podded	Δ or	1	jn.jl Pu	N. Amer.	1811.	D s.l	Bot. reg. 176
10685	glycyphyllos W.	sweet	Δ or	3	jn.jl Y.G	Britain	ch.wo.	D s.l	Eng. bot. 203
10686	micropHYllous W.	small-leaved	Δ or	1	jn.jl Y	Siberia	1773.	D p.l	Pall. astrag. t.26
10687	trimêstris W.	Egyptian	Δ or	3	jn.jl Y	Egypt	1739.	S co	Jac. vind. 2.t.174
10688	Bœcâras W. en.	horned	Δ or	2	jn.jl Pu	.....	1816.	S co	Jac. vind. 2.t.174
10689	hamosus W.	hook-podded	Δ or	1	jn.jl Pa.Y	Spain	1633.	S co	Lam. ill.t.622.f.4
10690	canaliculatus W. en.	channel-podded	Δ or	2	jn.jl W	.....	1816.	S co	Jac. vind. 2.t.174
10691	contortuplicatus W.	wave-podded	Δ or	1	jl.au Y	Siberia	1764.	S co	Pall. astrag. t. 79
10692	bœ'ticus W.	triang.-podded	Δ or	3	jn.jl Pu	S. Europe	1759.	S co	Bocc. sic. 7. t. 4
10693	Stella W.	star-podded	Δ or	3	jl.au Pu	S. Europe	1658.	S co	Flu. alm. t.79. f.4
10694	ægiceras W. en.	Goat's-horned	Δ or	1	jl.au Pa.Y	.....	1818.	S co	Pall. astrag. t. 79
10695	brachycarpus Bieb.	short-fruited	Δ or	1	jn.jl Pu	Caucasus	1820.	D s.l	Bocc. sic. 7. t. 4
10696	stipulatus B. M.	large-stipuled	Δ or	1	jn.jl Y	Nepal	1822.	D s.l	Bot. mag. 2380
10697	cruciatus Link.	cruciate	Δ or	1	jn.jl Vi	.....	1820.	S s.l	Bot. mag. 2380
10698	verticillâris W.	whorled	Δ or	1	jn.jl Pk	Siberia	1822.	D s.l	Bot. mag. 2380
10699	sesameus W.	Bird's-foot	Δ or	1	jn.jl Pa.B	S. Europe	1616.	S s.l	Garid. prov. t.12
10700	annularis W.	ring-podded	Δ or	1	jn.jl Pu	Egypt	1800.	S s.l	Garid. prov. t.12
10701	pentaglôttis W.	rough-Spanish	Δ or	1	jn.jl Pú	Spain	1739.	S s.l	Cav. ic. 2. t. 188
10702	epiglôttis W.	heart-podded	Δ or	1	jn.jl W	S. Europe	1737.	S s.l	Herm.lugd. t.77



History, Use, Propagation, Culture,

1592. *Phaca*. Φακη, or φακος, was the Greek name of the lentil; and was derived from φαγω, to eat. These are pretty herbaceous plants, with the habit of *Astragalus*.
 1593. *Oxytropis*. From οξυς, pointed, and τροπισ, a keel. A genus entirely resembling *Astragalus* in habit; but considered distinct by modern botanists.
 1594. *Astragalus*. This was a name given by the Greeks to one of their leguminous plants, but it is not known to which. The modern genus is composed of plants, the greater number of which are very orna-

10645 Erect hairy, Leaf, oval acute, Stip. lanc. Pods obl. cymbiform compressed
 10646 Erect undivided, Leaf, 11 obl. blunt subciliated, Pods oblong inflated
 10647 Erect branched downy, Leaf, in many pairs obl. lanc. blunt, Pods half ovate acute
 10648 Branched ascending, Leaf, about 17 lanc. : the odd one subsessile, Ala bifid
 10649 Branched ascending smooth, Leaf, about 11 lin.-lanc. : the odd one subsess. Pods obovate inflated erect
 10650 Caulescent procumb. Fl. pendulous racemose, Pods acute at each end hairy

10651 Stemless villous, Pods erect roundish-obl. villous acuminate with style half 2-celled
 10652 Stemless silky, Leaf, 19 lanc. ellipt. acute at each end, Spikes capitate
 10553 Stemless villous silky, Pods erect ovate cylindr. inflated 2-celled
 10554 Stemless, Leaf, lanc. silky, Scape longer than leaf and calyxes silky, Heads few-fl. cernuous

10655 Stemless, Calyx and pods villous, Leaf, lanc. acute, Stem decumbent
 10656 Stemless, Pods subulate hooked longer than leaf, Leaf, orbicordate
 10657 Stemless, Leaf, lanc. smooth, Scapes as long as leaves hairy, Flowers in obl. heads
 10658 Stemless, Leaf, cuneiform retuse subsessile, Pods smooth, Flowers nearly apetalous
 10659 Caulescent erect hairy, Leaf, lanc. acute, Spikes stalked longer than leaf, Pods subulate hairy
 10660 Caulescent erect hairy, Leaf, 3-pair lanc. acute, Stip. obl. acun. Spikes stalked longer than leaf
 10661 Caulescent ascending, Leaf, ovate lanc. deflexed hairy, Spikes stalked longer than leaf
 10662 Caulescent diffuse downy, Stipules united, Wings emarg. Peduncles as long as leaf

10663 Caulescent erect, Leaf, ellipt. stalked, Stip. lin. subulate, Pedunc. about 3-fl. axill. clustered
 10664 Caulescent erect, Leaf, roundish cordate sessile downy, Stip. ovate acuminate, Pedunc. 1-fl. axill.
 10665 Caulescent erect, Spikes cylindrical subsessile, Cal. and pods woolly
 10666 Caulescent erect, Heads of flowers stalked globose, Pods 4-seeded inclosed in woolly calyx
 10667 Caulescent erect, Heads of flowers sessile axill. short, Corolla larger than calyx
 10668 Caulescent erect, Heads globose, Pedunc. very long, Leaf, emarginate
 10669 Caulescent erect striated, Leaf, lin. lanc. smooth, Stip. lanc. Racemes longer than leaf
 10670 Caulescent erect panicled, Leaves of 2 or 3 pair linear cuneate retuse smooth, Racemes filiform
 10671 Caulescent erect shrubby, Leaves in 6 pairs lin. lanc. hoary, Racemes long spiked
 10672 Caulescent erect, Leaf, linear lanc. Spikes obl. stalked longer than leaf, Standard twice as long as ala
 10673 Caulescent erect rough, Leaf, lin. lanc. Spikes stalked longer than leaves straight, Pods 3-cornered
 10674 Caulescent erect straight smooth, Leaf, ellipt. blunt, Fl. racemose pendulous, Pods 3-cornered smooth
 10675 Caulescent erect straight smooth, Leaf, ellipt. blunt, Fl. racemose pendulous, Pods inflated rugose
 10676 Caulescent erect smooth, Leaf, lanc. acute, Racemes longer than leaf, Pods falc. acute pendulous
 10677 Caulescent erect, Peduncles as long as leaves, Leaflets 33-41, Pods about 3-cornered arcuate
 10678 Caulescent erect, Leaf, obl. downy, Spikes stalked, Bractes obl. length of calyx
 10679 Caulescent erect, Leaf, obl. downy beneath, Spikes stalked, Bractes lanc. length of peduncle
 10680 Caulescent diffuse, Pods subcylindrical mucronate, Leaf, naked beneath
 10681 Pedunc. as long as leaves, Leaf, 33-41 scarcely downy, Pods 3-cornered bowed nodding
 10682 Pedunc. as long as lvs. Leaf, smoothish obl. blunt mucro. Stip. lanc. Racemes stalked longer than leaf
 10683 Pedunc. as long as lvs. silky-white, Leaf, 21 ellipt. smooth above, Spikes subsessile, Pods fleshy
 10684 Pedunc. longer than leaf, Fl. erect closely spiked, Pods half 2-celled
 10685 Caulescent prostrate, Leaf, smooth ovate mucronate blunt, Stip. ovate-lanceolate
 10686 Caulescent erect spread. Leaf, ov. hairy, Stip. solitary opp. the lvs. 2-parted, Spikes stalked long. than leaf
 10687 Caulescent, Scapes 2-fl. Pods hooked subulate with 2-keels
 10688 Caulescent prostrate, Leaf, ellipt. cuneate emarg. Racemes few-fl. Peduncles longer than leaf
 10689 Caulescent procumbent, Leaf, cuneate emarg. Stip. ov. Racemes few-fl. stalked shorter than leaf
 10690 Caulescent erect, Leaf, obl. retuse, Fl. axill. sol. subsessile, Pods deeply channeled
 10691 Caulescent procumbent downy, Leaf, obovate emarg. Racemes stalked arcuate twisted
 10692 Caulscent procumb. Leaf, obl. blunt mucro. Spikes stalked few-fl. shorter than lvs. Pods obl. hooked at end
 10693 Caulscent diffuse, Heads stalked lateral, Pods straight subulate mucronate
 10694 Caulscent diffuse, Leaf, ellipt. emarg. Racemes few-fl. stalked shorter than leaf, Pods hooked
 10695 Stemless, Leaves ellipt. downy, Scapes racemose longer than leaf, Pods obovate the length of calyx
 10696 Caulscent, Leaflets oval-oblong or obovate smooth, Stipules very large leafy
 10697 Stem decumb. Leaf, obl. downy, Pedunc. axill. few-fl. Pods arcuate with elevated veins
 10698 Stemless, Leaf, subulate 4 whorled pilose, Scapes spiked longer than leaf, Lower flowers remote
 10699 Caulscent diffuse, Heads subsessile lateral, Pods erect subulate with a reflexed point
 10700 Caulscent diffuse, Pods subulate incurved smooth, Leaf, obovate
 10701 Caulscent procumb. Leaf, obl. retuse, Heads stalked shorter than leaf, Pods half ovate squamose at end
 10702 Caulscent procumb. Leaf, lin. narrowed at base, Heads subsessile, Pods half ovate reflexed downy



and Miscellaneous Particulars.

mental. *A. glycyphyllos* is the largest of the European species. The leaves are sweet, with a mixture of bitterness, and do not seem to be agreeable to cattle; at least the plant, in its wild state, is left untouched; otherwise it might have been desirable to cultivate it.

A. Tragacantha was formerly considered as the plant yielding the gum *Tragacanth* of commerce; but Olivier (*Voyage dans l'Empire Ottoman*, v. 342, pl. 44.) discovered that it was generally procured from *A. verus*. It is probable that both species, and perhaps some others, yield this gum. *A. verus* is a native of the north

10703 hypoglóttis <i>W.</i>	purple-mountain-*	△	or	½	ju.jl	Pa	Britain	sa.bea.	D	s.l	Eng. bot. 274
10704 austríacus <i>W.</i>	Austrian	△	or	½	ju.jl	Pa.B	Austria	1640.	D	s.l	Jac. aus. 2. t. 195
10705 fruticósus <i>W.</i>	woody	△	or	1½	ju.jl	Vi	Siberia	1804.	D	s.l	Pall. astrag. t. 19
10706 arenárius <i>W.</i>	sand	△	or	1	ju.jl	B	Germany	1798.	D	s.l	Retz. obs. 3. t. 3
10707 leucophárus <i>W.</i>	dwarf-white	△	or	½	my.au	W	.....	1776.	D	s.l	Bot. cab. 111
10708 depressus <i>W.</i>	depressed	△	or	½	my.jn	W	Europe	1772.	D	s.l	Bot. cab. 680
10709 leontinus <i>Jac.</i>	Lion's-tail	△	or	½	my.jn	B	Austria	1816.	D	s.l	Bot. cab. 432
10710 Glaux <i>W.</i>	small-Spanish	△	or	½	ju.jl	Pu	Spain	1596.	S	s.l	Clus. hist. 2. 241
10711 sinicus <i>W.</i>	Chinese-annual	△	or	½	jl.au	Pu	China	1763.	S	s.l	Bot. mag. 1350
10712 álbíduš <i>W.</i>	white-Italian	△	or	½	jl.au	W.Y	Europe	1737.	D	s.l	Pl.rar.hun. 1. t. 40
10713 Onobrychis <i>W.</i>	purple-spiked	△	or	1½	ju.jl	Pu	Austria	1640.	D	s.l	Jac. aus. 1. t. 38
10714 Laxmanni <i>W.</i>	Laxmann's	△	or	1	jn.au	B	Siberia	1804.	D	s.l	Jac. vind. 3. t. 37
10715 physódes <i>W.</i>	inflated	△	or	½	ju.jl	Pu	Siberia	1759.	D	s.l	Dec. astrag. t. 48
10716 haliácábus <i>Lam.</i>	bladdered	△	or	½	jn	Pa.Y	Armenia	1806.	D	s.l	Schreb. decad. t. 3
10717 caprinus <i>W.</i>	goat-scented	△	or	1	ju.jl	Pa.Y	Barbary	1683.	D	s.l	Mor. hi. 2. t. 24. f. 3
10718 longiflóruš <i>W.</i>	long-flowered	△	or	½	ju.jl	Y	Tartary	1806.	D	s.l	Pall. astrag. t. 80
10719 monspessulánuš <i>W.</i>	Montpelier	△	or	½	jl.au	Pu	France	1710.	D	s.l	Bot. mag. 375
10720 incánuš <i>W.</i>	hoary	△	or	½	ju.jl	Pu	Montpel.	1759.	D	s.l	
10721 excáscánuš <i>W.</i>	hairy-podded	△	or	½	my.jl	Y	Hungary	1787.	D	s.l	Jac. ic. 3. t. 561
10722 Tragacanthóides <i>W.</i>	Armenian	△	or	½	my.jl	Y	Armenia	1791.	D	s.l	Bu. cen. 3. t. 38. f. 2
10723 aristátuš <i>W.</i>	awned	△	or	1	my.jl	Pu	Pyrenées	1791.	D	s.l	Pall. astrag. t. 3
10724 Tragacánthuš <i>W.</i>	gt. Goat's Thorn	△	or	1	my.jl	Pa.Y	S. Europe	1640.	C	s.p	Dec. astrag. t. 84
10725 Potérium <i>W.</i>	sm. Goat's Thorn	△	or	½	jn.jl	W	Levant	1640.	C	s.p	Park. theat. f. 2

1595. BISER/RULA. <i>W.</i>	HATCHET VETCH.				<i>Leguminosae. Sp. 1.</i>						
10726 Pelicinus <i>W.</i>	bastard	○	pr	1	jl.au	Pu	S. Europe	1640.	S	s.p	Lam. ill. t. 622
1596. DA'LEA. <i>P. S.</i>	DALEA.				<i>Leguminosae. Sp. 9—19.</i>						
10727 Cliffortiána <i>W.</i>	Vera Cruz	○	pr	1½	jl.au	B	Vera Cruz	1737.	S	co	Linn. cliff. t. 22
10728 alopecuroídes <i>W.</i>	Fox-tail	○	pr	1	jl.au	Pa.B	Mississippi	1812.	S	co	Mich. an. 2. t. 38
10729 aúrea <i>Ph.</i>	golden	△	pr	2	jl.au	Y	Louisiana	1811.	D	co	
10730 laxiflóruš <i>Ph.</i>	loose-flowered	△	pr	6	jl.au	Y	Louisiana	1811.	D	co	
10731 cemeaphýlla <i>W.</i>	nine-leaved	△	pr	5	jl.au	Pk	W. Indies	1772.	S	co	
10732 citrióduš <i>W.</i>	leafy	△	pr	1	o.n	Pk	N. Spain	1780.	S	co	Cav. ic. 3. t. 271
10733 Lagópus <i>W.</i>	downy-spiked	△	or	4	o.n	Vi	Mexico	1780.	S	co	Cav. ic. 1. t. 86
10734 mutábilis <i>W.</i>	changeable	△	or	1½	o.n	Pu	Mexico	1818.	C	co	Bot. mag. 2486
10735 bicolor <i>W. en.</i>	two-colored	△	or	2	o.n	Y.B	S. Amer.	1817.	C	co	Hook. ex. fl. 43

1597. PSORA'LEA. <i>W.</i>	PSORALEA.				<i>Leguminosae. Sp. 28—62.</i>						
10736 pinnáta <i>W.</i>	wing-leaved	△	or	6	my.jl	B	C. G. H.	1690.	C	p.l	Bot. rep. 474
10737 odorátis'sima <i>W.</i>	fragrant	△	or	6	my.jl	Pa.B	C. G. H.	1795.	C	p.l	Jac. schœ. 2. t. 229
10738 verrucósa <i>W.</i>	warted	△	or	3	my.au	B	C. G. H.	1774.	C	p.l	Jac. schœ. 2. t. 226
10739 aculeáta <i>W.</i>	prickly	△	or	4	jn.jl	B	C. G. H.	1774.	C	p.l	Bot. mag. 2158
10740 bracteáta <i>W.</i>	oval-spiked	△	or	4	jn.jl	Pu	C. G. H.	1771.	S	p.l	Bot. mag. 446
10741 spicáta <i>W.</i>	long-spiked	△	or	4	jl.au	B	C. G. H.	1734.	C	p.l	Bot. rep. 411
10742 aphýlla <i>W.</i>	leafless	△	or	2	ju.jl	B	C. G. H.	1790.	S	p.l	Bot. mag. 1727
10743 multicaúlis <i>W.</i>	many-stalked	△	or	3	au.o	W.B	C. G. H.	1793.	C	p.l	Jac. schœ. 2. t. 230
10744 tenuiflóia <i>W.</i>	fine-leaved	△	or	2	mr.jl	W.B	C. G. H.	1793.	C	p.l	Jac. schœ. 2. t. 225
10745 decúmbens <i>W.</i>	trailing	△	or	2	ap.my	W.B	C. G. H.	1774.	S	p.l	Bot. cab. 282
10746 hirta <i>W.</i>	hairy	△	or	3	my.au	W.B	C. G. H.	1713.	C	p.l	Jac. schœ. 2. t. 228
10747 Stáchydis <i>W.</i>	Stachys-leaved	△	or	3	ap.my	Br	C. G. H.	1793.	C	s.l	
10748 repens <i>W.</i>	creeping	△	or	1½	jl.au	B	C. G. H.	1774.	C	s.l	
10749 bituminósa <i>W.</i>	bituminous	△	or	4	ap.s	Pa.B	S. Europe	1570.	C	p.l	Lam. ill. t. 614. f. 1
10750 glandulósa <i>W.</i>	Mexican tea	△	or	4	my.au	Pa	Peru	1770.	C	p.l	Bot. mag. 990
10751 pedunculáta <i>B. reg.</i>	flat-headed	△	or	3	o.au	Pu	C. G. H.	1815.	C	p.l	Bot. reg. 223
10752 palestina <i>W.</i>	Palestine	△	or	2	ap.s	Vi	Levant	1771.	S	p.l	Jac. vind. 2. t. 184



History, Use, Propagation, Culture,

of Persia, flowering in July and August. It rises two or three feet only in height, on a stem about an inch in thickness; with many branches closely crowded together, and covered with imbricated scales and spines, formed from the petioles of the former year. The leaves, which scarcely exceed half an inch in length, are composed of six, seven, or eight pairs of opposite, villous, stiff, pointed leaflets; and the mid-rib is terminated with a sharp yellowish point. The flowers are small, yellow, and proceed from the axillæ of the leaves with cottony bractes. The calyx is five-toothed, and shorter than the corolla, which is papilionaceous. The gum exudes in summer, more or less copiously according to the heat of the weather, in tortuous filaments, which are allowed to dry on the plant before being collected. A large portion of the Tragacanth collected in Persia, is sent to India, Bagdad, Bassorah, and Russia. But what we receive is sent to Aleppo, whence it is exported, packed in cases.

Good gum Tragacanth is inodorous; impressing a very slightly bitter taste as it dissolves in the mouth. Its muclage differs from that of acacia gum, in being precipitated by the superacetate of lead, and oxy muriate of tin; and not by silicated potass (*Bostock. Nich. Journ. lvi. 30.*), or the oxysulphate of iron. Medically it is de-

- 10703 Caulесcent procumb. Leaf. obl. blunt, Spikes ov. stalked longer than leaf, Pods erect ovate channelled
 10704 Caulесcent procumb. Leaf. lin. trunc. emarg. Racemes stalked longer than leaf, Wings of cor. bifid
 10705 Caulесcent erect. Lvs. 7 pairs obl. bluntish subpubescent, Heads few-flowered stalked, Pods obl. villous
 10706 Caulесcent branched prostrate, Leaf. lin. lanc. silky complicate, Racemes 6-fl. longer than leaf
 10707 Caulесcent procumb. Leaf. orbiculate silky beneath, Racemes stalked as long as leaves
 10708 Subcaulescent procumb. Leaf. obovate, Racemes shorter than petiole, Pods round lanc. reflexed
 10709 Caulесcent decumb. Leaf. ellipt. blunt, Spikes obl. stalked longer than leaf
 10710 Caulесcent diffuse, Heads stalked imbricated ovate, Fl. erect, Pods ovate callous inflated
 10711 Caulесcent prostrate, Umbels stalked, Pods prismatical 3-cornered erect subulate at end
 10712 Caulесcent diffuse hoary, Leaves 5 pairs, Leaf. ellipt. blunt, Spikes stalked longer than leaf
 10713 Caulесcent diffuse, Pedunc. spiked, Standard twice as long as flower
 10714 Caulесcent procumb. Spikes long, Pods oblong 3-cornered furrowed mucronate villous
 10715 Stemless, Leaf. ov. glauc. Scapes longer than leaf, Fl. capitate, Pods inflated membranous smooth
 10716 Stemless smooth, Calyxes bladdery contracted at mouth
 10717 Stemless, Leaf. ov. obl. acute hairy, Scapes racemose erect twice as short as leaf, Pods ovate villous
 10718 Stemless, Leaf. ellipt. retuse somewhat hairy, Scapes racemose few-fl. twice as short as leaf
 10719 Stemless, Leaf. ellipt. blunt, Scapes racemose declinate longer than leaf, Standard long
 10720 Stemless, Scapes decumb. Leaf. ovate subsessile downy beneath, Pods hoary
 10721 Stemless, Leaf. obl. blunt hairy, Flower somewhat stalked aggregate, Cal. appressed hairy
 10722 Nearly stemless, Fl. numerous radical subsessile
 10723 Petioles spiny, Leaf. obl. mucro. hairy, Pedunc. very short about 4-fl. Cal. teeth setaceous
 10724 Petioles spiny, Leaf. ellipt. hoary, Pedunc. about 4-fl. as long as leaves, Cal. teeth ovate
 10725 Petioles spiny, Leaf. obl. hoary, Pedunc. very short 2-flowered

10726 The only species

- 10727 Pentandrous, Spikes obl. stalked terminal, Bractes length of cal. Leaves in 6 pairs lin. cuneate retuse
 10728 Pentandrous, Spikes cylindric. stalked term. Bractes shorter than cal. Lvs. in 10 pairs ellipt. retuse mucr.
 10729 Spikes obl. term. sol. Lvs. about 3 pair obl. and obovate obtuse
 10730 Spikes long panicle, Lvs. about 4 pairs linear
 10731 Decandrous, Spikes capitate stalked axillary, Leaves in 4 pairs obl. blunt
 10732 Decandrous, Spikes capitate stalked term. Lvs. in 10 pairs obovate
 10733 Decandrous, Spikes cylindr. terminal, Lvs. of 15 pairs lanc. blunt
 10734 Decandrous, Spikes cylindr. terminal, Lvs. of 10 pairs orbiculate
 10735 Decandrous, Spikes term. long, Lvs. of 5 pairs obovate

- 10736 Lvs. pinn. of 2 pairs lin. Pedunc. axill. 1-fl.
 10737 Lvs. pinn. of 7 pairs lin.-lanc. Pedunc. 1-fl. axillary
 10738 Lvs. pinn. and term. lanc. Pedunc. axill. 1-3-flowered, Branches warded
 10739 Lvs. tern. cuneiform recurve mucronate, Flowers axillary solitary approximated
 10740 Lvs. tern. obovate recurve mucro. with pellucid spots, Spike term. capitate, Bractes ciliated
 10741 Lvs. tern. obovate recurve mucronate dotted beneath, Spike terminal oblong
 10742 Lvs. of the stem and branches ternate and simple; of the branchlets none, Stipules imbricated
 10743 Upper lvs. simple; rest ternate, Leaf. lin. lanc. mucronate, Pedunc. axill. clustered capitate
 10744 Upper lvs. simple; rest ternate, Leaf. lin. lanc. mucro. Pedunc. axill. solitary
 10745 Leaves tern. lanc. cuneate with a recurved mucro. Pedunc. axill. aggregate
 10746 Leaves tern. obovate with a recurved mucro, Pedunc. axill. solitary
 10747 Leaves tern. stalked obl. mucro. Spikes terminal interrupted, Calyxes villous
 10748 Leaves tern. obovate emarg. Stem creeping, Flowers in umbels
 10749 Leaves tern. Leaf. ov.-lanc. Petioles downy smooth, Spikes capitate stalked axillary
 10750 Leaves tern. Leaf. ov.-lanc. acum. Petioles rough, Racemes axillary
 10751 Leaves ternate silky beneath, Pedunc. axillary about twice as long as leaves, Heads depressed involucred
 10752 Leaves tern. ovate, Petioles downy sulcate, Spikes capitate stalked axillary



and Miscellaneous Particulars.

mulcent, and may answer the purposes of the acacia gum; being even better adapted for allaying tickling cough, and sheathing the fauces in catarrhal affections, owing to its great viscosity. It is chiefly, however, employed for pharmaceutical purposes. (*Thomson's London Dispensary*, 187.) The seeds of *A. beticus* are roasted, ground, and used as a substitute for coffee in Hungary.

1595. *Biserrula*. From *bis*, twice, and *serrula*, a little saw. The pods are toothletted on each edge. Pelecinon was the name given by the Greeks to the plant called by the Latins *Securidaca*.

1596. *Dalea*. Named after Thomas Dale, an English botanist, who lived in the beginning of the last century. There was another Dale, an author of a Pharmacologia. These are pretty little plants, with the aspect of *Psoralea*.

1597. *Psoralea*. From *ψωραλεις*, warted, on account of the numerous little tubercles with which most of the species are covered. The species are chiefly low shrubs; some of them are ornamental, and all are of easy culture and propagation by young cuttings in sand or seeds, which they produce in abundance. *P. esculenta*, the bread-root of America, is cultivated in Missouri, and other parts of that country. In this climate it will

10753	americána <i>W.</i>	Madeira	▲	or	2	jl.au	Pu	Madeira	1640.	C	p.l	Jac.schœ.2.t.227
10754	capitata <i>W.</i>	headed	○	or	2	jl.au	Pu	C. G. H.	1793.	S	p.l	Bot mag. 665
10755	corylifolia <i>W.</i>	Hazel-leaved	○	or	2	jn.jl	Vi	India	1739.	C	p.l	Pursh.amer.t.22
10756	esculentá <i>Ph.</i>	Bread-root	▲	or	3	jn.jl	B	Missouri	1811.	C	p.l	
10757	cuspidata <i>Ph.</i>	large-rooted	▲	or	3	jn.jl	Pu	Louisiana	1811.	C	p.l	
10758	Lupinellus <i>Ph.</i>	small-flowered	▲	or	2	jn.jl	B	Carolina	1812.	C	p.l	
10759	melilotoides <i>Mich.</i>	Melilot-like	▲	or	3	au	Vi	Carolina	1814.	C	p.l	Bot. mag. 2063
10760	arborea <i>B. M.</i>	tree	▲	or	6	my	Pa.pu	C. G. H.	1814.	C	p.l	Bot. mag. 2090
10761	onobrychis <i>Nutt.</i>	rough-podded	▲	or	3	au	Pu	N. Amer.	1818.	C	p.l	Bot. reg. 453
10762	divaricata <i>W. en.</i>	divaricating	▲	or	3	au	Pu	S. Amer.	1820.	C	p.l	
10763	pubescens <i>W. en.</i>	downy	▲	or	2	au	B	Mexico	1825.	C	p.l	
1598.	MELILOTUS. <i>J.</i>	MELILOT.						<i>Leguminosæ.</i>	<i>Sp. 16—25.</i>			
10764	cærulea <i>P. S.</i>	blue	○	m	3	aus.	L.B	Germany	1562.	S	co	Bot. mag. 2283
10765	indica <i>P. S.</i>	Indian	○	un	2	jn.au	W	India	1680.	S	co	Plu.alm.t.45.f.14
10766	rugulosa <i>W. en.</i>	white-Indian	○	un	3	jn.au	W	India	1798.	S	co	
	<i>M. parviflora</i> <i>Desf.</i>											
10767	messanensis <i>P. S.</i>	Sicilian	○	un	3	jn.au	Y	Sicily	1680.	S	co	
10768	polonica <i>P. S.</i>	Polish	○	un	2	jn.au	L.Y	Poland	1778.	S	co	
10769	macrorrhiza <i>P. S.</i>	long-rooted	▲	un	3	jl.au	Y	Hungary	1801.	D	co	Pl.rar.hun.1.t.26
10770	dentata <i>P. S.</i>	toothed	▲	un	3	jn.au	Y	Hungary	1802.	D	co	Pl.rar.hun.1.t.46
10771	officinalis <i>W. en.</i>	common	▲	ec	1	jls	Y	Britain	buss. pl.	S	s.l	Eng. bot. 1340
10772	vulgâris <i>W. en.</i>	white-flowered	○	un	3	jls	W	Europe	...	S	co	
10773	Kochiana <i>W. en.</i>	smooth-podded	▲	un	3	jn.s	Y	Germany	1816.	S	co	
10774	Petitpierreana <i>W. en.</i>	rough-podded	▲	un	2	jn.s	W	Germany	1816.	S	co	
10775	italica <i>P. S.</i>	Italian	○	un	2	jn.au	Y	Italy	1596.	S	co	Camer.hort. t.29
10776	crætica <i>P. S.</i>	Cretan	○	un	1	jn.au	Y	Candia	1713.	S	co	Bau.prod.t.142
10777	ornithopodioides <i>P. S.</i>	Bird's-foot	○	un	1	jn.jl	R	Britain	bar.bea.	S	co	Eng. bot. 1047
10778	mauritanica <i>Schousb.</i>	Moorish	○	un	2	jn.jl	Y	Barbary	1798.	S	co	
	<i>M. sulcata</i> <i>P. S.</i>											
10779	hamosa <i>Link.</i>	hooked	○	un	1		Y	Tauria	1824.	S	co	Bux.ce.2.t.44.f.1
1599.	LUPINASTER. <i>Ph.</i>	BASTARD-LUPINE.						<i>Leguminosæ.</i>	<i>Sp. 1.</i>			
10780	pentaphyllus <i>Ph.</i>	five-leaved	▲	el	1½	jl.au	Pu	Siberia	1741.	D	co	Bot. mag. 879
1600.	TRIFOLIUM. <i>J.</i>	TREFOIL.						<i>Leguminosæ.</i>	<i>Sp. 60—140.</i>			
10781	reflexum <i>W.</i>	reflexed	▲	pr	1	jn.au	Pu	Virginia	1794.	D	s.l	
10782	angulatum <i>W.</i>	angular	○	pr	1½	jn.au	R	Hungary	1803.	S	s.l	Pl.rar.hu.1.t.27
10783	strictum <i>W.</i>	upright	○	pr	1	jl.au	W	S. Europe	1805.	S	s.l	Pl.rar.hu.1.t.37
10784	hybridum <i>W.</i>	mule	▲	pr	2	jl.au	Pu	Europe	1777.	D	s.l	Mic.ge.t.25.f.2.6
10785	Micheliânum <i>P. S.</i>	Italian	○	pr	2	jl.au	Pu	Italy	1815.	S	s.l	Mi.n.g.pl.t.25.f.2
10786	caespitosum <i>W.</i>	turfy	▲	pr	1½	ju.au	Pu	Switzerl.	1815.	D	s.l	Vill.delph.3.t.41
10787	repens <i>W.</i>	white Clover	▲	ag	1½	my.s	W	Britain	mea.	D	co	Eng. bot. 1769
10788	comosum <i>W.</i>	tufted	▲	pr	1½	jn.jl	Pu	America	1798.	D	s.l	
10789	alpinum <i>W.</i>	Alpine	▲	pr	1½	jn.au	Pu	Italy	1775.	D	co	Pon. bald. t. 340
10790	pallescens <i>P. S.</i>	pale	▲	pr	1	jn.au	Pu	Carinthia	1804.	D	s.l	
10791	subterrâneum <i>W.</i>	subterraneous	▲	pr	1	my	W	England	bar. he.	S	s.l	Eng. bot. 1048
10792	globosum <i>W.</i>	globular	○	pr	1	jn.au	Pu	Levant	1713.	S	s.l	
10793	Cherléri <i>W.</i>	hairy	○	pr	1	my.jn	Pu	Montpel.	1750.	S	s.l	Barr. ic. 859
10794	pictum <i>W.</i>	painted	○	or	1	jl.au	Pu	.....	1800.	S	s.l	
10795	lappaceum <i>W.</i>	burr	○	or	1	jn.au	Pu	Montpel.	1787.	S	s.l	
10796	diffusum <i>W.</i>	diffuse	▲	or	1	jl.au	Pu	Hungary	1801.	S	s.l	Pl.rar. hu. 1.t.50



History, Use, Propagation, Culture,

grow in the open air, but requires the protection of a frame to produce abundant crops of roots, which are used like those of the potatoe in the countries where it is a native. (*Pursh. Amer. t. 22.*)

1598. *Melilotus*. From *Mel*, honey, and *Lotus*. These plants are similar to the *Lotus*, and are the favorite resort of bees. *M. officinalis* is the chief ingredient in flavoring the Gruyère cheese. This cheese no doubt owes its chief excellence to the mixture of herbs in the mountain pasturage which surrounds the valley of Gruyère, but partly also to the flowers and seeds of this plant, which are bruised and mixed with the curd before it is pressed.

1599. *Lupinaster*. That is to say, *Lupine-like*. A pretty little herbaceous plant, with bright flowers.

1600. *Trifolium*. A plant with three leaves; the *τριφυλλον*, of the Greeks, *trèfle*, of the French, and *trefoil*, of the English. This genus includes the two most valuable herbage plants adopted in European agriculture, the white and red clover. Notwithstanding all that has been said of the superiority of lucern to clover, and of the excellence of saint-foin, and various *Leguminosæ* of the pea kind, yet the red clover for mowing, and the white species for pasturage, are, and probably ever will be, found to excel all other plants in these respects. The yellow clover, *T. procumbens*, and the cow or meadow clover, *T. medium*, are also in cultivation, but are far inferior to the others. The meadow clover is a useful addition to the white sort in laying down permanent pastures; the yellow grows on poor soils, but the herbage is not much liked by cattle. The soil best adapted for clover is a deep sandy loam, which is favorable to its long tap-roots: but it will grow in any soil, provided it be dry. So congenial is calcareous matter to clovers, that the mere strewing of lime on

- 10753 Leaves tern. roundish ovate repand at end, Spikes interrupted axillary
 10754 Leaves tern. and simple linear, Head terminal
 10755 Leaves simple ovate somewhat toothed, Spikes ovate
 10756 Leaves digitate quinate lanc. unequal flat entire villous, Spikes axillary dense
 10757 Leaves digitate quinate obovate mucro. entire, Spikes axillary dense
 10758 Leaves digitate quinate very narrow, Spike few-flowered, Pods ovoid
 10759 Leaves 3 lanc. Spikes obl. Bractes with long points, Pods round rugose
 10760 Leaves pinnate of 5 pairs, Leaflets linear lanceolate, Pedunc. axillary 1-fl. longer than leaf
 10761 Leaves ternate, Leaflets ovate-lanceolate somewhat downy, Racemes 1-sided on long stalks
 10762 Leaves ternate lanc. smooth, Spikes interrupted stalked axill. longer than leaf
 10763 Leaves tern. ovate-obl. downy, Spikes interrupted stalked axill. shorter than leaf

- 10764 Racemes obl. stalked, Stipules lanc. membranous
 10765 Pods racemose naked smooth mucronate 1-seeded
 10766 Pods racemose about 4-seeded oblong rugose, Leaflets ellipt. toothed

- 10767 Pods 1-seeded ovate acute naked rugose, Racemes shorter than leaf
 10768 Pods racemose naked 2-seeded lanceolate
 10769 Pods racemose naked rugose 1-seeded, Stems and branches ascending, Leaf. linear
 10770 Pods racemose naked 2-seeded somewhat rugose acute, Stipules toothed at base
 10771 Pods racemose naked 2-seeded rugose acute, Stipules lanc. subulate undivided
 10772 Pods racemose naked 1-seeded rugose obovate acute, Stipules setaceous
 10773 Pods racemose naked 2-seeded smoothish ovate acute compressed, Stipules toothed
 10774 Pods racemose naked 1-seeded rugose obovate, Stipules setaceous
 10775 Pods racemose naked 2-seeded rugose blunt, Leaflets entire
 10776 Pods racemose naked 2-seeded membranous oval, Stem nearly erect
 10777 Pods naked 8-seeded about 3 times as long as calyx, Stems declinate
 10778 Pods 1-seeded obovate blunt naked rugose, Racemes longer than leaf, Stems diffuse

- 10779 Pods racemose naked compressed 1-seeded nerved hooked, Stipules subulate

- 10780 Heads halved, Leaves quinate sessile

- 10781 Heads in fruit reflexed, Pods 3-seeded
 10782 Heads umbelled: in fruit reflexed, Pods 4-seeded, Stem angular with furrows flexuose
 10783 Heads globose, Pods 2-seeded, Cal. the length of corolla, Leaf. serrulate, Stipules rhomboid
 10784 Heads umbelled, Pods 4-seeded, Teeth of cal. nearly equal, Leaf. ovate-obl. emarg. serrulate
 10785 Heads umbelled stalked, Teeth of cal. subulate equal, Leaf. orbicord. serrate
 10786 Heads umbelled, Pods 4-seeded, Teeth of calyx equal, Leaf. obovate blunt serrated
 10787 Heads umbelled, Pods 4-seeded, Teeth of calyx nearly equal, Leaf. ovate obl. emarg. serrulate
 10788 Heads in globose umbels imbricated, Standards deflexed persistent, Pods 4-seeded
 10789 Heads umbelled, Scape naked, Pods 2-seeded pendulous, Leaves linear lanc.
 10790 Heads umbelled, Pods 2-seeded, Teeth of cal. unequal, Leaf. obovate blunt toothed
 10791 Heads villous 5-flowered, Central tuft reflexed rigid wrapping up the fruit
 10792 Heads villous globose, Upper calyxes without florets
 10793 Heads villous globose terminal solitary, Teeth of calyx setaceous longer than corolla
 10794 Heads villous globose terminal solitary, Teeth of calyx setaceous shorter than corolla
 10795 Heads subglobose hispid, Teeth of calyx subulate as long as cor. Leaf. obovate retuse
 10796 Spikes roundish ovate villous, Teeth of calyx unequal setaceous as long as corolla



and Miscellaneous Particulars.

some soils will call into action clover-seeds, which it would appear have lain dormant for ages. At least this appears the most obvious way of accounting for the well-known appearance of white clover in such cases.

The climate most suitable for the clovers, as of most plants natives of Europe, is one neither very hot nor very dry and cold. Most leguminous plants delight both in a dry soil and climate, and warm temperature; and the clover will be found to produce most seed under such circumstances; but as the production of seed is only in some situations an object of the farmer's attention, a season rather moist, provided it be warm, is always attended by the most bulky crops of clover herbage.

The time of sowing seeds is generally the spring, during the corn-seed time, or from February to May; but they may also be sown from August to October; and when they are sown by themselves, that is, unaccompanied by any corn crop, this will be found the best season, as the young plants are less liable to be dried up and impeded in their progress by the sun, than when sown alone in spring, and remaining tender and unshaded during the hot and dry weather of July.

The manner of sowing is almost always broad-cast. When sown with spring corn, clover and grass-seeds are usually put in immediately after the land has been pulverized by harrowing in the corn-seed, and are themselves covered by one course more of the harrows; or, if the corn is drilled, the small seeds are sown immediately before or after hand-hoeing; and the land is then finished by a course of the harrows.

In the operation of sowing, some consider it best to sow the clover and rye-grass separately, alleging that that the weight of the one seed and lightness of the other, are unfavorable to an equal distribution of both.

10797	nóricum Pers.	alpine	✱	○	pr	1	jl.au	W	Al. of Eur.	1821.	S	s.1	
10798	hispídum Desf.	hispid		○	pr	1	jl.au	Pu	Barbary	1817.	S	s.1	Desf.atl.t.209.f.1
10799	malacánthum Link.	soft-flowered		○	pr	1	jl.au	Pa	.....	1824.	S	s.1	
10800	saxátile W.	rock	✱	○	pr	2	my.jl	Pu	Switzerl.	1816.	S	s.1	All. ped. t. 59. f.3
10801	rúbens W.	long-spiked	✱	○	pr	2	jn.s	D.R	S. Europe	1633.	D	co	Jac. aust. 4. t.385
10802	praténsé W.	common Clover	✱	△	ag	2	my.s	Pu	Britain	me.pa.	D	h.1	Eng. bot. 1770
10803	pensylvánicum W.en.	Buffalo Clover	✱	△	pr	1 1/2	jn.s	R	N. Amer.	1811.	D	l.p	
10804	médium W.	Cow-grass	✱	△	ag	2	jn.jl	Pu	England	dr.pa.	D	h.1	Eng. bot. 190
10805	alpéstre W.	oval-spiked	✱	△	pr	1	jl	D.P	Europe	1789.	S	co	Jac. aust.5. t.433
10806	bractéatum W. en.	large-bracted	✱	△	pr	1	jn.jl	Pu	Morocco	1804.	S	s.1	
10807	pannónicum W.	Hungarian	✱	△	pr	1	jn.jl	W.y	Hungary	1752.	S	co	Jac. obs. 2. t. 42
10808	cancéscens W.	gray	✱	△	pr	1	my.jn	W.y	Caucasus	1803.	S	co	Eng. bot. 1168
10809	maritimum W.	teasel-headed	✱	△	pr	1	jn.jl	Pa.pu	Britain	sal.m.	S	s.1	Eng. bot. 920
10810	squarrósum W.	various-leaved	✱	○	pr	1	jl	Pa.pu	Spain	1640.	S	s.1	Mor. hi.2. t.13. f.1
10811	incarnátum W.	flesh-colored	✱	○	pr	1	jl	F	Italy	1596.	S	co	Bot. mag. 328
10812	pállidum W.	pale-flowered	✱	○	pr	1	jn.jl	W	Hungary	1803.	S	s.1	Pl.rar. hu. 1. t.35
10813	ochroleúcum W.	sulphur-colored	✱	△	pr	1	my.jl	Sul	England	dr.pa.	D	s.1	Eng. bot. 1224
10814	angustifólium W.	narrow-leaved	✱	○	pr	1 1/2	jn.au	Pu	S. Europe	1640.	S	s.1	Barr. ic. t. 698
10815	lasiocéphalum Link.	woolly-leaved	✱	○	pr	1 1/2	jn.au	Pu	C. G. H.	1823.	S	co	
10816	arvénsé W.	Hare's-foot	✱	○	w	1	jl.au	F	Britain	san.fi.	S	s.1	Eng. bot. 944
10817	stellátum W.	starry	✱	○	pr	1	jl	Pu	England	so.co.	S	s.1	Eng. bot. 1546
10818	clypeátum W.	oriental	✱	○	pr	1	jn.au	W.y	Levant	1711.	S	s.1	Alp. exot. t. 306
10819	álibidum W.	white	✱	○	pr	1 1/2	jl.au	W	.....	1796.	S	s.1	
10820	scábrum W.	rough	✱	○	pr	2	my.jn	W	Britain	san.fi.	S	s.1	Eng. bot. 903
10821	glomerátum W.	round-headed	✱	○	pr	1	jn	Pk	England	gra.pa.	S	s.1	Eng. bot. 1063
10822	striátum W.	soft-knotted	✱	○	w	1	jn	Pu	Britain	bar.gr.	S	s.1	Eng. bot. 1843
10823	alexandrinum W.	Egyptian	✱	○	pr	1	jn.jl	Pa. Y	Egypt	1798.	S	s.1	
10824	suffocátum W.	sufocated	✱	○	w	1 1/2	jn.jl	W	England	sea.sh.	S	s.1	Eng. bot. 1049
10825	involutárum W.	involverated	✱	○	pr	1	ju.jl	Pa.pu	Morocco	1802.	S	co	
10826	spumósum W.	bladdered	✱	○	un	1 1/2	jn.jl	R	France	1771.	S	s.1	
10827	resupinátum W.	resupinate	✱	○	un	1 1/2	jn.jl	Pu	Germany	1713.	S	s.1	Barr. ic. t. 872
10828	recurvum P. S.	recurved	✱	○	or	3	jn.il	W	Hungary	1805.	S	s.1	Pl.rar. hu.2. t.165
10829	tomentósum W.	woolly	✱	○	pr	1 1/2	jn.jl	Pu	S. Europe	1640.	S	s.1	Mag. mon.s.t.264
10830	fragiferum W.	Strawb.-headed	✱	○	pr	1	jl.au	F	England	moi.p.	D	s.1	Eng. bot. 1050
10831	montánum W.	mountain	✱	○	pr	1	jl.au	W	Europe	1786.	D	co	Flor. dan. t. 1172
10832	bádium P. S.	villous-stalked	✱	○	pr	1 1/2	jn.au	Y	Pyrenees	...	D	s.1	Barr. ic. 1024
10833	spadicéum W.	bay-colored	✱	○	pr	1 1/2	jn.au	Br	Europe	1778.	D	s.1	Bot. mag. 557
10834	speciósum W.	large-flowered	✱	○	el	1	jn.jl	Pu	Candia	1752.	D	s.1	
10835	agrárium W.	golden	✱	○	pr	1 1/2	jn.jl	Y	Europe	1815.	D	s.1	Flor. dan. t. 558
10836	procumbens H. K.	Hop	✱	○	ag	1	jn.jl	Y	Britain	dr.pa.	S	s.1	Eng. bot. 945
10837	minus H. K.	lesser-yellow	✱	○	w	1 1/2	jn.jl	Y	Britain	gra.gr.	S	s.1	Eng. bot. 1256
10838	filiforme W.	slender-yellow	✱	○	w	1 1/2	my.jl	Y	Britain	gra.pa.	S	co	Eng. bot. 1257
10839	phleóides W.	Cats'-tail-head	✱	○	un	1	my.jl	W.y	Spain	1818.	S	co	
10840	strictum L.	upright	✱	○	pr	1	my.jl	W	Spain	1805.	S	co	Mic. gen. t.25.f.7

1601.	LO'TUS. W.	BIRD'S-FOOT TREPAIL.							Leguminosæ.	Sp. 24-60.			
10841	édulis W.	esulent	✱	○	clt	1	jl.au	Y	Italy	1710.	S	s.1	Cav. ic. 2. t. 157
10842	peregrínus W.	flat-podded	✱	○	pr	1	jl.au	Y	S. Europe	1713.	S	s.1	



History, Use, Propagation, Culture,

The quantity of seed varies from eight to fourteen pounds per acre, according to the intention of the crop, the quantity of grass-seeds sown, &c. The after culture of clover and rye-grass consists chiefly of picking off any stones or rather hard bodies which may appear on the surface in the spring succeeding that in which it was sown, and cutting out by the roots any thistles, docks, or other large grown weeds. After this, the surface should be rolled once to smooth it for the scythe. This operation is best performed in the first dry weather of March. Some give a top-dressing of soot, gypsum, common lime, peat, or wood-ashes, at this time or earlier; gypsum has been particularly recommended as a top-dressing for clovers and the other herbage legumes, because as their ashes afford that substance in considerable quantities, it appears to be a necessary ingredient of their food.

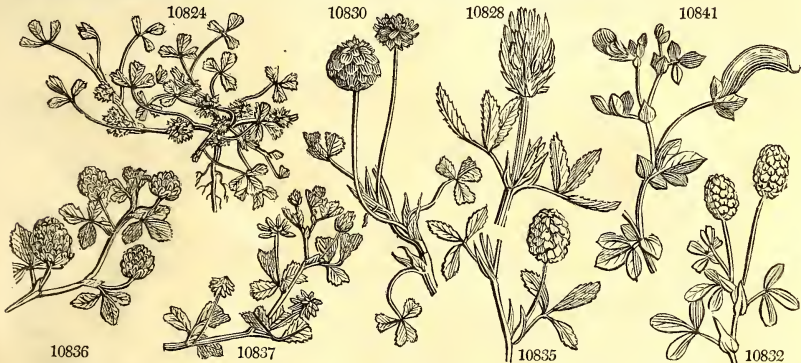
The taking of the clover, or clover and rye-glass crop, is either by cutting green for soiling, by making into hay, or by pasturing. It is observed in *The Code of Agriculture*, that it is a most important point to ascertain, in what cases cutting or feeding is most beneficial. If fed, the land has the advantage of the dung and urine of the pasturing stock; but the dung being drop in irregular quantities, and in the heat of summer, when it is devoured by insects, loses much of its utility. If the dung arising from the herbage, whether consumed in soiling, or as hay, were applied to the land in one body and at the proper season, the operation would be more effectual. The smother of a thick crop, continued for any time upon the ground, greatly tends to promote its fertility; and it has been pretty uniformly found, after repeated trials, upon soils of almost every description, that oats taken after clover that has been cut, either for soiling or hay, is superior to the crop taken after clover pastured by sheep.

The produce of clover-hay, without any mixture of rye-grass, on the best soils, is from two to three tons per acre, and in this state in the London market it generally sells twenty per cent. higher than meadow-hay, or

- 10797 Spikes term. globose hairy subsessile, Leaf. oval entire and stem densely villous
 10798 Heads villous globose term. solitary, Teeth of calyx setaceous shorter than cor. Leaf. obovate entire
 10799 Stem flexuose hairy, Leaf. obcord. hairy, Cal. camp. lined
 10800 Leaves obovate hirsute, Heads lateral and terminal minute, Stem erect
 10801 Spikes cylind. obl. Teeth of cal. villous; lower as long as monopetalous unequal cor.
 10802 Spikes dense ovate, Stipules awned, Leaf. oval nearly entire
 10803 Leaf. ovate ellipt. blunt entire, Stipules awned, Spikes ovate cylind. solitary dense
 10804 Spikes lax subglobose sol. Stipules subulate, Leaf. ellipt. finely serrulate, Stems branched flexuose
 10805 Spikes dense subglobose twin, Stipules setaceous, Leaf. lanc. finely serrulate, Stems quite simple
 10806 Spikes ovate conical dense sol. sessile, Corolla monopetalous, Leaf. ovate blunt
 10807 Spikes dense obl. ellipt. solitary, Leaf. obl. lanc. entire emarg. vill. Stem simple straight
 10808 Spikes ovate lax sol. Leaf. obovate emarg. villous, Stem simple ascending
 10809 Spikes subglobose dense, Leaf. obovate lanc. serrulate at end hairy
 10810 Spikes obl. somewhat hairy, Lower tooth of cal. very long reflexed, Stem herbaceous erect
 10811 Spikes obl. villous blunt leafless, Leaf. roundish obcordate ovate crenate villous
 10812 Spikes obl. roundish, Stems membranous, Leaf. roundish, Edge of corolla bearded inside
 10813 Spikes villous elliptical, Stem erect branched downy, Leaf. obl.: lower obcordate
 10814 Spikes vill. conical obl. Teeth of cal. setaceous nearly equal, Leaf. linear
 10815 Stem erect hairy, Leaf. linear, Calyx hairy with lanc. subulate spreading teeth
 10816 Heads very hairy subcylindrical, Cal. teeth setaceous longer than the cor. Leaf. narrow obovate
 10817 Spikes hairy ovate, Calyxes much spreading, Stem diffuse, Leaf. obcordate
 10818 Spikes ovate, Calyxes spreading: lower tooth very large lanc. Leaf. obovate
 10819 Spikes subglobose stalked, Cal. spreading: lower tooth subulate linear, Leaf. oblong
 10820 Heads term. and axill. sess. ov. Cal. teeth unequal narr. lanc. rigid at length recurved, Leaf. obcor. serru.
 10821 Heads round axill. sessile, Teeth of cal. equal subulate spreading rigid, Leaf. obovate serrulate
 10822 Heads term. and axill. ov. subsol. sess. Cal. striat. hairy with unequal straight teeth. Leaf. obcor. nearly
 10823 Heads obl. stalked, Cal. vill.: teeth subul. unequal, Upper lvs. opp. Leaf. ellipt. toothletted [entire pubesc.
 10824 Heads sessile lateral roundish smoothish, Teeth of cal. lanc. acute recurved longer than cor.
 10825 Heads orbicular stalked in a round toothed involucre, Stipules awned
 10826 Heads ovate, Cal. in fruit ovate verticose smooth, Comm. involucre membranous 5-leaved
 10827 Heads roundish, Cor. resupinate, Cal. of fruit inflated membranous downy, Leaf. obovate acute
 10828 Heads ov. obl. Cal. of fruit inflated naked, Branches recurved, Leaf. setaceous serrulate
 10829 Heads round, Cal. of fruit inflated membranous downy, Teeth obliterated [creep. Leaf. obcord. serrated
 10830 Heads upon long stalks round. Cal. after flow. inflat. membran. pubesc.: two of teeth setaceous reflex. Stems
 10831 Spikes about 3 somewhat imbricated, Standard subulate withering, Cal. naked
 10832 Spikes round imbr. Standard deflexed persistent, Leaf. obcord. serrate, Stem hirsute
 10833 Spikes oval imbr. Vexillum deflexed persistent, Leaf. obovate: intermediate sessile
 10834 Spikes oval with reflexed flowers, Standard roundish flat toothletted persistent, Stem flexuose
 10835 Spikes oval imbr. Standard deflexed persistent, Teeth of cal. subulate unequal smooth
 10836 Spikes oval imbr. Standard deflexed persistent, Teeth of cal. subulate unequal smooth
 10837 Spikes capit. hemispherical, Pedunc. straight, Standards smoothish, Stems procumbent, Leaf. obovate [upwards
 10838 Heads lax of few-fl. Pedunc. capillary flexuose, Standards smooth, Stems procumb. Leaf. subsessile
 10839 Heads obl. Cal. teeth subulate unequal rigid spreading, Leaf. obl. nearly entire emarg.
 10840 Heads ellipt. Pods 2-seeded, Cal. length of cor. Leaf. lanc. blunt serrulate

10841 Pods subsolitary gibbous incurved

10842 Pods subnate compressed lin. cernuous, Leaf. obovate hairy, Stem procumbent



and Miscellaneous Particulars.

clover and rye-grass mixed. The weight of hay from clover and rye-grass varies according to the soil and the season, from one to three tons per English acre, as it is taken from the tramp-ricks; but after being stacked, and kept till spring, the weight is found to be diminished twenty-five or thirty per cent.

The value of clover and rye-grass hay, in comparison with the straw of beans or pease, may be in the proportion of three to two; and with the finest straw of corn crops, in the proportion of two to one. One acre of red or broad clover will go as far in feeding horses or black cattle, as three or four of natural grass. And when it is cut occasionally, and given to them fresh, it will probably go still much farther, as no part of it is lost by being trod down.

The saving of clover seed is attended by considerable labor and difficulty. Clover will not perfect its seeds, if saved for that purpose early in the year; therefore it is necessary to take off the first growth either by feeding or with the scythe, and to depend for the seed on those heads that are produced in the autumn.

The produce in seed may generally be from three to four or five bushels per acre, when perfectly clean, weighing from two to three hundred weight. But there is great uncertainty in the produce of clover-seed, from the lateness of the season at which it becomes ripe; and the fertility of the soil is considerably impaired by such a crop. Yet the high value of the seed is a great inducement to the saving of it, in favorable situations.

T. incarnatum is sometimes sown as a border flower.

1601. *Lotus. Lotus*, in Greek. There were three sorts of *Lotus* distinguished by the ancients; viz. their tree *lotus*, which was our *Zizyphus lotus*; the *marsh lotus*, which was our *Nymphæa lotus*; and the *herbaceous lotus*, which appears to have been the present genus.

The pods of *L. edulis* are still eaten in Candia, by the poorer inhabitants. *Lotus rectus* has by some been

10843	gláucus <i>W.</i>	glaucous	☉	pr	1	jn.au	Y	Madeira	1777.	C	s.l		
10844	anthylloides <i>V.</i>	Anthyllis-like	☉	pr	1	jn.au	Y	C. G. H.	1812.	S	s.l	Vent. malm. t. 92	
10845	angustissimus <i>W.</i>	narrow-podded	☉	pr	1	jl.au	Y	France	1683.	S	s.l	Bauh. hist. 2. f. 2	
10846	gráculis <i>W. & K.</i>	slender	☉	pr	1	jl.au	Y	Hungary					
10847	diffúsus <i>W.</i>	slender-podded	✱	pr	1½	my.jn	Y	England	rocks.	S	s.l	Eng. bot. 925	
10848	coimbrénsis <i>W.</i>	Portugal	☉	pr	½	jn.jl	Y	Portugal	1800.	S	s.l		
10849	arábicus <i>W.</i>	red-flowered	✱	pr	½	jl.s	Pk	Arabia	1773.	S	s.l	Jac. vind. 2.t.155	
10850	austrális <i>H. K.</i>	New Holland	☉	el	2	my.s	Pk	N. S. W.	1803.	S	s.p	Bot. mag. 1365	
10851	Dioscoridis <i>W.</i>	Dioscorides's	☉	pr	1	jn.jl	Y	Crete	1658.	S	s.l	Al.ped. 1.t.59.f.1	
10852	ornithopodioides <i>W.</i>	claw-podded	✱	pr	or	2	jn.au	Y	Sicily	1683.	S	s.l	Cav. ic. 2. t. 163
10853	jacobæus <i>W.</i>	dark-flowered	✱	pr	or	2	ja.d	D.Br	C.Verd. Is. 1714.	C	r.m	Bot. mag. 79	
	β <i>lateus</i>	yellow-flowered											
10854	créticus <i>W.</i>	silver-leaved	☉	pr	1½	jn.s	Y	Levant	1680.	C	p.l	Cav. ic. 2. t. 156	
10855	ténuis <i>W. & K.</i>	slender	✱	pr	1	jn.au	Y	Hungary	1816.	D	p.l	Waldst. & Kit. t.	
10856	hirsútus <i>W.</i>	hairy	☉	pr	2	jn.au	W	S. Europe	1683.	C	p.l	Bot. mag. 336	
10857	réctus <i>W.</i>	upright	☉	pr	3	jn.au	F	S. Europe	1640.	D	co	Mor. s.2.t.18.f.13	
10858	odorátus <i>H. K.</i>	sweet-scented	☉	pr	1½	jn.au	Y	Barbary	1804.	D	s.l	Bot. mag. 1233	
10859	pedunculátus <i>W.</i>	long-peduncled	☉	pr	1	jn.au	Y	Spain	1814.	D	s.l	Cav. ic. 2. t. 164	
10860	majóur <i>E. B.</i>	greater	☉	ag	1½	jn.au	Y	Britain	w.sh.g.	D	s.l	Eng. bot. 2091	
10861	corniculátus <i>E. B.</i>	common	☉	ag	1½	jn.au	Y	Britain	pas.	D	co	Bot. 2090	
10862	cytoides <i>W.</i>	downy	☉	pr	1	jl.au	Y	S. Europe	1752.	D	co	Al.ped. 1.t.20.f.1	
10863	parviflorus <i>Desf.</i>	small-flowered	☉	pr	1	jl.au	Y	Barbary	1810.	S	co	Desf. atl. t. 211	
10864	Gebélia <i>Vent.</i>	Aleppe	☉	ed	1	my.jn	Pk	Aleppe	...	D	co	Vent. cels. t. 57	

1602.	TETRAGONOLOBUS. <i>Roth.</i>	TETRAGONOLOBUS. <i>Leguminosæ. Sp. 4.</i>										
10865	marítimus <i>Roth.</i>	sea	✱	or	1	my.o	Y	Europe	1683.	D	co	Fl. dan. 800
10866	siliquosus <i>Roth.</i>	square-podded	✱	or	½	jl.au	Y	S. Europe	1683.	D	co	Jac. aust. 4.t.361
10867	edulis <i>Link.</i>	Winged-Pea	☉	cit	1	jl.au	D.R	Sicily	1796.	S	co	Bot. mag. 151
	<i>Lotus tetragonolobus W.</i>											
10868	conjugátus <i>Link.</i>	twin-podded	✱	or	1	jl.au	Y	Montpel.	1754.	S	s.l	

1603.	TRIGONEL/LA. <i>W.</i>	FENUGREEK. <i>Leguminosæ. Sp. 19—32.</i>										
10869	ruthénica <i>W.</i>	small	☉	un	1½	jn.jl	Y	Siberia	1741.	S	p.l	Gmel. sib. 4. t. 8
10870	platycárus <i>W.</i>	round-leaved	☉	un	1	jn.s	W	Siberia	1741.	S	co	Gmel. sib. 4. t. 9
10871	hýbrida <i>P. S.</i>	hybrid	☉	un	1	jn.s	W.Y	France	1806.	S	s.l	
10872	polycérata <i>W.</i>	broad-leaved	☉	un	1	jl.s	Y	S. Europe	1640.	S	s.l	
10873	hamósa <i>W.</i>	Egyptian	✱	un	¾	jl.au	Y	Egypt	1640.	S	s.l	Alp. egypt. t.124
10874	spinósa <i>W.</i>	thorny	☉	un	¾	jl.au	Y	Candia	1710.	S	s.l	Lam. ill. t. 611. f. 2
10875	corniculáta <i>W.</i>	horse-shoe	☉	ft	½	jn.jl	Y	S. Europe	1597.	S	s.l	Mor. s.2.t.16.f.11
10876	monspehiaca <i>W.</i>	Montpelier	☉	un	1	jn.jl	Y	Montpel.	1710.	S	s.l	Fl. rar. hu. 2. t. 142
10877	pinnatifida <i>W.</i>	cut-leaved	☉	un	un	un	Y	Spain	1801.	S	co	Cav. ic. 1. t. 38
10878	Fenugræcum <i>W.</i>	common	☉	ec	2	jn.au	Y	Montpel.	1597.	S	co	Sch. s. ha. 2. t. 211
10879	esulentá <i>W. en.</i>	esulent	☉	clt	1½	jn.au	Y	E. Indies	1815.	S	s.l	
10880	índica <i>W.</i>	Indian	☉	un	1	jn.au	Y	E. Indies	1793.	S	s.l	Flu. alm. t. 200. f. 7
10881	striáta <i>L.</i>	striated	☉	un	1	jn.au	Y	Abyssinia	1800.	S	co	
10882	canelláta <i>Desf.</i>	canellate	☉	un	¾	jn.jl	Y	.....	1823.	S	co	
10883	ténuis <i>Bieb.</i>	slender	☉	un	¾	jn.jl	Y	Tifis	1824.	S	co	
10884	flexuosa <i>Bieb.</i>	flexuose	☉	un	¾	jn.jl	Y	Tifis	1820.	S	co	
10885	calliceras <i>Bieb.</i>	neat-podded	☉	un	¾	jn.jl	Y	Tifis	1823.	S	co	
10886	longáta <i>Link.</i>	long	☉	un	¾	jn.jl	Y	.....	1823.	S	co	
10887	gladiáta <i>Bieb.</i>	sword-podded	☉	un	¾	ap.my	W	Tauria	1825.	S	co	
	<i>T. prostrata Dec.</i>											

1604.	DORYCNIMUM. <i>W.</i>	DORYCNIMUM. <i>Leguminosæ. Sp. 2—3.</i>										
10888	monspehiense <i>W.</i>	shrubby	☉	or	3	jl.s	W	S. Europe	1640.	S	p.l	Par. thea. 360. f.
10889	herbæcum <i>W.</i>	herbaceous	☉	or	2	jn.s	W	S. Europe	1802.	S	co	Vil. dauph. 3. t. 4



History, Use, Propagation, Culture,

supposed the Cytisus of Virgil, but, as other contend, without sufficient foundation. *Lotus jacobæus* is a valuable greenhouse plant, as flowering all the year. *L.* major and *corniculatus* are very suitable to sow with white clover and cow-grass, in laying down lands to permanent pasture. Dr. Henderson has written a good deal in their favor; Miller is against them; but Sinclair, in his work on the British Grasses, found it a valuable ingredient in meadows, especially where the soil was rather moist. (See *Ency. of Agr.* p. iii. b. 6.) *Gebelia* is the Arabic name (*Gébéiie*) of the species to which it has been applied.

1602. *Tetragonolobus*. From *τετρας*, four, *γωνία*, an angle, and *λοβος*, a bean, in allusion to the four wings of the pods. *Tetragonolobus edulis* is now a popular border annual, on account of its curious pods; but it was formerly an esculent legume, these pods being used like those of the kidney bean, by the poor of Sicily and Spain.

1603. *Trigonella*. From *τρις*, three, and *γωνία*, an angle. The standard of the flower is flat, and the keel very small and narrow, which gives the flower a triangular appearance. *T. fenum-græcum*, a plant cultivated by the Romans, is still occasionally employed in the agriculture of the south of Europe. The seeds have a strong

10843 Pods subbinate cylindr. smooth, Leaf. subcuneif. fleshy hoary, Stip. leaf-shaped
 10844 Heads few-fl., Leaf. and bractes 3-leaved subspatulate
 10845 Pods subbinate lin. straight erect, Stem erect, Pedun. alternate
 10846 Pods subternate round subulate straight, Cal. cil. Leaf. obl. Stem erect
 10847 Pedunc. about 1-fl. Stem much branched decumb. Pods round straight very slender
 10848 Pedunc. about 1-fl. Stem branched procumb. Leaf. obovate smooth, Pods lin. compressed
 10849 Pods cylindr. awned, Pedunc. 3-fl. Bractes 1-leaved
 10850 Heads few-fl. with bractes, Leaf. and stipules obovate cuneate equal, Pods cylindr. smooth
 10851 Pods round torulose, Pedunc. 3-fl. Bractes 3-leaved
 10852 Pods usually in threes arcuate compressed, Stems diffuse
 10853 Pods usually in threes, Stem herbaceous erect, Leaf. linear

10854 Pods usually in threes, Stem half-shrubby, Leaves silky shining
 10855 Pods about 4 rounded awned, Stem branched, Leaf. lin. lanc. smooth
 10856 Heads roundish, Stem erect hairy, Pods ovate
 10857 Heads roundish, Stem erect smooth, Pods straight smooth
 10858 Hairy, Heads halved, Bractes 1-leaved, Pods straight torulose mucronate
 10859 Heads depressed on long stalks, Leaf. obl. lanc. acuminate, Stipules ovate
 10860 Heads depressed many-fl. Pods spreading cylindr. Claws of carina linear
 10861 Heads depressed, Stems decumb. Legumes cylindr. spreading
 10862 Heads halved, Stem diffuse much branched, Leaves downy
 10863 Heads halved, Pods obl. compressed, Cal. as long as cor. Bractes 1-leaved
 10864 Pods straight cylindr. mucronate, Stems decumb. smooth, Pedunc. few-fl.

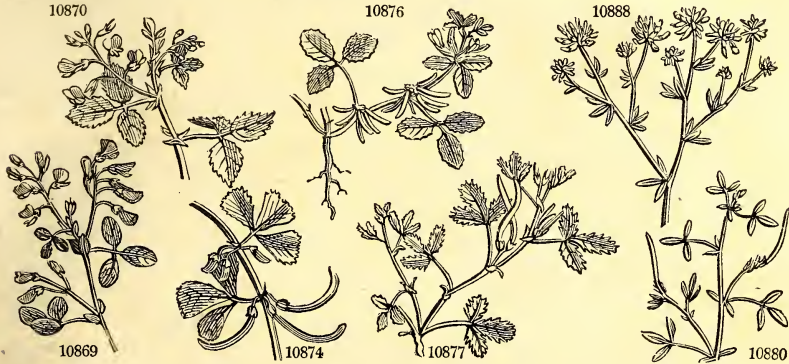
10865 Pods solitary, Leaves smooth, Bractes lanceolate
 10866 Pods solitary, Leaves procumb. Leaves downy beneath
 10867 Pods solitary, Bractes ovate, Intermediate leaflets somewhat toothed

10868 Pods in pairs, Bractes oblong ovate

10869 Pods stalked heaped obl. lin. straight, Leaf. obl. truncate mucronate
 10870 Pods stalked heaped pendulous oval compressed, Leaflets roundish
 10871 Pods stalked compressed ovate veiny, Leaf. cuneiform nearly entire smooth
 10872 Pods subsessile heaped erect straightish long linear, Pedunc. not awned
 10873 Pods stalked racemose hooked round, Pedunc. spiny longer than leaflet
 10874 Pods stalked heaped declinate subfalcate compressed, Pedunc. spiny very short
 10875 Pods stalked heaped declinate subfalcate, Pedunc. long somewhat spiny
 10876 Pods sessile heaped arcuate divaricating inclined short, Pedunc. mucronate unarmed
 10877 Pods sessile about 3 linear nearly erect, Leaves truncate cuneate pinnatifid toothed
 10878 Pods sessile straight nearly erect a little falcate acuminate
 10879 Racemes stalked, Common pedunc. longer than leaf, Pods linear falcate heaped pendulous
 10880 Pods sessile subsolitary subfalcate, Leaflets entire
 10881 Pods stalked longer than leaf, Leaves streaked
 10882 Pods stalked umbelled erect incurved, Leaf. cuneate serrate, Stem much branched
 10883 Pods about 4 arcuate erect, Pedunc. unarmed: when in flower as long as leaf, Leaf. cuneate
 10884 Pods about 6 arcuate erect wavy torulose, Pedunc. unarmed: when in fl. longer than leaf, Leaf. cuneate
 10885 Pods stalked heaped declinate falcate furrowed, Pedunc. awned longer than leaf
 10886 Pedunc. very short spiny, Pods short curved upwards
 10887 Pods subsessile nearly erect falcate acuminate downy, Stem spreading

10888 Leaf. linear lanc. acute, Teeth of calyx ovate

10889 Leaf. obate blunt, Teeth of calyx ovate

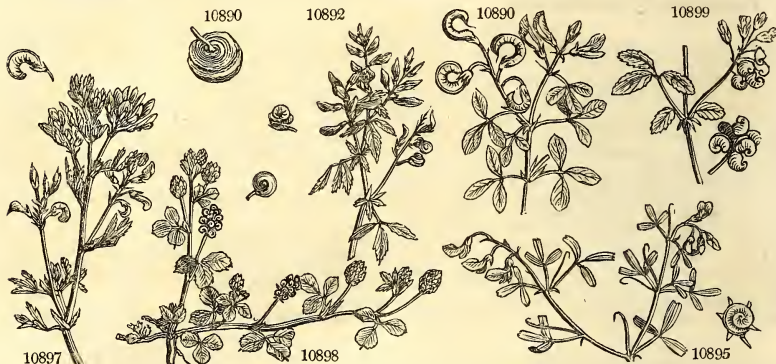


and Miscellaneous Particulars.

disagreeable smell, and an unctuous farinaceous taste, accompanied with a slight bitterishness. An ounce renders a pint of water thick and slimy. To rectified spirit, they give out the whole of their distinguishing smell and taste, and afterwards to water a strong flavorless mucilage. These seeds are never given internally, their principal use being in cataplasms and fomentations, for softening, maturing, and dispersing tumours; and in emollient gylsters. They were also an ingredient in the *oleum c mucilaginis*; but this has no longer a place in the pharmacopœia. (*Woodville* and *Lewis*.) They are used by grooms and farriers for horses. Fenu-greek has not been cultivated in any quantity for use in England, because it is an uncertain crop, occasioned by the inconstancy of our weather.

1604. *Dorycnium*. The Greek name of an herb, supposed to be the *Convolvulus Dorycnium* of the moderns. The plant now called by the name has no resemblance to that of the ancients. *D. hirsutum* is a beautiful half-hardy shrub, well deserving cultivation.

		Leguminosae. Sp. 40—76.			
1605. MEDICA'GO. W.	MEDICK.				
10890 arborea W.	Moon-Trefoil shrubby	8	my.n Y	Italy	1596. C s.1 Lob. ic.2.p.46.f.2
10891 cretacea W. en.	Lucern	4	jl Y	Tauria	1805. C s.1 Eng. bot. 1749
10892 sativa W.	clustered	2	jn.jl Y	England me.pa.	D r.m
10893 glomerata W. en.	clamy	1	jn.jl Y	Italy ...	D s.1
10894 glutinosa Bieb.	prostrate	cu	jn.jl Y	Tauria ...	S co
10895 prostrata W.	short-podded	cu	jn.jl Y	Hungary 1793.	D s.1 Jac. hor.vin.t.89
10896 brachycarpa Bieb.	yellow	cu	jn.jl Pa.Y	Tifliz 1823.	S co
10897 falcata W.	Nonesuch	1	my.au Y	Britain pas.	S co Eng. bot. 1016
10898 lupulina W.	doubtful	1	jl.au Y	..... 1734.	S co Eng. bot. 971
10899 obscura W.	flat-podded	cu	1 jl.au Y	S. Europe 1688.	S co Ret.ob. 1.p.24.t.1
10900 orbicularis W.	marginata W. en.	cu	1 jl.au Y	S. Europe 1816.	S co Moris.s.2.t.15.f.1
10901 marginata W. en.	elegant	cu	1 jl.au Y	Sicily 1680.	S co Moris.s.2.t.15.f.4
10902 elegans W.	Snail	cu	1 jn.au Y	S. Europe 1562.	S co Moris.s.2.t.15.f.3
10903 scutellata W.	many-fl.-Snail	cu	1 jn.au Y	..... 1816.	S co
10904 Helix W.	smooth-podded	cu	1 jn.au Y	S. Europe 1658.	S co
10905 tornata W.	Turban	cu	1 jn.au Y	S. Europe 1680.	S co Moris.s.2.t.15.f.5
10906 tubinata W.	wart-podded	cu	1 jn.au Y	S. Europe 1658.	S co Moris.s.2.t.15.f.6
10907 tuberculata W.	spiny	cu	1 jn.au Y	..... 1802.	S co
10908 aculeata W.	Spanish	cu	1 jn.au Y	Spain 1816.	S s.1 Jac. coll. t. 15.f.2
10909 granadensis W. en.	prickly	cu	1 jn.au Y	..... 1802.	S s.1
10910 Murex W.	hedgchog	cu	1 jn.au Y	S. Europe 1629.	S co Moris.s.2.t.15.f.7
10911 intertexta W.	fringed	cu	1 jl.au Y	France 1686.	S co
10912 ciliaris W.	creeping-rooted	cu	1 jn.jl Y	Carinthia 1789.	D co Bot. mag. 909
10913 carstiensis W.	spotted	cu	1 1/2 my.jn Y	England gra.pa.	S s.1 Eng. bot. 1616
10914 maculata W.	crowned	cu	1 jn.jl Y	S. Europe 1630.	S s.1 Mor.s.2.t.15.f.16
10915 coronata W.	tufted	cu	1 jn.jl Y	S. Europe 1800.	S s.1
10916 apiculata W.	bur-podded	cu	1 jn.jl Y	S. Europe	S co Gart.sem. t.155



History, Use, Propagation, Culture,

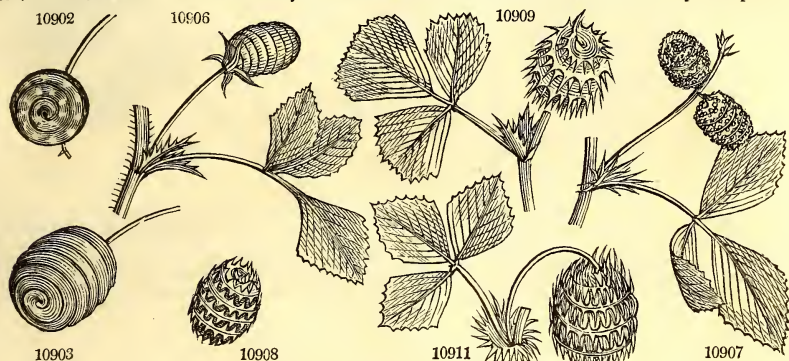
1605. *Medicago*. A native of the country of the *Medes*, whence this plant was brought to Greece during the expedition of Darius. *M. arborea*, the *Cytisus* of the ancients, flowers great part of the year, and when sheltered is seldom destitute of flowers. In the open air it begins to flower in April, and continues till December. Those flowers which appear early in summer, will have the seeds ripe in August, or the beginning of September, and the others will ripen in succession. It grows in great plenty in Abruzzo, and many parts of the kingdom of Naples, where the goats feed upon it; and with their milk abundance of cheese is made there. It also abounds in several of the islands in the Archipelago, where the Turks use the wood to make handles for their sabres; and the caloyers, or Greek monks, form their beads of it. In old shrubs, the heart is of a dark color, and hard like ebony.

According to Miller, this shrub bids the fairest of any to be the *Cytisus* of Virgil, Columella, and the other ancient writers on husbandry; and being celebrated by them as an excellent fodder, has been recommended for cultivation here. But however useful it may be in Candia, Rhodes, Sicily, Abruzzo, and other dry warm countries, yet it will never thrive in England, (where we have also many plants of this leguminous tribe far more succulent than this,) so as to be of any real advantage; for in severe frost it is very subject to be destroyed, or at least so much damaged, as not to recover its former verdure before the middle or end of May; (and even after a mild winter, it will generally appear injured by our cold spring winds, even at that season; so that it cannot be of any use here for early spring fodder.) Besides, the shoots will not bear cutting above once in a summer, and then will not be of any considerable length: and the stems growing very woody, the cutting of it will be very troublesome. Upon the whole, therefore, it is not worth the trial; though in hot, dry, rocky countries, where few other plants will thrive, it may be cultivated to great advantage. But, however unfit *Tree Medick* may be for use as fodder in England, yet for the beauty of its hoary leaves, abiding all the year, together with its long continuance in flower, it deserves a place in every good garden and plantation, with shrubs of the same growth. (*Dict. in loco*, and *Martyn's Virgil*.)

M. sativa, *Poin de Bourgogne*, Fr., *Alfulfa*, Span., and *Lucerne*, Eng., (from the Languedoc patois *Lauserda*), is a deep rooting perennial plant, sending up numerous small and tall clover-like shoots, with blue or violet spikes of flowers. It is highly extolled by the Roman writers; it is also of unknown antiquity in old Spain, Italy, and the south of France; is much grown in Persia and Peru, and mown in both countries all the year round. It is mentioned by Hartlib, Blythe, and other early writers, and was tried by Lisle; but it excited little attention till after the publication of *Harte's Essays*, in 1757. But though it has been so much extolled, it has yet found no great reception in this country. If any good reason can be given for this, it is, that lucern is a less hardy plant than red clover, requires three or four years before it comes to its full growth, and is for these and other reasons ill adapted to enter into general rotations. When the climate and soil suit, perhaps, a field of it may be advantageously sown, adjoining the homestead, to afford early cutting or food for young or sick animals, for which it is said to be well adapted; but though it will produce good crops for eight or ten years, yet from the time the farmer must wait till this crop attains its perfection, and from the care requisite to keep it from grass and weeds, we do not think it is ever likely to come into general culture.

There are no varieties of the lucern deserving the notice of a cultivator. What is called the yellow lucern, or Swiss lucern, is the *Medicago falcata*, a much more hardy and coarser plant, common in several parts of England, but not cultivated any where excepting in some poor soils in Switzerland.

- 10890 Pods lunate entire at edge, Stem arborescent
 10891 Pedunc. many-fl. racemose, Pods reniform 1-seeded, Leaf. rhomboid roundish mucronate
 10892 Pedunc. racemose, Legume smooth spirally twisted, Stipules entire, Leaf. long toothed
 10893 Pedunc. racemose, Pods twisted-falcate downy, Leaf. lin. truncate toothletted at end
 10894 Pedunc. racemose, Pods twisted falcate and cal. viscid villous. Leaf. obovate toothed at end
 10895 Pedunc. racemose, Pods smooth cochleate twisted, Stipules toothed at base, Leaf. lin. toothed at end
 10896 Heads axill. sessile, Pods half orbicular acute lined 1-seeded
 10897 Pedunc. racemose, Pods twisted falcate downy, Leaf. obl. toothed at end
 10898 Spikes oval, Legumes reniform 1-seeded, Stipules entire, Leaf. obovate
 10899 Pods racemose reniform 2-seeded, Stip. toothed; Leaf. rhomboid ovate
 10900 Pedunc. 2-fl. Pods unarmed cochleate orbicular flattish, Stip. setaceous multifid, Leaf. obov. toothed
 10901 Pedunc. 2-fl. Pods unarmed cochleate orbicular very flat at each end; Folds loose.
 10902 Pedunc. 2-fl. Pods unarmed cochleate orbicular flat transversely rugose at edge, Stip. toothed
 10903 Pedunc. 2-fl. Pods unarmed cochleate orbicular convex at base: flat above with concentrically spiral folds
 10904 Pedunc. many-fl. Pods unarmed cochleate orbicular flat with distant folds
 10905 Pedunc. many-fl. Pods unarmed cochleate cylindr. flat at each end with distant folds
 10906 Pedunc. 2-fl. Pods unarmed cochleate cylindr. convex at each end with imbricated folds
 10907 Pedunc. 2-fl. Pods unarmed cochleate cylindr. flattish at each end with tubercled folds
 10908 Pedunc. about 2-fl. Pods cochleate cylindr. flattish at each end, Folds muricated at edge
 10909 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end, Prickles subulate appressed
 10910 Pedunc. about 2-fl. Pods cochleate cylindr. convex at each end aculeate, Aculei straight
 10911 Pedunc. about 2-fl. Pods cochleate oval with downy pubescent setaceous appressed reflexed prickles
 10912 Pedunc. about 2-fl. Pods cochleate oval with straight subulate downy prickles
 10913 Pedunc. many-fl. Pods cochleate compressed at each end with subulate straight prickles
 10914 Pedunc. about 2-fl. Pods cochleate compressed at each end with subulate arcuate prickles
 10915 Pedunc. many-fl. Pods cochleate cylindr. flat at each end pubesc. with close-pressed subul. prickles
 10916 Pedunc. many-fl. Pods cochleate flat at each end with 3 netted folds muricated at edge
 10917 Pedunc. about 2-fl. Pods cochleate cylindr. flat at each end with smooth lanc. distich. close-pressed prickles



and Miscellaneous Particulars.

The soil for lucern must be dry, friable, inclining to sand, and with a subsoil not inferior to the surface; unless the soil be good and deep, it is in vain to attempt to cultivate lucern.

† The preparation of the soil consists in deep ploughing and minute pulverisation; and, in our opinion, the shortest way to effect this, is to trench it over by the spade to two or three feet in depth, burying a good coat of manure in the middle, or at least one foot from the surface. This is the practice in Guernsey, where lucern is highly prized.

The climate for lucern, as we have already hinted, must be warm and dry; it has been grown in Scotland and Ireland, and might probably do well in the southern counties of the latter country, but in the former it has not been found to answer the commendations of its admirers.

The season most proper for sowing lucern, is as early as can be done in the spring months, as in this way the plants may be fully established before the season becomes too hot. If the plants be intended to be transplanted out in the garden method, it will also be the best practice to sow the seed-bed as early in the spring as the frosts will admit, in order that they may be strong, and fit to set out about the beginning of August.

The manner of sowing lucern is either broad-cast or in drills, and either with or without an accompanying crop of corn for the first year. Broad-cast, and a very thin crop of barley or other spring corn, is generally, and, in our opinion, very properly preferred.

The quantity of seed, when the broad-cast method is adopted, is said to be from fifteen to twenty pounds per acre, and from eight to twelve if drilled. The seed is paler, larger, and dearer than that of clover; it is generally imported from Holland, and great care should be had to procure it plump and perfectly new, as two years old seed does not come up freely. The same depth of covering as for clover will answer.

The after-culture of lucern, sown broad-cast, consists in harrowing, to destroy grass and other weeds; rolling, after the harrowing, to smooth the soil for the scythe, and such occasional top-dressings of manure as the state of the plants may seem to require.

The top-dressings given to lucern may be either of the saline or mixed manures. Ashes are greatly esteemed, and also gypsum and liquid manure of any kind.

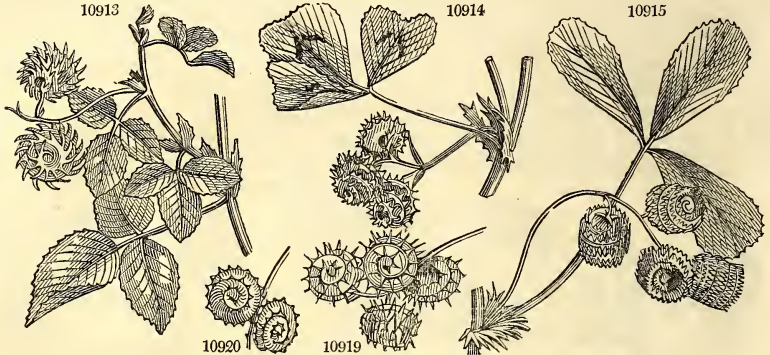
The taking of lucern by mowing for soiling, or hay, or by tethering, hurdling, or pasturing, may be considered as the same as for clover. Lucern frequently attains a sufficient growth for the scythe towards the end of April, or beginning of the following month; and in soils that are favorable for its culture, will be in a state of readiness for a second cutting in the course of a month or six weeks longer, being capable of undergoing the same operation at nearly similar distances of time during the whole of the summer season.

The application of lucern is also the same as of clover. The principal and most advantageous practice, in the application of lucern, is that of soiling horses, neat cattle and hogs; but as a dry fodder, it is also capable of affording much assistance, and as an early food for ewes and lambs, may be of great value in particular cases. All agree in extolling it as food for cows, whether in a green or dried state.

The produce of lucern, cut three times in a season, has been stated at from three to five and even eight tons per acre. In soiling, one acre is sufficient for three or four cows during the soiling season, and a quarter of an acre, if the soil be good, for all sorts of large stock, for the same period, or half an acre on a moderate soil.

The nutritive product of lucern, according to Sir H. Davy, is 2.3-tenths per cent., and is to that of the

10918 denticulata W.	toothed	* O	cu	1	jn.jl	Y	S. Europe 1800.	S	s.l	
10919 muricata W.	prickly	* O	cu	1	my.jn	Y	England sea co.	S	co	Mor. s.2.t.15.f.11
10920 Gerardi W.	Gerarde's	* O	cu	1	jn.au	Y	Hungary 1816.	S	co	Mor.s.2.t.15.f.18
10921 marina W.	sea	* Δ	cu	1	jn.au	Y	S. Europe 1596.	D	s.l	Cav. ic. 2. t. 130
10922 Terebellum W.	short-spined	* O	cu	1	jn.au	Y	S. Europe 1798.	S	s.l	
10923 tribuloides W.	Caltrops-like	* O	cu	1	jn.au	Y	S. Europe 1730.	S	s.l	
10924 rigidula W.	thorny-podded	* O	cu	1	jn.au	Y	S. Europe 1730.	S	s.l	
10925 minima W.	least	* O	cu	1	my.jn	Y	England ch.so.	S	co	Fl. dan. 211
10926 nigra W.	black	* O	cu	1	jl.au	Y	S. Europe 1789.	S	s.l	Mor.s.2.t.15.f.19
10927 gra'ca W. en.	villous	* O	cu	1	jl.au	Y	Greece 1804.	S	s.l	
10928 laciniata W.	cut-leaved	* O	cu	1	jl.au	Y	S. Europe 1683.	S	s.l	Breyn. cent. t.34
10929 uncinata W.	hooked	* O	cu	1	jl.au	Y	S. Europe ...	S	co	
1606. HYMENOCAR'PUS. W. HYMENOCARPUS.										
					Leguminosæ. Sp. 3.					
10930 radiatus W.	ray-podded	* O	pr	1/2	jn.jl	Y	Italy 1629.	S	s.l	Lob. ic.2.p.38.f.2
10931 circinatus W.	kidney-podded	* O	pr	1/2	jl.au	Y	Italy 1640.	S	co	Gær.sem.2.t.155
10932 nummularius W. en.	money-leaved	* O	pr	1/2	jl.au	Y	Italy 1640.	S	co	



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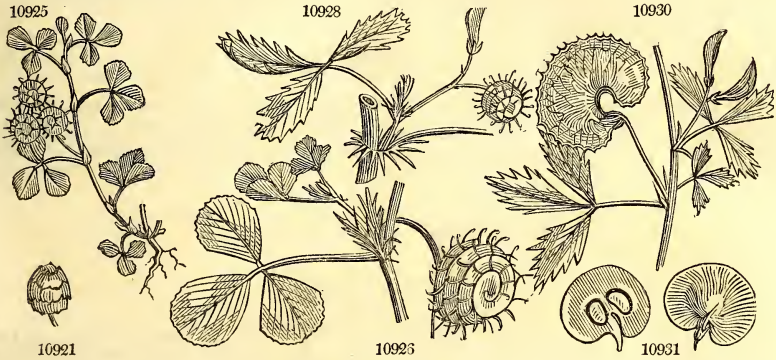
clovers and saintfoin as 23 to 29. This result does not very well agree with the superior nutritive powers attributed to lucern; and is one proof, among many, how little the analysis of the chemist agrees with the experience of the farmer.

To save seed, the lucern may be treated precisely as the red clover, and it is much easier threshed, the grains being contained in small pods, which easily separate under the flail, or a threshing machine, or clover mill.

M. lupulina, Hop-trefoil, sometimes called Shamrock, and in Norfolk Black Nonesuch, is cultivated occa-

- 10918 Pedunc. many-fl. Pods cochleate flat at each end, Folds 2 reticulated with prickles of their edges diverging
 10919 Pedunc. many-fl. Pods cochleate flat at each end smooth, Folds 5 with short subulate prickles
 10920 Pedunc. about 2-fl. Pods cochleate flat at each end villous, Folds 5 with subulate hooked prickles
 10921 Pedunc. many-fl. Pods cochleate roundish muricate, Leaf. downy obovate entire
 10922 Pedunc. many-fl. Pods cochleate cylindr. flat at each end, Folds 5 with short subulate reflexed prickles
 10923 Pedunc. 2-fl. Pods cochleate cylindr. flat at each end with conical distichous reflexed prickles
 10924 Pedunc. many-fl. Pods cochleate cylindr. Prickles conical straight spreading
 10925 Pedunc. many-fl. Pods cochleate hairy, Prickles subulate straight hooked
 10926 Pedunc. 2-fl. Pods cochleate cylindr. with close folds, Prickles subulate straight hooked
 10927 Pedunc. many-fl. Pods cochleate somewhat hairy, Prickles subulate straight hooked
 10928 Pedunc. 2-fl. Pods cochleate cylindr. with subulate straight hooked prickles, Leaf. lin. truncate
 10929 Pedunc. many-fl. Pods cochleate villous flat at each end with 5 folds, Prickles subulate straight hooked

- 10930 Pods toothed at edge, Leaves ternate
 10931 Pods toothed at edge, Leaves pinnate
 10932 Pods entire at edge, Leaves pinnate



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sionally along with the perennial clovers, and sometimes confounded with the common yellow clover, which is an annual and much smaller plant. Its treatment is the same as that of white clover; but its herbage is little relished by cattle, and both it and the yellow clover are going fast out of repute.


M. scutellata and *intertexta* are sown as border flowers for the curiosity of their pods.

1606. *Hymenocarpus*. From *ἤμην*, a membrane, and *καρπος*, fruit, in allusion to the membranous texture of the pods. Little inconspicuous plants resembling *Trifolium*.



CLASS XVIII. — POLYADELPHIA. STAMENS united into several parcels.

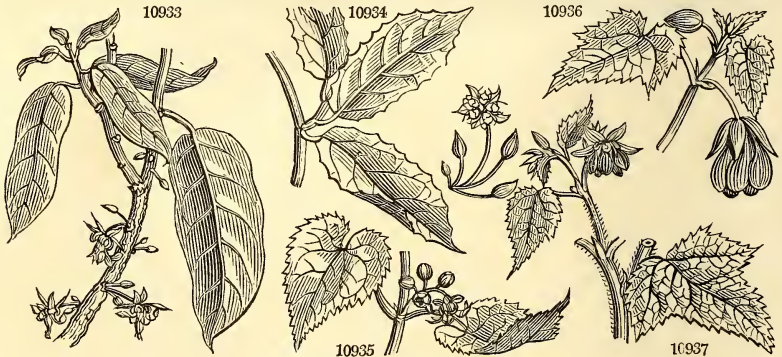
ONE of the smallest of the Linnean classes, characterized by the cohesion of the filaments in several parcels. It almost wholly consists of plants remarkable either for their beauty or importance otherwise. From the *Theobroma* the nutritious substance which forms the basis of Chocolate is procured. *Melaleuca* and its allies are among the most elegant of New Holland plants. The genus *Symplocos* contains a plant useful as a dye. To *Citrus* belong the Orange, Lemon, Lime, and all their delicious varieties; and the *Loasa*, with which the class is here concluded, consists of some of the most ornamental and curious of our garden annuals. By some botanists this class is distributed among others, especially *Icosandria* and *Polyandria*.

Order 1. DECANDRIA.  Stamens 10 or 12.

1607. *Theobroma*. Cal. 5-leaved. Petals 5, fornicate. Nectary urceolate, with 5 horns. Filaments 5, each with 2 anthers. Style filiform. Stigma 5-parted. Caps. 5-celled, without valves. Seeds in a buttery pulp.
 1608. *Bubroma*. Cal. 3-leaved. Petals 5, 2-horned. Nect. campanulate, 5-fid. Filam. 5, attached to the outside of nectary; each with 3 anthers. Style simple. Capsule woody, warted, valveless, bored with 12 rows of holes.

DECANDRIA.

1607. THEOBROMA. W. CHOCOLATE NUT.		<i>Byttneriaceæ. Sp. 2-5.</i>
10933 Cacao W.	smooth-leaved ♀ <input type="checkbox"/> clt 16	... Br S. Amer. 1739. C r m Bot. cab. 545
10934 guianensis W.	woolly-leaved ♀ <input type="checkbox"/> or 16	... Br Guiana 1803. C r m Aub. gui. 2. t. 275
1608. BUBROMA. W. BASTARD CEDAR.		<i>Byttneriaceæ. Sp. 1-3.</i>
10935 Guazúma W	Elm-leaved ♀ <input type="checkbox"/> tm 40	aus. Y Jamaica 1739. C p l Trew. ehret. t. 76
1609. ABROMA. W. ABROMA.		<i>Byttneriaceæ. Sp. 2-3.</i>
10936 augusta H. K.	smooth-stalked ♀ <input type="checkbox"/> or 10	au Pu E. Indies 1770. C l p Jac. vind. 3. t. 1
10937 fastuosa H. K.	prickly-stalked ♀ <input type="checkbox"/> or 10	ju.o Pu N. S. W. 1800. C l p Par. lond. 102



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1607. *Theobroma*. From *Θεός*, God, and *βρωμα*, food, in allusion to the excellent nature of its produce. The Mexicans call the beverage obtained from it *Chocolatl*. (*Nieremb.*) T. Cacao is a tree which grows in a very handsome form to the height of twelve or sixteen feet; the trunk is upright, and about as high as a man before the head spreads out; the wood is light and of a white color; the bark brownish. Leaves lanceolate-oblong, bright green, quite entire; flowers small, reddish, inodorous. Fruits smooth, yellow, red, or of both colors, about three inches in diameter: rind fleshy, near half an inch in thickness, flesh-colored within: pulp whitish, the consistence of butter, separating from the rind in a state of ripeness, and adhering to it only by filaments, which penetrate it and reach to the seeds. Hence it is known when the seeds are ripe, by the rattling of the capsule when it is shaken. The pulp has a sweet and not unpleasant taste, with a slight acidity; it is sucked and eaten raw by the natives. The seeds are about twenty-five in number: when fresh they are of a flesh-color; gathered before they are ripe, they preserve them in sugar, and thus they are very grateful to the palate: they quickly lose their power of vegetation, if taken out of the capsule; but kept in it, they preserve that power for a long time. The tree bears leaves, flowers, and fruit all the year through; but the usual seasons for gathering the fruit are June and December. In two years from the seed it is above three feet high, and spreads its branches, not more than five of which are suffered to remain: before its third year is complete it shows for fruit. A tree yields from two to three pounds of seeds annually. These seeds are remarkably nourishing, and agreeable to most people; which occasions them to be commonly kept in most houses in America, as a necessary part of the provisions of the family: they are generally ground or pounded very fine, a little annatto added, and made into paste: they are much charged with oil, but mix well with milk or water, and are formed into rolls of one pound each.

This simple preparation of chocolate is the most natural and the best. It is in daily use amongst most

1609. *Abroma*. Cal. 5-part. Petals 5, with saccate dilated claws Cup of stamens 10-fid ; with 5 segments, each bearing 3 anthers ; the other 5 petaloid. Styles 5. Caps. 5-celled, 5-winged, many-seeded.

Order 2. POLYANDRIA.  Stamens indefinite.

1610. *Melaleuca*. Parcels of stamens 5, opposite the petals, long ; anthers incumbent. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx which is grown to the branch.

1611. *Tristania*. Parcels of stamens 5, opposite the petals, and scarcely longer than they are ; anthers incumbent. Caps. 3-celled, many-seeded, united with the turbinated stalked tube of the calyx.

1612. *Calothamnus*. Parcels of stamens 4-5, opposite the petals (some either connate or sterile). Anthers inserted by the base, entire. Caps. 3-celled, many-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.

1613. *Beaufortia*. Parcels of stamens 5, opposite the petals. Anthers inserted by the base, bifid at the end, with deciduous lobes. Caps. 3-celled, 1-seeded, connate, and included in the thickened tube of the calyx, which is grown by the base to the branch.

1614. *Symplocos*. Cal. 5-fid, superior. Petals 5-8 ; cohering at the base in a tube. Stamens united to the corolla in 4 rows. Drupe dry, 5-celled.

1615. *Citrus*. Cal. 5-fid. Petals 5, oblong. Anthers 20 ; the filaments variously divided. Berry 9-celled.

1616. *Xanthochymus*. Cal. 5-leaved. Petals 5. Nectaries 5. Stamens united in 5 parcels. Apple 1-5-seeded.

1617. *Hyppericum*. Cal. 5-parted. Petals 5. Filaments many in 3 or 5 parcels. Capsule superior.

1618. *Ascyrum*. Cal. 4-leaved. Petals 4. Caps. 1-celled, 2-3-valved.

1619. *Loasa*. Cal. 5-leaved. Petals 5. Nectary 5-leaved. Caps. $\frac{1}{2}$ -inferior, 1-celled, $\frac{2}{3}$ -3-valved, many-seeded.

DECANDRIA.

10933 Leaves entire smooth

10934 Leaves acuminate repand-toothed downy beneath

10935 Leaves cordate ovate acute with unequal serratures

10936 Leaves 7-angled : floral ov.-lanc. acuminate somewhat toothed, Pedunc. axill. Branches unarmed

10937 Adult lvs. with simple and stellate hair beneath, Wings of caps. subtruncate at end, Branches mucricated



and Miscellaneous Particulars.

families in Jamaica, where the tree is largely cultivated, and affords a nutritious food for children, as well as adults. But as chocolate made abroad cannot by law be imported into this country, consequently all chocolate consumed in Britain ought to be made here. It is composed principally of the kernel of the cocoa, as above mentioned ; but the art is in very few hands : and we believe that a small portion of soap is added to most British chocolate, in order to cause it to froth when it is dissolved in hot water.

Cocoa is a simple preparation made in Britain, from the cocoa-nut, or from the shells of it, or from a mixture of both. It is considered much easier of digestion than chocolate, and very nourishing.

In our stoves *Theobromas* thrive in light rich soil, and cuttings root in sand under a hand-glass.

1608. *Bubroma*. In contradistinction to *Theobroma* ; from *bos*, an ox, and *βρωμα*, food, as if producing a substance fit only to be eaten by cattle. *Orme d'Amerique*, Fr. A wide spreading tree, not unlike the Elm, with oblong heart-shaped leaves, which sleep hanging quite down, whilst the petioles remain entirely stiff and straight. It grows in the lowlands of Jamaica, forming a very agreeable shade for the cattle, and supplying them with food in dry weather, when all the herbage is burned up or exhausted. The seeds are very mucilaginous, but otherwise agreeable to the palate. The wood is light, and so easily wrought, that it is generally used by coachmakers in all the side pieces. (*Browne*.) It is also frequently cut into staves for casks. A decoction of the inner bark is very glutinous, and very like that of the elm. In our stoves it thrives well in a loamy soil, and cuttings root freely in sand under a hand-glass.

1609. *Abroma*. Still named with reference to the two preceding genera, from *α*, privative, and *βρωμα*, food ; as if unfit for either gods or oxen. This, Sweet observes, "is a hardy stove genus, and easily managed ; the species flower freely at various seasons, and will grow in the common garden soil : but a mixture of good loam with a little peat is an excellent compost for them. They propagate freely by seeds and cuttings." (*Bot. Cult.* 10.)

POLYANDRIA.

1610. MELALEUCA. <i>H. K. MELALEUCA.</i>				<i>Myrtaceae.</i>	<i>Sp. 25—30.</i>		
10938 Leucadendron <i>W.</i>	Cajuputi Tree	☉	or 15	W	E. Indies	1796.	C s.l.p. Rum. amb. 2. t. 16
10939 viridiflora <i>W.</i>	green-flowered	☉	or 10	...	N. S. W.	1798.	C s.l.p. Cav. ic. 4. t. 333
10940 paludosa <i>Br.</i>	long-leaved red	☉	or 6	jls.	R	N. Holl.	1803. C s.l.p.
10941 globifera <i>Br.</i>	globe-fruited	☉	or 4	...	...	N. Holl.	1803. C s.l.p.
10942 diosmifolia <i>Br.</i>	Diosma-leaved	☉	or 4	ju. jl	G	N. Holl.	1794. C s.l.p. Bot. rep. 476
10943 stypheloides <i>Br.</i>	Styphelia-leav.	☉	or 4	my. ju	...	N. S. W.	1793. C s.l.p.
10944 genistifolia <i>Br.</i>	Broom-leaved	☉	or 4	...	...	N. S. W.	1793. C s.l.p.
10945 striata <i>Br.</i>	striated	☉	or 4	...	Pu	N. Holl.	1803. C s.l.p. La. no. ho. 2. t. 165
10946 thymoides <i>Br.</i>	yellow spear-lv.	☉	or 3	...	Pu	N. Holl.	1803. C s.l.p. Lab. nov. 2. t. 167
10947 squamea <i>Br.</i>	scaly-branched	☉	or 4	ju. jl	Pu	V. Di. L.	1805. C s.l.p. Bot. reg. 477
10948 nodosa <i>Br.</i>	Whin-leaved	☉	or 2	ju. jl	Pu	N. S. W.	1790. L s.l.p. Ex. bot. 1. t. 35
10949 ericifolia <i>Br.</i>	Heath-leaved	☉	or 3	jls.	G	N. S. W.	1788. L s.l.p. Ex. bot. 1. t. 34
10950 armillaris <i>Br.</i>	pale-flowered	☉	or 2	ju. jl	G	N. S. W.	1788. C s.l.p. Bot. rep. 175
10951 uncinata <i>Br.</i>	hook-leaved	☉	or 3	ju. s	Pu	N. Holl.	1803. C s.l.p.
10952 scabra <i>Br.</i>	rough-leaved	☉	or 3	f. s	Pu	N. Holl.	1803. C s.l.p.
10953 pulchella <i>Br.</i>	neat	☉	or 2	ju. s	Pu	N. Holl.	1803. C s.l.p. Bot. cab. 200
10954 thymifolia <i>Br.</i>	Thyme-leaved	☉	or 2	ju. s	Pu	N. S. W.	1792. C s.l.p. Bot. mag. 1868
10955 decussata <i>Br.</i>	decussate	☉	or 4	jls.	Pu	N. Holl.	1803. C s.l.p. Bot. mag. 2268
10956 fulgens <i>Br.</i>	splendid	☉	or 6	jls.	S	N. Holl.	1803. C s.l.p. Bot. rep. 200
10957 linariifolia <i>Br.</i>	Toad-Flax-lvd.	☉	or 3	ju. au	Pu	N. S. W.	1793. C s.l.p. Exot. bot. 1. t. 56
10958 hypericifolia <i>Br.</i>	Hypericum-lv.	☉	or 3	ju. au	S	N. S. W.	1792. C s.l.p. Bot. rep. 200
10959 squarrosa <i>Br.</i>	Myrtle-leaved	☉	or 2	...	W	N. S. W.	1794. C s.l.p. Bot. mag. 1935
10960 calycina <i>Br.</i>	permanent-cup.	☉	or 3	ju. au	Pu	N. Holl.	1803. C s.l.p.
10961 densa <i>Br.</i>	whorl-leaved	☉	or 2	...	Pu	N. Holl.	1803. C s.l.p.
10962 incana <i>Br.</i>	hoary	☉	or 3	ju. au	Y	N. Holl.	1817. C s.l.p. Bot. reg. 410
1611. TRISTANIA. <i>Br. TRISTANIA.</i>				<i>Myrtaceae.</i>	<i>Sp. 3.</i>		
10963 nereifolia <i>Br.</i>	Oleander-leav.	☉	or 6	ju. s	Y	N. S. W.	1804. C s.p. Bot. mag. 1058
10964 laurina <i>Br.</i>	Laurel-leaved	☉	or 6	...	Y	N. S. W.	1798. C s.p.
10965 conferta <i>Br.</i>	Pittosporum-lv.	☉	or 6	jls.	Y	N. S. W.	1805. C s.p.
1612. CALOTHAMNUS. <i>Lab. CALOTHAMNUS.</i>				<i>Myrtaceae.</i>	<i>Sp. 3.</i>		
10966 quadrifida <i>Br.</i>	four-cleft	☉	or 3	jls.	S	N. Holl.	1803. C s.p. Bot. mag. 1506
10967 villosa <i>Br.</i>	hairy	☉	or 3	jls.	S	N. Holl.	1803. C s.p.
10968 gracilis <i>Br.</i>	slender-leaved	☉	or 3	jls.	S	N. Holl.	1803. C s.p.
1613. BEAUFORTIA. <i>Br. BEAUFORTIA.</i>				<i>Myrtaceae.</i>	<i>Sp. 2.</i>		
10969 decussata <i>Br.</i>	splendid	☉	spl 3	my. jl	S	N. Holl.	1803. C s.p. Bot. reg. 18
10970 sparsa <i>Br.</i>	alternate-leav.	☉	spl 3	...	R	N. Holl.	1803. C s.p.
1614. SYM'PLOCOS. <i>L. SYM'PLOCOS.</i>				<i>Symplocaceae.</i>	<i>Sp. 2—6.</i>		
10971 tinctoria <i>W.</i>	Laurel-leaved	☉	or 3	...	Y	Carolina	1780. L p.l. Cat. car. 1. t. 54
10972 sinica <i>Ker.</i>	Chinese	☉	or 3	my	W	China	1822. C p.l. Bot. reg. 710
1615. CITRUS. <i>JF. ORANGE-TREE.</i>				<i>Aurantiaceae.</i>	<i>Sp. 8—15.</i>		
10973 Limonium <i>Risso</i>	Lemon	☉	fr 15	my. jl	W	Asia	1648. B r.m. Gæ. fr. 2. t. 121. f. 2
10974 Limetta <i>Risso</i>	Lime	☉	fr 8	my. jl	W	Asia	1648. B r.m. Blackw. t. 362
10975 Aurantium <i>Risso</i>	sweet	☉	fr 15	my. jl	W	Asia	1595. B r.m. Lam. ill. t. 639. f. 2
10976 vulgare <i>Risso</i>	Seville	☉	fr 15	my. jl	W	Asia	...
β myrtifolia <i>Hort.</i>	myrtle-leaved	☉	fr 3	my. jl	W	Asia	...



History, Use, Propagation, Culture.

1610. *Melaleuca*. From *μειλας*, black, and *λευκος*, white: because the original tree has black wood and white branches. A beautiful Australasian genus, which grows and flowers freely in equal parts of sandy loam and peat, with common greenhouse treatment. "Some cultivators," Sweet observes, "grow them entirely in peat, in which they will grow very well for a time; but they will not be strong and healthy, nor flower so well as in a mixture. Ripened cuttings, not too old, will root freely in sand under a bell-glass" (*Bot. Cult.* 223.) The bark of *Melaleuca Leucadendron* is used by the Chinese as oakum, for making good the spaces between the timbers of their vessels. They also use it in the roofing their houses. From the same tree is obtained the Cajuputi oil, remarkable for its green color, its peppermint flavor, and turpentine smell. It is rarely to be procured in Europe in an unadulterated state. When pure it is one of the best preservatives of preparations of natural history, and is used externally with much success as a cure for rheumatic affections and pains in the joints.

1611. *Tristania*. From *τρις*, three, and *στειναι*, to stand; in allusion to the ternate disposition of the flowers and leaves. The species may be treated like *Melaleuca*, and are pretty little evergreen shrubs.

1612. *Calothamnus*. From *καλος*, beautiful, and *θαμνος*, a rod, in allusion to the splendid appearance of the branches covered with scarlet blossoms. The species are beautiful plants, and not difficult of culture or propagation in sand, and the air kept still and moderately moist by covering with a hand-glass.

POLYANDRIA.

- 10938 Leaves alternate lanc. acuminate oblique 5-nerved, Branches and petioles smooth
 10939 Leaves alternate ellipt. lanc. coriaceous 5-nerved, Branches and petioles downy
 10939 Leaves linear-lanc. long equal-sided straight 3-nerved: lateral nerves close to the scabrous edge
 10941 Leaves obl. 5-nerved equal-sided narrower at base, Heads spherical, Capsules connate
 10942 Leaves oval or oblong obsoletely 1-nerved stalked flat close and branches quite smooth, Spikes obl. smooth
 10943 Leaves ov. acuminate with a pungent point striated with many nerves sess. smooth, Spikes downy
 10944 Leaves lin. lanc. obsoletely 1-3-nerved, Spikes lax leafy smooth, Parcels of anthers polyandrous
 10945 Leaves lanc. lin. acute dotted obsoletely striated rigid subsess. Tube of calyx woolly [3-nerved
 10946 Lvs. lanc. occasionally obl. 3-nerved stalked and branches smooth, Heads glob. or oval, Segm. of cal. acute
 10947 Leaves ov. lanc. acuminate 3-nerved: young lvs. and branches villous, Heads globose downy
 10948 Leaves subulate lin. mucro. rigid 1-nerved flat, Heads globose, Segm. of cal. membranous smooth
 10949 Leaves lin.-subul. nerveless pointless spreading and subrecurved, Spikes oval smooth
 10950 Leaves lin.-subul. mucro. recurved at end, Spikes cylindr. very smooth
 10951 Leaves angular filiform mucro. erect; hooked back at end, Branches virgate, Heads oval
 10952 Leaves roundish mucro. rough clustered, Heads round, Parcels of stamens 4-6-androus
 10953 Leaves scattered and somewhat opp. oval blunt obsoletely 3-nerved, Flowers subsolitary smooth
 10954 Leaves opp. lanc. nerveless, Spikes few-fl. Parcels of stamens polyandrous
 10955 Leaves opp. decussate oval-lanc. 3-nerved, Spikes oval quite smooth, Parcels of stamens polyandrous
 10956 Leaves opp. lanc. lin. acute 1-nerved, Spikes oval quite smooth, Parcels of stamens multifid
 10957 Leaves opp. lanc. lin. acute 3-nerved, Spikes obl. smooth, Parcels of stamens longitudinally pinnated
 10958 Leaves opp. ellipt. obl. 3-nerved: lateral nerves obsol. and close to the recurved edge, Spikes quite smooth
 10959 Leaves opp. ovate acute 5-7-nerved stalked, Spikes obl. and oval, Bractes leafy
 10960 Leaves opp. ovate-lanc. 3-5-nerved subsess. Clusters few-fl. Segm. of cal. acute nerveless
 10961 Leaves ternate obovate 3-nerved smooth, Spikes oblong or oval
 10962 Leaves tern. lin. lanc. hoary on both sides, as are the branches, Spikes oval or oblong

- 10963 Leaves opp. lanc. Parcels of stamens 3-5-androus
 10964 Leaves altern. cun. lanc. Branches and calyxes downy, Caps. half superior
 10965 Leaves lanc. ellipt. acute alternate: terminal clustered, Segm. of calyx acute leafy

- 10966 Flowers 4-fid, Parcels of stamens distinct equal 12-15-androus, Old leaves and fruit smooth
 10967 Flowers 5-fid, Parcels of stamens distinct equal polyandrous, Old leaves and fruit villous
 10968 Flowers 5-fid, Parcels of stamens distinct equal 3-androus, Leaves very long and fruit smooth

- 10969 Leaves opp. decussate ovate or oval many-nerved
 10970 Leaves scattered oval many-nerved

- 10971 Flowers clustered sessile, Leaves glaucous
 10972 Leaves ellipt. lanc. downy on each side corrugate veiny, Sepals acuminate

- 10973 Peti. somew. winged, Lvs. obl. acute toothed, Fl. 35-androus, Fruit obl. with a thin rind and very acid pulp
 10974 Petioles naked, Lvs. ov. rounded serrated, Fl. 30-androus, Fruit globose with a nipple and sweet pulp
 10975 Petioles nearly naked, Lvs. ov. obl. and acute, Fl. 20-androus, Fruit globose with a thin skin and sweet pulp
 10976 Peti. winged, Lvs. ellipt. acute crenulat. Fl. 20-androus, Fruit glob. with a thin rough skin and bitter pulp



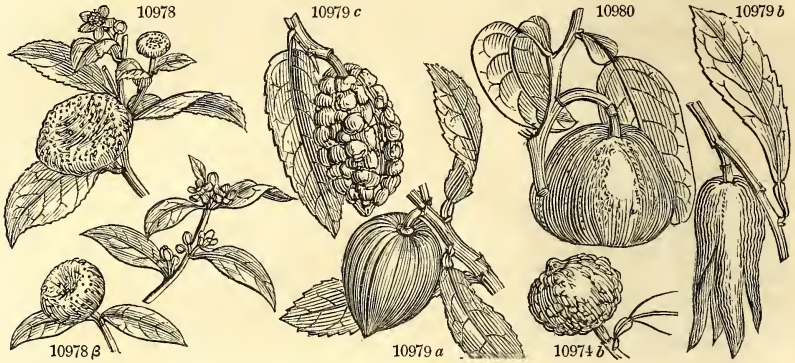
and Miscellaneous Particulars.

1613. *Beaufortia*. So called in honor of Mary, Duchess of Beaufort, who died January 7, 1714, in the 85th year of her age. She had a fine collection of plants at Badmington, in Gloucestershire, during the life-time of her husband, Henry, first duke of Beaufort. Splendid plants, free-growers, and abundant flowerers, with common greenhouse treatment, in two-thirds peat, and one-third loam. Cuttings. Sweet found to answer best when "taken from nearly ripened wood, planted in sand, and covered with a bell-glass."

1614. *Symplocos*. From *συμπλοση*, connection; union. The petals are naturally five, but united at the base so as to seem but one. A tree with oblong fragrant shining leaves, and sweet-smelling flowers, succeeded by subsessile drupes. A decoction of the leaves is used in North America for dyeing linen and silk of a bright yellow color.

1615. *Citrus*. The meaning of this word has escaped the ingenuity of etymologists. An ancient genus, combining in its species many excellencies, handsome evergreen shining tree-like forms, most odoriferous flowers, and brilliant, fragrant, delicious fruits. It is one of the most striking of fruit-bearing trees, and must have attracted the notice of aboriginal man long before other fruits of less brilliancy, but of more nutriment or flavor. The golden apples of the heathens, and forbidden fruit of the Jews, are supposed to allude to this family, though it is remarkable that we have no authentic records of any species of *Citrus* having been known; certainly none were cultivated by the Romans. The citron was introduced into Europe from Media, under the name of *malus medica*, and was first cultivated in Italy by Palladius, in the second century. The orange

10977 <i>buxifolia</i> P. S.	Box-leaved	▲	fr	3	my.jl	W	China	...	B r.m
10978 <i>nobilis</i> H. K.	Mandarin	▲	fr	15	my.jl	W	China	1805.	B r.m Bot. rep. 608
<i>minor</i>	smaller	▲	fr	15	my.jl	W	China	1805.	B r.m Bot. reg. 211
10979 <i>medica</i> Risso	Citron	▲	fr	8	my.jl	W	Asia	...	B r.m Ferr. hesp. t. 39
10980 <i>Decumana</i> W.	Shaddock	▲	fr	15	my.jl	W	India	1724.	B r.m Ru. an. 2. 1. 24. f. 2



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is supposed to have been introduced into Italy in the fourteenth century, above a thousand years after the citron. In England, these trees have been cultivated since 1629. Parkinson, writing at that time, says, "the orange hath abiden with some extraordinary looking and tending, when neither citron nor lemon trees could be preserved any length of time." The orange trees he alludes to were those of Beddington, in Surrey, introduced from Italy by a knight of the noble family of the Carews (*Gibson's* edit. of *Camb. Brit.*), and the first that were brought into England; they were planted in the open ground and placed under a moveable cover during the winter months. It has been said that these trees were raised by Sir Francis Carew, from seeds brought to England by Sir Walter Raleigh: but as such trees would not have readily borne fruit, Professor Martyn thinks it much more likely that they were plants brought from Italy. Bradley says, they always bore fruit in great plenty and perfection; that they grew on the outside of a wall, not nailed against it, but at full liberty to spread; they were fourteen feet high, the girth of the stem twenty-nine inches, and the spreading of the branches one way nine feet, and twelve feet another. These trees, Evelyn informs us, were neglected in his time, during the minority of their owner, and finally entirely killed by the great frost in 1739-40; they were planted before 1595.

During the latter end of the seventeenth and beginning of the eighteenth centuries, the orange tree was a very fashionable article of growth in conservatories, when there were but few exotics of other sorts kept there. The plants were procured from Genoa, with stems generally from four to six feet in height; they were planted in large boxes, and were set out during summer to decorate the walks near the house, in the manner still practised at Versailles and the Thuilleries. About the middle of the eighteenth century, when a taste for botany and forcing exotic fruits became general, that for superb orange trees began to decline; many of these large trees have decayed through neglect; and those which are now to be found in the greater number of greenhouses, are generally dwarf plants bearing few fruit, and those of small size. In some places, however, are still to be found large and flourishing trees. Those at Smorgony, in Glamorganshire, are the largest in Britain; they are planted in the floor of an immense conservatory, and bear abundantly. It is said that the plants were procured from a wreck on the coast in that quarter, in the time of Henry VII.

At Nuneham, near Oxford, are some fine old trees, planted under a moveable case, sheltered by a north wall. In summer the case is removed, and the ground turfed over, so that the whole resembles a native orange grove. At Wormleybury, Hertfordshire, and Shipley Hall, in Derbyshire, are very fine large orange and lemon trees grown in borders and in boxes. (*Hort. Trans.* vol. ii. 295, and iv. 306.)

At the Wilderness, Kent, are three trees in boxes, not surpassed by any trees so grown in Europe.

At Woodhall, near Hamilton, trees of all the species of Citrus are trained against the back walls of forcing houses, in the manner of peaches, and produce large crops of fruit.

In the south of Devonshire, and particularly at Salcombe, one of the warmest spots in England, may be seen, in a few gardens, orange trees that have withstood the winter in the open air upwards of a hundred years. The fruit is as large and fine as any from Portugal. Trees raised from seed, and inoculated on the spot, are found to bear the cold better than trees imported.

The common character of the Citrus family is that of low evergreen trees, with ovate or oval-lanceolate, entire or serrated leaves. On the ungrafted trees are often axillary spines. The flowers appear in peduncles, axillary or terminating, and one or many-flowered. The fruits are large berries, round or oblong, and generally of a yellow color. The species seem best distinguished by the petiole, which in the orange and shaddock is winged; in the citron, lemon, and lime, naked. The form of the fruit, although not quite constant, may also serve for a distinction. In the orange and shaddock it is spherical, or rather an oblate spheroid, with a red or orange-colored rind; in the lime, spherical, with a pale rind; in the lemon, oblong, rough, with a nipple-like protuberance at the end; in the citron, oblong, with a very thick rind. The flowers of the citron and lemon have ten stamens, and those of the orange more. It is very difficult to determine what is a variety, and what is a species in this genus; many of the sorts in cultivation are by buds.

Dr. Sickler, who spent several years in Italy, and paid great attention to the kinds and culture of the orange, published in 1815, *Der Vollkommen Orangerie-Gartner* (The complete Orange Gardener), in which he describes above seventy sorts of Citrus.

Gallezio (*Traité du Genre Citrus*, &c. Savonna, 1818.) has given a synopsis of the forty principal sorts cultivated in Italy.

The most splendid work on oranges which has yet appeared is the *Histoire Naturelle des Orangers*, by Risso, of Nice, and Poiteau, of Versailles. (Paris, fol. 1818.) Here 169 sorts are described, and 105 of them figured, and their French and Italian culture given at great length. They are arranged as sweet oranges, of which they describe 42 sorts; bitter and sour oranges, 32 sorts; bergamots, 5 sorts; limes, 8 sorts; shaddocks, 6 sorts; limes, 12 sorts; lemons, 46 sorts; citrons, 17 sorts.

All the species of Citrus endure the open air at Nice, Genoa, and Naples; but at Florence and Milan, and often at Rome, they require protection during the winter, and are generally placed in conservatories and sheds. The largest conservatory in Italy is that of Prince Antonio Borghese, at Rome, which contains several select sorts of *agrumi*. The largest trees are at Sorrenta, Terracina, Gaeta, and Naples; but the most regular and garden-like culture of the orange, is in the orange-orchards at Nervi, Monaco, and other places in the neighbourhood of Genoa. At Nervi are also the orange nurseries which may be said to supply all Europe with trees; they are, in general, wretchedly cultivated, and the stocks inoculated in the most unscientific manner; but the fine climate, strong clay soil, and abundant manurings, supply in a great degree the nicer practices

10977 Petioles lin. very short, Lvs. ovate retuse, Flowers racemose

10978 Petioles sublinear straight, Branches ascending unarmed, Fruit depressed, Skin separated from flesh

10979 Petioles naked, Lvs. obl. acute, Fl. 40-androus, Fruit obl. rugose with acid pulp

10980 Petioles winged, Lvs. blunt emarg. Fruit very large with a thick skin



and Miscellaneous Particulars.

of gardening. There the names of varieties vary as much as those of gooseberries do in England; but from upwards of 180 names, not above 40 distinct sorts can be procured. Good plants of the Maltese and other varieties of orange may be procured from Malta; and some sorts also from Lisbon. From the nurseries at Paris about thirty sorts may be obtained, much smaller plants than those from the other places named, but more scientifically grafted or inoculated. The catalogues of London nurserymen enumerate above thirty varieties of oranges, twelve of lemons, and several varieties of the other species; the plants are partly Genoese, partly French, and partly propagated here.

The *C. aurantium*, the common orange; *orange*, Fr., *pomeranze*, Ger., and *arancio*, Ital., is a middle-sized evergreen tree, with a greenish-brown bark; and, in its wild state, with prickly branches. The fruit is nearly round, from two to three inches in diameter, and of a gold color. It is now cultivated in most countries of Europe; in the open air in Italy and Spain; and in conservatories or greenhouses in Britain and the north of Europe.

The two principal varieties are the sweet or China orange, the *orange douce* of the French, and *porto-gallo* or *poma de sino* of the Italians; and the bitter or Seville, the *bigarade* of the French, and *arancio volgare* of the Italians. The Maltese orange, distinguished by its red pulp, is also a noted and much-esteemed sort. The box-leaved, willow-leaved, and some others, are cultivated more as curious varieties than for their fruit.

C. Medica, the citron, *citron*, Fr., *citronier*, Ger., and *cedrate*, Ital., in its wild state grows to the height of about eight feet, erect and prickly, with long reclining branches. The leaves are ovate, oblong, alternate, serrate, smooth, pale green. The fruit or berry is half a foot in length, ovate, with a protuberance at the lip. There are two rinds, the outer thin, with innumerable miliary glands, full of a most fragrant oil; the inner thick, white, and fungous.

In China they have a variety of the *C. Medica*, of very considerable size, quite solid, with scarcely any pulp or cells, and divided at the end into five or more long round lobes, on which account it is called *Phat thu*, or finger-orange. The fruit is laid upon fine porcelain vessels in the sitting-rooms of the Chinese, for the sake of its agreeable perfume.

Dr. Sickler enumerates only about a dozen citrons and citronates as grown in Italy. The French nurseries have nearly twenty names in their lists. In England six are cultivated for sale.

C. Limonum, the lemon; *limon*, Fr., *limonier*, Ger., and *limone*, Ital., has the fruit less knobbed at the extremities, is rather longer and more irregular, and the skin is thinner than in the citron; the wood is more knotty, and the bark rougher.

Dr. Sickler enumerates twenty-eight varieties as grown in Italy. The French, according to Ville Hervé have eleven sorts; in the London nurseries are cultivated twelve.

C. Limetta, the lime, by some esteemed a variety of the *C. Medica*, *lime*, Fr., Ital., and Ger., grows to the height of about eight feet, with a crooked trunk, and many diffused branches, with prickles. The leaves are ovate lanceolate, almost quite entire. Berry an inch and a half in diameter, almost globular, with a protuberance at the top; the surface regular, shining, greenish-yellow, with a very odorous rind, enclosing a very acid juice.

The French have two sorts of lime; and, according to Dr. Sickler, the Italians have four varieties; five kinds are grown in the London nurseries.

C. decumana, the shaddock, *orange pampelmuse*, Fr., *arancio massimo*, Ital., is above the middle size, with spreading prickly branches. The leaves are ovate, subacute, seldom obtuse; the petioles are cordate, winged; the wings as broad as the leaves. The berry spheroidal, frequently retuse at each end, of an even surface, and greenish-yellow color; pulp red or white; juice sweet or acid; rind white, thick, fungous, and bitter. Thunberg says, the fruit in Japan grows to the size of a child's head, and Dr. Sickler states its weight as fourteen pounds, and its diameter as from seven to eight inches. It is a native of China and Japan, and was brought to the West Indies by Captain Shaddock, from whom it has derived its name.

The Italians, according to Dr. Sickler, have one, and the French, according to the *Nouveau Cours*, &c., four sorts. Four are grown in the English nurseries.

All the sorts may be propagated by seeds, cuttings, layers, and grafting, or inoculation.

The object of raising plants from seed is either to obtain new varieties or stocks for grafting. To attempt raising new varieties in Britain will in general be found a tedious process, as the trees do not even in Italy show fruit for six or eight years or more; and there is now in the botanic garden at Toulon, a large handsome tree, of twenty-five years' growth, which in 1819 had not blossomed. Shaddock stocks are the strongest, and next to these the citron. Budding and grafting are performed at the usual season; but these operations may be performed at any time when the sap is in motion.

Henderson, of Woodhall, a most superior cultivator of the Citrus tribe, considers cuttings as the quickest mode of getting plants, and has practised it for thirty-seven years past: his directions are as follows: "Take the strongest young shoots, and also a quantity of the two years old shoots; these may be cut into lengths from nine inches to eighteen inches. Take the leaves off the lower part of each cutting to the extent of about five inches, allowing the leaves above that to remain untouched: then cut right across, under an eye; and make a small incision in an angular direction on the bottom of the cutting. When the cuttings are thus prepared, take a pot, and fill it with sand; size the cuttings, so that the short ones may be all together, and those that are taller in a different pot. Then, with a small dibble, plant them about five inches deep in the sand, and give them a good watering overhead, to settle the sand about them. Let them stand a day or two

1616. XANTHOCHY'MUS. Rox.	XANTHOCHYMUS.	Guttiferae.	Sp. 2—4.					
10981 pictorius H. K.	painter's	fr	20	...	Y	E. Indies	1796.	S r m Roxb.cor.2.t.196
10982 ovalifolius Roxb.	oval-leaved	fr	12	...	Y	E. Indies	1824.	S r m
1617. HYPERICUM. W. Sr. JOHN'S WORT.		Hypericinea.	Sp. 63—133.					
10983 elatum H. K.	tall	or	5	il.au	Y	N. Amer.	1762.	L s.l Dend. brit. 85
10984 frondosum Mich.	green	or	5	il.au	Y	N. Amer.	1806.	C s.l Bot. mag. 1867
10985 amœnum Psh.	elegant	or	4	il.au	Y	Carolina	1812.	L s.l Dil.el.t.151.f.182
10986 hircinum L.	stinking	or	3	il.s	Y	S. Europe	1640.	L s.l Dend. brit. 86
10987 foliosum H. K.	shining	or	3	au	Y	Azores	1778.	C p.l
10988 floribundum H. K.	many-flowered	or	3	au	Y	Madeira	1779.	C p.l Com.hort.2.t.68
10989 olympicum L.	Olympian	or	4	il.s	Y	Levant	1706.	S s.l Bot. mag. 1867
10990 canariense L.	Canary	or	2	il.s	Y	Canaries	1699.	C p.l Bot. cab. 953
10991 monogynum L.	Chinese	or	3	mr.s	Y	China	1753.	C p.l Bot. mag. 334
10992 cordifolium Chois.	heart-leaved	or	2	...	Y	Nepal	1825.	C co
10993 pyramidatum H. K.	pyramidal	or	1	il.au	Y	Canada	1759.	D p.l Vent. malm. 118
10994 Ascyron L.	Siberian	or	1	jn.s	Y	Siberia	1774.	Sk co Gmel. sib.4. t.69
10995 ascyroides W.	large-capsuled	or	1	jn.jl	Y	N. Amer.	1812.	Sk co
10996 patulum Thunb.	spreading	or	1	jn.jl	Y	Nepal	1823.	C co Bot. mag. 2375
H. aratum B. M.								
10997 Kalmianum Lam.	Kalmia-leaved	or	2	jn.jl	Y	N. Amer.	1759.	C s.l
10998 calycinum L.	large-flowered	or	1	jn.s	Y	Ireland	...	Sk co Eng. bot. 2017
10999 balearicum L.	warted	or	1½	mr.s	Y	Majorca	1714.	C r m Bot. mag. 137
11000 Androsæ'mum L.	Tutsan	or	2	il.s	Y	Britain	woods.	Sk co Eng. bot. 1225
11001 cochinchinense Lour.	red-flowered	pr	3	il.au	R	China	1821.	C co
11002 paludosum Chois.	marsh	pr	2	il.au	Y	N. Amer.	1821.	D co
11003 virginicum L.	Virginian	or	1½	il.s	Y	N. Amer.	1800.	D p.l
Elodea campanulata Ph.								
11004 angulosum Mich.	toothed-flower.	or	2	jn.jl	Y	N. Amer.	1812.	D p.l Flu.alm.t.245.f.6
11005 punctatum Lam.	dotted	or	1½	jn.jl	Y	N. Amer.	1823.	D co
11006 dolabriforme Vent.	hatchet-leaved	or	2	jn.jl	Y	N. Amer.	1821.	D co
11007 procumbens Mich.	procumbent	or	½	aus	Y	N. Amer.	1822.	D co
11008 rosmarinifolium Lam.	Rosemary-lv.	or	2	jn.au	Y	Carolina	1812.	L s.l
11009 virgatum Lam.	twiggy	or	1½	jn.au	Y	N. Amer.	1820.	D co
11010 myrtifolium Lam.	myrtle-leaved	or	1	il.au	Y	N. Amer.	1818.	D co
11011 prolificum L.	prolific	or	4	jn.au	Y	N. Amer.	1758.	S s.l Dend. brit. 88
11012 glaucum Mich.	glaucous	or	1½	il.au	Y	N. Amer.	1812.	C p.l
11013 lævigatum H. K.	smooth	or	1½	il.s	Y	N. Amer.	1772.	D p.l
11014 nudiflorum Mich.	naked-panicle	or	1½	s.o	Y	N. Amer.	1811.	C p.l
11015 quadrangulum L.	square-stalked	or	1½	il.au	Y	Britain	m. thi.	C p.l Eng. bot. 570
β æbium W.	imperforate	or	3	il.au	Y	Britain	m. thi.	C p.l Eng. bot. 296
γ maculatum All.	spotted	or	2	il.au	Y	N. Amer.	1789.	C p.l
δ undulatum W. en.	wave-leaved	or	1	il.au	Y	Barbary	1802.	D p.l
11016 attenuatum Chois.	narrow-leaved	or	1½	il.au	Y	Dahuria	1822.	D p.l
11017 japunicum Thunb.	Japanese	or	1½	il.au	Y	Nepal	1823.	D p.l



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in a shady place, and if a frame be ready with bottom heat, plunge the pots to the brim. Shade them well with a double mat, which may remain till they have struck root; when rooted, take the sand and cuttings out of the pot, and plant them into single pots, in the proper compost. Plunge the pots with the young plants again into a frame, and shade them for four or five weeks, or till they are taken with the pots; when they may be gradually exposed to the light. From various experiments, I found that pieces of two year old wood struck quite well; and in place, therefore, of putting in cuttings six or eight inches long, I have taken off cuttings from ten inches to two feet long, and struck them with equal success. Although I at first began to put in cuttings only in the month of August, I now put them in at any time of the year, except when the plants are making young wood. By giving them a gentle bottom heat, and covering them with a hand-glass, they will generally strike root in seven weeks or two months. The citron is most easily struck, and is the freest grower; I, therefore, frequently strike pieces eighteen inches long, and as soon as they are put into single pots, and taken with the pots, they are grafted with other sorts, which grow freely. I am not particular as to the time either of striking cuttings or of grafting." (Caled. Hort. Mem. iii. 308.)

At Genoa and Florence, citrus trees are grown in a strong yellow clay, which is richly manured; and this soil is considered by the first Italian gardeners as best suited to their natures.

The French gardeners, in preparing a compost for the orange-tree, endeavour to compensate for quantity by quality; because the pots or boxes in which the plants are placed ought always to be as small as possible, relatively to the size of the tree. The following is the composition recommended: to a fresh loam, which contains a third of clay, a third of sand, and a third of vegetable matter, and which has lain a long time in a heap, add an equal bulk of half-rotten cow-dung. The following year turn it over twice. The succeeding year mix it

10981 Leaves oblong

10982 Leaves smaller oval blunt

§ 1. *Sepals united at base and unequal. Stamens 00. Styles 3-5. ASCYREIA.*

10983 Young stem winged, Lvs. ov. obl. acute dilated at base somew. emarg. revolute at edge, Fl. corymbose

10984 Branches double-edged, Lvs. ov. elongated blunt at end narrow at base, Fl. large subsolitary

10985 Branches double-edged, Lvs. obl. ellipt. bluntnish at end narrowed at base with a crisp revolute edge

10986 Branches winged, Lvs. emarg. at base dilated sess. acute at end ovate lanc. glandular at edge

10987 Branches winged, Lvs. sess. open ovate obl. somewhat acute slightly perforated

10988 Stem round, Lvs. sess. lanc. not dotted numerous, Peduncles dilated at end

10989 Stem round, Lvs. ellipt. ovate bluntnish with pellucid dots, Calyx ovate acute

10990 Stem obsoletely quadrangular, Branches compressed, Lvs. ov. lanc. acute, Cal. blunt ovate

10991 Stem round, Lvs. ellipt. blunt a little dotted with black, Styles united

10992 Stem round shrubby, Lvs. ov. amplexicaul. cordate not dotted clustered, Flowers few

10993 Stem winged, Lvs. amplexicaul. obl. lanc. acute revolute at edge, Pedunc. short thick

10994 Stem square herbaceous simple erect, Leaves amplexicaul. lanc. acute with pellucid dots

10995 Stem winged at base square at end herbaceous simple, Lvs. obl. lanc. acute

10996 Stem round suffruticose purple, Lvs. ovate lanc. acute narrowed at base revolute at edge with pellucid dots

10997 Branches square, Lvs. lin. lanc. Flowers in terminal corymbs

10998 Styles 5, Fl. solitary, Segm. of the cal. unequal obovate obtuse, Lvs. obl. Stem shrubby branched square

10999 Stem square warted, Lvs. ovate blunt amplexicaul. warted

10000 Styles 3, Caps. pulpy, Stem shrubby compressed, Cal. leaflets unequal, Leaves ovate sessile

§ 2. *Sepals 5, equal, entire. Stamens deeply triadelphous; parcels pencilled at end. Styles 3. TRIDESMOS.*

10001 Flowers trigynous, Leaves subpetiolate very dense, Pedunc. about 5-fl. axillary

§ 3. *Sepals 5, equal, entire. Styles 3. Filaments definite in number, 9-15-18, deeply united. ELODEA.*

10002 Stem herbaceous round, Leaves oblong blunt narrowed into a stalk with pellucid dots

10003 Stem round half-shrubby, Leaves oblong blunt amplexicaul. with pellucid dots

§ 4. *Sepals 5, equal, sometimes entire, sometimes toothed, or with glandular teeth, Stamens 00. Styles**usually 3. PERFORARIA.*** Sepals entire.*

11004 Stem herbaceous square erect, Leaves distant long ovate amplexicaul. sinuated at edge acute not dotted

11005 Stem round black dotted, Leaves ovate-lanc. somewhat acute amplexicaul. dotted with black

11006 Stem erect purple, Leaves lin. lanc. reflexed with pellucid dots, Flowers corymbose

11007 Stem procumbent square herbaceous, Leaves linear-lanceolate blunt revolute at edge with pellucid dots

11008 Stem round straight, Leaves amplexicaul. blunt ovate revolute at edge, Styles united

11009 Stem straight square, Leaves ovate-lanceol. slightly amplexicaul. dotted with black revolute at edge

11010 Stem round, Leaves ovate cordate amplexicaul. or cuneate lanc. revolute at edge

11011 Stem round, Branches angular, Lvs. linear lanc. revolute at edge with pellucid dots, Styles often united

11012 Stem round, Leaves cordate amplexicaul. blunt revolute at edge glaucous with pellucid dots

11013 Flowers trigynous, Styles united, Lvs. ovate subamplex. Sepals ov. acute, Middle flower of panicle sessile

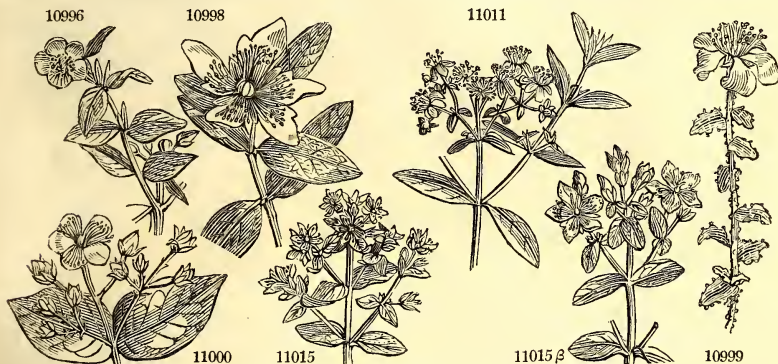
11014 Stem square and winged, Leaves ovate obl. blunt needle-dotted not pellucid, Panicle naked

11015 Styles 3, Stem herbaceous 4-angular somewhat branched, Leaves ovate with pellucid dots, Cal. lvs. lanc.

β Stem obsoletely quadrangular, Leaves elliptical ovate obtuse destitute of pellucid dots, Cal. lvs. elliptical

11016 Stem round dotted with black, Leaves ovate obl. blunt amplexicaul. dotted with black

11017 Stem weak square smooth, Leaves ovate subcordate blunt revolute at edge scarcely dotted beneath



and Miscellaneous Particulars.

with nearly one-half its bulk of decomposed horse dung. Turn it over twice or three times, and the winter before using add a twelfth-part of sheep dung, a twentieth of pigeon dung, and a twentieth of dried ordure.

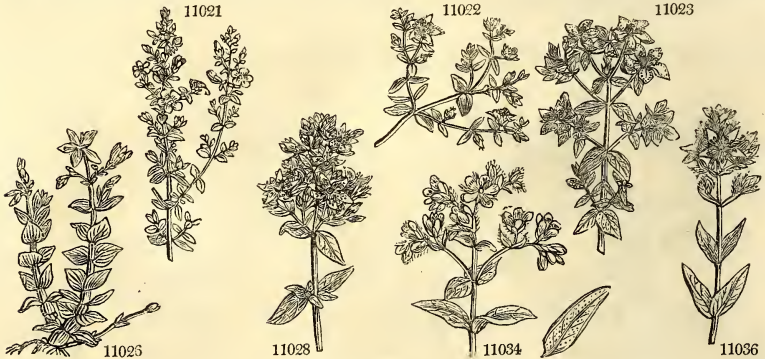
Henderson, already mentioned, takes one part of light-brown mould from a piece of ground that has not been cropped nor manured for many years; one part of peat earth, such as is used for growing heaths; two parts of river sand, or pit sand, if it be free from mineral substances; and one part of rotted hot-bed dung, with one part of rotted leaves of trees, and mixes them all well together, so as to form a compost-soil of uniform quality. (*Calcd. Hort. Mem.* iii. 302.)

Though orange-trees will grow exceedingly well in large pots and boxes, yet to have them produce the finest crop of fruit they should be planted in the ground like peach-trees, and trained like them, or as standard cherries in a conservatory. The latter has by far the best effect, especially when the stems of the trees are seven or eight feet high, and the head forms a handsome cone; but the largest fruit is produced when the trees are planted against the back-wall trellis of a narrow house, and treated like peach-trees. Henderson grows his largest fruit in this manner, and we have seen them fully as large as any we ever saw at Genoa or Naples.

1616. *Xanthochymus*. From ξανθός, yellow, and χυμος, anything which exudes; in allusion to the color of the juice which flows from the ripe fruit when wounded, and which, being inspissated, yields a material for water-color painting which is as good as Gamboge. Handsome plants, of the usual culture in light loam, and propagated by cuttings in sand under a hand-glass.

1617. *Hypericum*. A name of unknown meaning. The species are chiefly under-shrubs, generally with dotted leaves, and almost, without exception, yellow flowers. The hardy species are useful for the fronts of

11018	<i>crispum L.</i>	curl-leaved	△	or	1	jl.au	Y	Greece	1688.	C	p.l	Bocc. mus. t. 12
11019	<i>setosum H. K.</i>	unbranched	△	or	1	jl.au	Y	Carolina	1759.	D	p.l	
11020	<i>heterophyllum Vent.</i>	various-leaved	△	or	2	jl.au	Y	Persia	1812.	D	p.l	Vent. cels. t. 68
11021	<i>ægyptiacum L.</i>	Egyptian	△	or	2	jn.jl	Y	Egypt	1787.	C	p.l	Bot. reg. 196
11022	<i>humifosum L.</i>	trailing	△	or	1	jl.au	Y	Britain	pas.	D	co	Eng. bot. 1226
11023	<i>perforatum W.</i>	perfoliate	△	or	1	jl.au	Y	Britain	bu.pl.	D	p.l	Eng. bot. 295
11024	<i>canadense L.</i>	Canadian	△	or	1	jl.s	Y	N. Amer.	1770.	D	p.l	
11025	<i>fasciculatum W.</i>	clustered	△	or	1	jl	Y	N. Amer.	1806.	C	s.l	
11026	<i>Elódés L.</i>	marsh	△	or	1	jl.au	Y	Britain	sp.bo.	D	p.l	Eng. bot. 109
11027	<i>tomentosum L.</i>	woolly	△	or	1	jl.s	Y	S. Europe	1648.	C	r.m	
11028	<i>hirsutum L.</i>	hairy	△	or	2	jn.jl	Y	Britain	ch.ba.	D	p.l	Eng. bot. 1156
11029	<i>nummularium L.</i>	money-leaved	△	or	1	jn.jl	Y	S. Europe	1823.	D	co	Lam. ill. t. 643
11030	<i>élegans Steph.</i>	elegant	△	or	1	jn.jl	Y	Siberia	1822.	D	co	Spreng. fl. hal. t. 9
11031	<i>glandulosum H. K.</i>	glandular	△	or	2	my.au	Y	Madeira	1777.	C	p.l	
11032	<i>reflexum L.</i>	hanging-leaved	△	or	1	jn.s	Y	Tencriffé	1778.	C	p.l	
11033	<i>pólchrum L.</i>	small upright	△	or	1	jl	Y	Britain	woods.	D	p.l	Eng. bot. 1227
11034	<i>barbatum L.</i>	bearded	△	or	2	jn.o	Y	Scotland	sc.thi.	D	co	Eng. bot. 1986
11035	<i>dentatum Lois.</i>	toothed	△	or	2	jn.o	Y	Mediterr.	1820.	D	co	Lois. fl. gall. t. 17
11036	<i>montanum L.</i>	mountain	△	or	1	jl.au	Y	Britain	m.wo.	D	p.l	Eng. bot. 371
11037	<i>fimbriatum Lam.</i>	fringed	△	or	2	jl.au	Y	Pyrenees	1821.	D	p.l	Vill. delph. t. 44
	<i>β alpinum W. & K.</i>	alpine	△	or	2	jl.au	Y	Hungary	1822.	D	p.l	Wal. & Kit. t. 235
11038	<i>serpyllifolium Lam.</i>	Thyme-leaved	△	or	2	jl.au	Y	Levant	1688.	C	r.m	M. h. 2. s. 5. t. 6. f. 2
11039	<i>chliatum Lam.</i>	fringe-flowered	△	or	2	jl	Y	Levant	1739.	D	p.l	Bocc. mus. t. 127
11040	<i>triplinerve Vent.</i>	three-nerved	△	or	1	jl	Y	N. Amer.	1821.	D	co	Vent. cels. t. 58
11041	<i>hyssofolium Vill.</i>	Hyssop-leaved	△	or	1	jl.au	Y	S. Europe	1823.	D	co	Vill. delph. t. 44
11042	<i>cmepetrifolium W.</i>	fine-leaved	△	or	1	jl.au	Y	S. Europe	1820.	C	p.l	Dend. brit. 141
11043	<i>Coricis L.</i>	Heath-leaved	△	or	1	my.s	Y	Levant	1640.	C	p.l	Bot. mag. 178
11044	<i>ericoides L.</i>	Heath-like	△	or	1	jn.jl	Y	Spain	1821.	C	p.l	Cav. ic. t. 122
11045	<i>aspalathoides W.</i>	Aspalathus-like	△	or	1	jn.au	Y	Carolina	1811.	C	s.l	
1618.	ASCYRUM. <i>IV.</i>	ASCYRUM.						<i>Hypericicæ.</i>	<i>Sp. 5-6.</i>			
11046	<i>pumilum Ph.</i>	dwarf	△	pr	1	jn.au	Y	Georgia	1806.	C	p.l	
11047	<i>Crux A'ndrea Ph. St.</i>	Andrew's Cross	△	pr	2	jl	Y	N. Amer.	1759.	C	p.l	
11048	<i>hypericoides Ph.</i>	Hypericum-like	△	pr	1	jl.s	Y	N. Amer.	1759.	C	lp	
11049	<i>stans W.</i>	large-flowered	△	pr	1	jl.s	Y	N. Amer.	1806.	C	lp	Vent. malm. 90
11050	<i>amplexicaule Ph.</i>	stem-clasping	△	pr	2	jl.s	Y	N. Amer.	1823.	C	co	
1619.	LOA'SA. <i>L.</i>	LOASA.						<i>Loasæ.</i>	<i>Sp. 4-10.</i>			
11051	<i>Pláci Lindl.</i>	Place's	○	or	4	jn.s	Y	Chile	1822.	S	co	Bot. reg. 785
11052	<i>nitida Lam.</i>	shining	○	or	2	jn.s	Y	Chile	1822.	S	co	Bot. reg. 667
11053	<i>volubilis Juss.</i>	twining	○	el	1	mr.s	Y	Chile	1824.	S	s.l	Jus. an. m. t. 5. f. 2
11054	<i>grandiflora Lam.</i>	large-flowered	○	or	2	...	Y	Caraccas	1825.	S	co	Jus. an. m. t. 4. f. 2



History, Use, Propagation, Culture,

shrubberies. *H. calycinum* soon spreads over a considerable surface, and being evergreen, and growing under the shade, it is well adapted for covering bare spots under trees, and at the base of walls where few plants will thrive.

H. Androsæmum; from *ανδρ*, a man, and *αιμα*, blood, because the fresh capsules, bruised between the fingers, give out a blood-colored juice, is called Tutsan from *Toutte-saine*, Fr., from its bruised capsules being formerly applied to fresh wounds.

H. perforatum was formerly used in external wounds and hæmorrhages as a balsamic, and was reputed to have other medical properties. The semi-transparent dots on the leaves are the receptacles of an essential oil. The flowers tinge spirits and oils of a fine purple color; and the dried plant, boiled with alum, dyes wool of a yellow color. The common people in France and Germany gather it with great ceremony on St. John's day, and

- 11018 Stem round much branched, Lvs. scss. lanc. undul. wavy at base with pellucid dots, Cal. very small blunt
 11019 Flowers 2-3-gynous terminal, Cal. lanc. entire, Leaves lanc. oblong and erect, Stem simple downy
 11020 Stem round, Lvs. lin. lanc. with pelluc. dots : low. closely imbric. very short blunt, Cal. acute rather unequal
 11021 Stem round, Leaves very small ovate close not dotted, Flowers few subsessile, Cal. acute lanceolate
 11022 Styles 3, Flowers terminal subcymose, Stems comp. prostrate, Leaves oblong obtuse glabrous
 11023 Styles 3, Stem compressed, Leaves elliptico-oblong obtuse with pellucid dots, Cal. leaves lanceolate
 11024 Stem herbaceous upright 4-winged, Lvs. lin. somewhat blunt with fine pellucid dots and black dots beneath
 11025 Stem round diffuse, Leaves lanceol. linear narrow at base revolute at edge, Calyx somewhat unequal

**Sepals toothed, or toothed glandular.*

- 11026 Styles 3, Cal. with (reddish) glandular serratures glabrous, Lvs. roundish pubesc. Stem rounded creeping
 11027 Stem downy round ascend. Lvs. ovate blunt somewhat amplexicaul. with black dots at edge, Cal. acuminate
 11028 Styles 3, Cal. with (black) glandular serratures, Stem erect rounded pubesc. Lvs. ov. slightly downy beneath
 11029 Stem round ascending, Leaves orbicular stalked, Calyx ovate blunt
 11030 Stem straight slightly wing. Lvs. ov.-lanc. subamplex. blunt. with pellucid dots, Anthers dotted with black
 11031 Stem round straight branched, Lvs. ellipt. lanc. acute glandular at edge with pellucid dots, Cal. lanc. acute
 11032 Stem round a little villous at end, Leaves amplexicaul. lanceol. acute generally reflexed, Panic. lax few-fl.
 11033 Styles 3, Cal. with (black) glandul. serratures, Stem erect, Lvs. cord. glab. amplexicaul. [dots beneath
 11034 Sty. 3, Corymbs term. Cal. fring. with long peduncul. glands, Stem erect round. Lvs. ov. with (black) scattered
 11035 Stem round ascending, Leaves amplexicaul. oblong bluntish with pellucid dots : upper sometimes toothed
 11036 Styles 3, Fis. paniculate-corymb. Cal. with glandul. serratures, Stem erect round, smooth, Lvs. ov. glabrous
 11037 Stem round purplish simple, Lvs. amplexicaul. ovate dotted with black at the edge, Cal. ov. acute ciliated

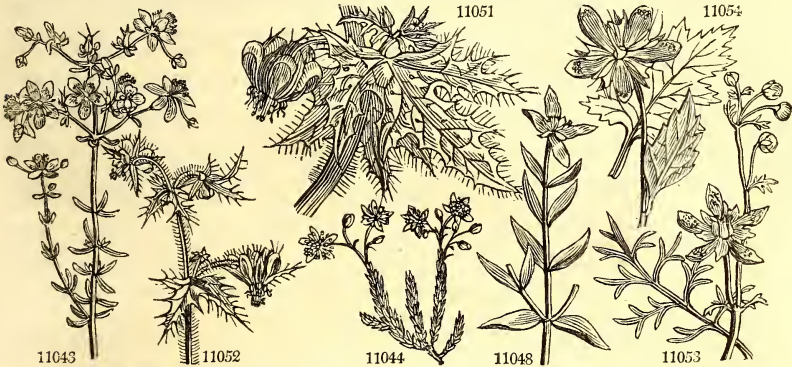
- 11038 Stem round, Leaves ovate blunt with a small petiole revolute at edge, Calyx ovate blunt [with black
 11039 Stem round slightly winged, Lvs. amplexicaul. subcord. ovate obl. blunt with pellucid dots, Anthers dotted
 11040 Stem with 2 angles decumbent at base, Lvs. linear-lanc. spreading blunt revolute at edge, Cal. ovate acute
 11041 Stem round ascending, Lvs. obl. lanc. bluntish narrowed at each end with pellucid dots, Cal. somewhat blunt
 11042 Stem round, Branches somewhat winged, Leaves in threes linear revolute at edge, Calyx very small blunt
 11043 Stem round ascending, Leaves whorled linear revolute at edge, Calyx linear somewhat blunt
 11044 Stem round tortuous minute, Leaves round acute clustered dotted glaucous very small

§ 5. *Sepals 5, entire, equal, like the leaves. Stamens 00. Styles 3-5. BRATHYS.*

- 11045 Stem round compressed at end, Leaves dense not dotted channelled revolute at edge, Cal. equal straight

- 11046 Stem small simple quadrangular, Leaves oval blunt fascicled, Pedicels 6 lines long reflexed
 11047 Stem round, Branches erect, Lvs. ovate linear blunt generally fascicled in the axilla, Inner sepals orbicular
 11048 Stem round, Leaves oblong linear blunt with 2 glands at base, Inner sepals somewhat orbicular
 11049 Stem winged straight, Leaves ovate ellipt. blunt glaucous, Inner sepals cordate orbicular
 11050 Stem dichotomous panicled, Leaves ovate cordate crisp, Corymb naked, Styles 3

- 11051 Sepals scarcely toothed reflexed as long as petals, in fruit reflexed and longer than the obovate capsule
 11052 Sepals toothed shorter than petals, in fruit erect and shorter than the pear-shaped capsule
 11053 Stem twining, Leaves bipinnatifid with narrow obtuse segments
 11054 Hispid, Leaves opposite and alternate cordate ovate lobed, Petals flattish, Flower very large



and Miscellaneous Particulars.

hang it in their windows as a charm against storms, thunder, and evil spirits ; mistaking the meaning of some medical writers, who have fancifully given this plant the name of *Fuga Dæmonum*, from a supposition that it was good in maniacal and hypochondriacal disorders. In Scotland it was formerly carried about as a charm against witchcraft and enchantment.

H. humifusum is one of the prettiest little plants of the genus, well adapted for growing in pots.

1618. *Ascyrum*. From α , privative, and $\sigma\upsilon\gamma\sigma\sigma$, roughness; that is to say, a smooth plant, *Linn.* Curious little plants, of the same culture as the *Hypericum*s.

1619. *Loasa*. A name applied to these plants by Adanson, but of unknown meaning. Stinging, mostly annual plants ; some of the species are handsome hardy annuals, remarkable for the beauty of their highly curious flowers. *L. volubilis* will not succeed in the open air.



CLASS XIX. — SYNGENESIA. STAMENS 5. ANTHERS united by their edges.

THIS is one of the most extensive and best defined of all the Linnæan classes. Its essential character depends, as its name indicates, (*syn*, together, and *genesis*, generation,) upon the adhesion of the antheræ or male organs of the flower into a single tube. It comprehends the whole of the Corymbifera, Cichoraceæ, and Cinarocephalæ of Jussieu; and, with the exception of Acicarpa, nothing else. The genera constituting the order Monogamia of Linnæus are excluded by Linnæan botanists of the present day.

In addition to the cohesion of the anthers, upon which this class immediately depends, it is further characterized by the flowers, commonly called florets, being clustered together in heads, and inserted upon a common receptacle, which is surrounded by an involucre, commonly, but very improperly, termed calyx. The few genera, such as *Kuhnia*, *Euxenia*, *Acicarpa*, &c., in which a union of anthers either does not exist at all, or in a very incomplete degree, are therefore retained in Syngenesia, because of their congruity in the structure of their inflorescence.

The real nature of the various constituent parts of syngenesious inflorescence being, from its complicated nature, very puzzling to the unlearned, and, as it would seem, to some professors also, it may be useful to explain briefly the analogy the various parts bear to the organs of other plants, and the terms employed in describing them.

The *Head* or *Capitulum* is a cluster of flowers of the nature of an umbel, inserted upon a common rachis, which, by contraction or incomplete development, assumes the form of a conical or flat body, out of which the flowers proceed, and which is called a receptacle. This is surrounded by the involucre. M. Cassini calls the head *Calathide*.

The *Involucre* is the most external part of the head. It consists of a more or less considerable number of scales or leaves, placed in a single row, either distinctly from each other, or united at their edges, in which case the involucre is called one-leaved; or placed in many rows, becoming gradually shorter as they are external, in which case they are called imbricated. If the external scales surround the internal at the base in a regular manner, then the involucre is said to be calyculate. The involucre was called *common calyx* by Linnæus, and has been more recently denominated a perianthium. M. Cassini names it *Periclinium*.

The *Receptacle* (Climanthium of Cassini) is a cellular fungous surface surrounded by the involucre, and bearing the florets. It is either columnar, conical, flat, or depressed; and naked, or covered with appendages called hairs or bristles, according to their nature, or paleæ, when they are dilated and have a glumaceous appearance. If naked, and merely scarred by the insertions of the florets, it is called dotted or punctulate; when the scars are more considerable and deeper, the receptacle is said to be scrobiculate; if the insertions are so deep as to appear to be divided by membranous partitions, it is cellular, or favose, or alveolate; if furnished with hairs, it is villose; if with paleæ, it is paleaceous or chaffy.

The *Paleæ* are of the same nature as bractæe, and exist in various degrees of development. Occasionally they are as large as the scales of the involucre, which they in that case closely resemble.

The flower, usually termed *Floret*, consists of two parts, the ovarium and the corolla, each with its appendages.

The *Ovarium* is always one-celled, but it occasionally has two additional obsolete cells, as in *Arctotis*. It is either naked, or covered with hairs in various degrees, occasionally becoming enveloped in fine wool, and it is surmounted by an organ named the pappus.

The *Pappus* has generally been esteemed a superior calyx, and it is the opinion of M. Cassini that it is analogous to the scales of the receptacle, and the leaves of the involucre.

The *Corolla* is placed on the top of the ovarium. It is either funnel-shaped, with a limb divided into four or five equal lobes, in which case the florets are denominated *tubular*; or it is split on one side, and spread open into the form of a strap, when the florets are called *ligulate*; or it is divided into two portions, of which one is unequal to the other; this form is called *bilabiate* or *two-lipped*. Bilabiate corollas may be either ligulate or fuscous, according to the species to which they belong. Occasionally the corolla appears to be absent.

The *Stamens* are attached to the orifice of the tube of the corolla, just below the limb. Their *filaments* are usually, but not always, distinct; their *anthers* are adherent by their edges, and furnished with a little membranous appendage at the tip, and sometimes with two spur-like processes at their base.

The *Style* is filiform, and either split at the summit into two linear spreading stigmas, or consists of a single piece from the base to the summit. The form and surface of the stigma, and the upper part of the style are subject to a great diversity of appearances, which are of the utmost importance in determining the affinities of the genera.

The *Florets* are either hermaphrodite, unisexual, or neuter. Upon these differences of sex the orders of Linnæus are founded.

In *Syngenesia æqualis* the florets are all hermaphrodites.

In *Syngenesia superflua*, those of the disk or centre are hermaphrodite, of the circumference or ray female, (and *superfluous*.)

In *Syngenesia frustranea*, those of the disk are hermaphrodite, of the ray neuter, (and *useless*.)

In *Syngenesia necessaria*, those of the disk are male, of the ray female, (and *necessary*.)

Syngenesia segregata is only characterized by the heads themselves being clustered and surrounded by a common involucre.

The genera of Syngenesia have always attracted much attention from systematic botanists, who have met with very unequal success in characterizing them. The older botanists comprised them all under a few general heads or names. Tournefort, with his usual happiness, pointed out a large proportion of the most natural genera. Vaillant established a considerable number. Linnæus, profiting by the labours of his predecessors, rejecting some genera, and dividing others, increased their number, and adapted them to his sexual system, in nearly the same order in which they exist at the present day. Jussieu, by applying to the genera the principles of his natural method, reduced them to an arrangement much superior in point both of facility and of natural affinity to that of his northern rival. But however meritorious the labours of these great systematists may have been, much remained to be effected, even among their own plants, by those who followed them. The indefatigable Gærtner, who worked upon the only satisfactory or philosophical principle, that of strict analysis, soon discovered that the combinations of Linnæus and Jussieu were often too vague and ill defined to accord with his notions of accurate subdivision. Hence many other genera arose. But since his days, the extent of Syngenesia has, like all other parts of botanical science, increased exceedingly, and has arrived in our days at a state little short of absolute confusion. Injudicious or superficial botanists, impressed with the fear of innovation, and with a pious reverence even for the errors of those who went before them, have from time to time crowded the genera of Jussieu and Linnæus with the most incongruous species, and so have rendered many of those which were originally pure and simple, heterogeneous masses of species. Much has been done by our learned countryman, Mr. Robert Brown, to reduce to order this class of individuals, and, as far as his published observations have extended, with the happiest success. In France, an ingenious and accurate observer, Mr. Henry Cassini, has undertaken a revision of the whole class, upon principles peculiar to himself; and it must be allowed, that what he has executed has given ample room for regret that he has not published more. Unfortunately, his observations are scattered over the face of many books, and are in no case in such a state of arrangement as to be extensively useful. It is hoped that a period will soon arrive when he, or at least some

of his countrymen, will place in one view the result of his labours, so as to enable the world to judge with more accuracy, both of their extent, and of their real importance in defining the limits of the genera and their orders. The style and stigma, which had been previously almost overlooked, have furnished M. Cassini with what appear to be beautiful distinguishing marks of his orders; and it is upon these organs that much of the peculiarity of his arrangement depends. In the mean while, till it can be ascertained what the ultimate division of Compositæ is likely to be, it has been considered more prudent in this work to indicate none of the divisions of either M. Cassini, or of his fellow-labourers in France or elsewhere.

In a popular point of view, Syngenesia may be considered interesting in a high degree. It abounds in plants of ornament, all of which are, without exception, of easy cultivation. It is not necessary to particularize the merits of the brilliant varieties of the Dahlia, or of the Chinese Chrysanthemum, which are the chief ornaments of every autumnal garden; nor to point out the beauty of the various tribes of Aster, Helianthus, Coreopsis, Xeranthemum, or Gnaphalium. These and an hundred others must be familiar to every lover of gardening. It is, however, worth remarking, that nearly all syngenesious plants are autumn flowers. In the tropics, many become trees of considerable dimensions; in temperate climates, they are mostly herbaceous or low bushes.

With regard to the qualities of syngenesious plants, considered economically or medicinally, it may be stated, that, whatever they may be, they consist in a bitter principle, and an oily secretion. But these vary in particular tribes. In some the bitter is combined with a resinous principle, by which its powers are increased in different degrees. In those plants in which the resin is found in small quantities only, and mixed with a bitter or astringent mucilage, tonic, stomachic, and febrifugal properties seem to be acquired, as in the camomile, the golden rod, the feverfew, and the Eupatorium perfoliatum; and the stimulant powers of these plants appear to increase in proportion as the resin is abundant. Some kinds are anthelmintic, as the wormwood and tansy; others are emmenagogue, as the feverfew, the yarrow, and various kinds of wormwoods. Certain species possess sudorific qualities, as the Eupatorium, the yarrow, the wormwood, and the marigold; others, again, are powerful diuretics, as Liatris; while stimulating powers exist in considerable activity in others, as in the Sneezewort and Arnica. The Spilanthus, Anthemis, Pyrethrum, and some others, excite salivation. The Eupatorium Ayapana of Brazil, and the Guaco of Peru, which is another species of Eupatorium, are most powerful alexiterics. According to the analysis of M. Braconnot, the wormwood owes its bitterness to an extremely bitter animalized matter, which forms a little less than one fifth of its weight; the same chemist also states that plant to contain a volatile oil, and an acid, apparently new, which is found in combination with potash. Before the perfect development of the leaves, the bitter principle is so much diluted with insipid mucilage, that the young shoots of some of the thistle tribe, the Cardoon for example, are used for culinary purposes; and it is probable, that it is owing to the small proportion which the bitter bears to the whole mass, that the receptacle of the artichoke, of the Onopordum, and of the cotton thistle, is found fit for food. The corollas of the Cardoon, and of many thistles, have the power of curdling milk. The juice of the lettuce and other cichoraceous plants is milky, bitter, astringent, and narcotic. In a wild state, the narcotic principle is so abundant, that the inspissated juice of *Lactuca virosa* has been used as a substitute for opium, and with much success. But under the effect of cultivation, the mucilage is so much more abundant than any other substance, that the same species often form well-known articles of wholesome and agreeable food. And, indeed, under any circumstances, wild or domesticated, the young shoots, when the narcotic principle is scarcely developed, are frequently eaten with safety; it is for the same reason, namely, the incomplete formation of the bitter principle, and the superabundance of mucilage, on account of the absence of light, that the blanched leaves of cardoons and chicory, and the white roots of the Scorzonera and the Salsafy, are capable of being eaten without inconvenience. The seeds of all syngenesious plants abound in oil, which is expressed from those of the *Madia* of Chili, the *Verbena sativa*, and the common sunflower. Owing to the difficulty of procuring this oil in a pure state, its virtues are not ascertained with much accuracy. They are generally believed to be slightly purgative and diaphoretic.

Order 1.



ÆQUALIS.

Flowers of the disk and ray all hermaphrodite.

1620. *Geopogon*. Receptacle setose-paleaceous. Invol. many-leaved, simple, or with bracteolæ. Pericarp of disk with branched pappus, of the ray with five awns.
1621. *Tragopogon*. Involucre simple, of many leaves. Receptacle naked. Pappus feathery, stipitate. Pericarp longitudinally striated.
1622. *Troximon*. Invol. oblong, conical, simple, or imbricated with unequal scales. Recept. naked, dotted. Pappus sessile, hairy.
1623. *Arnopogon*. Recept. naked. Pappus feathery, stipitate. Involucre 1-leaved, 8-parted, turbinate.
1624. *Podaspermum*. Recept. warted. Pericarp cylindrical on a long stalk. Leaves finely cut. Otherwise as *Scorzonera*.
1625. *Scorzonera*. Recept. naked. Pappus feathery, somewhat stalked. Invol. imbricated, with scales scarios at edge.
1626. *Picridium*. Invol. ventricose at base, imbricated with broadish scales, membranous at edge. Pappus sessile, villous, simple. Pericarp 4-cornered, warted across.
1627. *Sonchus*. Involucre imbricated, swelling at the base. Receptacle naked. Pappus simple, sessile.
1628. *Lactuca*. Involucre imbricated, cylindrical, its scales with a membranous margin. Receptacle naked. Pappus simple, stipitate.
1629. *Chondrilla*. Receptacle naked. Invol. with bracteolæ. Pappus simple, stalked. Florets in many rows. Pericarp mucronated.
1630. *Prenanthes*. Involucre with scales at the base. Receptacle naked. Pappus simple, sessile. Florets few.
1631. *Leontodon*. Involucre with scales that are frequently lax and flaccid. Receptacle naked. Pappus simple, stipitate.
1632. *Apargia*. Involucre imbricated with scales at the base. Receptacle naked, dotted. Pappus feathery, sessile, unequal.
1633. *Thrinia*. Recept. favose. Pappus of the ray membranous, multifid, of the disk stalked, feathery. Invol. with 8 angles and 8 leaves.
1634. *Picris*. Cal. double, the inner equal, the outer lax. Receptacle naked. Pappus feathery. Pericarp transversely striated.
1635. *Hieracium*. Involucre ovate, imbricated. Receptacle nearly naked, dotted. Pappus simple, sessile.
1636. *Longocris* has the characters of *Crepis*, but the pappus is stalked.
1637. *Berkhausia*. Invol. oblong in two rows, the outer much shorter than the inner. Recept. alveolate. Pappus of the centre stalked, of the circumference sessile or subsessile.
1638. *Crepis*. Involucre surrounded with deciduous scales, and at length swelling into protuberances. Receptacle roughish. Pappus sessile.
1639. *Helminthia*. Recept. naked. Invol. double: outer 8-leaved, equal; inner 5-leaved, as long as outer. Pericarp striated across. Pappus stalked, feathery.
1640. *Myosere*. Recept. paleaceous. Paleæ capillary. Invol. calcylated. Pappus hairy, sessile.
1641. *Tolpis*. Recept. favose. Invol. with bracteolæ, which are subulate, and as long as invol. Pappus of the ray toothed, of the disk with 2 or 4 awns.
1642. *Andryala*. Recept. villous. Invol. many-parted, nearly equal, rounded. Pappus simple, sessile.

1643. *Rothia*. Recept. villous, chaffy at edge. Invol. many-leaved, equal. Pappus hairy, of the disk sessile, of the ray none.
1644. *Krigia*. Recept. naked. Pappus membranous, 5-leaved, with 5 bristles between. Invol. many-leaved, simple.
1645. *Hyoseris*. Recept. naked. Invol. with bracteolæ. Pappus double: exterior capillary; interior paleaceous, awned.
1646. *Hedynnois*. Recept. naked. Invol. with bracteolæ. Pappus of disk double: outer obsolete, of many bristles; inner paleaceous, 5-leaved; of the ray a membranous toothletted margin.
1647. *Robertia*. Invol. many-leaved, equal. Recept. scaly. Pappus feathery, the hairs being slightly membranous at base.
1648. *Seriola*. Recept. paleaceous. Invol. simple. Pappus somewhat hairy.
1649. *Soldeuilla*. Invol. imbricated, in fruit ventricose at base, with scales conniving at end. Recept. paleaceous; paleæ very short, setose. Pappus O.
1650. *Hypocheeris*. Involucre oblong, imbricated. Receptacle chaffy. Pappus feathery, stipitate, or sessile.
1651. *Lapsana*. Involucre with scales at the base. Receptacle naked (its inner leaves equal, channelled, Sm.) Pericarpis destitute of pappus (deciduous).
1652. *Zacintha*. Recept. naked. Pericarpis of the ray incurved, of the disk straight. Pappus very short, somewhat feathery. Invol. with bracteolæ, which are membranous.
1653. *Rhagadiolus*. Recept. naked. Pericarpis arcuate, spreading. Pappus O. Invol. with bracteolæ.
1654. *Moscaria*. Invol. 6-leaved, equal. Recept. flat, paleaceous. External pericarpis with a short feathery pappus; central with none.
1655. *Catananche*. Recept. paleaceous. Invol. imbricated, scarious. Pappus paleaceous, 5-leaved; paleæ awned.
1656. *Triptilion*. Invol. imbricated, the exterior scales somewhat squarrose. Florets bilabiate: the upper lip 3-toothed; lower entire revolute. Recept. villous. Pappus with 3 feathery.
1657. *Cichorium*. Involucre surrounded with scales or smaller leaflets. Receptacle naked or slightly hairy. Pappus sessile, scaly, shorter than the pericarp.
1658. *Baccharis*. Invol. imbricated, scarious. Florets, one in the middle large tubular; the others 4-toothed, with a revolute bristle inserted in the mouth of the tube. Recept. pilose. Pappus feathery.
1659. *Scolymus*. Receptacle paleaceous. Invol. imbricated, spiny. Pappus O.
1660. *Arctium*. Involucre globose, each of its scales with an incurved hook at the extremity. Receptacle chaffy. Pappus simple.
1661. *Serratula*. Involucre cylindrical, imbricated with scales that are not spinous. Receptacle chaffy. Pappus roughish or feathery, rigid, persistent.
1662. *Saussurea*. Involucre imbricated, not spiny, outer scales acute, inner obtuse, membranous. Pappus feathery, in two rows, the exterior being shortest, the inner somewhat united at base.
1663. *Carduus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, roughish.
1664. *Silybum*. Invol. ventricose, imbricated: outer leaves with appendages at end; inner cochleate. Recept. chaffy. Pappus linear, chaffy, deciduous.
1665. *Cnicus*. Involucre swelling, imbricated with spinous scales. Receptacle hairy. Pappus deciduous, feathery.
1666. *Onopordum*. Involucre swelling, its scales spreading, and spinous. Receptacle cellular. Pappus deciduous, rough.
1667. *Bevardia*. Invol. imbricated with linear unarmed scales. Recept. somewhat favose, naked. Pappus hairy, generally twisted spirally, persistent.
1668. *Cynara*. Recept. setose. Invol. dilated, imbricated; scales fleshy, emarginate, with a point. Pappus sessile, feathery.
1669. *Carlina*. Involucre swelling: the exterior scales with numerous spines; the inner ones colored, scarious.
1670. *Atractylis*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets of ray 5-toothed.
1671. *Acarna*. Recept. paleaceous. Pappus feathery. Invol. imbricated with bracteolæ. Florets flosculous.
1672. *Stokesia*. Recept. naked. Pappus with 4 bristles. Invol. leafy, somewhat imbricated. Heads radiated; florets of ray funnel-shaped, irregular.
1673. *Stobæa*. Invol. imbricated, with toothed spiny scales. Florets flosculous. Recept. hispid, favose. Pappus paleaceous.
1674. *Onobroma*. Invol. ventricose: outer scales large, herbaceous, spiny, acuminate; inner coriaceous, unarmed. Recept. paleaceous. Pappus setaceous, rigid, unequal.
1675. *Carthamus*. Recept. paleaceous, setose. Invol. ovate, imbricated; scales ovate, leafy at end. Pappus paleaceous, hairy, or none.
1676. *Cardopatum*. Invol. 6-8-fl. many-leaved, imbricated, the outer scales branched, spiny. Recept. paleaceous, with long fascioid paleæ. Pericarpis villous.
1677. *Stachelina*. Recept. with very short paleæ. Pappus feathery. Anthers awned at base. Invol. hemispherical, imbricated.
1678. *Palafoxia*. Invol. oblong, somewhat imbricated, 8 or many-leaved, many-flowered. Cor. flosculous, longer than calyx, with a 5-fid limb. Pappus chaffy. Receptacle naked. Fruit marginal, wrapped up in the involucre.
1679. *Pteronia*. Recept. paleaceous; paleæ many-parted. Pappus somewhat feathery. Invol. imbricated with keeled scales.
1680. *Vernonia*. Recept. naked. Invol. ovate, imbricated. Pappus double: outer paleaceous; inner capillary.
1681. *Ammobium*. Invol. imbricated, colored, radiant. Anthers with 2 bristles at the base. Chaffs of receptacle distinct. Pappus a toothed edge.
1682. *Liatris*. Recept. naked. Invol. oblong, imbricated. Pappus feathery.
1683. *Mikania*. Recept. naked. Invol. 4-6-leaved, equal, 4 or 6-flowered. Pappus hairy.
1684. *Sparganoporus*. Invol. subglobose, imbricated with unequal scales, recurved, spreading at end. Recept. naked. Pericarpis crowned with a somewhat cartilaginous cup.
1685. *Eupatorium*. Involucre imbricated, oblong. Florets few. Receptacle naked. Pappus rough.
1686. *Dumerilia*. Invol. many-parted, equal. Receptacle paleaceous. Florets bilabiate. Anthers spurred at base. Pappus feathery, sessile.
1687. *Ageratum*. Recept. naked. Pappus with 5 somewhat-awned paleæ. Invol. oblong in a double row. Corollas 4-5-fid.
1688. *Celestina*. Invol. cylind. many-leaved, imbricated. Recept. convex, naked. Florets all tubular. Stigmas very long, spreading. Pericarpis truncate, 5-cornered. Pappus a membranous rim.
1689. *Stevia*. Recept. naked. Pappus paleaceous. Invol. cylindrical in a single row.
1690. *Cephalophora*. Recept. naked, hemispherical. Pappus paleaceous, many-leaved. Invol. many-leaved, reflexed.
1691. *Amphirepis*. Invol. hemispherical, imbricated. Recept. flat, naked. Florets all tubular. Pericarpis cylindrical, naked. Pappus hairy, deciduous.
1692. *Hymenopappus*. Invol. many-leaved, spreading; scales ovate, colored. Recept. naked. Pappus many-leaved, paleaceous.
1693. *McLanthera*. Recept. paleaceous, convex. Invol. many-leaved, in a double row. Pappus of from 2 to 18 rough bristles. Pericarpis turbinate, angular.

1694. *Marshallia*. Recept. paleaceous. Pappus of 5 membranous acuminate paleæ. Invol. imbricated; scales somewhat lanceolate, incumbent.
1695. *Spilanthes*. Recept. paleaceous, conical. Pappus with 2 awns, one smaller than the other. Invol. nearly equal.
1696. *Salmea*. Recept. conical, paleaceous. Pappus with 2 awns. Pericarps depressed. Invol. imbricated.
1697. *Bidens*. Involucure of many leaves, with many foliaceous bracteas at the base. Receptacle plane, chaffy. Cor. sometimes radiant. Pericarps crowned with from 2-5 persistent awns, which are rough, with minute deflexed bristles.
1698. *Platypteris*. Invol. many-leaved, imbricated, squarrose. Recept. convex, paleaceous. Pericarps compressed, winged, with 2 awns at top.
1699. *Laqascea*. Invol. 1-leaved, tubular, 1-flowered, divided at end. Floret tubular, hermaphrodite. Pericarps linear, cuneate, compressed. Pappus a small fringed crown.
1700. *Lavenia*. Recept. naked. Pappus with 3 awns, glandular at end. Invol. ovate, somewhat imbricated.
1701. *Cacalia*. Recept. naked, Pappus pilose. Invol. cylindrical, oblong, at the base only with bracteolæ.
1702. *Kleinia*. Recept. naked. Pappus hairy. Invol. simple, equal, 5-leaved.
1703. *Ethulia*. Recept. naked. Pappus a very narrow rim. Invol. equal, in a double row.
1704. *Pigueria*. Recept. naked. Invol. equal, 4-leaved, 4-flowered, Pappus none. Pericarps pentagonal.
1705. *Chrysocoma*. Recept. naked. Pappus simple. Invol. hemispherical, imbricated. Style scarcely longer than florets.
1706. *Tarhonanthus*. Recept. villous. Pericarps enveloped in hair. Invol. 1-leaved, half 7-fid, turbinate.
1707. *Calea*. Recept. paleaceous. Pappus hairy. Invol. imbricated.
1708. *Isocarpha*. Recept. paleaceous conical, the outer paleæ forming the involucrum. Pappus O. Anthers not spurred at base. Stigmas with a long appendage.
1709. *Petrobium*. Recept. paleaceous, flattish. Invol. many-leaved, in 2 rows: outer row shortest. Pericarps angular. Pappus awned.
1710. *Neurotena*. Recept. paleaceous, flattish. Pappus capillary, toothletted, persistent. Invol. imbricated, leafy. Anthers awnless at the base.
1711. *Humca*. Recept. minute, glandular. Pappus none. Invol. loosely imbricated, membranous. Florets about 3, tubular. Anthers awned.
1712. *Cesulia*. Recept. paleaceous: paleæ enveloping the pericarps. Pappus O. Invol. 3-leaved.
1713. *Iroodia*. Recept. paleaceous. Pappus O. Invol. imbricated: inner scales radiant colored.
1714. *Santolina*. Recept. paleaceous. Pappus O. Invol. imbricated, hemispherical.
1715. *Otanthus*. Invol. hemispherical imbricated. Florets with 2 appendages at base. Recept. convex, paleaceous. Pappus O.
1716. *Calceate*. The same as *Calea*, but it has a radius of ligular female florets.
1717. *Athanasia*. Recept. paleaceous. Pappus paleaceous, very short. Invol. imbricated.
1718. *Balsanita*. Recept. naked. Pappus O. Invol. imbricated.
1719. *Pentzia*. Recept. naked. Pappus a membranous torn rim. Invol. imbricated, hemispherical.



SUPERFLUA.

§ Florets of the disk hermaphrodite: of the ray female.

1720. *Tanacetum*. Invol. hemispherical, imbricated. Recept. naked. Florets of the ray trifid, obsolete sometimes wanting. Pericarps crowned with a membranous margin or pappus.
1721. *Artemisia*. Invol. ovate or rounded, imbricated. Recept. naked (or downy, *Sm.*). Florets of the ray subulate. Pericarps crowned with a membranaceous pappus.
1722. *Gnaphalium*. Recept. naked. Pappus hairy or feathery. Invol. imbricated: marginal scales round, scarious, colored.
1723. *Leontopodium*. Heads sessile in the leaves. Invol. woolly. Florets 5-fid. Pappus pencilled or hairy. Otherwise *Guaphalium*.
1724. *Evax*. Heads surrounded by bracteæ. Invol. ovate, imbricated, with appressed acuminate scales. Florets of disk 4-toothed: of the ray not toothed. Recept. subulate, paleaceous. Pericarps of the female flowers without pappus.
1725. *Antennaria*. Recept. scrobiculate. Pappus capillary. Invol. imbricated, scarious, colored. Anthers spurred at base. Florets dioecious.
1726. *Metalasia*. Invol. cylindrical, radiant colored. Pappus deciduous, capillary, clavate. Florets few, hermaphrodite. Otherwise as *Gnaphalium*.
1727. *Astelma*. Recept. naked. Pappus feathery, sessile; rays connate at base. Invol. imbricated: with scarious scales, the interior of which are connivent.
1728. *Athrizia*. Heads radiant. Invol. obl. imbricated, awned, squarrose. Florets bilabiate. Pappus feathery. Recept. alveolate.
1729. *Xeranthemum*. Recept. paleaceous. Pappus paleaceous-setaceous. Invol. imbricated, radiated: with a colored ray.
1730. *Elichrysium*. Recept. naked. Pappus hairy or feathery. Invol. imbricated, radiated: ray colored.
1731. *Carpesium*. Recept. naked. Pappus O. Invol. imbricated, with the outer scales reflexed.
1732. *Baccharis*. Recept. naked. Pappus pilose. Invol. imbricated, cylindrical. Female florets mixed with the hermaphrodite ones.
1733. *Molina*. Invol. campanulate, imbricated. Pappus feathery. Recept. convex, naked, dotted. Flowers dioecious.
1734. *Coryza*. Invol. roundish, imbricated. Recept. naked. Florets of the ray 3 cleft. Pappus rough.
1735. *Madia*. Recept. naked. Pappus O. Invol. double: outer 8-10-leaved, equal, longer than the inner, which is many-leaved.
1736. *Erigeron*. Invol. imbricated. Recept. naked. Florets of the ray numerous, very narrow, mostly of a different color from the disk. Pappus simple.
1737. *Tussilago*. Invol. simple, equal, submembranaceous, swelling. Recept. naked. Pappus simple.
1738. *Senecio*. Invol. subcylindrical, equal, scaly below; the scales withered at the tip. Recept. naked. Pappus simple.
1739. *Aster*. Invol. imbricated, its lowermost scales spreading (except in *A. trifolium*). Recept. naked. Florets of the ray more than 10. Pappus simple.
1740. *Solidago*. Invol. imbricated, its scales connivent. Recept. naked. Florets of the ray (of the same colour as the disk) about 5. Pappus rough.
1741. *Cineraria*. Recept. naked. Pappus simple. Invol. simple, many-leaved, equal.
1742. *Calotis*. Recept. naked. Pericarps crowned with two opposite paleæ and 1-3-barbed awns. Invol. nearly equal, many-leaved, in a single or double row.
1743. *Kaulfussia*. Invol. simple: leaflets keeled. Recept. naked, convex. Pappus of the ray a minute fringed rim; of the disk stiff and feathery.
1744. *Inula*. Invol. imbricated. Recept. naked. Florets of the ray very numerous, linear. Anthers with 2 bristles at the base. Pappus simply composed of hairs.
1745. *Pulicaria*. Invol. roundish, imbricated: scales linear, acuminate. Recept. naked. Pappus compound: outer a membranous cup; inner setaceous. Pericarps uniform.
1746. *Grindelia*. Recept. naked. Pappus setaceous, deciduous. Invol. imbricated, hemispherical.

1747. *Podolepis*. Recept. naked. Pappus hairy. Invol. imbricated, scarious, hemispherical: scales unguiculate.
1748. *Chaetanthera*. Invol. many-leaved, ciliated. Florets of ray linear, 3-toothed, with a fine bifid spiral segment at the divisions. Anthers spurred at base. Recept. naked, flat. Pappus hairy.
1749. *Arnica*. Recept. naked. Pappus simple. Invol. with equal leaves. Florets of ray generally with 5 filaments without anthers.
1750. *Gerberia*. Florets bilabiate, those of the ray ligulate. Invol. imbricated, coriaceous. Recept. flat, naked. Pappus with long bearded paleæ.
1751. *Doronicum*. Scales of the invol. in 2 equal rows, longer than the disk. Recept. naked. Pericarps of the disk crowned with a simple pappus, those of the ray without a pappus.
1752. *Peydium*. Recept. naked. Pappus hairy. Florets 2-lipped.
1753. *Trigonotheca*. Recept. paleaceous. Pappus O. Invol. 1-leaved, 4-cornered, 4-parted.
1754. *Ximenesia*. Recept. paleaceous. Pappus O. Pericarps of ray naked, emarginate; of the disk winged. Invol. many-leaved, nearly equal.
1755. *Helonium*. Recept. naked, of the ray paleaceous. Pappus 5-awned. Invol. 1-leaved, many-parted. Florets of ray half-trifid.
1756. *Bellis*. Invol. hemispherical, its scales equal. Recept. naked, conical.
1757. *Bellium*. Recept. naked. Pericarps conical, with a paleaceous 8-leaved crown and awned pappus. Leaves of invol. equal.
1758. *Dahlia*. Recept. paleaceous. Pappus O. Invol. double: outer many-leaved; inner 1-leaved, 8-parted.
1759. *Babera*. Invol. double: outer many-leaved; inner 8-leaved. Recept. naked. Pappus hairy.
1760. *Tagetes*. Recept. naked. Pappus with 5 erect awns. Invol. simple, 1-leaved, 5-toothed, tubular. Florets of ray 5, persistent.
1761. *Heliospermum*. Recept. naked. Outer grains compressed with a membranous edge; inner oblong with two awns. Invol. double: outer 4-parted; inner many-leaved.
1762. *Schkuhria*. Recept. naked. Pappus paleaceous. Invol. 5-leaved. Florets of ray solitary.
1763. *Pectis*. Recept. naked. Pappus with 3 or 5 awns. Invol. 5-leaved. Florets of ray 5.
1764. *Longchampsia*. Differs from *Pectis* and *Leysera*, in having a double pappus, the exterior of which is edged, the inner feathery.
1765. *Leysera*. Recept. somewhat paleaceous. Pappus paleaceous: of the disk feathery. Invol. scarious.
1766. *Sclæa*. Invol. imbricated, ovate. Recept. naked. Pappus O. Female florets inconspicuous, mixed among the leaves of the involucre.
1767. *Rethania*. Recept. paleaceous. Pappus membranous, cylindrical, short. Invol. imbricated, scarious. Rays numerous.
1768. *Zimia*. Recept. paleaceous. Pappus with 2 erect awns. Invol. ovate, cylindrical, imbricated. Florets of ray 5, persistent, entire.
1769. *Chrysanthemum*. Invol. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pappus none.
1770. *Pyrethrum*. Recept. hemispherical, imbricated with scales whose borders are membranous. Recept. naked. Pericarps crowned with a membranous margin.
1771. *Matricaria*. Invol. hemispherical or almost plane, imbricated with scales whose borders are membranous. Recept. naked, almost cylindrical. Pappus none.
1772. *Boltonia*. Recept. favose, hemispherical. Pappus toothed, awned, somewhat 2-horned. Rays numerous. Invol. imbricated.
1773. *Lidbeckia*. Recept. naked. Pappus O. Pericarps angular, with the lowest joint of style persistent. Rays numerous. Invol. many-parted.
1774. *Cenia*. Invol. in fruit turbinate, multifid. Florets of ray very numerous, short. Recept. naked. Pericarps compressed.
1775. *Cotula*. Recept. nearly naked. Pappus margined. Florets of disk 4-fid, of the ray scarcely any.
1776. *Gnauza*. Invol. imbricated, spreading. Marginal florets 3-toothed. Recept. hemispherical. Pericarps with a toothed edge at top.
1777. *Anacyclus*. Recept. paleaceous. Pappus emarginate. Pericarps with membranous edges.
1778. *Anthemis*. Invol. hemispherical, its scales nearly equal, their margins scarious. Recept. convex, chaffy. Pericarps crowned with a membranous border or pappus.
1779. *Centrospermum*. Invol. hemispherical, of many imbricated, round, scarious scales. Recept. naked. Pappus spiny. Outer pericarps cymbiform, smooth.
1780. *Sanvitalia*. Recept. paleaceous. Pericarps of ray with 3 awns: of the side naked, warted; of the disk winged. Invol. imbricated, flat.
1781. *Achillea*. Invol. ovate, imbricated, unequal. Recept. plane, chaffy. Florets of the ray 5-10, roundish, obcordate. Pericarps naked.
1782. *Tridax*. Invol. cylindrical, imbricated, with ovate oblong scales. Florets of ray 3-parted. Recept. paleaceous. Pappus hairy, simple.
1783. *Amellus*. Recept. paleaceous. Pappus simple. Invol. imbricated. Florets of ray undivided.
1784. *Starkea*. Recept. hirsute. Pappus sessile, hairy. Invol. imbricated.
1785. *Columella*. Invol. cylindrical, imbricated. Florets of ray undivided. Recept. naked, favose. Pappus a toothed edge.
1786. *Eclipta*. Recept. paleaceous. Pappus O. Florets of disk 4-fid.
1787. *Meyera*. Invol. 4-leaved, the 2 inner smallest. Recept. small, paleaceous, 2 paleæ enveloping the pericarp, keeled. Pappus O.
1788. *Chrysanthellum*. Invol. cylindrical, about as long as florets, scaly at base. Recept. paleaceous. Florets numerous, linear, 2-toothed, short, of the centre few, and generally abortive. Pericarps naked, roundish, furrowed, with an entire edge.
1789. *Stegsbeckia*. Recept. paleaceous. Pappus O. Outer invol. 5-leaved, inner spreading. Ray halved.
1790. *Verbesina*. Recept. paleaceous. Pappus awned. Invol. in one row. Florets of the ray about 5.
1791. *Synedrella*. Invol. generally of 2 leaves. Florets fuscous. Recept. obsolete, paleaceous: paleæ glumaceous; the outer ovate. Pericarps oval, flat, edged; the central dissimilar, 1-near, oblong, with 2 or 3 awns.
1792. *Gallinsoga*. Recept. paleaceous. Pappus many-leaved, paleaceous. Invol. imbricated.
1793. *Aenella*. Invol. simple, with a few somewhat leafy divisions. Recept. oblong, paleaceous. Heads radiant. Pericarps 4-cornered, truncate at end, naked.
1794. *Zaltzauia*. Invol. with distinct, somewhat ovate, equal segments. Head radiant. Recept. conical, paleaceous; paleæ membranous, trifid, involving the pericarps, which are 4-cornered and naked.
1795. *Pascalia*. Recept. paleaceous. Pericarps drupaceous. Pappus a toothed rim. Invol. imbricated.
1796. *Heliopsis*. Invol. imbricated, with ovate lined squamæ. Cor. of ray linear, large. Recept. paleaceous, conical, with lanceolate paleæ. Pericarps 4-cornered. Pappus O.
1797. *Bupththalmum*. Recept. paleaceous. Pappus an obsolete rim. Sides of pericarps, especially of the ray, edged.

Order 3.



FRUSTRANEA.

Florets of the disk fertile: of the ray sterile.

1798. *Helianthus*. Recept. paleaceous, flat. Pappus 2-leaved. Invol. imbricated, subsquarrose.
1799. *Gymnotoma*. Invol. hemispherical, loosely imbricated. Recept. convex, paleaceous. Central florets sterile; marginal radiant. Pappus O.

1800. *Rudbeckia*. Recept. paleaceous, conical. Pappus with a 4-toothed rim. Invol. with a double row of scales.
1801. *Galaridia*. Recept. paleaceous, hemispherical. Pappus paleaceous, many-leaved. Invol. imbricated, many-leaved, flat. Rays 3-parted.
1802. *Thilohnia*. Invol. many-leaved, cylindrical. Rays 3-toothed. Recept. paleaceous, convex. Pappus paleaceous, 5-leaved.
1803. *Cosmea*. Recept. paleaceous. Pericarps 4-cornered. Pappus with 2 or 3 awns. Invol. double, each 1-leaved, 8-parted.
1804. *Corcopsis*. Recept. paleaceous. Pericarps compressed, emarginate. Pappus with 2 horns. Invol. double, each many-leaved.
1805. *Simsia*. Invol. subcylindrical, nearly equal, with linear lanceolate incumbent scales. Recept. paleaceous. Pericarps flattish, somewhat edged, each edge awned.
1806. *Osmites*. Recept. paleaceous. Pappus obsolete. Florets of ray ligulate. Invol. imbricated scarious.
1807. *Eceltia*. Recept. paleaceous. Pappus O. Pericarps vertical, flat, with a ciliated edge. Invol. imbricated.
1808. *Sclerocarpus*. Recept. paleaceous. Pappus O. Invol. double, each 3-leaved.
1809. *Cultunia*. Recept. favose. Pericarps smooth. Pappus O. Invol. 1-leaved, covered with imbricated leaflets.
1810. *Berckheya*. Recept. favose. Pericarps villous. Pappus paleaceous (sometimes bristly-paleaceous, ciliated). Invol. 1-leaved, covered with imbricated leaflets.
1811. *Didelta*. Recept. favose, inclosing the pericarps. Pappus many-parted, setaceous, paleaceous, toothed. Invol. 1-leaved, covered with leaflets, the exterior very large.
1812. *Gorteria*. Recept. scrobiculate. Pappus a ciliated edge. Invol. 1-leaved, covered with imbricated leaflets, of the fruit indurated, connivent, deciduous.
1813. *Gazania*. Recept. naked, or alveolate. Pericarps very villous. Pappus hairy-paleaceous. Invol. 1-leaved, the tube naked, or covered with imbricated leaflets.
1814. *Cryptostemma*. Recept. favose. Pappus paleaceous, covered by the entangled wool of the pericarp. Invol. imbricated.
1815. *Arctotheca*. Recept. favose. Pappus O. Invol. imbricated.
1816. *Sphegogyne*. Recept. with distinct palææ. Pappus paleaceous, simple. Stigmas with a dilated truncated end. Invol. imbricated, the inner scales or all with a dilated scarious end.
1817. *Zoega*. Recept. setose. Pappus setaceous. Rays ligulate. Invol. imbricated.
1818. *Leuzea*. Invol. imbricated, spherical, not spiny. Recept. bristly. Pappus feathery, in many rows. Florets all hermaphrodite.
1819. *Centaurea*. Invol. scaly. Recept. bristly. Corollas of the ray infundibuliform, irregular, longer than those of the disk. Pappus simple.
1820. *Galactites*. Invol. imbricated, with somewhat squarrose spiny scales. Recept. favose. Pappus feathery, deciduous.
1821. *Wedelia*. Invol. 5-leaved, with broad leafy segments. Recept. paleaceous. Florets of the centre generally abortive, of the ray many, oval, 2-3-fid. Stigmas setaceous. Pappus stipitate, membranous, tooth-letted.

Order 4.



NECESSARIA.

Florets of the ray female fertile : of the disk male.

1822. *Milleria*. Recept. naked. Pappus O. Invol. of 3 valves. Ray halved.
1823. *Baltimora*. Recept. paleaceous. Pappus O. Invol. cylindrical, many-leaved. Ray 5-flowered.
1824. *Siphium*. Recept. paleaceous. Pappus with a 2 horned edge. Invol. squarrose.
1825. *Trixis*. Invol. imbricated. Cor. of ray 3-fid. Recept. paleaceous. Pappus O. Pericarps villous at end.
1826. *Polymania*. Recept. paleaceous. Pappus O. Invol. double: outer 4 or 5-leaved; inner 10-leaved, with common leaflets.
1827. *Chrysogonum*. Invol. 5-leaved. Recept. paleaceous. Pappus 1-leaved, 3-toothed. Pericarps with a little 4-leaved calyx.
1828. *Melampodium*. Recept. paleaceous, conical. Pappus 1-leaved, vulviform. Invol. 5-leaved.
1829. *Chaptalia*. Recept. naked. Pappus capillary. Florets of the ray in a double row, deformed; of the disk bilabiate.
1830. *Calendula*. Recept. naked. Pappus O. Invol. many-leaved, equal. Pericarps of the disk membranous.
1831. *Arctotis*. Recept. setose-alveolate. Pericarps half 2-celled, or 2-furrowed at the back. Pappus paleaceous. Invol. imbricated, with scales scarious at end.
1832. *Osteospermum*. Recept. naked. Pappus O. Invol. many-leaved. Pericarps globose, colored, bony.
1833. *Othonna*. Recept. naked. Pappus hairy. Invol. 1-leaved, many-cut.
1834. *Hippia*. Recept. naked. Pappus O. Pericarps with very broad edges, naked. Invol. hemispherical, somewhat imbricated. Florets of ray 10, obsoletely trifid.
1835. *Sotiva*. Invol. 7-leaved, leaflets with imbricated edges, the 3 outer largest. Ray none. Recept. very small, somewhat villous. Pericarps compressed, surrounded by a membrane, crowned by 2 prickles and the style.
1836. *Psiadia*. Recept. naked. Pappus hairy, sessile. Invol. imbricated, ovate. Florets of ray short.
1837. *Eriocephalus*. Recept. paleaceous. Pappus O. Invol. double: inner 1-leaved; outer 5-leaved.
1838. *Filago*. Recept. paleaceous. Pappus O. Invol. imbricated. Female florets mixed among the scales of involucre.
1839. *Micropus*. Recept. paleaceous. Pappus O. Invol. calcylate. Rays none. Female florets entwined in the scales of involucre.
1840. *Parthenium*. Recept. paleaceous, flat. Pericarps obovate, nearly naked. Invol. 5-leaved.
1841. *Iva*. Recept. pilose. Pericarps naked, blunt. Invol. 3-leaved. Florets of ray 5. Styles 2, long.
1842. *Acicapha*. Invol. 5-parted. Cor. all tubular. Recept. paleaceous, the palææ being united with the pericarps after flowering. Pappus O. Stamens half-separate.

Order 5.



SEGREGATA.

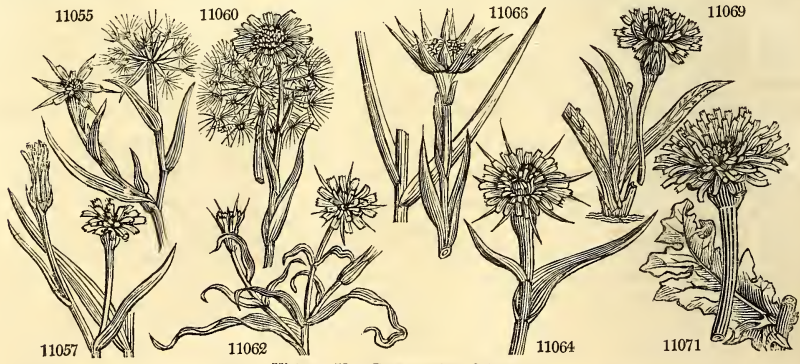
Each floret having its own peculiar involucre.

1843. *Elephantopus*. Invol. 4-flowered. Florets ligulate, hermaphrodite. Recept. naked. Pappus setaceous.
1844. *Edera*. Invol. many-flowered. Tubular florets hermaphrodite, and one or more female and ligulate. Recept. paleaceous. Pappus with many palææ.
1845. *Fluoceria*. Partial invol. 2-5-leaved, 2-5-flowered. Common invol. imbricated with unequal scales. Florets tubular, 1 often ligulate. Pappus O. Recept. naked.
1846. *Stabe*. Invol. 1-flowered. Floret tubular, hermaphrodite. Recept. naked. Pappus feathery.
1847. *Naunbergia*. Partial invol. 2-leaved, 1-flowered; common invol. leafy. Pappus O. Receptacle setose.

1848. *Cassinia*. Invol. 2-flowered, 4-leaved. Florets hermaphrodite. Pappus paleaceous, pencilled. Recept. naked.
 1849. *Sphæranthus*. Invol. 8-flowered. Florets tubular, hermaphrodite, and obsoletely femalé. Recept. scaly. Pappus O.
 1850. *Echinops*. Invol. 1-flowered. Florets tubular, hermaphrodite. Recept. setose. Pappus obsolete.
 1851. *Rolandra*. Florets fasciated in a head, with scales between. Invol. 2-valved, 1-flowered. Florets hermaphrodite. Pappus O.

ÆQUALIS.

1620. GEROPO'GON. <i>W.</i> OLD MAN'S BEARD.	<i>Composite.</i>	<i>Sp. 3-6.</i>					
11055 giâber <i>W.</i>	smooth	○ or	1½	jl.au	Pk	Italy	1704. S co Bot. mag. 479
11056 hirsútus <i>W.</i>	hirsute	○ or	1½	jl.au	R	Italy	1759. S co Col. eph.1.t.231
11057 calyculátus <i>W.</i>	perennial	↘ Δ or	2	jl.au	Pk	Italy	1774. S co Jac. vind.2.t.106
1621. TRAGOPO'GON. <i>W.</i> GOAT'S BEARD.	<i>Composite.</i>	<i>Sp. 11-17.</i>					
11058 cámus <i>W. & K.</i>	woary	↘ ○ or	1	jl.au	Pu	Hungary	1824. S co
11059 angustifólius <i>L.</i>	narrow-leaved	↘ ○ or	¼	jl.au	Pu	Italy	1823. S co
11060 praténsis <i>W.</i>	yellow	↘ ○ or	2	my.jn	Y	Britain	past. S r.m Eng. bot. 434
11061 mutábilis <i>Jac.</i>	changeable	↘ ○ or	3	my.jn	Pa	Siberia	1816. S co Jac. ic. 1. t. 157
11062 undulátus <i>W.</i>	wave-leaved	↘ ○ or	2	my.jn	W.Y	Crimea	1790. S co Jac. ic. 1. t. 158
11063 orientális <i>W.</i>	oriental	↘ ○ or	3	jn.jl	Y	Levant	1787. S co
11064 májor <i>W.</i>	great	↘ ○ or	6	my.jn	Y	Austria	1788. S co Jac. aust. 1. t. 29
11065 floccósus <i>W. & K.</i>	woolly	↘ ○ or	3	my.jn	Y	Hungary	1816. S co Pl.rar.hu.2.t.112
11066 porrifólius <i>W.</i>	Salsafy	↘ ○ cul	4	my.jn	Pu	England	m.me. S r.m Eng. bot. 638
11067 crocifólius <i>W.</i>	Crocus-leaved	↘ ○ or	1	jn.jl	Pu	Italy	1739. S co Col. eph.1.t.230
11063 villosus <i>W.</i>	hairy	↘ ○ or	4	my.jn	P.Y	Spain	1794. S co
1622. TROX'IMON. <i>Gært.</i> TROXIMON.	<i>Composite.</i>	<i>Sp. 2-3.</i>					
11069 glaucum <i>Ph.</i>	glaucous-leaved	↘ Δ or	1	my.jn	Y	Missouri	1811. D co Bot. mag. 1667
11070 virginicum <i>Ph.</i>	Virginian	↘ Δ or	1	jl.au	Y	N. Amer.	1799. D co
1623. ARNOPO'GON. <i>W.</i> SHEEP'S BEARD.	<i>Composite.</i>	<i>Sp. 3-6.</i>					
11071 Diaceláchampii <i>W.</i>	great-flowered	↘ Δ pr	2	jn.o	L.Y	S. Europe	1739. D co Bot. mag. 1623
11072 picróides <i>W.</i>	prickly-cupped	↘ ○ pr	1	jl.au	Y	S. Europe	1683. S co Lam.ill. t.64f.3
11073 áspér <i>W.</i>	rough	↘ ○ pr	1½	jl.au	Y	Montpel.	1774. S co
1624. PODOSPER'MUM. <i>Dec.</i> PODOSPERMUM.	<i>Composite.</i>	<i>Sp. 3-6.</i>					
11074 calcitrapifólius <i>Dec.</i> Centaury-lvd.	cut-leaved	↘ Δ pr	1	jn.jl	Y	Levant	1820. D co Buxb.cent.2.t.22
11075 laciniátum <i>Dec.</i>	cut-leaved	↘ ○ pr	2	jn.jl	Y	S. Europe	1640. S s.l Jac. aust.4. t.356
11076 octanguláre <i>Dec.</i>	octagon	↘ ○ pr	1	jn.jl	Y	S. Europe	1818. S co
1625. SCORZON'ERA. <i>W.</i> VIPER'S GRASS.	<i>Composite.</i>	<i>Sp. 19-33.</i>					
11077 tuberósa <i>W.</i>	tuberous	↘ Δ pr	½	jn	Y	Volga	1825. D co Pal.it.app.t.Y.f.3
11078 tomentósa <i>W.</i>	white	↘ Δ pr	1	jn.jl	Y	Armenia	1789. D co
11079 húmilis <i>Jac.</i>	dwarf	↘ Δ pr	1	au	Y	Europe	1597. D co Jac. aust. 1. t. 36
11080 hispánica <i>W.</i>	garden	↘ Δ cul	3	jn.s	Y	Spain	1576. D co Lam.ill. t.647.f.5
11081 glastifólia <i>W.</i>	Wood-leaved	↘ Δ pr	2	jn.s	Y	Germany	1816. D co
11082 caricifólia <i>W.</i>	Carex-leaved	↘ Δ pr	1½	jn.s	Y	Siberia	1805. D co P.it.3.ap.t.J.f.1
11083 purpúrea <i>W.</i>	purple-flowered	↘ Δ pr	2	my.jn	Pu	Austria	1759. D co Jac. aust. 1. t. 35
11084 rósea <i>W.</i>	Rose-colored	↘ Δ pr	1½	jl	Pk	Hungary	1807. D co Pl.rar.hu.2.t.121
11085 graminifólia <i>W.</i>	Grass-leaved	↘ Δ pr	2	jn.au	L.Y	Portugal	1759. D co Jac. obs. 4. t. 100
11086 angustifólia <i>W.</i>	narrow-leaved	↘ Δ pr	½	jn.au	Y	S. Europe	1759. D co Pl.rar.hu.2.t.122
11087 crispiférna <i>W.</i>	woolly-seeded	↘ Δ pr	1	jn.au	Y	Siberia	1805. D co
11088 taraxacifólia <i>W.</i>	Dandelion-lvd.	↘ Δ pr	1	jn.au	Y	Bohemia	1801. D s.l Jac. ic. 1. t. 160
11089 tauríca <i>Bieb.</i>	Taurian	↘ Δ pr	1	jn.au	Y	Tauria	1820. co
11090 parvifóra <i>Jacq.</i>	small-flowered	↘ Δ pr	2	jl.au	Y	Austria	1819. D co Jacq. aust. 1. 305
11091 lanáta <i>Bieb.</i>	woolly	↘ Δ pr	1	jl.au	Y	Iberia	1824. D co Mor. se.7.t.6.f.17
11092 ensifólia <i>Bieb.</i>	sword-leaved	↘ Δ pr	1	my.jn	Y	Caucasus	1825. D co
11093 hirsúta <i>L.</i>	hairy	↘ Δ pr	½	my.jn	Y	S. Europe	1818. D co



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1620. *Geropogon*. So named from γέρον, an old man, and παγων, a beard; in allusion to the long silky beard of the seeds.
 1621. *Tragopogon*. From τραγος, a goat, and παγων, a beard; a name applied in the same way as Geropogon. *T. porrifolius*, or Salsafy, has a long tapering fleshy white root, which is used like carrots or parsneps, and cultivated in gardens for that purpose. The flavor of the root is mild and sweetish; dressed like asparagus, there is some resemblance in taste. It is occasionally grown in British gardens, and a good deal in those of France and Germany. It is raised and treated in all respects similarly to the carrot. *T. pratensis* answers equally well for culture as this species, and was formerly preferred to it.

1852. *Brotera*. Partial invol. 1-flowered, many-leaved, common 6-8-flowered, imbricated, many-leaved. Florets tubular, uniform. Recept. naked. Pericarp covered by the adhering involucre.

1853. *Gundelia*. Invol. O. Hollows of the recept. 5-flowered. Florets tubular, male and hermaphrodite. Recept. paleaceous. Pappus O.

1854. *Euxenia*. Invol. 1-leaved, 10-cleft, reflexed, two of the segments larger than the rest. Anthers distinct. Pappus none. Recept. chaffy.

ÆQUALIS.

11055 Leaves smooth

11056 Leaves hairy

11057 Involucrum with scales at the base

11058 Invol. 8-leaved as long as ray, and peduncles downy, Leaves linear straight

11059 Involucre 8-leaved longer than rays of corolla, Leaves entire straight smooth

11060 Invol. about as long as the cor. Leaves undivided glabrous acuminate channelled, Peduncles cylindrical

11061 Invol. 8-leaved as long as rays of cor. Leaves entire straight lanc. acuminate

11062 Invol. as long as rays of cor. Leaves entire sub-linear; those of the stem very wavy

11063 Invol. shorter than ray of cor. Leaves entire somewhat wavy

11064 Invol. longer than ray of cor. Lvs. entire straight, Pedunc. thickened upwards, Florets rounded at cud

11065 Woolly with down, Invol. shorter than ray of cor. Lvs. linear channelled: cauline revolute

11066 Invol. much longer than the cor. Leaves undivided straight, Peduncle thickened upwards

11067 Invol. 5-leaved longer than ray of cor. Leaves entire, Radical and peduncles villous at base

11068 Invol. half as long again as ray of cor. Stem and leaves villous

11069 Scape 1-fl. Leaves of invol. imbricated cuspidate, Leaves linear entire glaucous on each side

11070 Smooth glaucous, Stem erect 2-3-fid somewhat naked, Leaves smooth: radical sublyrate

11071 Invol. downy unarmed, Leaves runcinate toothed

11072 Invol. hispid aculeate, Leaves runcinate toothletted: cauline dilated at base

11073 Invol. hispid aculeate, Leaves entire: cauline obl. attenuated at base

11074 Lower leaves lyrate with obl. mucronate segments: upper pinnatifid

11075 Lower leaves pinnatifid: upper linear, Invol. smooth: lower scales spreading mucronate

11076 Lower leaves decursively pinnatifid lanc.: upper linear-lanceolate, Invol. before opening 8 angular

11077 Stem 1-flowered leafy, Leaves linear downy beneath, Root tuberous

11078 Leaves ovate nerved downy entire sessile

11079 Stem somewhat naked about 1-flowered, and scales of invol. woolly, Leaves obl. lanc. nerved flat

11080 Stem branched, Leaves amplexicaul. lanc. entire subserrulate at base

11081 Stem about 1-fl. leafy, Leaves lin. lanc. acuminate smooth nerved flat

11082 Stem about 1-fl. leafy ascending, Leaves lanc. ensif. smooth nerved flat, Ray longer than invol.

11083 Leaves lin. subul. channelled triquetrous, Stem branched

11084 Leaves lanc. lin. flat: cauline keeled linear, Stem 1-flowered

11085 Leaves lin. ensif. acum. rigid nerved keeled, Invol. villous leafy at base, Stem somewhat branched

11086 Leaves subulate entire, Pedunc. thickened, Stem villous at base

11087 Leaves lin. acum. keeled woolly at base, Stem branched, Invol. woolly, Fruit downy

11088 Leaves runcinate blunt smooth, Scape leafless branched, Peduncles thickened

11089 Stem leafy many-fl., and invol. downy, Lower leaves lanc. acuminate entire downy: upper lin. subulate

11090 Stem branched leafy at base, Leaves lanc. ensif. smooth nerved flat, Ray shorter than cal.

11091 Stem 1-fl. leafy at base, Leaves lin. lanc. wavy silky with down all over

11092 Stem leafy many-flowered erect, Leaves nerved filiform acuminate, Invol. and seeds woolly

11093 Leaves linear and 1-flowered, Stem hairy



and Miscellaneous Particulars.

1622. *Troximon*. So named by Gärtner, from *τρώξιμος*, eatable: but, as Sir James Smith observes, without much propriety.

1623. *Arnopogon*. So named from *αγρὸς αἶγος*, a lamb, and *πῶγων*, a beard: see *Geropogon*. This is the same genus as has been called by Scopoli and Willdenow, *Urospermum*.

1624. *Podospermum*. From *πῶς ποδος*, a foot, and *σπέρμα*, seed, on account of the long stalk of the fruit. Small herbaceous plants with the flowers of *Scorzonera*.

1625. *Scorzonera*. From *scorzon*, the Catalonian name of the viper. The plants are esteemed in Spain as a certain remedy for the bite of a viper; but it is believed that the slender tortuous form of the roots has

11094 muricāta Dec.	muricated	Δ	Δ	pr	1	jn.au	Y	S. Europe	1820.	D	co
11095 aspérima W.	roughest	Δ	Δ	pr	1	jn.au	Y	Galatia	1821.	D	co
1626. PICRIDĪUM P. S.	PICRIDĪUM.						Composite.		Sp. 3.		
11092 vulgāre P. S.	various-leaved	○	cul		1½	jn.au	Y	France	1773.	S	co
11097 tingitānum P. S.											
11098 ābidum P. S.											
11099 ābidum P. S.											
11100 ābidum P. S.											
11101 ābidum P. S.											
11102 ābidum P. S.											
11103 ābidum P. S.											
11104 ābidum P. S.											
11105 ābidum P. S.											
11106 ābidum P. S.											
11107 ābidum P. S.											
11108 ābidum P. S.											
11109 ābidum P. S.											
11110 ābidum P. S.											
11111 ābidum P. S.											
11112 ābidum P. S.											
11113 ābidum P. S.											
11114 ābidum P. S.											
11115 ābidum P. S.											
11116 ābidum P. S.											
11117 ābidum P. S.											
11118 ābidum P. S.											
11119 ābidum P. S.											
11120 ābidum P. S.											
11121 ābidum P. S.											
11122 ābidum P. S.											
11123 ābidum P. S.											
11124 ābidum P. S.											
11125 ābidum P. S.											
11126 ābidum P. S.											
11127 ābidum P. S.											
11128 ābidum P. S.											
11129 ābidum P. S.											
11130 ābidum P. S.											
11131 ābidum P. S.											
11132 ābidum P. S.											
11133 ābidum P. S.											
11134 ābidum P. S.											
11135 ābidum P. S.											
11136 ābidum P. S.											
11137 ābidum P. S.											



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given rise to this belief, rather than any quality inherent in the plant: for it is a rule to which there are few exceptions, that all plants used as food by man, possess very inactive qualities. If their action was powerful, they would be unfit for food.

Scorzonera hispanica is esteemed diuretic, stimulant, and sudorific. A drink is made from it for variola; and a distilled water is also prepared from it. It is also an esculent of occasional culture. The root is carrot-shaped, about the thickness of one's finger, tapering gradually to a fine point, and thus bearing some resemblance to the body of a viper. The outer rind being scraped off, the root is steeped in water, in order to abstract a part of its bitter flavor. It is then boiled or stewed in the manner of carrots or parsneps. The roots are fit for use in August, and continue good till the following spring. Its culture is the same as that of carrot or salsify.

1626. *Picridium*. A diminutive of *Picris*, which see. *Picridium sativum*, *Picridium cultivé*, Fr., is sown in the spring as a small salad, and, if not allowed to become too old before it is cut, is an excellent vegetable, with a pleasant delicate flavor, wholly devoid of the bitterness of endive, and of the insipidity of very young lettuces. *P. tingitanum* is a favorite border annual.

1627. *Sonchus*. *Σωνχος*, in Greek, said to be altered from *σωνφος*, hollow, or soft, in allusion to the soft feeble stem of the plants. *Sonchus oleraceus*, *Sow-thistle*, Eng., *Hasenkohl*, Ger., seems to have nearly the same properties as the Dandelion and Succory, but it is little regarded as a medicine. It is a favorite food with hares and rabbits; and is said to be eaten by goats, sheep and swine, but not to be relished by horses. The young tender leaves are in some countries boiled and eaten as greens: and it is even affirmed, that the tender

- 11094 Lower leaves linear : upper pinnatifid, Lobes remote linear
 11095 Leaves runcinate hispid, Stem about 2-f. somewhat leafy hispid
- 11096 Cauline leaves amplexicaul. obl. nearly entire : radical sublyrate runcinate, Scales of invol. appressed
- 11097 Leaves amplexicaul. obl. pinnatifid toothed, Invol. squarrose
 11098 Leaves scabrous, Scales of invol. membranous at edge ciliated
- 11099 Pedunc. subsol. term. naked, Leaves lanc. amplexicaul. undivided finely toothed backwards
 11100 Pedunc. branched somewhat scaly, Leaves lanc. runcinate, Stem shrubby
 11101 Pedunc. naked, Invol. smooth, Leaves pinn. Pinnæ lin. lanc. somewhat toothed
 11102 Pedunc. naked, Invol. turbin. smooth : lower scales reflexed at end, Leaves pinnatifid
 11103 Pedunc. naked, Inv. turbin. smooth : low. scales reflexed at end, Lvs. lyrate pinnatif. Corymb divaricating
 11104 Pedunc. naked and invol. smooth, Stem nearly naked, Radic. lvs. lyrate smooth on each side, Lobes triang.
 11105 Pedunc. and invol. hispid somewhat umbelled, Leaves runcinate sagittate at base [ovate
 11106 Peduncles and invol. hispid sub-umbellate, Leaves runcinate dentato-ciliate cord. at the base
 11107 Peduncles sub-tomentose umbellate, Involute glabrous, Lvs. runcinate dentato-ciliate amplexic. at base
 11108 Pedunc. downy umbell. Invol. hairy, Leaves bipinnatifid cordate sagittate at base
 11109 Pedunc. naked, Flowers paniced, Leaves runcinate
 11110 Peduncles and involucre hispid racemose, Leaves sublyrate, Terminal lobe deltoid very large
 11111 Pedunc. squarrose, Fl. racemose, Leaves runcinate acuminate smooth glabrous beneath
 11112 Pedunc. sub-squarrose, Fl. paniced, Leaves lyrate-runcinate toothletted stalked
 11113 Leaves sessile : lower cordate toothed ; upper hispid entire, Peduncles scaly
 11114 Pedunc. sub-squarrose, Fl. paniced, Radic. leaves sub-runcinate : cauline ovate acuminate stalked
 11115 Raceme comp. terminal, Leaves lanc. ensiform amplexicaul. toothed
 11116 Pedunc. squarrose, Fl. corymb. Leaves lanc. sessile : lower runcinate toothed ; upper entire
 11117 Pedunc. naked, Fl. in corymbose panicles, Leaves lanc. runcinate narrowed at base
 11118 Leaves pinnatifid with little white spiny teeth, Calyx slender
 11119 Pedunc. and invol. smooth a little downy, Leaves sub-runcinate spiny-toothed amplexicaul.
 11120 Pedunc. somewhat downy umbellate, Invol. smooth, Leaves pinnatif. toothed auricled cordate at base
 11121 Radic. leaves unequally pinnatifid : cauline linear lanc. toothed, Pedunc. long 1-flowered
 11122 Peduncles hirsute naked, Fl. paniced, Leaves lyrate cordate at base hairy beneath
 11123 Pedunc. scaly, Fl. racemose, Leaves runcinate acuminate, Stem paniced virgate

- 11124 Leaves rounded : cauline cordate, Stem corymbose
 11125 Leaves sinuate-crenate toothed wavy curled : radical with a hairy keel, Florets 5-parted
 11126 Lower leaves tripartite pinnatifid with obl. blunt segm. : upper cordate
 11127 Leaves runcinate tooth-ciliated blunt amplexicaul. sagittate : radical obovate, Stem paniced
 11128 Leaves smooth beneath : lower runcinate toothletted at base dilated and sagittate ; upper lanc. sagittate
 11129 Leaves smooth beneath : radical runcinate lyrate toothed ; upper runcinate pinnatifid
 11130 Leaves smooth beneath : lower runcinate entire amplexicaul. : upper lanceolate sessile
 11131 Leaves vertical prickly at keel acute at end sagittate at base runcinate pinnatifid
 11132 Leaves oblong toothed horizontal, their keel prickly, their apex obtuse
 11133 Leaves smooth beneath obl. lanc. ciliate-toothed sagittate at base
 11134 Leaves smooth beneath : lower oblong narrowed at base toothletted ; upper lanceolate entire
 11135 Leaves with a prickly keel : radical lanc. pinnatifid ; cauline linear entire sagittate
 11136 Leaves lacinate ensiform sessile unequally toothed
 11137 Leaves toothletted smooth : lower sinuated ; upper lanceolate sagittate acuminate, Pan. much branched



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shoots of the smooth variety, boiled in the manner of spinach, are superior to any greens not in common use.

Nearly the same thing may be affirmed of *S. arvensis*, *palustris*, and other species.

Sonchus floridanus is used as a cure for the bite of the rattle-snake, in the same way as *Prenanthes serpentina*. It is called by the American settlers *Gall of the Earth*.

S. tenerrimus is eaten by the common people in Italy as a salad.

1628. *Lactuca*. From *lac*, milk, on account of the milky sap, which flows copiously when the plants are cut. Besides *Lactuca sativa*, the French cultivate as small salad both *L. quercina*, *palmata*, and *intybaea*, which are all excellently adapted for such a purpose. *L. sativa* is well known as furnishing among its numerous varieties the best vegetable of the salad kind grown in the open garden. Whoever has the command of lettuce, onions, and cucumbers, may well dispense with most other acetarous plants. It is questioned by some, whether the greater number of what are set down as species in this genus, are any thing more than variations of one type ; and, at all events, it is thought *L. virosa*, a poisonous plant, is the parent of our cultivated sorts ; which would not be more remarkable than the fact that the indigenous celery is one of our strongest poisons.

All the species of *Lactuca* abound in a milky juice, which is found to partake, in a considerable degree, of the qualities of opium. The production of this juice is lessened by culture, and especially by blanching. It is most abundant in plants in a wild state, and in both wild and cultivated lettuce during inflorescence. Of late years, this juice has been collected by incisions and scraping off the thickened juice, as in the collecting the opium of the poppy (See p. 461.), and an opium has been produced little inferior to that of the East. It is called

11138	<i>viminea Link.</i>	rushy-twigged	3	○	un	1	jl.au	Y	Austria	1789.	S	co	Jac. aust. 1. t. 9
11139	<i>segusiana Balbis.</i>	Italian	3	○	pr	1	½ jl.au	Pu	Friedmont	1822.	S	co	
11140	<i>sonchifolia W.</i>	Sow-thistle-ldv.	3	△	un	2	½ jl.au	Pa.B	Candia	1822.	D	co	
11141	<i>tenerrima W.</i>	purple-flowered	3	△	un	2	½ jl.au	Pu	S. Europe	1815.	D	co	
11142	<i>perennis W.</i>	perennial	3	△	un	2	½ jn.au	L.B	Germany	1596.	D	co	Bot. mag. 2130
1629. CHONDRILLA. W. GUM-SUCCORY. <i>Compositæ. Sp. 2—5.</i>													
11143	<i>júncea W.</i>	common	3	△	un	1½	s.o	Y	France	1633.	D	co	Jac. aust. 5. t. 427
11144	<i>graminea Bieb.</i>	grass-leaved	3	△	un	1½	s.o	Y	Volga	1824.	D	co	
1630. PRENANTHES. W. PRENANTHES. <i>Compositæ. Sp. 9—13.</i>													
11145	<i>purpúrea W.</i>	purple-flowered	3	△	or	4	½ jls	Pu	Germany	1658.	D	co	Jac. aust. 4. t. 317
11146	<i>álba W.</i>	white-flowered	3	△	or	2	½ jl.au	W	N. Amer.	1762.	D	p.1	Bot. mag. 1079
11147	<i>altissima W.</i>	tall	3	△	or	6	½ jl.au	L.Y	N. Amer.	1696.	D	p.1	Plu.alm.t.317. f. 2
11148	<i>cordáta Ph.</i>	heart-leaved	3	△	or	4	½ jl.au	Pa.Y	N. Amer.	1816.	D	co	
11149	<i>spinósa W.</i>	prickly	3	△	un	3	mr.yj	Y	Barbary	1640.	C	co	Park.the.804. f. 7
11150	<i>murális W.</i>	wall	3	△	w	2	½ jl	Y	Britain woods.	1820.	D	co	Eng. bot. 457
11151	<i>pinnáta L.</i>	pinnate	3	△	un	3	jn.jl	Y	Teneriff	1824.	S	co	
11152	<i>arbórea Brouss.</i>	arborescent	3	△	un	3	jn.jl	Y	Teneriff	1824.	S	co	
11153	<i>hieractifolia W.</i>	small-flowered	3	○	un	1½	jn.s	Y	Scotland	sc.roc.	S	co	Eng. bot. 2325
<i>Crepis púlchra L.</i>													
1631. LEONTODON. W. DANDELION. <i>Compositæ. Sp. 6—9.</i>													
11154	<i>Taráxacum W.</i>	common	3	△	w	1	ap.jl	Y	Britain	me.pa.	D	co	Eng. bot. 510
11155	<i>serótinus W.</i>	late-flowering	3	△	w	1½	½ jls	Y	Hungary	1816.	D	co	Pl.rar.hu.2.t.114
11156	<i>palústris E. B.</i>	marsh	3	△	w	1½	jn.jl	Y	Britain	moi.p.	D	co	Eng. bot. 553
<i>lúidus W.</i>													
11157	<i>obovátus W.</i>	obovate-leaved	3	△	un	1	½ jl	Y	Spain	1805.	D	co	
11158	<i>glaucescens Bieb.</i>	glaucous	3	△	un	1	½ jl	Y	Volga	1823.	D	co	
11159	<i>bessarábicus Fisch.</i>	Bessarabian	3	△	un	1	½ jl	Y	Bessarabia	1821.	D	co	
1632. APARGIA. W. APARGIA. <i>Compositæ. Sp. 14.</i>													
11160	<i>aurantiaca W.</i>	Orange-colored	3	△	pr	1	½ my.jn	Or	Hungary	1816.	D	co	
11161	<i>alpina W.</i>	Alpine	3	△	un	1	½ my.jn	Y	Austria	1816.	D	co	Bot. cab. 539
11162	<i>hastilis W.</i>	shining-leaved	3	△	un	1	½ jl.au	Y	S. Europe	1796.	D	co	Jac. aust. 2. t. 164
11163	<i>dúbia W.</i>	tooth-leaved	3	△	un	1	au	Y	Germany	...	D	co	
11164	<i>tuberósa W.</i>	knotty-rooted	3	△	un	1	my.jl	Y	France	1683.	D	co	Lob. ic. 232. f. 1
11165	<i>incána W.</i>	hoary	3	△	un	1	my.jn	Y	S. Europe	1784.	D	co	Jac. aust. 3. t. 287
11166	<i>Taráxaci W.</i>	Dandelion-ldv.	3	△	w	1	au	Y	Britain	sc.alps.	D	co	Eng. bot. 1109
11167	<i>autumnális W.</i>	autumnal	3	△	w	1	au	Y	Britain	me.pa.	D	co	Eng. bot. 830
11168	<i>crispa W.</i>	curled	3	△	un	1	½ jl.au	Y	France	1803.	D	co	Vil.dauph.3. t. 25
11169	<i>hispida W.</i>	rough	3	△	w	1	½ jls	Y	Britain	ch.pas.	D	co	Eng. bot. 554
11170	<i>áspera W.</i>	hairy	3	△	un	1	jn.jl	Y	Hungary	1805.	D	co	Pl.rar.hu.2.t.110
11171	<i>crócea W.</i>	deep-yellow	3	△	un	1	jn.jl	Or	Hungary	1823.	D	co	
11172	<i>caucásica Bieb.</i>	Caucasian	3	△	un	1	jn.jl	Y	Caucasus	1820.	D	co	
11173	<i>Villárisi W.</i>	Dauphiny	3	△	un	1	jn.jl	Y	Dauphiny	1821.	D	co	Vil.delph.3. t. 25



History, Use, Propagation, Culture.

Lactucarium, and was first brought into notice by Dr. Duncan, of Edinburgh, who finds it can be administered with effect in cases where poppy opium is inadmissible. Details of the process of collecting and preparing the article, will be found in the Caledonian Horticultural Memoirs. (Vol. i. 160-259, ii. 314, and iv. 153.)

The culture of lettuce as a salad plant is familiar to every one who has a garden. It is sown monthly, or oftener, throughout the year, in order to have a successional supply, and thinned out or transplanted to increase the size and succulency. The latter quality is greatly increased by watering in summer; and blanching, another desirable property, is promoted by tying up the leaves when the plant has attained about two-thirds of its usual size. Snails and slugs are very fond of this plant, and should either be watched and hand-picked, or the ground well watered with lime water, which effectually destroys them. The lettuce, unlike the cabbage and spinage, is a vegetable which can be grown to as great perfection in a warm as in a temperate climate, provided it be grown on rich soil, and abundantly supplied with water. Hence the lettuces of Paris, Rome, and Calcutta, are as large and tender as those of London and Amsterdam.

This genus is the type of the tribe *Lactuceæ* of M. Cassini. It differs essentially from all other tribes of *Compositæ*, in having a divided or ligulate corolla only, and from nearly all other tribes in its style, which can be compared to that of *Vernoniaeæ* only. The radiant head of flowers is a character common both to *Lactuceæ* and *Nassauvieæ*. The greater part of *Lactuceæ* are found in Europe, a smaller number in Asia and Africa, very few in America, and in the southern hemisphere none at all.

1629. *Chondrilla*. Derived from *χονδρος*, a lump. Dioscorides says, it bears on its stems little lumps of gummy matter. But Theophrastus speaks of the gummy or tubercled roots of his *Chondrilla*. The plant now so called is an inconspicuous perennial plant, of no recorded use.

1630. *Prenanthes*. From *πρεννός*, drooping, and *άνθος*, a flower. The heads of flowers of all the species are

- 11138 Leaves decurrent : lower pinnatifid toothed outwards ; upper linear, Stem branched
 11139 Lower leaves lanc. runcinate toothed narrowed at base and sessile : upper linear sagittate
 11140 Leaves runcinate pinnatifid unequally toothed : floral lanceolate, Flowers racemose
 11141 Radic. leaves pinnatif. toothed : cauline linear entire sagittate, Branches 1-flowered
 11142 Leaves all pinnatifid : segments linear toothed upwards, Fl. in corymbose panicles

- 11143 Radic. leaves runcinate : cauline linear entire
 11144 Radic. leaves runcinate : cauline undivided filiform, Stem and invol. smooth

- 11145 Invol. 5-fl. Leaves obl. lanc. amplexicaul. cordate denticulate glaucous beneath
 11146 Invol. many-fl. Leaves angular hastate toothed, Flowers nodding racemose paniced
 11147 Invol. 5-fl. Leaves 3-lobed stalked angular toothletted rough at edge, Racemes axillary, Fl. nodding
 11148 Stem paniced upwards, Leaves stalked cordate toothed ciliated, Panicle lax racemose
 11149 Leaves linear tooth-sinuated sessile, Stem shrubby much branched, Branches spiny
 11150 Florets 5, Leaves lyrate-pinnatifid and toothed, the terminal lobe with about 5 angles
 11151 Leaves pinnated, Leaf. linear filiform, Panicle corymbose stalked, Stem shrubby
 11152 Leaves pinnatifid pinnate with linear segments
 11153 Leaves pubesc. toothed, those on the stem subsagittate, Stem paniced corymb. Invol. pyramidal glabrous

- 11154 Outer scales of the involucre reflexed, Leaves runcinate glabrous toothed
 11155 Outer invol. spreading, Leaves runcinate scabrous, Segments round toothletted
 11156 Outer scales of the involucre erect appressed, Leaves sinuato-dentate nearly glabrous

- 11157 Outer invol. spreading, Scales ovate, Scape 1-fl. Leaves obov. blunthish toothed
 11158 Outer invol. spreading, Scales ovate-lanceol. Lvs. runcinate pinnatifid glabrous with lin. falc. distant lobes
 11159 Leaves pinnatifid to the nerve smooth, Leaves of invol. smooth reflexed

- 11160 Scape 1-fl. naked thickened and hairy upwards, Invol. hispid, Leaves lanc. obl. somewhat toothed
 11161 Scape 1-fl. squarrose thickened and somewhat hairy upwards, Invol. hispid, Leaves lanc. obl. smoothish
 11162 Scape 1-fl. naked and invol. smooth, Leaves lanc. runcinate-toothed smooth
 11163 Scape 1-fl. nearly naked upward and invol. hairy, Leaves lanc. toothed at base with a few forked hairs
 11164 Scape 1-fl. naked smooth. Scales of invol. acute hairy, Lvs. obov. runcin. hairy scabrous, Root tuberous
 11165 Scape 1-fl. nearly naked and calyx pubesc. Lvs. lanceol. acute somewhat toothed hozy, Hairs multifid
 11166 Scape single-flow. thickened upwards, Leaves glab. runcinato-dentate, Involucre very hairy
 11167 Scape branched scaly upwards, Lvs. lanc. toothed or pinnatif. sub-glab. Pedunc. swelling beneath invol.
 11168 Scape naked 1-fl. and invol. hairy, Lvs. runcinate pinnatifid hairy, Segm. recurved tooth. Hairs 3-forked
 11169 Scape single-flowered, Leaves dentate scabrous, Florets hairy at their orifice glandular at the tip
 11170 Stem leafy somewhat branched hairy, Invol. smooth, Leaves lanc. runcinate hairy, Hairs forked
 11171 Scape 1-fl. scaly thickened upwards and hairy, Invol. hispid, Leaves runcinate smooth
 11172 Scape naked 1-fl. glabrous, Invol. hairy, Leaves runcinate toothed scab. somewhat hairy, Hairs prostrate
 11173 Scape naked 1-fl. and invol. smoothish, Leaves pinnatifid-toothed hispid, Hairs simple subulate



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nodding. *Prenanthes serpentina* grows to the height of two feet, bearing pale purple flowers. It is known by the inhabitants of Virginia and Carolina under the name of the Lion's Foot, and is in high esteem as a cure for the bite of the rattle-snake. The juice of the plant boiled in milk is taken inwardly, and steeped leaves, frequently changed, are applied to the wound. It must not be confounded with *Prenanthes rubicunda*, called False Lion's Foot, which is a less powerful plant.

Prenanthes virgata has a very fine effect in large plantations.

1631. *Leontodon*. So named from *λεων*, a lion, and *odus*, a tooth ; in reference to the deep tooth-like divisions of the leaves. The English name *Dandelion*, is a corruption of the French translation of this word, *Dent de lion* ; in German *Pfaffenröhlein* and *Dotterblume*. It has been recommended as a winter salad, blanched like Endive ; but it possesses too much bitter principle to render it fit for table under any management. *Dent de lion*, Fr. from its cut leaves, and *Piss-en-lit*, in French, and most other European languages, from its diuretic qualities. The tender leaves in spring, used in compound salads, are equal to those of Endive or Succory. The roots, which are fusiform, and abound in a milky juice, are eaten raw as a salad by the French, and boiled by the Germans, like Salsafy and Scorzonera. Dried and ground into powder, they afford a substitute for coffee, in all respects equal to that of Chicory roots. It is a difficult weed to extirpate, because every inch of root will form buds and fibres, and thus constitute a new plant. Swine are fond of it, and goats will eat it ; but sheep and cows dislike it, and by horses it is refused.

1632. *Asargia*. *Asargia* is the Greek name of a plant now unknown. It has been employed by Dalechamp and Scopoli for a species of *Hieracium*. At the present day it is given to a genus of weedy plants, with the appearance of *Leontodon*.

1633. THRIN'CIA. W.	THRINCIA.				Composite.	Sp. 3-6.					
11174 hirta W.	simple-leaved	Δ	un	1½	jl.au	Y	Britain	gra.pa.	D	co	Eng. bot. 555
11175 hispida W.	hispid	○	un	1	jn.au	Y	S. Europe	1815.	S	co	
11176 marocána P. S.	Morocco	○	un	1	jn.au	Y	Morocco	1799.	S	co	
Hyöseris hispida W.											
1634. PICRIS. W.	OX-TONGUE.				Composite.	Sp. 4-7.					
11177 hieracioides W.	Hawkweed-like	○	un	1½	jl.au	Y	England	bor.fi.	S	co	Eng. bot. 196
11178 splenioides W.	Spleenwort-lvd.	Δ	un	1½	jl.au	Y	Barbary	1805.	D	co	L'Her.stirp. t.82
11179 hispida H. K.	hispid	Δ	un	1	jl.au	Y	Levant	1789.	D	co	
11180 sprengeriána P. S.	branched	○	pr	1	jn.jl	Y	Portugal	1783.	S	co	Moris.s.7.t.5.f.15
1635. HIERA'CUM. W.	HAWKWEED.				Composite.	Sp. 75-117.					
11181 rupéstre All.	rock	Δ	pr	½	jn.jl	Y	Switzerl.	1820.	D	co	All.auct.1.t.1.f.1
11182 alpinum L.	Alpine	Δ	pr	½	jl.au	Y	Britain	al. roc.	D	co	Eng. bot. 1110
11183 alpéstre Jacq.	mountain	Δ	pr	½	jl.au	Y	Switzerl.	1822.	D	co	Jacq.austr. t.191
11184 Pilosélla L.	Mouse-ear	Δ	pr	½	my.jl	Y	Britain	dry.pa.	D	co	Eng. bot. 1093
11185 bulbósum W.	bulbous	Δ	pr	½	my.jl	Y	Barbary	...	D	co	
11186 aéreum W.	golden	Δ	or	½	my.jl	D.Y	Italy	1769.	D	p.1	Jac. aust.3. t.297
11187 dúbium L.	branching	Δ	pr	½	jl.au	Y	Britain	hills.	D	co	Eng. bot. 2332
11188 aurícula L.	umbelled	Δ	pr	1½	jl.au	Y	England	moun.	D	co	Eng. bot. 2368
11189 fállax W. en.	hairy spear-lvd.	Δ	pr	1	jl.au	Y	.....	1816.	D	co	
11190 florentinum All.	Florentine	Δ	pr	2	jl.au	Y	Germany	1766.	D	co	Bauh. pin. t. 67
11191 cymósum L.	small-flowered	Δ	pr	1	my.jn	Y	Europe	1739.	D	co	Col.eeph.1. t.249
11192 angustifólium Hoppe.	narrow-leaved	Δ	pr	½	my.jn	Y	Switzerl.	1823.	D	co	
11193 staticifólium All.	Thrift-leaved	Δ	pr	1½	jn.jl	Y	Europe	1804.	D	co	Vil.dauph.3.t.27
11194 flagelláre W. en.	creeping	Δ	pr	1	my.jl	Y	.....	1816.	D	co	
11195 bifur'cum Bieb.	forked	Δ	pr	1½	jn	Y	Tauria	1820.	D	co	
11196 bifidum W.	bifid	Δ	pr	1½	jn	Y	Hungary	...	D	co	
11197 Gmelini W.	Gmelin's	Δ	pr	1½	jn.jl	Y	Siberia	1798.	D	co	Gme.sib.2.t.8.f.2
11198 pramosum L.	bitten	Δ	pr	1	jn.jl	Pa.Y	Switzerl.	1818.	D	co	Gm.sib.2.t.13.f.2
11199 incarnátum Jacq.	flesh-colored	Δ	pr	1½	jn.jl	Pk	Carniola	1815.	D	co	Jac. ic. t. 578
11200 aurantiacum L.	orange	Δ	or	1½	jn.jl	O	Scotland	sc.wo.	D	p.1	Eng. bot. 1469
11201 Lawsóni Vill.	Lawson's	Δ	pr	½	jn.jl	Y	Britain	n.of.e.	D	co	Eng. bot. 2083
11202 venósum W.	veined	Δ	pr	½	jn.jl	Y	N. Amer.	1790.	D	co	
11203 Gronóvii W.	Gronovius's	Δ	pr	1	jn.jl	Y	N. Amer.	1798.	D	co	
11204 paniculátum W.	paniced	Δ	pr	1½	jn.jl	Y	Canada	'1800.	D	co	
11205 glaucum All.	glaucous	Δ	pr	1½	jn.jl	Y	S. Europe	1807.	D	co	
11206 saxatíle Jacq.	rock	Δ	pr	1	jl.au	Y	Austria	1801.	D	co	Jac. ic. 1. t. 163
11207 prenanthoídes Vill.	large-leaved	Δ	pr	2	jl.au	Y	Switzerl.	1820.	D	co	
11208 chondrilloídes W.	Gum-succory	Δ	pr	½	jn.jl	Y	Austria	1640.	D	co	Jac. aust.5. t.429
11209 cydoniaefólium Vill.	Quince-leaved	Δ	pr	2	jl.au	Y	France	1816.	D	co	
11210 mólle Jacq.	soft-leaved	Δ	pr	1	jl.au	Y	Scotland	sc.wo.	D	co	Eng. bot. 2210
11211 cerinthoídes L.	Honeywort-lv.	Δ	pr	1½	jl.s	Y	Scotland	sc.roc.	D	co	Eng. bot. 2378
11212 amplexicaúle L.	heart-leaved	Δ	pr	1½	jl.au	Y	Pyrenees	1739.	D	co	All. ped. t.15. f.1
11213 pyrenaícum L.	Pyrenean	Δ	pr	1	jl.au	Y	Pyrenees	1723.	D	co	
β pilósum W.	pilose	Δ	pr	1	jl.au	Y	Pyrenees	1723.	D	co	Her.parad. t.184
γ austriacum Jacq.	Austrian	Δ	pr	1	jl.au	Y	Pyrenees	1723.	D	co	Jac. aust.5. t.441
11214 sibiricum W.	Siberian	Δ	pr	2	jl.au	Y	Siberia	1755.	D	co	Gmel. sib. 2.t.10
11215 grandifórum All.	great-flowered	Δ	pr	2	jl.au	Y	Switzerl.	1791.	D	co	Pl. rar. hu. 1.t.99
11216 intybáicum Jacq.	Endive-leaved	Δ	pr	2	jl.au	Pa.Y	Europe	1794.	D	co	Jac.aus.5.t.ap.43
11217 Halléri Vill.	Haller's	Δ	pr	½	jl.au	Y	Europe	1802.	D	co	Vil.dauph.3.t.26
11218 maculátum E. B.	stained-leaved	Δ	pr	1½	jl.au	Y	Britain	alroc.	D	co	Eng. bot. 2121
11219 pulmonárium W. E. B.	Lungwort	Δ	pr	1½	jl.au	Y	Scotland	sc.roc.	D	co	Eng. bot. 2307
11220 porrifólium W.	Leek-leaved	Δ	pr	1	jl.au	Y	Austria	1640.	D	co	Jac. aust.3. t.286
11221 montánum W.	mountain	Δ	pr	1	jn.jl	Y	S. Europe	1775.	D	co	Jac. aust.2. t.190
11222 eriophýllum Link.	villous	Δ	pr	1½	jn.au	Y	.....	1794.	D	co	
11223 sylváticum W.	wood	Δ	pr	1½	jl.au	Y	Britain	rocks.	D	co	Eng. bot. 2031
11224 villosum L.	shaggy	Δ	pr	1	jl.au	Y	Scotland	al.roc.	D	co	Eng. bot. 2379
11225 pilocéphalum Link.	hairy-headed	Δ	pr	1	jl.au	Y	Europe	1820.	D	co	
11226 trichocéphalum W.en.	shaggy	Δ	pr	1	jl.au	Y	.....	1823.	D	co	
11227 flexuósum W.	bending-stalk'd	Δ	pr	1½	jl.au	Y	Hungary	1804.	D	co	



History, Use, Propagation, Culture,

1633. *Thrinacia*. From *Sevens*, a feather; in allusion to the feathery pappus of the seeds. Small uninteresting weeds of no value or beauty.

1634. *Picris*. From *πικρὸς*, bitter; a name given by the Greeks to some plant resembling Lettuce, on account of its bitterness. None of the species are remarkable for their qualities.

- 11174 Scape single-fl. Leaves dentate scab. Involucre nearly glab. Outer pericarps with a scaly pappus
 11175 Scape 1-fl. pilose, Invol. hoary naked, Leaves lanc. blunt toothed, Hairs forked
 11176 Scape 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

- 11177 Stem erect scabrous, Leaves amplexicaul. lanc. toothed, Fl. corymbose, Outer invol. lax
 11178 Stem ascending scabrous, Leaves obl. lanc. blunt sinuate pinnatifid, Pedunc. thickened
 11179 Leaves obl. lanc. nearly entire sessile, and invol. hispid, Hairs glochidate
 11180 Stem branched spreading leafy, Leaves amplexicaul. obl. repand hispid

§ 1. *Scape one-flowered, naked.*

- 11181 Scape 1-leaved, Invol. hairy, Leaves lanc. runcinate toothed subpubescent, Teeth recurved
 11182 Scape somewhat naked villous, Invol. very villous, Leaves lanc. entire acute villous
 11183 Scape 1-leaved downy upwards, Invol. cylindr. downy, Leaves lanc. toothletted
 11184 Leaves entire ovate downy beneath, Stolones creeping
 11185 Scape naked thickened upwards hairy, Invol. smooth, Leaves lanc. obl. somewhat toothed smooth
 11186 Scape nearly naked, Invol. hispid, Leaves lanc. spatulate runcinate-toothed smoothish

§ 2. *Scape many-flowered, naked.*

- 11187 Scape about 4-fl. naked, Leaves obl. blunt entire, Stolones creeping
 11188 Scape 1-leaved with about 6 fl. Fl. umb. Leaves lanc. acute entire, Stolones creeping
 11189 Scape leafy pilose at base, Fl. corymbose, Peduncles downy, Leaves lanc. acute nearly entire pilose
 11190 Scape leafy smoothish, Fl. in corymbose panicles, Pedunc. spreading, Invol. hairy
 11191 Scape leafy hispid, Fl. in corymbose panicles, Pedunc. clustered, Invol. hispid
 11192 Scape about 3-fl. 1-leaved hairy, Leaves lin. lanc. acute pilose
 11193 Scape somewhat naked branched about 3-fl. Pedunc. squarrose, Leaves lin. lanc. toothletted smooth
 11194 Scape about 2-fl. Peduncles long, Leaves spatulate lanc. entire pilose, Stolones creeping
 11195 Scape forked about 2-fl. and leafy at base, Leaves lanc. acute entire, Stolones O
 11196 Resembles *H. murorum*, but the stem is naked
 11197 Scape naked corymbose, Leaves lyrate runcinate hairy
 11198 Leaves ovate somewhat toothed, Scape naked racemose, Upper flowers opening first
 11199 Scape naked scabrous at base, Fl. in racemose corymbs, Leaves oblong blunt toothletted hairy
 11200 Scape leafy hispid, Fl. corymbose, Pedunc. clustered, Leaves obl. acutish pilose-hispid
 11201 Scape somewhat naked branched, Invol. with glandular hairs, Leaves oblong acute entire woolly
 11202 Scape naked branched, Invol. smooth, Leaves obovate acute entire ciliated, Veins colored
 11203 Scape leafy in corymbose panicles, Invol. pubescent, Radic. leaves entire obovate blunt ciliated

§ 3. *Stem leafy.*

A. *Leaves entire.*

- 11204 Stem erect, Leaves alternate lanc. naked toothed, Panicle capillary
 11205 Stem erect branched, Leaves lanc. sessile somewhat toothed; laticous narrowed at each end
 11206 Stem erect branched, Leaves lin. lanc. nearly entire narrowed at each end ciliated at base
 11207 Stem erect simple, Leaves lanc. cordate amplexicaul. toothletted downy, Fl. racemose corymbose
 11208 Stem erect few-fl. Cauline leaves lanc. acum. runcinate; radical obl. lanc. undivided
 11209 Stem erect pilose paniced, Leaves ovate oblong subcordate sessile remotely toothed entire at end
 11210 Stem erect hairy, Fl. subcorymbose, Cauline leaves oblong lanceolate stem-clasping; radical toothed
 11211 Stem erect villous, Lvs. pilose somewhat toothed; radic. obov.; caul. obl. half-amplexicaul. Inv. hirsute
 11212 Stem erect branched, Lvs. ovate cord. amplexicaul. toothed towards the base, Pedunc. and invol. hirsute
 11213 Stem erect simple furrowed smoothish, Rad. lvs. obl. deeply toothed at base; caul. hastate sagit. Inv. lax

- 11214 Stem erect paniced furrowed downy, Leaves rugose: upper lanceol. Invol. lax hispid
 11215 Stem ascending simple furrowed viscid, Leaves lanc. with recurved teeth, Involucre hispid
 11216 Stem erect branched hispid, Leaves lanc. toothed sessile narrowed at each end, Invol. lax hispid
 11217 Stem erect about 2-fl. Leaves pilose toothed; radical oblong; cauline lanc. sessile, Invol. villous
 11218 Stem cymose fistulous many-leaved, Leaves ovate-lanceolate toothed forwards
 11219 Stem cymose solid few-leaved, Leaves lanceolate broadly toothed forwards
 11220 Stem erect branched leafy, Leaves linear entire
 11221 Stem erect simple leafy 1-fl. Leaves ovate-lanc. toothletted sessile
 11222 Radic. leaves oblong and lanceolate bluntish narrowed at base toothletted woolly, Invol. hoary
 11223 Stem leafy erect simple, Leaves oblong villous somewhat toothed, Fl. paniced
 11224 Stem erect somewhat branched and lvs. villous: radic. obl. lanc. toothed; caul. ovate cord. amplexicaul.
 11225 Differs from *H. villosum* in having the involucre covered with dense short brown hairs
 11226 Radical lvs. lanc. narrowed into stalk: caul. sub-amplex. toothed backwards acute smooth, Inv. villous
 11227 Stem erect smooth below, Leaves sub-villous lanc. acute: radical toothletted, Invol. villous



and Miscellaneous Particulars.

1635. *Hieracium*. It was believed formerly, that birds of prey made use of the juice of this kind of plant to strengthen their vision; whence it was called *Hieracium*, from *iera*, a hawk; the French word *Epervière*, the English *Hawk-weed*, and the German *Habichtskraut*, all bear witness to the universal belief in this very strange opinion. An extensive genus of plants, many of which, especially *H. aurantiacum*, are objects

11228	prostrátum <i>W. en. s.</i>	prostrate	3	△	pr	2	au	Y	S. Europe	1822.	D	co
11229	Kálmii <i>W.</i>	Kalm's	3	△	pr	1	au	Y	Pensylva.	1794.	D	co
11230	speciosíssimum <i>W.</i>	shewy	3	△	pr	1	au	Y	S. Europe	1821.	D	co
11231	denticulátum <i>E. B.</i>	small-toothed	3	△	pr	1	jl.au	Y	Scotland	sc.wo.	D	co
11232	Millérii <i>Link.</i>	Miller's	3	△	pr	1	jl.au	Y	.....	1830.	D	co
11233	echioides <i>W.</i>	Viper's-bugloss	3	△	pr	1	jl.au	Y	Hungary	1802.	D	co
11234	verruculátum <i>Link.</i>	warted	3	△	pr	1	jl.au	Y	.....	1821.	D	co
11235	undulátum <i>H. K.</i>	wave-leaved	3	△	pr	1	jl.au	Y	Spain	1778.	D	co
11236	dentátum <i>Link.</i>	rough-bordered	3	△	pr	3	jn.s	Y	Scotland	sc.wo.	D	co
	<i>prenanthoides</i> <i>Sm.</i>											
11237	latifolium <i>Link.</i>	broad-leaved	3	△	pr	2	jl.au	Y	Croatia	1820.	D	co
11238	foliosum <i>W. & K.</i>	leafy	3	△	el	2	jl.au	Y	Hungary	1805.	D	co
11239	sabadum <i>W.</i>	Lavay	3	△	el	3	jl.au	Y	Britain	groves.	D	co
11240	lavigátum <i>W.</i>	smooth	3	△	el	2	au.s	Y	.....	1804.	D	co
11241	canescens <i>Link.</i>	hoary	3	△	el	2	au.s	Y	.....	1822.	D	co
11242	umbellátum <i>L.</i>	narrow-leaved	3	△	el	3	jl.s	Y	Britain	woods.	D	co
11243	bracteolatum <i>Link.</i>	bracteolate	3	△	el	1	jl.s	Y	Europe	1823.	D	co
11244	longifolium <i>Hornem.</i>	long-leaved	3	△	el	1	jl.s	Y	.....	1821.	D	co
11245	fruticosum <i>W.</i>	shrubby	3	△	el	2	jn.jl	Y	Madeira	1785.	C	co
11246	húmile <i>W.</i>	small	3	△	pr	1	jl.au	Y	Germany	1804.	D	co
11247	nigréscens <i>W.</i>	dark-colored	3	△	pr	1	jl.au	Y	.....	1801.	D	co
11248	prunellifolium <i>Gouan.</i>	Self-heal-leav.	3	△	pr	1	jl.au	Y	Switzerl.	1820.	D	co
11249	murorum <i>L.</i>	wall	3	△	w	1	jl	Y	Britain	rocks.	D	co
11250	paludosum <i>L.</i>	Succory-leaved	3	△	pr	1	jl.au	Y	Britain	moun.	D	co
11251	lapsanoides <i>W.</i>	Lapsana-like	3	△	pr	1	jl.au	Y	Pyrenees	1812.	D	co
11252	ramosum <i>W. & K.</i>	branching	3	△	pr	2	au	Y	Hungary	1805.	D	co
11253	lyratum <i>W.</i>	Lyre-leaved	3	△	pr	2	jl.au	Y	Siberia	1777.	D	co
11254	glutinösium <i>W.</i>	clammy	3	△	pr	1	jl.au	Y	S. Europe	1796.	S	co
11255	fasciculátum <i>Psh.</i>	bundled	3	△	pr	5	jl.au	Y	Canada	...	D	co
1636.	LAGOSERIS. <i>Link.</i>	LAGOSERIS.							<i>Compositæ.</i>	<i>Sp. 6—10.</i>		
11256	bursifolia <i>Link.</i>	Shepherd's-purse-lv.	3	△	un	2	jl.au	Y	Sicily	1823.	S	co
	<i>Crepis bursifolia</i> <i>L.</i>											
11257	versicolor <i>Fischer.</i>	changeable	3	△	un	2	jl.au	Y	Dauria	1820.	D	co
11258	leontodóntoides <i>Link.</i>	Dandelion-like	3	△	un	1	jl.au	Y	Italy	1804.	S	co
11259	raphanifolia <i>Link.</i>	Radish-leaved	3	△	un	2	jn.jl	Y	.....	1816.	D	co
11260	taurinensis <i>Link.</i>	Turin	3	△	un	2	jn.jl	Y	Italy	1822.	S	co
11261	intybaea <i>Link.</i>	Endive-leaved	3	△	un	2	jn.jl	Y	Portugal	1816.	S	co
1637.	BORKHAUSIA. <i>Dec.</i>	BORKHAUSIA.							<i>Compositæ.</i>	<i>Sp. 7—9.</i>		
11262	nicaeensis <i>Link.</i>	Nice	○	pr	1	1	jn.jl	Y	Nice	1823.	S	co
11263	alpina <i>Link.</i>	Alpine	○	pr	1	1	jl	Y	Italy	1739.	S	co
11264	rúbra <i>Link.</i>	purple	○	pr	1	1	jn.jl	Y	Italy	1632.	S	co
11265	æ'tida <i>Link.</i>	fetid	○	un	1	1	jn.jl	Y	S. Europe	1824.	S	co
11266	graveolens <i>Link.</i>	stinking	○	un	1	1	jn.jl	Y	.....	1825.	S	co
11267	aspera <i>Link.</i>	rough	○	un	1	1	jl.au	Pa.Y	Sicily	1797.	S	co
11268	hispida <i>Link.</i>	hispid	○	un	2	1	jl.au	Y	S. Europe	1798.	S	co
1638.	CREPIS. <i>W.</i>	CREPIS.							<i>Compositæ.</i>	<i>Sp. 13—23.</i>		
11269	nemausensis	Palestine	○	un	1	1	jn.jl	Y	S. Europe	1794.	S	co
11270	Sprengeriána <i>W.</i>	Sprenger's	○	un	1	1	jn.jl	Y	Italy	1823.	S	co
11271	rigida <i>W.</i>	rigid	3	△	un	4	my.jl	Y	Hungary	1805.	D	co
11272	rigens <i>W.</i>	stiff-leaved	3	△	un	1	jl.au	Y	Azores	1778.	D	co
11273	hieracioides <i>W.</i>	Hawkweed-like	3	△	un	1	jl.au	Y	Hungary	1816.	D	co
11274	tectórum <i>P. S.</i>	smooth	3	△	un	1	jn.s	Y	Britain	past.	S	co
11275	cinérea <i>P. S.</i>	red-stalked	3	△	un	2	jn.s	Y.R	Europe	...	S	co
11276	agréstis <i>W.</i>	field	3	△	un	1	jl.au	Y	Hungary	1801.	S	co
11277	biennis <i>W.</i>	biennial	3	△	un	4	jn.au	Y	England	ch.pa.	S	co
11278	virens <i>W.</i>	green	3	△	un	1	jn.jl	Y	Switzerl.	1796.	S	co
11279	Dioscórdis <i>W.</i>	Dioscorides's	○	un	1	1	jn.jl	Y	France	1772.	S	co
11280	coronopifolia <i>W.</i>	fleshy-leaved	○	un	1	1	au.s	Y	Madeira	1777.	S	co
11281	filifórmis <i>W.</i>	fine-leaved	3	△	un	1	jn.jl	Y	Madeira	1777.	S	co



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deserving cultivation; others are of little interest; but all most difficult to distinguish or characterize. The species appear to intermix with the same facility as roses and willows.

Hieracium venosum, a very pretty plant, is called in America, *Poor Robin's Plantain*, and is believed to possess considerable medical powers.

1636. *Lagoservis*. From *λαγος*, a hare, and *σεισις*, a lettuce. Obscure weed-like plants.

- 11228 Near *H. villosum*, but the leaves are broader
 11229 Stem erect many-fl. Leaves lanc. toothed, Peduncles downy
 11230 Stem at base and lvs. here and there covered with hairs, Fls. smaller and inv. less vill. than in *H. villosum*
 11231 Stem erect many-fl. Leaves sessile ellipt. lanc. toothletted smoothish glaucous beneath
 11232 Radic. lvs. obl. narrowed at base acute: caul. sub-amplex. lanc. Pedunc. glandular, Inv. glandul. hairy
 11233 Stem erect strigose hispid, Leaves lanceolate nearly entire strigose hispid, Flowers corymbose
 11234 Stem pilose warted glandular upwards, Leaves sub-amplexicaul. oblong acute with long hairs beneath
 11235 Stem erect branched hoary, Leaves obov. obl. hoary toothed towards the base, Hairs feathery
 11236 Stem erect many-fl. Leaves amplexicaul. somewhat rough toothed at edge, Pedunc. downy

- 11237 Stem densely leafy, Leaves amplexicaul. 3 inches long $1\frac{1}{2}$ inch wide toothed hairy
 11238 Stem erect simple, Leaves ovate cordate amplexicaul. toothletted ciliated, Fl. paniced, Invol. smooth
 11239 Stem erect simple, Lvs. ovate-obl. smoothish acute sess. sub-amplex. toothed towards base, Fls. corymbose
 11240 Stem erect branched, Leaves obl. lanc. smooth stalked deeply toothed in the middle, Fl. paniced
 11241 Leaves narrowed at base sessile with long points toothed, Invol. downy hoary
 11242 Stem erect simple, Leaves linear somewhat toothed, Fl. in corymbose umbels
 11243 Leaves broader than in the last and less toothed, Stem few-flowered
 11244 Leaves mostly radical with long points toothletted hairy, Invol. hoary with long white and black hairs
 11245 Stem bracted shrubby, Leaves oblong toothed stalked, Peduncles sub-corymbose, Invol. downy

B. *Leaves sublyrate, lyrate, pinnatifid.*

- 11246 Stem erect few-fl. Peduncles and invol. pilose, Leaves oblong sub-pinnatifid at base
 11247 Stem naked few-fl. Pedunc. and invol. glandular downy blackish, Leaves oblong stalked toothed at base
 11248 Stem procumb. branch. at base few-fl. Ped. and invol. downy, Lvs. ovate unequal at base toothletted stalked
 11249 Stem erect leafy pilose simple, Fl. paniced, Leaves ovate deeply toothed at base
 11250 Stem simple, Leaves smooth obl. narrowed at base runcinate toothed: caul. amplexicaul. Invol. hispid
 11251 Stem simple, Cauline leaves lyrate runcinate amplexicaul. hairy, Fl. paniced, Invol. hispid
 11252 Stem erect paniced, Leaves ovate stalked deeply toothed at base, Flowers paniced
 11253 Stem simple, Leaves smooth: radical runcinate lyrate; cauline lanceolate, Invol. and pedunc. hispid
 11254 Leaves lanc. runcinate roughish, Flowers in umbels
 11255 Stem erect leafy simple smooth, Leaves sessile obl. acute finely toothed, Pedicels of panic. in bundles

- 11256 Leaves pinnatifid crenate, Scape naked few-flowered

- 11257 Leaves long lanceolate acute repand smooth, Fl. cylindrical, Outer invol. very small
 11258 Leaves runcin. toothed smooth, Scape naked many-fl. ascending, Invol. downy: outer scales appressed
 11259 Radic. leaves and lower cauline pinnated lyrate, Flowers corymbose, Invol. and pedunc. glandular
 11260 Leaves scabrous: radic. lyrate runcinate; cauline lanc. amplexicaul. toothed at base, Invol. downy
 11261 Lower lvs. runcin. pinnatifid: upper entire, Branches naked, Invol. downy with leaflets bristly at the back

- 11262 Leaves runcin. pinnatifid pilose scabrous, Stem paniced, Leaves of invol. keeled channelled downy
 11263 Leaves ovate cordate-sagittate amplex. toothed, Peduncles long 1-fl. Invol. hispid: outer membranous
 11264 Radic. leaves runcinate-lyrate: cauline amplexicaul. lanceol.; lower pinnatifid, Invol. hispid
 11265 Leaves runcinate pinnatifid scabrous sessile: upper lanceol. deeply cut at base, Invol. ovate angular
 11266 Leaves amplexicaul. pinnatifid hairy, Leaves of invol. downy hoary flat
 11267 Leaves amplexicaul.: lower obl. toothed; upper cut-toothed, Stem setose hispid, Inv. muricated in fruit
 11268 Setose hispid, Leaves runcinate auricled at base: upper lanc. sagitt. hastate, Invol. very hispid

- 11269 Leaves runcin. lyrate bluntly toothed, Scape naked many-fl. hispid, Lvs. of invol. membranous at edge
 11270 Hispid-scabrous, Leaves oblong amplexicaul. remotely toothed, Stem divaricating branched
 11271 Leaves rigid scabrous toothed: radic. obovate; caul. sagittate amplexicaul. Fl. in racemose panicles
 11272 Leaves hispid ovate obl. finely and deeply biserrate, Scape naked corymbose
 11273 Leaves smooth toothed: radical ovate-spatulate; cauline oblong sessile, Corymb terminal
 11274 Lvs. glab. runcin.: the upper ones linear-sagitt. amplex. Stem glab. Panic subcorymb. Inv. pubescent
 11275 Leaves lanc.: lower entire toothed smooth; cauline lanceolate amplex. Stem furrowed branched
 11276 Radic. leaves lanc. runcinate: cauline lanc. toothed at base sagittate, Panicles corymbose
 11277 Leaves hispid runcinate pinnatifid: upper sessile lanc. toothed prickly upon the keel
 11278 Leaves smooth: lower remotely toothed; upper nearly entire subsagittate, Invol. downy
 11279 Radic. leaves lyrate runcinate: cauline hastate lanceolate, Branches divaricating, Invol. downy
 11280 Leaves pinnatifid: segments linear; radical toothed; cauline entire, Stem paniced, Invol. downy
 11281 Leaves linear-filiform entire smooth, Pappus sessile



and Miscellaneous Particulars.

1637. *Borkhausia*. Named after Moritz Borkhausen, a German botanist, author of some useful works, especially upon the useful plants of Germany, published in one volume octavo, in 1790. Small annual plants, formerly referred to *Crepis*.

1638. *Crepis*. A name made use of by Pliny, to designate a plant of which he gives no description. The plants of this genus are common weeds of the hedges of Europe.

1639. HELMIN'THIA. <i>J. HELMINTHIA.</i>				<i>Compositæ.</i>	<i>Sp. 1.</i>				
11282 echioides <i>W.</i>	bristly	○ or	3	jn.jl	Y	Britain	bor.fl.	S	co Eng. bot. 972
1640. MYO'SERIS. <i>Link. MYOSERIS.</i>				<i>Compositæ.</i>	<i>Sp. 1.</i>				
11283 purpûrea <i>Link.</i>	purple	✓ △ or	1½	my.jn	Pu	Tauria	1824.	D	co
1641. TOL'PIS. <i>W.</i>	TOLPIS.			<i>Compositæ.</i>	<i>Sp. 3.</i>				
11284 barbâta <i>W.</i>	purple-eyed	○ pr	2	jn.jl	Y.Pu	France	1620.	S	co Bot. mag. 65
11285 umbellâta <i>Balbis.</i>	umbelled	○ pr	2	jn.jl	Y.Pu	Genoa	1820.	S	co
11286 altissima <i>Pers.</i>	tall	○ pr	4	jn.jl	Y	Piedmont	1823.	S	co Balb. diss. 4. t. 1
1642. ANDRY'ALA. <i>W. ANDRYALA.</i>				<i>Compositæ.</i>	<i>Sp. 6-10.</i>				
11287 cheirânthifolia <i>W.</i>	various-leaved	✓ △ pr	½	my.o	Y	Madeira	1777.	D	co L'Her.st.55.t.13
11288 pinnatifida <i>W.</i>	wing-leaved	✓ (○) pr	¾	jl.au	Y	Madeira	1778.	S	co
11289 crithmifolia <i>W.</i>	Sapphire-leav.	✓ (○) pr	¾	jn.au	Y	Madeira	1778.	S	co
11290 nigricans <i>W.</i>	dark-flowered	○ pr	½	jn.au	Y	Barbary	1804.	S	co
11291 ragusina <i>W.</i>	downy	✓ △ pr	½	jn.au	Y	Archipel.	1753.	D	co Mil.ic.1.t.146.f.2
11292 lanâta <i>W.</i>	woolly	✓ △ or	¾	my.jn	Y	S. Europe	1732.	D	s.p Mil.ic.1.t.146.f.1
1643. RO'THIA. <i>W.</i>	ROTHIA.			<i>Compositæ.</i>	<i>Sp. 3-6.</i>				
11293 andryaloides <i>W.</i>	Andryala-like	○ un	1	au	Y	Spain	1810.	S	co Gær.sem.2.t.174
11294 cheirânthifolia <i>W.</i>	Stock-leaved	○ un	1½	jl.au	Y	S. Europe	1763.	S	co
11295 runcinata <i>W.</i>	hoary	✓ (○) un	1	jl.au	Y	S. Europe	1711.	S	co
1644. KRIG'IA. <i>W.</i>	KRIGIA.			<i>Compositæ.</i>	<i>Sp. 1.</i>				
11296 virginica <i>W.</i>	Virginian	○ pr	¾	my.jl	Y	N. Amer.	1811.	S	co Jour.his.n.1.t.12
1645. HYO'SERIS. <i>W.</i>	SWINE'S-SUCCORY.			<i>Compositæ.</i>	<i>Sp. 5-11.</i>				
11297 radiâta <i>W.</i>	starry	✓ △ un	½	jn.jl	Y	S. Europe	1640.	D	co Plu. alm. t.37.f.2
11298 lûcida <i>W.</i>	shining	✓ △ un	½	jn.au	Y	Levant	1770.	D	co Schm. ic. t. 39.41
11299 scâbra <i>W.</i>	rugged	○ un	½	jl.au	Y	Sicily	1789.	S	co Boc.m.146.t.106
11300 arenâria <i>W.</i>	sand	○ un	½	jl.au	Y	Morocco	1800.	S	co
11301 hispida <i>W.</i>	hispid	✓ △ un	½	jl.au	Y	Barbary	1821.	S	co
1646. HEDYP'NOIS. <i>W. HEDYPNOIS.</i>				<i>Compositæ.</i>	<i>Sp. 7-16.</i>				
11302 monspeliensis <i>W.</i>	branching	○ un	1	jn.jl	Y	S. Europe	1683.	S	co
11303 rhagadioloides <i>W.</i>	Nipplewort	○ un	1½	jl.au	Y	S. Europe	1773.	S	co Cav. ic. 1. t. 43
11304 crêtica <i>W.</i>	Cretan	○ un	1	jn.jl	Y	Candia	1731.	S	co
11305 coronopifolia <i>Tenore.</i>	Buckshorn-leav'd	○ un	1	jn.jl	Y	Italy	1823.	S	co
11306 tubæformis <i>Tenore.</i>	tube-stalked	○ un	¾	jn.jl	Y	Naples	1824.	S	co
11307 mauritânica <i>W.</i>	Moorish	○ un	¾	jn.jl	Y	Barbary	...	S	co
11308 pëndula <i>W.</i>	pendulous	○ un	1½	jn.jl	Y	.....	...	S	co
1647. ROBER'TIA. <i>Rich. ROBERTIA.</i>				<i>Compositæ.</i>	<i>Sp. 1.</i>				
11309 taraxacoides <i>Dec.</i>	Dandelion-lvd.	✓ △ un	½	jn.jl	Y	Corsica	1824.	S	co
1648. SERI'OLA. <i>W.</i>	SERIOLA.			<i>Compositæ.</i>	<i>Sp. 4-7.</i>				
11310 lævigâta <i>W.</i>	smooth	○ un	¾	jl.au	Y	Candia	1772.	S	co Desf. atl. 2. t. 16
11311 ætrensîs <i>W.</i>	rough	○ un	¾	jl.au	Y	Italy	1763.	S	co Jac. obs. 4. t. 79
11312 ðrens <i>W.</i>	stinging	○ un	¾	jl.au	Y	S. Europe	1773.	S	co Schmid. ic. t.32
11313 Alliâtæ <i>Biv.</i>	Alliata's	✓ △ un	¾	jl.au	Y	Ætna	1825.	D	co Bivon.cent.2. t.7
1649. SOLDEVIL'LA. <i>Lag. SOLDEVILLA.</i>				<i>Compositæ.</i>	<i>Sp. 1.</i>				
11314 setosa <i>Lag.</i>	bristly	✓ △ cu	¾	my.jn	Y	Spain	1822.	D	co
1650. HYPOCHÆ'ERIS. <i>W. CAT'S-EAR.</i>				<i>Compositæ.</i>	<i>Sp. 7-16.</i>				
11315 helvética <i>W.</i>	one-flowered	✓ △ un	½	jn.jl	Y	Switzerl.	1779.	D	s.l Jac. ic. 1. t. 165
11316 maculâta <i>W.</i>	spotted	✓ △ un	1	jn.jl	Y	England	ch.hil.	D	s.l Eng. bot. 225



History, Use, Propagation, Culture,

1639. *Helminthia*. An abridgment of *Helminthotheca*, a name employed for this genus by Vaillant. It is derived from *ἕλμινς*, a worm, and *θησαυρ*, a case; in allusion to the corrugated seeds, which may be fancied to resemble bundles of little worms. The genus was united by Linnæus with *Picris*, but has been again separated by modern botanists.

1640. *Myoseris*. So named from *μῦς* *μῦς*, a mouse, and *στῆσις*, lettuce; a name invented for the purpose of maintaining a resemblance in nomenclature with *Hyoseris*, *Lagoseris*, and other similar plants.

1641. *Tolpis*. A name invented by Adanson, and supposed to have no meaning. Handsome annual flowers.

1642. *Andryala*. A name, the meaning of which has not been discovered. Rather pretty plants, natives of the south of Europe and north of Africa.

1643. *Rothia*. Named by Schreber, in honor of Dr. A. G. Roth, author of a *Flora Germanica*, in 1788, *Catalecta Botanica*, in 1797, and other works. It has been united with *Andryala* by Richard.

1644. *Krigia*. Named after Dr. Krieger, a German botanist, who accompanied Mr. Vernon to America in search of plants. See *Vernonia*. A pretty little North American plant, with grassy leaves and bright yellow neat flowers.

11282 *Involucrum* large prickly, Leaves repand

11283 Leaves runcinate pinnatifid : lobes oblong acute toothed spreading, Scape naked many-fl. smooth

11284 Leaves obl. toothed, Pedunc. 1-flowered

11285 Leaves lanc. oblong : lower sinuate-toothed, Pedunc. proliferous

11286 Leaves obl. linear scabrous toothed, Stem branched divaricating, Lower scales of invol. downy

11287 Leaves gland. downy : lower runcinate toothed ; upper ovate lanc. entire, Stem and pedunc. glandular

11288 Leaves downy pinnatifid, Invol. downy pilose, Hairs rigid

11289 Leaves pinnated linear downy

11290 Leaves pinnatifid lyrate, Flowers corymbose aggregate, Pedunc. and invol. hispid

11291 Leaves downy oblong : lower toothed, Stem branched, Branches 1-flowered

11292 Leaves ovate woolly : lower somewhat toothed, Corymb terminal, Pedunc. about 2-flowered

11293 Stem branched at base diffuse, Leaves downy ovate lanceolate amplexicaul. nearly entire

11294 Stem erect corymbose, Leaves somewhat downy linear sinuate-toothed sessile : upper entire

11295 Stem erect corymbose, Leaves downy sessile : lower obl. runcinate, Pedunc. gland. villous

11296 The only species

11297 Scapes 1-fl. naked, Leaves smooth lyrate runcinate toothed : term. lobe trifid

11298 Scapes 1-fl. naked, Leaves smooth lyrate runcinate somewhat fleshy : segm. angular imbricated

11299 Scapes 1-fl. naked thickened at end, Leaves lyrate pinnatifid toothed ciliated roughish

11300 Stem branched leafy diffuse, Leaves amplexicaul. oblong toothed scabrous ciliated at edge

11301 Scapes 1-fl. hispid, Leaves obl. runcinate toothed hispid, Hairs forked

11302 Stem diffuse branched, Leaves obl. toothed narrowed at base sessile, Scales of invol. in fruit smooth

11303 Stem diffuse branched, Lvs. obl. toothed narr. at base sess. Scales of invol. in fruit hairy

11304 Stem diffuse branched, Lvs. obl. toothed subcordate amplexicaul. Scales of invol. in fruit smooth

11305 Related to the last, but the leaves are deeply toothed with 3-forked hairs

11306 Leaves somewhat toothed, Hairs simple, Pedunc. very thick

11307 Stem erect branched, Lvs. obl. somew. toothed subcordate amplex. Scales of invol. in fruit alternately setose

11308 Stem erect paniced, Lvs. obl. hispid deeply toothed, Scales of invol. in fruit smooth muricated at the end

11309 The only species

11310 Smooth, Leaves obovate toothed

11311 Hispid, Leaves obovate somewhat toothed

11312 Stinging, Stem branched, Leaves toothed

11313 Radical leaves spatulate toothed pilose, Stem ascending smooth, Pappus stalked

11314 Hairy with very short stellate hairs and bristles, Lvs. lanc. entire, Pedunc. term. thickened upwards 1-fl.

11315 Stem simple leafy 1-fl. Leaves lanc. toothed

11316 Stem almost leafless solitary, Leaves ovate-oblong undivided toothed (spotted above)



and Miscellaneous Particulars.

1645. *Hyoseris*. From *ὅς υἴος*, a hog, and *σεις*, the Greek name of the Lettuce, or of a plant resembling it : hogs-lettuce, in allusion to the abominably fetid smell of the plant.

1646. *Hedypnois*. Under this name, a kind of wild endive, the medicinal qualities of which he much extols, is described by Pliny. Dalechamp, his commentator, derives the word from *ἡδύς*, sweet, and *πνέω*, to breathe, on account of a pleasant flavor communicated to other vegetables in cookery. But the modern genus, which consists of uninteresting weeds, has not been discovered to possess this quality.

1647. *Robertia*. Named by the authors of the Flore Française, after M. Robert, a Corsican botanist. A small weedy plant resembling Dandelion.

1648. *Seriola*. A diminutive of *σεις*, chicory. Small chicoraceous weeds of the south of Europe. S. Alliate is not, as its name would lead one to suspect, named from any smell of garlic which it possesses, but in honor of Prince Joseph Alliate, a Sicilian nobleman, and patron of Bivona Bernardi.

1649. *Soldevilla*. So named by Lagasca, apparently in honor of some botanist. A little Spanish weed with terminal solitary flowers.

1650. *Hypochaeris*. From *ὄρα*, for, and *χαιρος*, a pig ; *Porcelle*, Fr., for the same reason, viz., that pigs eat the roots with avidity. All the species are uninteresting weeds.

11317	<i>mínima W.</i>	least	○ un	¼ jl.au	Y	Barbary	1797.	S co	
11318	<i>hispida W. en.</i>	bristly	∇ △ un	¼ jl.au	Y	S. Europe	1804.	D co	W. hor. be. 1. t. 46
11319	<i>glábra W.</i>	smooth	○ un	1 jl.au	Y	Britain	sa. hea.	S co	Eng. bot. 575
11320	<i>radicáta W.</i>	long-rooted	∇ △ un	1½ jn.s	Y	Britain	me. pa.	D s.l	Eng. bot. 831
11321	<i>Balbisii W.</i>	Balbis's	∇ △ un	1 jn.s	Y	Italy	1824.	D co	
1651.	<i>LAPSA'NA. W.</i>	NIPPLEWORT.				<i>Compositæ.</i>	<i>Sp. 6—10.</i>		
11322	<i>foe'tida W.</i>	stinking	∇ △ un	½ jl.au	Y	Italy	1722.	D co	Pl. rar. hu. 1. t. 49
	<i>Hyóseris foe'tida P. S.</i>								
11323	<i>pusilla W.</i>	least	○ w	¼ my.jn	Y	Britain	gra. fi.	S co	Eng. bot. 95
	<i>Hyóseris mínima E. B.</i>								
11324	<i>communis W.</i>	common	○ w	1½ jn.jl	Y	Britain	clt. gr.	S co	Eng. bot. 844
11325	<i>crispa W.</i>	curled	○ un	1½ jl.au	Y	.....	1799.	S co	
11326	<i>intermédia Bicb.</i>	intermediate	○ un	1½ my.jn	Y	Tauria	1823.	S co	
11327	<i>lyráta W. en.</i>	lyrate	∇ △ un	1½ jl.au	Y	Caspi. Sea	1816.	D co	
1652.	<i>ZACIN'THA. W.</i>	ZACINTHA.				<i>Compositæ.</i>	<i>Sp. 1.</i>		
11328	<i>verrucósa W.</i>	warted	○ un	¾ jn.jl	Y. BR	S. Europe	1633.	S co	Gæ. se. 2. t. 157. f. 7
1653.	<i>RHAGADIOLUS. W.</i>	RHAGADIOLUS.				<i>Compositæ.</i>	<i>Sp. 3—5.</i>		
11329	<i>stelláta W.</i>	starry	○ un	1 jn.jl	Y	S. Europe	1633.	S co	
11330	<i>édulis W.</i>	heart-leaved	○ un	1 jn.jl	Y	Levant	1633.	S co	Sch. han. 3. t. 225
11331	<i>Kélpinia W.</i>	small	○ un	¾ jl	Y	Davuria	1788.	S co	Pall. it. 3. t. Ll. f. 2
1654.	<i>MOSCA'RIA. Fl. per.</i>	MOSCARIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>		
11332	<i>pinnatífida Fl. per.</i>	pinnatifid	○ pr	½ jl.au	...	Chili	1823.	S co	
1655.	<i>CATANAN'CHE. W.</i>	CATANANCHE.				<i>Compositæ.</i>	<i>Sp. 2—3.</i>		
11335	<i>carálea W.</i>	blue	∇ △ or	3 jlo	B	S. Europe	1596.	D co	Bot. mag. 293
11334	<i>lútea W.</i>	yellow	○ or	¾ jn.jl	Y	Candia	1640.	S co	Alp. exot. t. 286
1656.	<i>TRIPTI'LION. Fl. per.</i>	TRIPTILION.				<i>Compositæ.</i>	<i>Sp. 1—4.</i>		
11335	<i>cordifólium Lag.</i>	cordate	○ pr	¼ my.au	W	Chili	1824.	S co	Bot. reg. 853
1657.	<i>CICHO'RIMUM. W.</i>	SUCCORY.				<i>Compositæ.</i>	<i>Sp. 5—7.</i>		
11336	<i>l'nythus W.</i>	wild	∇ △ ag	2 jn.au	B	Britain	gra. so.	D co	Eng. bot. 539
11337	<i>púmílium W.</i>	dwarf	○ un	¾ jl.au	B	.....	1799.	S co	Jac. obs. 4. t. 80
11338	<i>Endívia W.</i>	Endive	∇ △ cul	2 jl.au	B	E. Indies	1548.	S r.m	
11339	<i>divaricátum W.</i>	branching	○ un	2 jl.au	B	Barbary	1798.	S co	
11340	<i>spinósum W.</i>	prickly	∇ △ un	2 jl.au	B	Candia	1633.	S co	Bauh. prod. r. t. 62
1658.	<i>BACA'ZIA. Fl. per.</i>	BACAZIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>		
11341	<i>spinósa Fl. per.</i>	prickly	∇ △ or	4 my.jl	...	Peru	1825.	C pl	
1659.	<i>SCO'LYMUS. W.</i>	GOLDEN THISTLE.				<i>Compositæ.</i>	<i>Sp. 3—4.</i>		
11342	<i>grandiflórus Desf.</i>	large-flowered	∇ △ or	3 my.jn	Y	Barbary	1820.	S co	Desf. atl. t. 218
11343	<i>maculátus W.</i>	annual	○ or	3 jl.au	Y	S. Europe	1633.	S co	Lam. ill. t. 639
11344	<i>hispánicus W.</i>	perennial	∇ △ or	3 jls	Y	S. Europe	1658.	D co	



History, Use, Propagation, Culture,

1651. *Lapsana*. From *λαπαζω*, to purge. The *Lapsana*, says Pliny, gently relaxes the body. *L. communis* is called *nipple-wort*, in English, and *herbe aux mammelles*, Fr., having been formerly applied to the breasts of women to allay the irritation occasioned by nursing.

1652. *Zacintha*. A plant growing in the island of *Zacintha* or *Zante*. It was formerly included in *Lapsana*, under the name of *L. Zacintha*.

1653. *Rhagadiolus*. From *ραγας*, a slit; each division of the calyx being hollowed out in the middle so as to resemble a furrow, or little gutter.

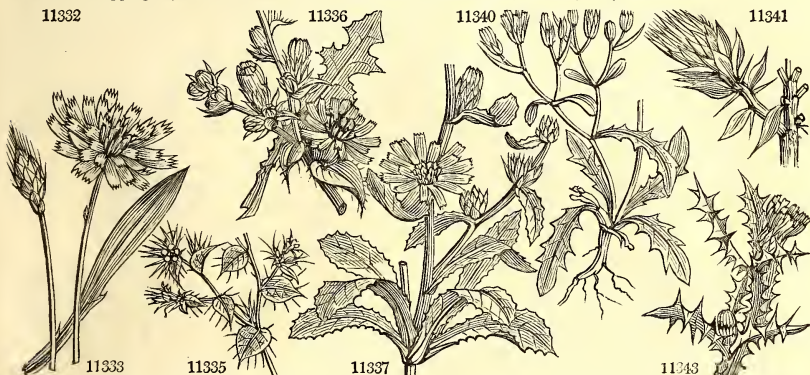
1654. *Moscharia*. This plant gives out an agreeable smell of *musk*. An annual plant, with stem-clasping pinnatifid deeply cut leaves, found in sandy waste places in Chili, where it is commonly called *Almizelilla*.

1655. *Catananche*. Vaillant explains the meaning of this word, by deriving it from the two Greek words, *κατα*, and *αναγκη*, necessity; that is to say, a plant which compels admiration. What is certainly known of its origin is, that it was employed by Dioscorides to designate a plant used by the women of *Thessaly*, in philtres and love potions. The modern genus, which contains two or three species of ornamental border annuals, can have no reference to that of the ancients, one kind of which is believed to have been *Ornithopus compressus*, and another *Astragalus pugniformis*. John Bauhin calls *Lathyrus Nissolia* by the name of *Catananche leguminosa*.

1656. *Triptilion*. A genus instituted by the authors of the *Flora Peruviana*, and named from *τρεις*, three, and *πτελον*, a feather, on account of the three divisions of the pappus. The species mentioned above is a very pretty little annual, or rather biennial plant, flowering during all the winter months in any place whence frost is excluded, but it requires not to be kept too dry. There is a fine species in Chili, with bright blue flowers, but it has not been yet introduced. The inhabitants of South America employ the flowers of the different species as everlasting flowers, for which their dryness renders them very well adapted.

1657. *Cichorium*. In Greek *κιχωριον*. De Theis's remarks are upon this subject excellent. *Bodæus*, he observes, *Linnaeus*, and others, have derived this name from *κίον*, to come, and *χωριον*, the field; that is to say,

- 11317 Leaves toothed roughish, Invol. hispid, Pappus of disk stipitate plumose : of the ray sessile setose
 11318 Hispid, Calyxes hairy, Stem branched, Lvs. lanc. toothed,
 11319 Nearly glab. Invol. obl. imbricated, Stem branched somewhat leafy, Radical leaves dentato-sinuate
 11320 Stem branched leafless glab. Pedunc. with small scales, Lvs. runcinate obtuse scab.
 11321 Different from the last in having a smooth involucreum
- 11322 Stemless, Scape 1-fl. Leaves runcinate pinnatifid, Terminal lobe rhomboid
- 11323 Scape branched very thick and fistulose upwards, Leaves obovate oblong toothed
- 11324 Invol. of the fruit angular, Stem panicled, Pedunc. slender, Lvs. ovate petiolate angulato-dentate
 11325 Caulescens branched, Leaves ovate stalked doubly toothed
 11326 Caulescens branched, Lvs. angular-toothed : lower lyrate-pinnatifid, Pedunc. and invol. smooth
 11327 Caulescens panicled, Stem downy below, Radical leaves lyrate toothed : upper lanc. entire
- 11328 Rad. leaves lyrate acute, Cauline sagittate amplexicaul. toothed
- 11329 Fruit smooth spreading, Cauline leaves lanc. undivided
 11330 Fruit smooth spreading, Leaves lyrate
 11331 Fruit prickly spreading, Leaves linear lanc. entire
- 11332 Leaves amplexicaul. pinnatifid : segments deeply jagged
- 11333 Lower scales of invol. ovate mucronate, Leaves villous linear sub-bipinnatifid at base
 11334 Lower scales of invol. lanc. Leaves lanc. toothed 3-nerved
- 11335 Leaves cordate spiny
- 11336 Flowers sess. axill. in pairs, Leaves runcinate
 11337 Flowers axillary twin sessile, Leaves obovate toothed
 11338 Pedunc. axill. twin : one long 1-fl. ; the other very short about 4-fl. Flowers capitate
 11339 Pedunc. axill. twin : one long 1-fl. ; the other very short about 2-fl. Stem dichotomous, Rad. lvs. runcinate
 11340 Flowers axill. solitary, Stem dichotomous, Branches naked spiny, Lvs. lanc. runcinate toothed
- 11341 Leaves obovate mucronate cartilaginous, Flowers solitary
- 11342 Fl. solitary lateral sessile, Lvs. decurrent, Stem subsimple villous erect
 11343 Fl. solitary, Lvs. roughish smooth, Stem winged toothed
 11344 Fl. subaggregate, Lvs. scabrous with the middle rib below hairy interruptedly decurrent



and Miscellaneous Particulars.

it is a plant found wild in fields, — which grows every where : but this etymology is overstrained. It is much more natural to suppose that the Egyptians, who used this plant in great quantities, would have communicated to the Greeks, along with the manner of using it, the name by which it was known in Egypt, which appears from Forskahl to be *chikouryeh*. Pliny remarked, that the Egyptians made their chicory of much consequence, and it is very well known that, at the present day, chicory or similar plants constitute half the food of the common people in Egypt. In like manner, there can be little doubt that the specific terms *Endivia* and *Intybus*, are both derived from the Arabic name *hendibeh*.

The leaves of *Cichorium Intybus* are employed by the French under the name of *Barbe du Capucine*, as a kind of winter salad ; for which purpose the leaves are blanched like Endive. The most common method of cultivating the plant, is to sow the seed in drills in the end of July, and to keep the plants about six inches apart, and quite free from weeds. In the winter the roots are taken out of the ground and packed up in a warm cellar among earth, in layers, like bottles in a wine cellar, the crowns only of the roots being exposed. In a few days, young leaves are produced in great abundance, from the situation in which they are cultivated quite blanched, and, if not grown too rapidly, with an agreeable taste. There is also a variety of *C. Intybus*, called *Chichorie à café*, which is cultivated extensively in France for the sake of its roots, which are taken up in the winter season, cut into squares, dried artificially, and afterwards, being roasted, are ground along with their coffee, for which they serve as an adulteration. There are those, however, who assert, that it is to this admixture of Succory root that the superior flavor of the French to the English coffee is to be attributed.

1638. *Bacaxia*. Named by the authors of *Flora Peruviana*, in honor of George Bacas, professor of botany at Carthagena.

1639. *Scotymus*. The Greek name of a spiny plant, which appears to have been the modern artichoke. The word itself is derived from *σκαλος*, a spine. *S. hispanicus* has simple fusiform roots, soft and sweet like *Scorzonera*, and equally good to eat. The leaves and stalk also abound with a milky juice, and the people of Salamanca eat it in the same manner as Cardoons. The flowers are used for adulterating saffron.

1660. ARCTIUM. <i>W.</i>		BURDOCK.		<i>Compositæ.</i>		<i>Sp. 3-4.</i>				
11345	Lappa <i>W.</i>	smooth-headed	○ w	3	jl.au	Pu	Britain	wa. gr.	S co	Eng. bot. 1228
11346	Bardana <i>W.</i>	woolly-headed	○ w	3	jl.au	Pu	Britain	wa. gr.	S co	Eng. bot. 2478
11347	minus <i>Bieb.</i>	small	○ w	2	jl.au	Pu	Europe	...	S co	Schk. bot. 3. t. 927
1661. SERRATULA. <i>W.</i>		SAW-WORT.		<i>Compositæ.</i>		<i>Sp. 16-40.</i>				
11348	tinctoria <i>W.</i>	common	△ ctt	3	jl.o	Pu	Britain	woods.	D co	Eng. bot. 38
11349	coronata <i>W.</i>	*Siberian	△ pr	5	jl.au	Pu	Siberia	1739.	D co	Gmel. sib. 2. t. 20
11350	quinquefolia <i>W.</i>	five-leaved	△ pr	2	jl.au	Pu	Persia	1804.	D p.l	Bot. mag. 1871
11351	pygmaea <i>W.</i>	Pigmy	△ pr	1	jl.au	Pu	Austria	1816.	D co	Jac. aust. t. 440
11352	angustifolia <i>W.</i>	narrow-leaved	△ pr	1½	jl.au	Pu	Siberia	1816.	D co	Gmel. sib. 2. t. 33
11353	salicifolia <i>W.</i>	Willow-leaved	△ pr	2	jl.au	R	Siberia	1796.	D co	Gmel. sib. 2. t. 37
11354	centauroides <i>W.</i>	Centaury-like	△ pr	1	jl.au	Pu	Siberia	1804.	D co	G. sib. 2. n. 38. t. 17
11355	simplex <i>E. M.</i>	simple	△ pr	1	jl.au	Pu	Nepal	1821.	D co	Bot. mag. 2482
11356	arguta <i>Fisch.</i>	fine-toothed	△ pr	3	jl.o	Pu	Hungary	1824.	D co	
11357	radiata <i>Bieb.</i>	rayed	○ pr	1½	jl	Pu	Hungary	1800.	S co	Pl. rar. hu. 1. t. 11
11358	xeranthemoides <i>Bieb.</i>	smth.-headed	△ pr	1½	jl	Pu	Caucasus	1825.	D co	Gmel. sib. t. 47. f. 1
11359	heterophylla <i>D. sf.</i>	variously-leaved	△ pr	2	jl.au	Pu	Dauphny	1824.	D co	
11360	stachadifolia <i>Bieb.</i>	woolly-headed	△ pr	1½	jl.au	Pu	Tauria	1820.	D co	
11361	Picris <i>Bieb.</i>	scarious	△ pr	1	jl.au	Pu	Caucasus	1822.	D co	
11362	aspera <i>Link.</i>	rough	△ pr	1½	au.s	Pu	Nepal	1821.	S co	
11363	alata <i>W.</i>	winged	△ pr	2	jl.au	Pu	.....	...	D co	
1662. SAUSSUREA. <i>Dec.</i>		SAUSSUREA.		<i>Compositæ.</i>		<i>Sp. 3-6.</i>				
11364	elongata <i>Dec.</i>	long	△ pr	2	jl.au	Pu	Caucasus	1820.	D co	
11365	alpina <i>Dec.</i>	Alpine	△ pr	½	jl.au	Pu	Britain	al. roc.	D p.l	Eng. bot. 539
11366	discolor <i>Dec.</i>	discolored	△ pr	1	jl.au	Pu	Switzerl.	1818.	D co	Hall. helv. t. 6
1663. CARDUUS. <i>W.</i>		THISTLE.		<i>Compositæ.</i>		<i>Sp. 26-100.</i>				
11367	leucographus <i>W.</i>	white-spotted	○ or	2	jn.jl	Pu	Italy	1752.	S co	Jac. vind. 3. t. 23
11368	crassifolius <i>W. cn.</i>	thick-leaved	△ or	2	jl	Pu	.....	1805.	D co	
11369	arabicus <i>W.</i>	Arabian	○ or	½	jl.au	Pu	Arabia	1789.	S co	Jac. ic. 1. t. 166
11370	nótans <i>W.</i>	musk	○ or	2	jl.au	Pu	Britain	gra. fi.	S co	Eng. bot. 1112
11371	carlinoides <i>W.</i>	Pyrenean	△ or	1	jl.au	Pu	Pyrenees	1784.	S co	Gouan. ill. t. 23
11372	argentatus <i>W.</i>	silvery	○ or	1	jl.au	Pu	Egypt	1789.	S co	Jac. ho. vin. t. 192
11373	onopordoides <i>Bieb.</i>	Onopordum-like	△ or	1½	jl.au	Pu	Iberia	1818.	D co	
11374	carlinifolius <i>W.</i>	Carline-leaved	△ or	2	jl.au	Pu	Pyrenees	1804.	S co	
11375	acanthoides <i>W.</i>	welted	○ w	2	jn.au	Pu	Britain	wa. gr.	S co	Eng. bot. 973
11376	tenuiflorus <i>W.</i>	slender-flowered	○ w	2	jn.au	Pu	Britain	banks.	S co	Eng. bot. 412
11377	crispus <i>W.</i>	curled	△ or	2	jl.au	Pu	Europe	1804.	S co	Flor. dan. t. 621
11378	hamulosus <i>W.</i>	spiny-hooked	○ or	5	jn.jl	Pu	Hungary	1802.	S co	
11379	candicans <i>W.</i>	hoary	○ or	3	jl.au	Pu	Hungary	1805.	S co	Pl. rar. hu. 1. t. 83
11380	Personata <i>W.</i>	cut-leaved	○ or	4	jl.au	Pu	Austria	1776.	S co	Jac. aust. 4. t. 348
11381	polyanthemus <i>W.</i>	many-flowered	○ or	2	jn.jl	Pk	Rome	1739.	D co	Trium. obs. t. 103
11382	orientalis <i>W. cn.</i>	oriental	△ or	2	jl	Pu	Iberia	1804.	D co	
11383	paniculatus <i>W.</i>	panicked	○ or	2	jn.jl	Pu	S. Europe	1781.	D co	
11384	pycnocephalus <i>W.</i>	Italian	△ or	1½	jl.s	Pu	S. Europe	1739.	S co	Jac. vind. 1. t. 44
11385	cyanoides <i>W.</i>	blue-bottle-ld.	○ or	2	jl.au	R	Siberia	1778.	D co	Gmel. sib. 2. t. 65
11386	arctioides <i>W.</i>	pinnated	○ or	2	jl.au	Pu	Carniola	1804.	D co	Scop. carn. t. 53
11387	alpestris <i>W.</i>	Alpine	△ or	1½	jl.au	Pu	Croatia	1805.	D co	
11388	decoloratus <i>W.</i>	variously-leaved	△ or	6	jl.s	R	Austria	1570.	D co	Jac. aust. 1. t. 89
11389	parviflorus <i>W.</i>	small-flowered	○ or	2	jn.jl	Pu	S. Europe	1781.	D co	
11390	nitidus <i>W.</i>	glossy	△ or	2	jl	Pu	Hungary	1803.	D co	Pl. rar. hu. 1. t. 52
11391	cerinthoides <i>W.</i>	Honeywort-ld.	△ or	2	jl.au	Pu	S. Europe	1739.	D co	Cav. ic. 3. t. 226



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1660. *Arctium*. From *arctos*, a bear, (*arth*, Celtic); on account of the rough bristly fruit, which may be compared to the coarse hair of a bear. Lappa is derived from *lapp*, a hand, in Celtic, because it lays hold of every thing near it. The burdock is too familiar to every schoolboy to need illustration. It is equally common in Europe and Japan, by road sides and on ditch banks. Few quadrupeds, except the ass, will eat the plant; but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their rind before the flowers appear, may be eaten, either boiled or raw, with oil and vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of Sarsaparilla. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salt, as good as the best potash.

1661. *Serratula*. A diminutive of *serra*, a saw; the leaves being edged with cutting teeth. Plants with the habit and qualities of thistles. *Serratula tinctoria* dyes cloth of a yellow colour.

1662. *Saussurea*. Named in honor of the celebrated Swiss philosopher Horace Benedict de Saussure, who, among his other acquirements, possessed a considerable knowledge in botany. He died in 1799, in the fifty-ninth year of his age.

1663. *Carduus*. This word appears to be derived from *ard*, a point, in Celtic, in allusion to the numerous

- 11345 Leaves cordate petiolate
 11346 Cauline leaves cordate stalked entire, Invol. cobwebbed downy
 11347 Invol. woolly: inner scales subulate somew. colored scarcely longer than outer, Racemes axill. panicled
- 11348 Leaves sharply serrate glab. pinnatifid: the terminal lobe the largest, Flowers in a small clust. umbel
 11349 Leaves serrated unequally pinnate of about 5-pairs, Pinnæ confluent, Pedunc. 1-f. Fl. rayed
 11350 Lvs. serrated unequally pinn. of about 2-pairs, Pinnæ confluent, Pedunc. 1-f. Inner scales of invol. long
 11351 Lvs. lin. lanc. hirsute revolute at edge, Stem 1-f. vill. Scales of invol. ov.-lanc. appressed [colored
 11352 Leaves lin. entire hirsute, Fl. terminal corymbose
 11353 Leaves lin. entire downy beneath revolute at edge, Corymb fastigiato
 11354 Leaves pinnatifid oblique acute smooth unarmed, Scales of invol. mucronate: inner scarious
 11355 Leaves pinnatifid: lobes distant, Stem nearly simple 1-flowered, Invol. globoso squarrose
 11356 Like *S. tinctoria*, but the lower leaves are oval and entire
 11357 Leaves pectinate-pinnatifid naked: segm. lin. unarmed; terminal ovate, Scales of invol. ov. mucronate
 11358 Invol. unarmed somewhat awned radiate, Leaves pinnatifid
 11359 Leaves ov. pinnatifid toothed unarmed hoary beneath: upper sess. Stem 1-f. Scales of invol. ov. unarmed
 11360 Leaves lin. entire downy beneath, Corymb nearly simple, Invol. obl. ovate downy
 11361 Invol. ovate: scales roundish scarious at edge, Leaves lanc. lower somewhat toothed at base
 11362 Stem somewhat downy, Lvs. obl. acute narrowed at base serrated, Fl. subsessile, Invol. unarmed
 11363 Lvs. downy beneath somewhat toothed: radical cord. stalked, Cauline lanc. decurrent, Invol. squarrose
- 11364 Invol. corymb. somewhat downy, Leaves fleshy smooth: radical lyrate hastate, Cauline hastate
 11365 Leaves villous beneath toothed: radic. ovate-lanc. Flowers terminal somewhat unbelled
 11366 Lvs. downy beneath toothed: radic. ovate-subcordate; cauline ovate-lanc. Fl. terminal somew. umbelled
- 11367 Leaves decurrent toothed spiny, Pedunc. naked very long 1-f. Invol. spiny inclining
 11368 Lvs. half decurrent obl. spiny-toothed somewhat fleshy smooth glauc. beneath, Pedunc. very long 1-f.
 11369 Leaves obl. decurrent sinuate spiny with white veins villous beneath, Fl. sessile clustered, Invol. cylind.
 11370 Leaves decurrent spinous, Fl. drooping, Scales of the invol. lanc. cottony: outer ones spreading
 11371 Leaves decurrent pinnatifid downy: segments palmate spiny, Flowers clustered
 11372 Leaves decurrent runcinate spiny, Pedunc. somewhat downy 1-f. Invol. ovate mucronate unarmed
 11373 Leaves decurrent sinuate spiny smooth, Pedunc. short subcorymbose downy
 11374 Leaves decurrent spiny glabrous, Pedunc. erect 1-f. unarmed
 11375 Lvs. decur. sinuated spinous, Invol. globoso nearly sess.: its scales lin. slightly recurved [lanc. erect
 11376 Lvs. decurrent sinuated spinous somew. cottony beneath, Invol. nearly cylind. clustered sess. their scales
 11377 Lvs. decurrent obl. sinuated spiny at edge downy beneath, Fl. stalked clustered terminal
 11378 Lvs. decurrent lanc. pinnatifid toothed spiny vill. beneath, Pedunc. 1-f. downy, Scales of invol. sub. spiny
 11379 Leaves half decurrent lanc. pinnatifid spiny downy beneath, Pedunc. scaly downy
 11380 Caul. lvs. half decurrent obl. undivided spiny toothed subvillous beneath: radic. pinnatifid at base
 11381 Leaves decurrent sinuated ciliated naked beneath, Fl. stalked heaped
 11382 Leaves half decurrent pinnatifid toothed spiny white with down beneath, Fl. subsessile term. clustered
 11383 Leaves half decurrent toothed sinuate spiny smooth, Flowers panicled
 11384 Leaves decurrent pinnatifid sinuated downy spiny, Pedunc. naked downy, Invol. deciduous
 11385 Lvs. downy beneath: upper finely decurrent lin. Stem 1-f. Scales of invol. lanc. mucron. downy
 11386 Lvs. decurrent deeply pinnatifid: segments toothed upwards spiny with setaceous cilia at end
 11387 Leaves half decurrent pinnatifid acuminate: segm. 2-lobed ciliated spiny, Pedunc. downy
 11388 Leaves half decurrent pinnatifid-serrate somew. spiny ciliated naked: radic. undivided, Pedunc. very long
 11389 Leaves adnate at base lanc. naked eroded ciliate-spiny unarmed [woolly
 11390 Leaves unarmed: radic. ovate toothed somewhat cut at base; cauline sessile pinnatifid linear
 11391 Leaves naked: radical obl. entire; cauline lanc. somewhat toothed, Scales of invol. ovate mucronate



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points with which it is beset. *C. marianus*, the milk-thistle, derived its name from the Virgin Mary, some of whose milk is said to have fallen upon the leaves of the plant, and changed them to white. An extensive genus of rather handsome weeds. *C. Personata* is said to have been so called, because its ample leaves were formerly used as a mask (*persona*). Some of the gigantic species make handsome ornaments for the shrubbery, but the greatest number are nuisances to the husbandman; some on account of their deep vivacious roots, which cannot be eradicated without extreme difficulty; but the greater number because of their bulky herbage, and the extensive dissemination of their seeds by the wind.

The footstalks of the leaves of most or all of the species of this and the allied genera might be eaten in the manner of Cardoons, if similarly blanched. The dried flowers of *C. arabicus* and nutans will curdle milk. The seeds of all the species of *Serratula*, *Cnicus*, *Onopordum*, and similar genera, are greedily eaten by small birds, especially the finches.

The *Carduineæ* of *M. Cassini* differ from *Carlineæ* of the same author, in the filaments being hairy or papillose, from *Centauriæ* in the structure of ovarium and of pappus, and from *Echinopseæ*, to which they bear a general resemblance, by many very important characters. The species inhabit Europe, Asia, and Africa; there are scarcely any in America, and none in the southern hemisphere.

1664. <i>Silybum</i> . <i>Gertn.</i> SILYBUM.						<i>Composite.</i>	<i>Sp.</i> 2—5.						
11392 <i>marianum Gertn.</i> milk	3	○	w	5	jl	Y	Britain	banks.	S	co	Eng. bot. 976		
11393 <i>cérnuum Gertn.</i> nodding	4	△	or	4	jn.jl	Pu	Siberia	1755.	D	co	Gmel. sib.2. t.19		
1665. <i>CNICUS</i> . <i>W.</i> HORSE THISTLE.						<i>Composite.</i>	<i>Sp.</i> 52—114.						
11394 <i>palustris W.</i> marsh	3	○	w	3	jl.au	Pu	Britain	m.pas.	S	co	Eng. bot. 974		
11395 <i>cánuu W.</i> hoary	4	△	or	4	jl.au	Pu	Austria	1633.	D	co	Jac.aust.1.t.42,3		
11396 <i>Acárna W.</i> winged	2	△	or	2	jl.s	Pu	Spain	1683.	S	co	Cav. ic.1. t.53		
11397 <i>monspesulanús W.</i> Montpellier	2	△	or	2	jn.jl	Pu	Montpel.	1596.	D	co			
11398 <i>lanceolatús W.</i> common	3	○	w	3	jn.s	Pu	Britain	banks.	S	co	Eng. bot. 107		
11399 <i>férox W.</i> prickly	3	○	or	3	jl.au	Pu	S. Europe	1683.	S	co	All. ped. 1. t. 50		
11400 <i>ciliatús W.</i> fringed	4	○	or	4	au	Pu	Siberia	1787.	D	co	Mur.co.got.6.t.5		
11401 <i>eriphórus W.</i> woolly-headed	2	△	or	2	jl.au	Pu	Britain	ch.pa.	S	co	Eng. bot. 386		
11402 <i>discolor W.</i> two-colored	2	△	or	2	jl.au	Pu	N. Amer.	1803.	S	co			
11403 <i>altíssimu W.</i> giant	6	△	or	6	au.s	Pu	N. Amer.	1726.	D	co	Dil. elt. t.69. f.80		
11404 <i>praténsis W.</i> meadow	3	○	w	3	jn	Pu	Britain	m.pas.	D	co	Eng. bot. 177		
11405 <i>heterophýlitu W.</i> melancholy	2	△	or	2	jl.au	Pu	Britain	m.al.p.	D	co	Eng. bot. 675		
11406 <i>helenoidés W.</i> Elecampane-iv.	6	△	or	6	jl.au	Pu	Siberia	1804.	D	co			
11407 <i>seratuloidés W.</i> Saw-wort-like	3	△	or	3	jn.o	Pu	Siberia	1752.	D	co	Jac. aust. 2. t.127		
11408 <i>eláturu Link.</i> tall	6	△	or	6	jn.o	Pu	.....	1823.	D	co			
11409 <i>ulinósidu Bieb.</i> swamp	3	△	or	3	jn.jl	Pu	Caucasus	1820.	D	co			
11410 <i>pannónicu W.</i> Hungarian	3	△	or	3	jl.s	Pa.pu	Austria	1816.	D	co			
11411 <i>strictu Tenore.</i> upright	2	△	or	2	jl.s	Pu	Naples	1819.	D	co			
11412 <i>desérturu Fisch.</i> desert	3	△	or	3	jl.s	Pu	Siberia	1824.	D	co			
11413 <i>serrulatú Bieb.</i> serrulate	3	△	or	3	jl.au	Pu	Tauria	1820.	D	co			
11414 <i>lanitórú Bieb.</i> woolly-flowered	2	△	or	2	jl.au	Pu	Tauria	1819.	D	co			
11415 <i>arachnoidés Bieb.</i> cobwebbed	2	△	or	2	jl.au	Pu	Tauria	1818.	D	co			
11416 <i>strigosu Bieb.</i> strigose	2	△	or	2	au.s	Pu	Caucasus	1825.	D	co			
11417 <i>hórridu Bieb.</i> horrid	1 1/2	△	or	1 1/2	au.s	Pu	Iberia	1823.	S	co			
11418 <i>scleránthú Bieb.</i> hard-headed	2	△	or	2	jl.au	Pu	Caucasus	1820.	S	co			
11419 <i>echinátú W.</i> echinate	1	△	or	1	jl.au	Pu	Barbary	1817.	D	co			
11420 <i>inermis W.</i> unarmed	3	△	or	3	jl.au	Pu	.....	1824.	D	co			
11421 <i>ambiguu Pers.</i> doubtful	2	△	or	2	jl.au	Pu	M. Cenis	1820.	D	co			
11422 <i>orgýlú W.</i> lofty	6	△	or	6	jl.au	Pu	.....	1823.	D	co			
11423 <i>setosu Bieb.</i> setose	1 1/2	△	or	1 1/2	jn.jl	Pu	Silesia	1822.	S	co			
11424 <i>carthamoidés W.</i> Carthamus-like	2	△	or	2	jl.au	Pu	Siberia	1818.	D	co			
11425 <i>arvensis Ph.</i> corn or way	2	△	w	2	jl	Pu	Britain	ro.sid.	D	co	Eng. bot. 975		
<i>Serratula arvensis W.</i>													
<i>Carduus arvensis E. B.</i>													
11426 <i>rivuláris W.</i> river	3	△	or	3	jl.au	Pu	Hungary	1804.	S	co	Jac. aust. 1. t. 91		
11427 <i>paucifloru W.</i> few-flowered	2	△	or	2	jl.au	Pu	Hungary	1816.	D	co	Pl.rar.hu.2.t.161		
11428 <i>tatáricu W.</i> Tartarian	1 1/2	△	or	1 1/2	jl.au	W	Siberia	1775.	D	co	Jac. aust. 1. t. 90		
11429 <i>rigens W.</i> upright Alpine	1 1/2	△	or	1 1/2	jl.au	Pu	Switzerl.	1775.	D	co	Act. helv. 4. t.16		
11430 <i>carniólicu W.</i> Carniolian	2	△	or	2	jl.au	Pa.Y	Carniola	1792.	D	co	Sc.ca.n.1005.t.52		
11431 <i>oleráceu W.</i> pale-flowered	3	△	or	3	jl.au	Pa.Y	Europe	1570.	D	co	Fl. dan. 860		
11432 <i>munitu W. en.</i> armed	3	△	or	3	jl.au	Pu	Caucasus	1816.	D	co			
11433 <i>obvallánu Bieb.</i> bracteate	3	△	or	3	jl.au	Pu	Caucasus	1816.	D	co			
11434 <i>Erisithales W.</i> clammy	3	△	or	3	jn.au	Pu	France	1752.	D	co	Jac. aust. 4.t.310		
11435 <i>ochroleúcu W.</i> pale-yellow	2	△	or	2	jl	Pa.Y	Switzerl.	1801.	D	co			
11436 <i>tuberosu W.</i> tuberous	3	△	or	3	au.o	Pu	England woods.	D	co	Lob. ic. t. 10. f. 2			
11437 <i>acaulú W.</i> dwarf	1	△	pr	1	jl.au	Pu	Britain	gr.pa.	D	co	Eng. bot. 161		
11438 <i>Casabóna W.</i> Fish-bone	2	△	or	2	jn.au	Pu	S. Europe	1714.	S	p.l	Schmd.ic.t.51,52		
11439 <i>áfer W.</i> Barbary	2	△	or	2	jn.jl	Pu	Barbary	1800.	S	co	Bot. mag. 2287		



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1664. *Silybum*. A name under which Greek writers describe a plant not well known at present. Sprengel refers it to *S. marianum*. This plant was formerly cultivated, and the young leaves used in spring as a salad, or boiled as pot greens; the young stalks, peeled and soaked in water, to extract a part of their bitterness, were also eaten, and were said to be excellent. In the spring of the second year, the root is prepared like salsafy or skirret; and the receptacle of the flower is pulpy, and eats like that of the artichoke. In Apulia the whole plant is much used as fodder for cattle.

1665. *Cnicus*. This is a name under which Dioscorides describes a prickly rough plant; derived from *σνίξω*, to prick. It is now referred to a tribe of plants having such characters in an eminent degree. *Acarna* and *Erisithales* are both names by which the ancients distinguished plants, either the very same as those now so called, or very similar to them. The tender stalks of *C. palustris*, as of most of the species, being peeled, are eatable either raw or boiled. *C. arvensis* is well known as one of the most troublesome weeds in arable land. It is never found, however, in very sandy, gravelly, or peaty soils; but generally in such as are loamy and dry. An instance is given in the *Farmer's Magazine*, of the descending roots of this plant having been dug out of a quarry nineteen feet long; nor is it less remarkable for its horizontal roots. Mr. Curtis planted about two inches of a root in his garden in April, and by November following it had thrown out under ground stolons on every side, some of them eight feet long; some of these stolons had thrown up leaves five feet

- 11392 Lvs. amplexicaul. waved spinous : radic. ones pinnati. Scales of invol. subfoliac. recurved spinous at margin
 11393 Leaves downy beneath ovate toothed : radical cord. Petioles winged toothed, Invol. subsolitary cernuous
- 11394 Lvs. decurrent scabr. pinnatif. spinous, Invol. ovate clustered their scales ovate-lanc. mucro. appressed
 11395 Lvs. half decurrent somew. hoary lanc. ciliate spiny, Pedunc. naked downy solit. Scales of invol. appressed
 11396 Leaves decurrent lanc. hoary toothed spiny, Fl. aggregate involucreate, Invol. with pinnated spines
 11397 Lvs. decurrent lanc. smooth subrepand uneq. ciliated, Pedunc. naked downy alternate [lanc. spreading
 11398 Lvs. decurr. hispid pinnatif. their segm. generally 2-lobed spreading spinous, Invol. ov. toment. their scales
 11399 Lvs. amplexicaul. hispid pinnatif. : segm. 2-lobed spreading spiny vill. beneath, Invol. hemispher. sessile
 11400 Leaves sess. pinnatif. every other segm. pointing upwards spin. scabr. Involucres spherical woolly
 11402 Leaves sess. pinnatif. hairy downy beneath : segm. 2-lobed spreading spiny, Invol. globose with cobweb down
 11403 Leaves sess. obl. lanc. scabrous downy beneath toothed ciliated : radic. pinnatifid, Invol. bracteate ovate
 11404 Leaves sess. lanc. waved at the edge and unequally spin. pubesc. cottony beneath, Flowers mostly solitary
 11405 Lvs. amplexic. lanc. ciliato-dentate undivided or lacinated white and downy beneath, Fl. clustered
 11406 Lvs. subcordate amplexicaul. lanc. ciliated downy beneath : lower somewhat cut, Fl. mostly solitary
 11407 Lvs. lanc. sessile ciliated strigos beneath : radical sinuated, Scales of invol. recurved at end
 11408 Lvs. pinnatifid with strong spines somewhat downy beneath, Fl. sess. aggregate, Lvs. of invol. spiny
 11409 Lvs. half decurr. obl. sinuate toothed spiny hoary beneath, Heads close together with appressed scales
 11410 Leaves half decurrent lanc. entire ciliated, Pedunc. very long 1-fl. woolly
 11411 Very like *C. arvensis*, but the leaves are decurrent
 11412 Stem somew. downy, Lower lvs. sinuate-toothed with strong spines rough above finely downy beneath
 11413 Lvs. amplexic. hispid pinnatifid : segm. 2-lobed spreading spiny downy beneath, Heads ov. glabrous spiny
 11414 Lvs. amplexic. hispid pinnatif. : segm. 2-lobed spread. spiny downy beneath, Heads ov. cobwebbed with down
 11415 Lvs. amplexic. hispid pinnatif. : segm. 2-lobed spread. spiny beneath naked subvillous, Heads ov. cobwebbed
 11416 Lvs. amplexic. hispid pinnatifid : segm. 2-lobed spreading spiny naked beneath, Heads ov. glabrous
 11417 Lvs. amplexicaul. hispid pinnatifid prickly : segm. angular lobed spiny, Heads nodding cobwebbed
 11418 Stem branched many-fl. Heads terminal solitary spiny at base, Lvs. amplexicaul. sinuate toothed spiny
 11419 Leaves sess. pinnatifid hispid woolly beneath : segm. 2-lobed spreading spiny, Invol. ovate woolly
 11420 Leaves sess. lanc. cut-toothed : radical, pinnatifid, Scales of invol. ovate lanc. membranous at edge
 11421 Leaves ciliate spiny downy beneath : lower stalked obl. acum. subsinuate ; upper pinnatifid auricled
 11422 Like the last, but the leaves of involucrem are reflexed
 11423 Leaves obl. smooth serrulate with bristly ciliae blunt mucro. Stem corymbosae
 11424 Leaves unarmed sess. obl. toothed : radical undivided and pinnatifid, Invol. scarious villous
 11425 Leaves sess. pinnati. spin. Stem panicled, Invol. ovate, Scales appressed mucronated

- 11426 Leaves toothed ciliated naked : cauline amplexicaul. : lower and radical pinnatifid, Fl. clustered capitate
 11427 Leaves amplexicaul. ovate sublyrate ciliate serrate scabrous : radic. lyrate, Fl. clustered
 11428 Leaves amplexicaul. obl. lanc. toothed ciliate-spiny, Pedunc. 1-fl. Invol. bracteate
 11429 Leaves sess. pinnatifid : segm. cut serrate spiny at edge, Invol. bracteate : scales ovate appressed
 11430 Leaves cordate amplexicaul. ovate obl. toothed ciliated : radical obl. blunt ciliated sinuate
 11431 Leaves amplexicaul. cord. pinnatif. ciliate serr. Fl. terminal subracemose bracteate, Bractes colored ovate
 11432 Leaves amplexicaul. obl. pinnatif. toothed spiny hispid above downy beneath, Term. fl. sess. axill. stalked
 11433 Leaves amplexicaul. pinnatif. toothed spiny glabrous, Fl. term. aggreg. sess. surrounded by colored bractes
 11434 Leaves amplexicaul. pinnatifid ciliated, Pedunc. cernuous, Invol. glutinous : scales lanc. spreading
 11435 Leaves amplexic. pinnati.-downwards ciliated : pinnae lanc. 3-nerved ; upper confluent, Pedunc. cernuous
 11436 Leaves amplexicaul. pinnatifid ciliate-spiny : segm. 2-lobed toothed upwards at the base
 11437 Stemless, Invol. glabrous
 11438 Leaves sess. lanc. entire downy beneath with triple spines at the edge, Fl. axill. sessile
 11439 Leaves sess. lanc. downy beneath subrepand : lobes emarg. with 2 spines, Fl. stalked subcorymbosae



and Miscellaneous Particulars.

from the original root. The whole together, when dug up and washed, weighed four pounds. In the spring following, it again made its appearance, on or about where the small piece was originally planted. There were between fifty and sixty young plants, which must have sprung from fragments of the roots that had eluded the gardener's search, though he was particularly careful in extracting them. From these facts it may readily be conceived how difficult it is to eradicate this weed from arable land ; a naked fallow, with frequent and deep ploughing, will not accomplish it, unless the season is more than usually dry. Laying land down to grass, keeping it in that state seven or eight years, and during the whole time pulling up every shoot as soon as it appears, is found fully more effectual than a naked fallow. But the plant is so common by road sides, and seeds so abundantly, that it is hardly possible to effect its extermination. In common field lands, and others indifferently cultivated, it often forms the larger half of the produce, and formerly used to be pulled when beginning to come into flower, and given as food to horses and cows. Those who pull this weed require to be furnished with strong gloves, or thistle pinners. (*Encyc. of Agr.* § 2304.) Some English botanists seem doubtful if horses and cows will eat it ; but those who know any thing of the history of agriculture in Scotland will recollect, that before the introduction of naked fallows and turnips, it formed the *suppering* of housed cattle, during five or six weeks of every summer. The ashes of the plant yield a very pure vegetable alkali. *C. canus* has fleshy white roots like the skirret, and may be dressed and eaten

11440	<i>diacanthus</i> Lab.	two-spined	☞	or	3	jn.jl	Pu	Syria	1800.	S	co	Labic.pl.5y.2.t.3	
11441	<i>stellatus</i> W.	starry	○	or	2	jn.jl	Pu	Italy	1665.	S	co	Triumf.lob. t.96	
11442	<i>syriacus</i> W.	Syrian	○	or	1½	jl.au	W	Levant	1771.	S	co	Camer.hort. t.10	
11443	<i>spinosissimus</i> W.	feathery-head.	☞	△	or	3	jn.au	Pa.Y	Switzerl.	1759.	D	co	Bot. mag. 1366
11444	<i>centaureoides</i> W.	Artichoke-lvd.	☞	△	or	3	jl.au	Pu	Pyrenees	1640.	D	co	Moris.s.7.t.25.f.2
11445	<i>uniiflorus</i> W.	one-flowered	☞	△	or	2	jl.au	Vi	Siberia	1795.	D	co	Gmel.sib.2. t.38
1666.	ONOPORDUM. W.	COTTON THISTLE.	Compositæ. Sp. 9—14.										
11446	<i>Acanthium</i> W.	woolly	☞	or	6	jl.au	Pu	Britain	gra.ba.	S	co	Eng. bot. 977	
11447	<i>tauricum</i> W.	Taurian	☞	or	12	jl.au	Pu	Tauria	1800.	S	co		
11448	<i>macracanthum</i> W.	long-spined	☞	or	10	jl.au	Pu	Barbary	1798.	S	co	Schou.maroc.t.5	
11449	<i>illyricum</i> W.	Illyrian	☞	or	6	jl.au	Pu	S. Europe	1648.	S	co	Jac.vind.2. t.148	
11450	<i>deltoideum</i> W.	Siberian	☞	or	12	au	Pu	Siberia	1784.	D	co		
11451	<i>græcum</i> W.	Grecian	☞	or	10	jn.jl	Pu	Levant	1799.	D	co	Gouan. ill. t. 25	
11452	<i>cynaroides</i> Stev.	artichoke	☞	or	10	jn	W	Caucasus	1823.	S	co		
11453	<i>arabicum</i> W.	Arabian	☞	or	8	jl	Pu	S. Europc	1686.	S	co	Jac. vind.2. t.149	
11454	<i>acatilon</i> W.	dwarf	☞	or	½	jl.au	W	.....	1739.	S	co	Jac. ic. 1. t. 167
1667.	BERARDIA. Vill.	BERARDIA.	Compositæ. Sp. 1.										
11455	<i>subacaulis</i> P. S.	round-leaved	☞	pr	1½	jl.au	Pu	Italy	1791.	D	co	Vil.dauph.3.t.22	
		<i>Arctium lanuginosum</i> Dec.											
1668.	CYNARA. W.	ARTICHOKE.	Compositæ. Sp. 7—10.										
11456	<i>Scolymus</i> W.	garden	☞	cul	8	au.s	Pu	S. Europe	1543.	D	co	Blackw. t. 548	
11457	<i>hórida</i> W.	Madeira	☞	△	or	6	au.s	Pu	Madeira	1778.	D	co	
11458	<i>Cardunculus</i> W.	Cardoon	☞	△	or	5	au.s	Pu	Candia	1658.	D	co	Tabern. ic.1075
11459	<i>húmilis</i> W.	dwarf	☞	△	or	1½	jl.au	B	Spain	1613.	D	co	Plu.alm. t.81. f.2
11460	<i>acaulis</i> W.	stemless	☞	△	or	1	jl	Pu	Barbary	1799.	D	co	Desf. atl.2. t. 223
11461	<i>glomerata</i> Th.	Cape	☞	△	or	2	jl.au	Pu	C. G. H.	1816.	D	co	
11462	<i>pygmæa</i> W.	pigmy	☞	△	or	1	jl.au	Pu	Spain	1820.	D	co	
1669.	CARLINA. W.	CARLINE THISTLE.	Compositæ. Sp. 9—18.										
11463	<i>acanthifolia</i> W.	Acanthus-lvd.	☞	or	2	jn	W	Carniola	1818.	D	co	All. ped. t. 51	
11464	<i>acaulis</i> W.	dwarf	☞	or	¾	jn	W	Italy	1640.	D	co	Knor.the.2.t.c.1	
11465	<i>simplex</i> P. S.	single-flowered	☞	or	1½	jn.jl	W	Hungary	1816.	D	co	Pl rar.hu.2.t.152	
11466	<i>aggregata</i> W.	clustered	☞	or	2	jn.s	W	Hungary	1804.	D	co		
11467	<i>lanata</i> W.	woolly	☞	or	3	jn.jl	Pu	S. Europe	1683.	S	co	Garid. aix. t. 21	
11468	<i>corymbosa</i> W.	corymbed	☞	or	3	jl.au	Y	S. Europe	1640.	D	co	Col.ecp.1.t.27.f.1	
11469	<i>vulgáris</i> W.	common	☞	w	1½	jn.s	Pu	Britain	dry.pa.	S	co	Eng. bot. 1144	
11470	<i>racemosa</i> W.	racemed	☞	or	3	jn.au	Y	Spain	1658.	S	co		
11471	<i>pyrenæica</i> W.	Pyrenean	☞	or	2	jn	Pu	Pyrenees	1788.	D	co		



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in the same manner. *C. lanceolatus* is one of the most common and noxious weeds of the genus, chiefly on account of its great bulk, its numerous downy seeds, and the facility with which they are distributed by the wind: its dried flowers curdle milk. *C. helenioides*, used to be called the melancholy thistle, and was used by Quacks as a cure for madness. *C. Casaubona* is so named after Casaubona, herbarist to the Grand Duke of Tuscany, who sent the seed to John Bauhin. *C. syriacus* is spotted with white, as are a number of Egyptian plants. *C. oleraceus*, according to Schreber, is not eaten by cattle; but the Russians are said to boil the leaves in the spring, and eat them as coleworts. The tender stalks of *C. cernuus* are so used in Siberia.

1666. *Onopordum*. A name employed by Pliny for a plant which he describes too imperfectly to be recognized now. The virtues which he ascribes to it, and whence the name has been derived (*σνος* and *σπερμα*), certainly have no existence in the modern genus, which consists of noble thistle-like plants, that, if allowed plenty of room, form very magnificent specimens of annual vegetation. *O. acanthium* (from its leaves being like those of the *Acanthus*) was formerly used like the artichoke and Cardoon. The seeds of this plant, unlike those of other thistles, are strongly defended by the calyx, and are not subject to be blown about by winds. The whole plant is white, tomentose, and one of the most magnificent of the family.

1667. *Berardia*. So named by Villars, after M. Berard, a botanist of Grenoble.

1668. *Cynara*. Said to be derived from *κύων*, a dog, on account of the stiff hard spines of the involucrem, which resemble the teeth of a dog. The English word *Artichoke* is said to be derived from the Celtic *art*, a spine, and *chaulx*, a cabbage; but it must be confessed that the word is very like the Arabic name of the plant, *Carciojó* or *Kharchiof*. *C. scolymus* is a well known garden esculent. In some parts of France and Italy it is eaten raw in its wild state by the common people. According to Gerarde, it was introduced into this country from Italy, but is become, "by reason of the great moisture which our country is subject unto," greater and better than those of Italy; a circumstance not to be doubted, and applicable to many other plants of culture; for it is a fact, that art can in many cases surpass nature; always, however, working upon nature's principles. The artichoke is one of those plants the most patient of drought, and in this unusually dry and hot season (1825) was almost the only vegetable procurable in the neighbourhood of Paris, during three or four weeks in July and August. Once in the seventeenth century, and again about 1739, most of the artichokes in England were destroyed by frost, but replaced from France. There are three varieties in cultivation, the conical, French, or oval; the globe, which has a large dusky purplish head; and the dwarf globe, a prolific variety, which is smaller. The parts used are the lower part of the leaves of the calyx; the fleshy receptacles of the flower, freed from the bristles and seed down, vulgarly called the choke; and some-

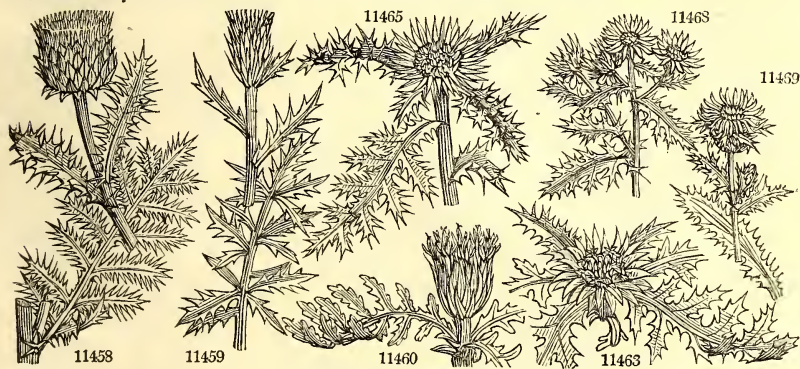
11440 Leaves narr. pinnatifid downy beneath with strong spines, Fl. large solitary, Lvs. of invol. spiny recurved
 11441 Leaves sess. lanc. entire unarmed downy beneath, Spines axill. branched at base, Fl. axill. sessile
 11442 Leaves amplexicaul. obl. toothed spiny with white veins, Fl. subsess. bracteate, Scales of invol. appressed
 11443 Leaves amplexicaul. pinnatifid toothed spiny pubescent, Stem simple, Fl. terminal clustered
 11444 Leaves pinnatifid, Invol. scarious : scales acuminate
 11445 Leaves pinnatifid, Invol. scarious villous

11446 Scales of invol. spreading subulate, Lvs. ov.-obl. sinuated and spin. decurrent woolly on both sides
 11447 Scales of invol. much spreading, Lvs. decurrent smooth on each side sinuated toothed spiny
 11448 Scales of invol. much spreading as long as invol. Lvs. decurr. downy sinuated toothed spiny : radic. pinnate
 11449 Lower scales reflexed : upper much spreading, Lvs. decurrent downy sinuated toothed spiny
 11450 Invol. squarrose with cobwebbed down, Leaves stalked ovate angular downy beneath
 11451 Scales of invol. ovate-lanc. mucronate spreading, Lvs. decurrent downy subsinuate toothed spiny
 11452 Stem and leaves tomentose : radical pinnatifid ; cauline obl. adnate decurrent toothed spiny
 11453 Scales of invol. ovate mucronate appressed, Lvs. decurrent somewhat downy sinuate toothed spiny
 11454 Steml. Invol. glob. subsess. Scales of invol. lanc. spiny spreading, Lvs. stalked pinnatif. toothed spiny downy

11455 Stemless, Invol. obl. subsess. Scales of invol. obl. lanc. downy unarmed, Lvs. stalked roundish ovate

11456 Leaves somewhat spiny pinnate and undivided, Scales of invol. ovate
 11457 Leaves pinnatifid downy beneath spiny, Spines of the base of leaves and pinna connate at base
 11458 Leaves spiny : all pinnatifid, Scales of invol. ovate
 11459 Leaves spiny pinnatifid downy beneath, Scales of invol. subulate
 11460 Stemless, Leaves unarmed downy beneath pinnatifid : segm. cut-toothed, Scales of invol. lanc.
 11461 Stemless, Leaves pinnatifid spiny
 11462 Stemless, Leaves pinnate smoothish : segm. toothed spiny, Inner scales of invol. scarious at end

11463 Stemless, Leaves pinnatifid downy beneath : segm. toothed angular spiny
 11464 Stem simple 1-fl. Lvs. pinnatifid naked : segm. cut-toothed spiny
 11465 Stem simple 1-fl. longer than flower, Leaves deeply pinnatifid squarrose
 11466 Stem simple 1-fl. numerous aggregate, Leaves pinnatifid smooth : segm. pinnatifid spreading spiny
 11467 Stem subdiff. Middle flower sessile, Lvs. hoary lanc. toothed spiny
 11468 Stem many-fl. corymbose smoothish, Lvs. lanc. pinnatifid toothed smooth
 11469 Stem many-fl. corymb. pubesc. Leaves lanc. unequally spin. and sinuated downy beneath
 11470 Stem somewhat divided, Fl. axill. sess. Leaves lanc. toothed downy spiny pubescent
 11471 Stem many-fl. Leaves decurrent



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times the tender central leafstalk in a blanched state like the Cardoon. Medicinally, the plant is reputed to be aperient, stomachic, and somewhat heating. It is said to dye a good yellow, and the flowers curdle milk.

The plant is propagated by suckers in March and April, and requires a light rich soil, well dunged, and pulverised to a good depth. The leaves being large, the plants are placed in rows at four feet distance, and two feet apart in the row. They will produce some heads the first season, a full crop the next, and, if well manured, will last for five or six years. The plants require to be covered a foot thick with litter during winter, which is removed, and the ground dressed in March and April. The heads will appear in the beginning of June.

When the artichoke is to be cultivated as Cardoon, the plants are to be cut over by the surface about midsummer ; in September they will have produced leaves about two feet high ; they are then bound close with a wreath of hay or straw, and earth drawn round them. The blanching will be perfected in a month or six weeks.

Baughin thought the Cardoon a hybrid from the common artichoke, to which it bears a great resemblance. The tender stalks of the inner leaves, rendered white and crisp by earthing up, are used for stewing, and for soups and salads during winter, like celery. It requires the same soil as the artichoke, to be planted at three or four feet apart in May, or sown where it is to remain in March. In September the leaves may be tied together and earthed up, and in October and November they will be blanched from one to three feet in length.

With the florets of *Cynara Cardunculus*, which the Portuguese call *Cardo do coalho*, milk was formerly coagulated by the people of Portugal, as it is by rennet in England.

1693. *Carlina*. Olivier de Serres says, this plant was named after the famous Charlemagne, whose army was cured of the plague by means of this plant. Linnaeus ascribes the name to the Emperor Charles V., whose army was relieved from the plague in Barbary in the same way. *C. caulis* has black woody roots an inch thick, the upper part of which, with the receptacle of the flower, when tender, may be eaten, but the root of the adult plant becomes acrimonious, and is recommended as an alexipharmic. It contains an acrid resinous principle, by which it stimulates the solids, dissolves the humours, and promotes perspiration. *C. vulgaris* is found all over Europe in dry barren soils. The flowers expand in dry, and close in moist weather, retaining this property a long time.

Upon this and a few other genera M. Cassini has founded a tribe, which he denominates *Carlineæ*, which although possessing no very precise characters of difference, is, he believes, distinct from both his *Centaureæ* and *Carduineæ*, from which it may always be distinguished by the perfect smoothness of the filaments. The species of *Carlineæ* are found in every part of the world.

1670. <i>ATRACTYLIS</i> . <i>W.</i> <i>ATRACTYLIS</i> . <i>Compositæ.</i> <i>Sp.</i> 1—4.	11472 <i>humilis</i> <i>W.</i> dwarf $\frac{3}{4}$ Δ un 1 jn.jl W Spain 1759. D co Cav. ic. 1. t. 54
1671. <i>ACAR'NA</i> . <i>W.</i> <i>ACARNA</i> . <i>Compositæ.</i> <i>Sp.</i> 2—6.	11473 <i>gummifera</i> <i>W.</i> gummy-rooted $\frac{3}{4}$ Δ un $\frac{3}{4}$ jn.au Pu S. Europe 1640. D co Cav. ic. 3. t. 228
11474 <i>cancellata</i> <i>W.</i> netted \circ un $\frac{3}{4}$ jn.jl B S Europe 1640. S co Lam. ill. t. 662. f 1	
1672. <i>STOKESIA</i> . <i>W.</i> <i>STOKESIA</i> . <i>Compositæ.</i> <i>Sp.</i> 1.	11475 <i>cyanea</i> <i>W.</i> blue-flowered $\frac{1}{2}$ Δ pr 2 au B Carolina 1766. D co L'He. ser. 27.
1673. <i>STOBÆA</i> . <i>Th.</i> <i>STOBÆA</i> . <i>Compositæ.</i> <i>Sp.</i> 1—11.	11476 <i>pinната</i> <i>Th.</i> <i>Carthamus-like</i> \square or 2 ja.d Y C. G. H. 1812. C co Bot. mag. 1783
1674. <i>ONOBROMA</i> . <i>Gært.</i> <i>ONOBROMA</i> . <i>Compositæ.</i> <i>Sp.</i> 2.	11477 <i>cœruleum</i> <i>Gært.</i> blue-flowered $\frac{3}{4}$ Δ or 1 ju.jl B Spain 1640. D co Bot. mag. 2293
11478 <i>salicifolium</i> <i>Link.</i> Willow-leaved $\frac{1}{2}$ \square or 3 au W Madeira 1784. C s.p	
1675. <i>CARTHAMUS</i> . <i>W.</i> <i>CARTHAMUS</i> . <i>Compositæ.</i> <i>Sp.</i> 7—20.	11479 <i>tinctorius</i> <i>W.</i> officinal \circ or 3 jn.jl O Egypt 1551. S s.1 Bot. reg. 170
11480 <i>lanatus</i> <i>W.</i> woolly \circ or 3 jl.au Y S. Europe 1596. S co Bot. mag. 2142	
11481 <i>crœticus</i> <i>W.</i> Cretan \circ or 2 jn.jl W Candia 1731. S co	
11482 <i>tingitanus</i> <i>W.</i> Tangier $\frac{3}{4}$ Δ or 2 jn.jl B Barbary 1759. D co Cav. ic. 2. t. 128	
11483 <i>mitissimus</i> <i>W.</i> small $\frac{3}{4}$ Δ or 3 jn.jl B France 1776. D co	
11484 <i>Carduncellus</i> <i>W.</i> mountain $\frac{3}{4}$ Δ or my.jn B France 1734. D co	
11485 <i>arborescens</i> <i>W.</i> tree $\frac{3}{4}$ Δ or 6 jl.au Y Spain 1731. C s.p	
1676. <i>CARDOPATUM</i> . <i>Pers.</i> <i>CARDOPATUM</i> . <i>Compositæ.</i> <i>Sp.</i> 1.	11486 <i>corymbosum</i> <i>Pers.</i> corymbose $\frac{1}{2}$ Δ un 3 jl.au B Levant 1821. D co M. h. s. 7. t. 33. f. 17
1677. <i>STÆHELIN'A</i> . <i>W.</i> <i>STÆHELINA</i> . <i>Compositæ.</i> <i>Sp.</i> 3—13.	11487 <i>ddbia</i> <i>W.</i> Rosemary-lvd. $\frac{1}{2}$ ft 3 jn.jl Pu S. Europe 1640. C p.1 Lam. ill. t. 666. f. 4
11488 <i>arborescens</i> <i>W.</i> Storax-leaved $\frac{1}{2}$ \square pr 6 jls Candia 1739. C p.1 Schreb. dec. 1. t. 1	
11489 <i>chamæpœuce</i> <i>W.</i> Pine-leaved $\frac{1}{2}$ \square pr 2 jln Candia 1640. C p.1 Flu. alm. t. 94. f. 3	
1678. <i>PALAFOX'IA</i> . <i>Lag.</i> <i>PALAFOXIA</i> . <i>Compositæ.</i> <i>Sp.</i> 1.	11490 <i>linearis</i> <i>Lag.</i> linear-leaved $\frac{1}{2}$ \square pr 2 jn.jl W Mexico 1821. S co Bot. mag. 2132
1679. <i>PTERONIA</i> . <i>W.</i> <i>PTERONIA</i> . <i>Compositæ.</i> <i>Sp.</i> 5—33.	11491 <i>camphorata</i> <i>W.</i> aromatic $\frac{1}{2}$ \square or 3 jn.jl Y C. G. H. 1774. C p.1 Pl. man. t. 345. f. 2
11492 <i>stricta</i> <i>W.</i> cluster-flower'd $\frac{1}{2}$ \square or 3 ap.jn Y C. G. H. 1774. C p.1	
11493 <i>flexicaulis</i> <i>W.</i> bending-stalk'd $\frac{1}{2}$ \square or 3 jn.au Y C. G. H. 1812. C co	
11494 <i>oppositifolia</i> <i>W.</i> opposite-leaved $\frac{1}{2}$ \square or 3 jl Y C. G. H. 1774. C p.1 Bre. prod. t. 17. f. 3	
11495 <i>scariosa</i> <i>W.</i> Window-calyx. $\frac{1}{2}$ \square or 2 jn.au Y C. G. H. 1815. C co	
1680. <i>VERNONIA</i> . <i>W.</i> <i>VERNONIA</i> . <i>Compositæ.</i> <i>Sp.</i> 9—18.	11496 <i>noveboracensis</i> <i>W.</i> long-leaved $\frac{3}{4}$ Δ or 6 s.n Pu N. Amer. 1710. D co Dil. el. t. 263. f. 342
11497 <i>prelata</i> <i>W.</i> tall $\frac{3}{4}$ Δ or 8 s.n Pu N. Amer. 1732. D co Dil. el. t. 264. f. 343	
11498 <i>angustifolia</i> <i>Ph.</i> narrow-leaved $\frac{3}{4}$ Δ or 4 s.n Pu N. Amer. 1817. D co	
11499 <i>glauca</i> <i>W.</i> glaucous-leav'd $\frac{3}{4}$ Δ or 4 s.n Pu N. Amer. 1710. D co Dil. el. t. 262. f. 341	
11500 <i>sericea</i> <i>Rich.</i> silky $\frac{1}{2}$ \square or 5 d Pa.pu Brazil 1823. C co Bot. reg. 522	
11501 <i>flexuosa</i> <i>B. M.</i> flexuose $\frac{1}{2}$ Δ or 1 $\frac{1}{2}$ s Pu Brazil 1823. S co Bot. mag. 2477	



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1670. *Atractylis*. Vaillant (*Mém. Acad. Sc.* 1718.) derives this from *ατρακτος*, a distaff, because the light stems were very fit to make spindles.

1671. *Acarna*. A name under which Theophrastus describes a plant resembling a thistle. Willdenow applied it to the present genus, which consists of thistle-like plants.

1672. *Stokesia*. Named in honor of Jonathan Stokes, M.D., well known as the coadjutor of Dr. Withering in his botanical arrangement of British plants. A perennial plant, with large handsome blue flowers.

1673. *Stobæa*. Named after Dr. Stobæus, of Lund, one of Linnæus's earliest patrons, and said to have been a practical naturalist.

1674. *Onobroma*. From *ovos*, an ass, and *βρωμα*, food, in allusion to the worthlessness of its herbage. Thistle-like plants of little beauty.

1675. *Carthamus*. From its Arabic name *qortom*, a word which signifies to paint, on account of the fine color yielded by the flowers. Tournefort, with little reason, derives it from the Greek *καθαρις*, to purge. The flowers of *Carthamus tinctorius* are used by the Chinese to give some of the fine rose, scarlet, purple, and violet colors to their silks. For this purpose, the flowers are thrown into an infusion of some alkali, and left to macerate; the colors are afterwards drawn out by the addition of lemon juice in various proportions, or of any other vegetable acid.

It is cultivated at present in many parts of Europe, and in the Levant, whence great quantities are annually imported into England for dyeing and painting. In Spain it is grown in gardens, as Marygolds are in England, to color soups, olives, and other dishes. The Jews in Poland are remarkably fond of it, and mix it with their bread, and most of their viands. According to Houghton, it was formerly cultivated in Gloucestershire, both for the flowers and seed. The common people took it for saffron, and used it in their puddings, cakes, and

11472 Stem and leaves smooth

11473 Stemless, Leaves pinnatifid, Outer leaves of invol. tricuspidate

11474 Stem branched, Leaves lanc. ciliate toothed downy, Outer leaves of invol. setaceous pinnatifid conniving
[larger than flower]

11475 The only species

11476 Leaves downy pinnatifid: pinnæ linear terminated by a spine

11477 Stem about 1-fl. Leaves ovate lanc. spiny-toothed

11478 Stem shrubby, Leaves sessile lanceolate downy beneath spiny-toothed, Branches 1-flowered

11479 Stem quite smooth, Leaves ovate entire spiny toothed, Fruit naked

11480 Stem woolly, Lower leaves pinnatifid toothed: upper amplexicaul. pinnatifid toothed spiny

11481 Stem smoothish, Invol. somewhat woolly, Lower leaves lyrate: upper half-amplexicaul.

11482 Radic. leaves pinnated: cauline pinnatifid, Stem 1-flowered

11483 Leaves unarmed: radical toothed; cauline pinnate

11484 Cauline leaves linear pinnated as long as plant

11485 Leaves ensiform sinuate toothed

11486 Spiny much branched with small blue flowers

11487 Leaves sessile linear toothletted downy beneath, Inner scales of invol. lanc. long

11488 Leaves stalked ellipt. blunt entire silky with down beneath

11489 Leaves lin. clustered very long revolute at edge hoary beneath, Branches downy

11490 The only species

11491 Leaves scattered and fascicled filiform ciliated, Leaves of invol. ciliated, Hairs of recept. clustered

11492 Lvs. scattered and fascicled filiform subciliate at base, Lvs. of invol. entire, Holes of recept. multipartite

11493 Leaves connate linear filiform glabrous, Scales of invol. ovate, Stem wavy, Fl. terminal in threes stalked

11494 Leaves ovate powdery downy, Scales of invol. ovate entire

11495 Leaves ovate smooth, Scales of invol. ovate mucronate membranous

11496 Leaves lanc. scabr. serrulate, Corymb fastigiata, Scales of invol. filiform at end

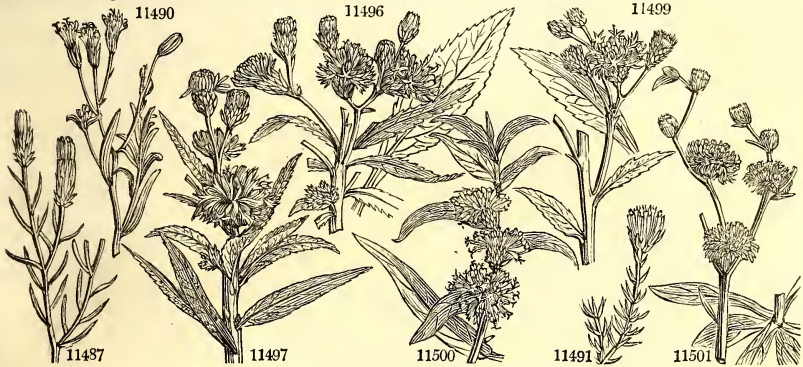
11497 Leaves ovate-lanc. serrate downy beneath, Corymb fastigiata, Scales of invol. ovate acuminata

11498 Stem simple, Lvs. many long and narrow lin. nearly entire, Corymb somewhat umbell. Scales of inv. stiff

11499 Leaves oblong acuminata serrate, Corymb fastigiata, Scales of invol. ovate acute [mucronate]

11500 Leaves linear-lanc. silky beneath downy on each side nearly entire, Flowers alternate 1-sided sessile

11501 Stem straight dichotomous upwards: branches flexuose, Heads in the forks of the branches sessile



and Miscellaneous Particulars.

bread; but by putting in too great a quantity they found it communicate a purgative quality, and gave up its use. It is still, however, used in this way by some pastrycooks. In Germany it is cultivated on light land well pulverised; it is sown in rows about eighteen inches distance, and afterwards thinned to three or four inches apart in the row: in September the plants begin to flower, and the field is then gone over once a week, for six or seven weeks, to gather the expanded florets, which are dried in a kiln in the same manner as true saffron. Turkeys and geese are said to feed greedily on the seed, and in a short time become very fat.

C. lanatus is used by the women of the south of France and Spain for distaffs, and hence it had the name of distaff thistle. The root of *C. carduncellus* is eaten in Africa.

1676. *Cardopatum*. A name of unknown meaning. A spiny branched plant with little blue flowers, formerly referred to *Carthamus*.

1677. *Stæhelinia*. One Benoit Stæhelin, a Swiss botanist, published, in 1730, an academical dissertation upon the *Filicula saxatilis* corniculata, and the *Equisetum*. These are pretty half-shrubby thread-leaved plants, mostly deserving cultivation.

1678. *Palafoxia*. Named by Lagasca, after the Spanish General Palafox, of whose merits as a botanist we are uninformed. A small perennial plant with the habit of *Stevia*.

1679. *Pteronia*. From *πτερον*, a wing; altered by Linnæus from the *Pterophorus* of Vaillant, a word which seems to allude to the feathery scales of the receptacle. A genus of humble rigid shrubs.

1680. *Vernonia*. Named after Mr. William Vernon, fellow of St. Peter's College, Cambridge, who travelled in North America in search of plants, and left behind him an Herbarium, which came into the hands of Sir Hans Sloane, and contributed to enrich the third volume of Ray's *Historia Plantarum*. *Vernoniæ* constitutes the twentieth of M. Cassini's subdivisions of *Compositæ*. They are distinguished from *Lactucæ* by

11502 panduráta Jacq.	fiddle-leaved tree	3 $\frac{1}{2}$ Δ or \square	4 s.n	Pu	.....	1825.	D	co	
11503 arboræscens Cass.	tree	3 $\frac{1}{2}$ \square or Δ	5 n.d	Pu	Jamaica	1733.	C	co	Pl.sp.10.t.130.f.2
11504 anthelmintica W.	purple	3 $\frac{1}{2}$ \square or Δ	1 $\frac{1}{2}$ au.s	Pu	E. Indies	1770.	S	co	Rhee.mal.2.t.24
1681. AMMOBIUM. R. Br.	AMMOBIUM.				Composite.	Sp. 1.			
11505 alátum R. Br.	winged	3 $\frac{1}{2}$ Δ pr	2 mr.s	W	N. Holl.	1822.	S	co	Bot. mag. 2459
1682. LIATRIS. W.	LIATRIS.				Composite.	Sp. 11—18.			
11506 squarrosa W.	rough-cupped	3 $\frac{1}{2}$ Δ el	3 jl.au	Pu	N. Amer.	1732.	D	p.l	Sweet fl. gard.44
11507 scariósea W.	scarious cupped	3 $\frac{1}{2}$ Δ el	4 s.o	Pu	N. Amer.	1739.	D	p.l	Sweet fl. gard. 1709
11508 sphæroídea Ph.	globular-cupp'd	3 $\frac{1}{2}$ Δ el	3 au.o	Pu	N. Amer.	1817.	D	co	Sweet fl. gard. b7
11509 elegans W.	hairy-cupped	3 $\frac{1}{2}$ Δ el	4 s.o	Pu	N. Amer.	1787.	D	p.l	Bot. reg. 267
11510 pilosa W.	hairy-leaved	3 $\frac{1}{2}$ Δ el	1 $\frac{1}{2}$ s.o	Pu	N. Amer.	1783.	D	p.l	Bot. reg. 595
11511 cylindræca Ph.	cylindrical-cup.	3 $\frac{1}{2}$ Δ el	4 au.o	Pk	N. Amer.	1811.	D	co	
11512 heterophýlla Ph.	various-leaved	3 $\frac{1}{2}$ Δ el	3 jl.au	Pu	N. Amer.	1790.	D	p.l	
11513 pycnostáchya Ph.	pubescent-lvd.	3 $\frac{1}{2}$ Δ el	3 au.o	Pu	N. Amer.	1732.	D	co	Dill. el. t. 72. f. 83
11514 spicáta W.	long-spiked	3 $\frac{1}{2}$ Δ el	6 au.o	Pu	N. Amer.	1732.	D	p.l	Bot. rep. 401
11515 odoratissima W.	sweet-scented	3 $\frac{1}{2}$ Δ el	3 au.o	Pu	Carolina	1786.	R	s.p	Bot. rep. 633
11516 púmila Hort.	dwarf	3 $\frac{1}{2}$ Δ el	1 au.o	Pu	N. Amer.	.....	R	s.p	Bot. cab. 147
1683. MIKANIA. W.	MIKANIA.				Composite.	Sp. 3—21.			
11517 Houstóni W.	Houston's	3 $\frac{1}{2}$ \square or Δ	8 jl.au	Pk	Jamaica	1733.	C	co	
11518 hastáta W.	halbert-leaved	3 $\frac{1}{2}$ \square or Δ	8 ...	Pk	Jamaica	...	C	co	Bro. jam. t. 34. f. 3
11519 scándens W.	climbing	3 $\frac{1}{2}$ Δ or \square	10 au.s	Pa.B	N. Amer.	1714.	D	co	Jac. ic. 1. t. 169
1684. SPARGANOPHORUS. Gaertn.	SPARGANOPHORUS.				Composite.	Sp. 2.			
11520 Vaillántii Gaertn.	Vaillant's	\square un	1 $\frac{1}{2}$ au	Y	India	1823.	S	co	Gaertn. t. 165. f. 4
11521 Strúchium Swz.	Swartz's	\square un	2 au	Y	Jamaica	...	S	co	Bro. jam. t. 34. f. 2
1685. EUPATORIUM. W.	EUPATORIUM.				Composite.	Sp. 30—107.			
11522 Dálea W.	shrubby	3 $\frac{1}{2}$ \square or Δ	6 au	Pk	Jamaica	1773.	C	co	Jac. schæ. 2. t. 146
11523 fœniculæcea Ph.	Fennel-leaved	3 $\frac{1}{2}$ Δ or \square	4 jn.s	Pa.Y	N. Amer.	1807.	D	co	
11524 hyssopifólium W.	Hyssop-leaved	3 $\frac{1}{2}$ Δ or \square	1 au.s	W	N. Amer.	1699.	D	co	Dil. el. t. 115. f. 140
11525 sessilifólium W.	sessile-leaved	3 $\frac{1}{2}$ Δ or \square	1 s.o	W	N. Amer.	1777.	D	co	
11526 teucrifólium W.	Teucrium-lvd.	3 $\frac{1}{2}$ Δ or \square	2 au.n	W	N. Amer.	1816.	D	co	W. hort. ber. 32
11527 rotundifólium W.	round-leaved	3 $\frac{1}{2}$ Δ or \square	1 jl.au	W	N. Amer.	1699.	D	co	Plu. alm. t. 83. f. 3
11528 altissimum W.	tall	3 $\frac{1}{2}$ Δ or \square	5 s.o	W	N. Amer.	1699.	D	co	Jac. vind. 2. t. 164
11529 trifoliátum W.	three-leaved	3 $\frac{1}{2}$ Δ or \square	6 au.o	Pu	N. Amer.	1768.	D	co	
11530 cannabinum W.	Hemp Agrimony	3 $\frac{1}{2}$ Δ or \square	4 jl.o	Pk	Britain	wat.pl.	D	co	Eng. bot. 428
11531 syriacum W.	Syrian	3 $\frac{1}{2}$ Δ or \square	4 jls	Pu	Syria	1807.	D	co	Jac. ic. 1. t. 170
11532 purpúreum W.	purple-stalked	3 $\frac{1}{2}$ Δ or \square	5 s.o	Pk	N. Amer.	1640.	D	co	Corn. canad. t. 72
11533 maculátum Ph.	spotted-stalked	3 $\frac{1}{2}$ Δ or \square	3 au.s	Pu	N. Amer.	1656.	D	co	Herm. par. t. 158
11534 punctátum Ph.	dotted	3 $\frac{1}{2}$ Δ or \square	4 au.s	Pu	N. Amer.	1815.	D	co	
11535 verticillátum W.	whorl-leaved	3 $\frac{1}{2}$ Δ or \square	5 au.s	Pu	N. Amer.	1811.	D	co	
11536 perfoliátum W.	Feverwort	3 $\frac{1}{2}$ Δ or \square	2 au.o	W	N. Amer.	1699.	D	co	Plu. alm. t. 87. f. 6
11537 cœlestinum W.	blue-flowered	3 $\frac{1}{2}$ Δ or \square	2 jln	L.B	N. Amer.	1732.	D	co	Dil. el. t. 114. f. 139
11538 urticæfólium W.	Nettle-leaved	3 $\frac{1}{2}$ Δ or \square	1 $\frac{1}{2}$ jl.au	Pk	S. Amer.	1803.	D	co	Smith. ined. t. 68
11539 aromáticum W.	aromatic	3 $\frac{1}{2}$ Δ or \square	4 jl.au	W	N. Amer.	1739.	D	co	Plu. alm. t. 88. f. 3
11540 ageratoídes W.	Ageratum-like	3 $\frac{1}{2}$ Δ or \square	4 au.o	W	N. Amer.	1640.	D	p.l	Corn. canad. t. 21
11541 odorátum W.	sweet-scented	3 $\frac{1}{2}$ Δ or \square	3 au.o	Pk	Jamaica	1752.	C	co	Plu. alm. t. 177. f. 3
11542 ivæfólium W.	Iva-leaved	3 $\frac{1}{2}$ Δ or \square	3 jn.jl	Pk	Jamaica	1794.	D	co	
11543 salviæfólium R. M.	Sage-leaved	3 $\frac{1}{2}$ Δ or \square	4 au.s	Pk	N. Amer.	1814.	D	co	Bot. mag. 2010
11544 lamiifólium Link.	Nettle-leaved	3 $\frac{1}{2}$ Δ or \square	3 au.s	Pk	.....	1823.	D	co	
11545 ceanothifólium W.	Ceanothus-lvd.	3 $\frac{1}{2}$ Δ or \square	4 au.s	W	.....	1824.	D	co	
11546 iresinoídes Kth.	snowy	3 $\frac{1}{2}$ Δ or \square	2 au.o	W	N. Grenad.	1820.	C	co	Kun. nov.g. t. 340
11547 paniculátum Mill.	paniced	3 $\frac{1}{2}$ Δ or \square	6 au.o	Pk	.....	1818.	D	co	
<i>Eriopappus paniculatus</i> Hort.									



History, Use, Propagation, Culture,

their corolla, which is not ligulate, and from every other tribe by their style, which is absolutely the same as that of Lactuceæ. The greater part of Vernoniæ are found in America; a few in Asia and Africa, but none in Europe.

1681. *Ammobium*. From *αμμος*, sand, and *βιω*, to live, in allusion to the places where it grows. A pretty half-hardy New Holland herbaceous plant, with dry white involucreal scales, like a *Gnaphalium*.

1682. *Liatriis*. A word of unknown meaning. A genus of charming North American herbaceous plants. They should be taken out of the borders in the autumn, and preserved in pots till the succeeding spring. Of *Liatriis odoratissima*, the leaves when dry give out a very pleasant smell resembling Vanilla, and which lasts for years. It is called the Carolina Vanilla plant.

Liatriis squarrosa is a very handsome species, with large heads of most beautiful flowers of a rich purple. It and *L. scariosa* are known in North America under the name of rattlesnake's master. In case of being bitten by this reptile, the bruised bulbs of the plants are applied to the wound, while, at the same time, a decoction in milk is taken inwardly.

- 11502 Leaves oval blunt serrate-crenate: lower with a winged amplexicaul. stalk, Fl. subcorymbose
 11503 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bractes reflexed
 11504 Leaves ovate-lanc. narrowed at each end serrated roughish pubescent beneath, Fl. term. about 3
 11505 Leaves oblong wavy decurrent
 11506 Stem simple pubescent, Leaves very long linear nerved roughish at edge, Racemes few-fl. leafy
 11507 Stem simple pubescent, Lvs. lanc. narrowed at each end smooth rough at edge, Inv. squarrose at bottom
 11508 Stem simple pubescent, Leaves smooth: lower stalked broad-lanc. Invol. subglobose with scariosus scales
 11509 Stem simp. vill. Lvs. lin. subfalc. dott. rough, Spike somew. leafy, Pedic. short, Inner scales ligul. colored
 11510 Stem simple pubesc. Lvs. lin. pilose ciliated, Invol. racemose lax, Scales lin. obl. blunthish [mucronate
 11511 Slender all over hairy, Lvs. grassy, Spike few-fl. Inv. subsess. cylindr. few-fl. Scales round. at end abruptly
 11512 Stem simple smooth, Leaves lanc. smooth: upper lin. lanc. very small, Invol. spiked subsquarrose
 11513 Stem simple hirsute, Lvs. straight narrow-lin. downy, Spike long, Fl. closely cluster. Inv. appress. squarose
 11514 Stem simple tall, Lvs. lin. smooth ciliated at base nerved and dotted, Spike very long, Fl. sessile [at end
 11515 Quite smooth, Stem simple, Rad. leaves obl.: cauline amplexicaul. Panicle corymbose lax spreading
 11516 Dwarf, Leaves linear, Stem simple, Flowers spiked

- 11517 Stem climbing, Leaves ovate entire, Flowers spiked
 11518 Stem climbing, Leaves subcordate hastate toothed, Flowers in spikes
 11519 Stem climbing smooth, Lvs. cord. repand toothed acuminate with spreading unequal lobes, Fl. corymbose
 11520 Flowers sessile lateral
 11521 Flowers axillary sessile, Corollas all trifid

- 11522 Leaves lanc. veiny obsoletely serrate smooth, Invol. 4-fl. Stem shrubby
 11523 Stem paniced, Leaves smooth: lower pinnated, upper fasciated, all filiform
 11524 Leaves opp. subverticill. linear entire pubescent 3-nerved dotted: radical somewhat toothed
 11525 Leaves sessile amplexicaul. distinct ovate-lanc. rounded at base serrated smooth, Stem smoothish
 11526 Leaves sessile distinct ovate scabrous: upper coarsely serrated at base; uppermost entire
 11527 Leaves sessile distinct roundish cordate bluntly serrate veiny
 11528 Leaves subsessile lanceolate 3-nerved narrowed at each end downy: lower serrated in middle
 11529 Leaves stalked 3 or 4-nate ovate narrowed at each end serrated roughish
 11530 Leaves opposite subpetiolate tri-quinque-partite: their segments lanceol. deeply serrate
 11531 Leaves petiolate ternate and simple downy beneath unequally serrate, Stem smooth
 11532 Leaves stalked 4 or 5-nate ovate lanceolate serrate rugose veiny roughish, Stem hollow
 11533 Leaves stalked 4 or 5-nate ovate lanceolate unequally serrate downy beneath, Stem solid furrowed
 11534 Leaves stalked 4 or 5-nate ovate acuminate serrated scabrous on each side, Stem solid round
 11535 Leaves stalked 3 or 4-nate ovate-lanceol. cuneate at base unequally serrate smoothish, Stem solid smooth
 11536 Leaves connate perfoliate downy
 11537 Leaves stalked cordate ovate blunthish 3-nerved bluntly serrate, Fl. corymbose
 11538 Hispid, Leaves stalked cordate cut serrate, Panic. terminal, Invol. many-fl. subulate pungent
 11539 Leaves stalked ovate acute 3-nerved bluntly serrate glabrous, Stem paniced upwards, Fl. corymbose
 11540 Leaves stalked ovate acuminate 3-nerved unequally coarsely serrated smooth, Corymb many-fl. spreading
 11541 Leaves stalked triangular ovate serrated entire at end downy beneath, Corymb spreading term. sessile
 11542 Leaves narrow lanceol. 3-nerved subserrated, Invol. squarrose many-flowered
 11543 Leaves amplexicaul. lanc. acuminate rugose serrated, Flowers paniced clustered
 11544 Leaves stalked ovate acuminate unequally and bluntly crenated pubescent, Panicle contracted
 11545 Leaves stalked ovate acuminate toothed 3-nerved glabrous
 11546 Stem twining villous, Lvs. deltoid ovate acute 3-nerved soft beneath, Panicle term. trichotomous diffuse
 11547 Like *E. lamifolium*, but the flowers smaller and paniced



and Miscellaneous Particulars.

1683. *Mikania*. Named by Willdenow, after Professor Mikán, of Prague. Climbing tropical plants, one of which, *M. Guaca*, is employed in South American medicine as a powerful febrifuge.

1684. *Sparganophorus*. From *σπαραγγων*, a fillet, and *φερα*, to bear, because the seed is crowned with a membranous band or border.

1685. *Eupatorium*. This plant, says Pliny, derives its name from Eupator King of Pontus, who first used it in medicine. *Aya-pana* is the vernacular name of the species so called among the natives of the banks of the river Amazon. The tribe of Eupatoriæ is distinguished from Vernoniæ by its style. They are chiefly found in America, very few inhabit Asia, scarcely any Africa, and not one has been found in Europe.

The *Eupatorium perfoliatum* has some reputation as a medicinal plant. A dissertation upon the subject of its merits was published a few years since by an American physician, from which it appears that the virtues of the plant reside chiefly in the leaves, and that the most efficient mode of exhibiting it is by means of a simple decoction. The medical powers of *Eupatorium* are, as its sensible properties would seem to indicate, those of a tonic stimulant. Given in moderate quantities, either in substance, or in cold infusion or decoction, it promotes digestion, strengthens the viscera, and restores tone to the system. Like other vegetable bitters,

11548 pubescens <i>W.</i>	downy	½ Δ or	4	jl.au	W	N. Amer.	1819.	D	co
11549 melle <i>Suz.</i>	soft	½ Δ or	4	jl.au	W	Jamaica	1823.	D	co
11550 deltoideum <i>Jacq.</i>	deltoid	½ Δ or	3	jl.au	Pu	.....	1822.	D	co
11551 scandens <i>Link.</i>	climbing	½ Δ or	6	aus	Y	.....	1821.	D	co
1686. DUMERILIA. <i>Lag.</i>	DUMERILIA.					Composite.	Sp. 1.		
11552 paniculata <i>Lag.</i>	panicled	☐ or	3	au	Pu	Colombia	1825.	C	co Ann. mus.19. t.7
1687. AGERATUM. <i>W.</i>	AGERATUM.					Composite.	Sp. 4—8.		
11553 conyzoides <i>W.</i>	hairy	○ or	1	jl.au	L.B	America.	1714.	S	p.l Ex. fl. 15
11554 latifolium <i>W.</i>	broad-leaved	○ or	1½	jl.au	W	Peru	1800.	S	co Cav. ic. 4. t. 357
11555 strictum <i>B. M.</i>	upright	○ or	2	jn.jl	W	Nepal	1821.	S	co Bot. mag. 2410
11556 mexicanum <i>B. M.</i>	Mexican	○ or	1½	jn.jl	B	Mexico	1822.	S	co Bot. mag. 2524
1688. CÆLESTINA. <i>Cass.</i>	CÆLESTINA.					Composite.	Sp. 1—2.		
11557 ageratoides <i>Cass.</i>	blue-flowered	½ | or	1	jl.o	B	.....	.....	C	co Bot. mag. 1730
1689. STEVIA. <i>W.</i>	STEVIA.					Composite.	Sp. 10—14.		
11558 purpurea <i>W. en.</i>	purple	½ Δ pr	1½	aus	Pu	Mexico	1812.	D	co Bot. reg. 93
11559 eupatoriá <i>W.</i>	entire-leaved	½ Δ pr	2	ils	Pk	Mexico	1798.	S	p.l Bot. mag. 1849
11560 hyssopifolia <i>B. M.</i>	Hyssop-leaved	½ Δ pr	1½	aus	Pk	Mexico	.....	D	co Bot. mag. 1861
11561 salicifolia <i>W.</i>	Willow-leaved	½ Δ pr	1½	aus	Pk	Mexico	1803.	S	p.l Cav. ic. 4. t. 354
11562 serrata <i>W.</i>	saw-leaved	½ Δ pr	1½	ils	F	Mexico	1799.	D	s.p Jac. schœ.3.t.300
11563 ivafolia <i>W. en.</i>	Iva-leaved	½ Δ pr	2	ils	W	Mexico	1816.	D	s.p
11564 ovata <i>W. en.</i>	oval-leaved	½ Δ pr	2	aus	W	Mexico	1816.	D	s.p
11565 pesata <i>W.</i>	multitud	½ ○ pr	1½	ils	W	Mexico	1803.	S	s.p Bot. mag. 2040
11566 lanceolata <i>Lag.</i>	lanceolate	½ Δ pr	1	ils	Pu	Mexico	1822.	D	co
11567 pubescens <i>Lag.</i>	pubescent	½ Δ pr	1½	ils	Pu	Mexico	1823.	D	co
1690. CEPHALOPHORA. <i>W.</i>	CEPHALOPHORA.					Composite.	Sp. 1.		
11568 glauca <i>W.</i>	glaucous	½ Δ un	2	jl.au	Y	Chili	1798.	D	co Cav. ic. 6. t. 599
1691. AMPHEREPHIS. <i>Kth.</i>	AMHEREPHIS.					Composite.	Sp. 1—3.		
11692 intermedia <i>Link.</i>	intermediate	○ pr	1½	jl.au	Pu	Brazil	1821.	S	co Pla.sel.H.B.f.29
1692. HYMENOPAPPUS. <i>J.</i>	HYMENOPAPPUS.					Composite.	Sp. 1—2.		
11570 tenuifolius <i>Ph.</i>	slender-leaved	½ ○ | un	2	jn.au	W	Louisiana	1811.	S	co
1693. MELANANTHERA. <i>Mi.</i>	MELANANTHERA.					Composite.	Sp. 2—5.		
11571 hastata <i>Ph.</i>	snowy	½ Δ un	2	jn.jl	W	N. Amer.	1732.	D	co Dill.elt. t.47.f.55
<i>Bidens nivea</i> <i>W.</i>									
<i>β pandurata</i>	fiddle-leaved	½ Δ un	2	jn.jl	W	N. Amer.	1732.	D	co Dill.elt. t.46.f.54
11572 deltoidea <i>Mich.</i>	rough-leaved	½ ○ un	3	jl.au	Y	S. Amer.	1799.	S	co Jac. ic. 3. t. 583
<i>Calea aspera</i> <i>W.</i>									
1694. MARSHALLIA. <i>Ph.</i>	MARSHALLIA.					Composite.	Sp. 2—3.		
11573 lanceolata <i>Ph.</i>	spear-leaved	½ Δ pr	1½	jn.jl	Pu	Carolina	1812.	D	co
11574 latifolia <i>Ph.</i>	broad-leaved	½ Δ pr	1½	jn.jl	Pa.pu	Carolina	1806.	D	co Mich.ame.2.t.43
1695. SPILANTHES. <i>W.</i>	SPILANTHES.					Composite.	Sp. 3—14.		
11575 Pseudo-Acmella <i>W.</i>	spear-leaved	○ un	1	jl	Y	Ceylon	1768.	S	s.l Pluk.al.t.159.f.4
11576 alba <i>W.</i>	white-flowered	○ un	1	jn.jl	W	Peru	1783.	S	co L'He.stirp.7.t.4
11577 oleracea <i>W.</i>	esulent	○ cul	1	ils	Y	E. Indies	1770.	S	co Jac.vind.2.t.135
1696. SALMÆA. <i>Dec.</i>	SALMÆA.					Composite.	Sp. 2—3.		
11578 scandens <i>Dec.</i>	scandent	½ ○ pr	6	jn.jl	W	Vera Cruz	1820.	D	co Bot. mag. 2062
11579 hirsuta <i>Dec.</i>	hirsute	½ ○ pr	6	au	W	Jamaica	1823.	S	co



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if given in large quantities, especially in warm infusion or decoction, it proves emetic, sudorific, and aperient. Even in cold infusion, it tends to bring on diaphoresis. The plant is also stated to be an excellent remedy for the cure of intermittent fevers. When employed as a tonic, this plant may be taken in doses of twenty or thirty grains, or a teacup full may be used of the infusion rendered moderately bitter. When intended to act as an emetic, a strong decoction may be made from an ounce of the plant in a quart of water boiled to a pint. (Bigelow.)

1686. *Dumerilia*. Named after M. A. M. Constant Duméril, author of an Elementary Treatise upon Natural History, published in one volume octavo, at Paris, in 1804. Small half-shrubby South American plants, with firm hairy leaves.

1687. *Ageratum*. A name employed by Dioscorides, and probably applied by him to some plants similar to what we call properly "everlastings;" it is derived from *α*, privative, and *γεναι*, old age, because it never grows old; that is to say, always preserves its color.

1688. *Cælestina*. From *cælestis*, blue, in allusion to the color of the flowers.

1689. *Stevia*. Dedicated by Cavanilles to the memory of Peter James Esteve, a Spanish physician of the sixteenth century. He left behind him a dictionary of the plants natives of the kingdom of Valencia.

1690. *Cephalophora*. From *κεφαλη*, a head, and *φορεω*, to bear, its flowers being united in little heads.

1691. *Ampherephis*. From *ἀμφεσφης*, which signifies well covered, on account of the double involucre of the genus.

11548 Lvs. sessile distinct ovate scabrous veiny : lower doubly serrate ; upper subserrate, Stem panicled downy
 11549 Leaves stalked cordate acute subserrate villous beneath, Invol. 8-15-fl. Stem shrubby
 11550 Leaves stalked hastate triangular 3-nerved unequally serrate downy beneath, Panic. corymbose
 11551 Stem twining, Leaves reniform ovate acuminate serrate-toothed, Panicle axillary

11552 Leaves roundish 7-lobed : lobes crenate, Panicle corymbose terminal

11553 Leaves ovate subcordate, Stem hairy, Palææ of pappus awned toothletted
 11554 Leaves ovate cuneate at base, Stem pilose, Palææ of pappus lanceolate acute
 11555 Stem erect simple scabrous, Leaves cordate rugose unequally serrated
 11556 Hispid, Leaves cordate ovate crenate rugose, Corymb compound, Palææ of pappus lanceolate awned

11557 Leaves stalked ovate acute rounded at base serrated pilose above hairy beneath

11558 Leaves lanc. channelled narrowed into the footstalk 3-nerved, Corymb fastigiate
 11559 Leaves lanc. 3-nerved entire, Corymb fastigiate, Pappus paleaceous and awned
 11560 Leaves oblong ovate entire, Corymbs spreading, Pappus awned as long as corolla
 11561 Leaves lanc. narrowed at each end serrated in the middle, Corymb spreading, Pappus with 2 awns
 11562 Leaves lin. lanc. serrated at end, Corymbs fastigiate, Pappus paleaceous and awned
 11563 Leaves lanc. narrowed into the footstalk 3-nerved finely serrated at end, Corymbs fastigiate
 11564 Leaves ovate 3-nerved serrated cuneate and entire at the base, Pappus chaffy and awned
 11565 Leaves stalked digitate pedate entire, Pappus paleaceous. (*Florestina*, Cass.)
 11566 Leaves sessile narrowed at base rough with minute hairs, Pappus with 3 awns
 11567 Leaves 10 lines long 4 lines broad finely downy beneath, Flowers purple

11568 The only species

11569 Leaves of invol. foliaceous : inner ovate obl. rounded ; outer awned

11570 Hoary, Leaves sub-bipinnatifid, Flowers in compound corymbs

11571 Leaves 3-nerved ovate acuminate scabrous unequally toothed

11572 Flowers solitary stalked winged, Leaves oblong triple-nerved unequally serrated scabrous

11573 Leaves long-lanc. Leaves of invol. blunt, Palææ spatulate
 11574 Leaves lanc. oval acuminate 3-nerved, Palææ narrow linear

11575 Leaves lanceolate serrate, Stem erect
 11576 Leaves ovate repand : lower alternate, Stem branched ascending, Invol. many-leaved
 11577 Leaves ovate subcordate serrated, Stem branched diffuse

11578 Leaves opp. ovate-acumin. serrate, Pedunc. panicled, Heads ovate
 11579 Leaves opp. ovate-lanceolate entire downy, Pedunc. opp. diverging many-flowered



and Miscellaneous Particulars.

1692. *Hymenopappus*. From *ἕμην*, a membrane, and *πᾶππος*, pappus, in allusion to the membranous pappus of its seeds.

1693. *Melananthera*. From *μελας*, black, and *anthera*. A plant with black anthers, a very unusual character in this tribe of plants, the anthers of which are usually either white or yellow, according to the color of the corolla.

1694. *Marshallia*. Named after Henry Marshall, an Englishman, author of a sort of history of the trees and shrubs of North America, published in 1778.

1695. *Spilanthes*. From *σπίλος*, a spot, and *ἄστρος*, a flower, in allusion to the heads of flowers of the original species, which are yellow with a brown disk. Jacquin says he so called it, because the flowers are spotted with black points. *S. salivaria* is used by the natives of South America to relieve the tooth-ache by the salivation which it produces copiously. The flower-heads of *S. oleracea* are an excellent ingredient in salads, on account of their agreeable and lasting piquancy.

The leaves of *Spilanthes tinctoria* of Loureiro, which is said to be very similar to the *Abcedaria* figured by Rumphius, vol. ii. t. 65, give out when bruised a beautiful blue color, quite equal to indigo.

1696. *Salmea*. This name was originally given by Cavanilles to a genus related to *Aloe*, and was named after Prince Charles of Salm-Salm, a great promoter of botanical science. It was transferred to the genus which now bears the name by Professor Decandolle, in the appendix to his *Hortus Mounspeliensis*.

1697. <i>BIDENS</i> . <i>W.</i>	BIDENS.				<i>Composite.</i>	<i>Sp. 18—25.</i>				
11580 <i>nodiflora W.</i>	sessile-flowered	□	un	1	jl.au	Y	E. Indies	1732.	S co	Dill.elt. t.44.f.52
11581 <i>tripartita W.</i>	trifid	□	un	2	jl.s	Y	Britain	wat.pl.	S co	Eng. bot. 1113
11582 <i>cœrnea W.</i>	nodding	□	un	2	jl.s	Y	Britain	dit.	S co	Eng. bot. 1114
11583 <i>heterophylla W.</i>	various-leaved	✓	un	2	au.s	Y	Mexico	1803.	D s.l	Orteg.dec.8. t.12
11584 <i>frondosa W.</i>	smooth-stalked	□	un	1½	jl.au	Y	N. Amer.	1710.	S co	Mor. s.6. t.5. f.21
11585 <i>leucantha W.</i>	white-flowered	□	un	1½	jl.au	W	S. Amer.	.....	S co	
11586 <i>chinensis W.</i>	Chinese	□	un	2	jn.jl	W	China	1801.	S co	Ru.am.6. t.15. f.2
11587 <i>pilosa W.</i>	hairy	□	un	1½	jl	Y	N. Amer.	1732.	S co	Dill.elt. t.43.f.51
11588 <i>sambucifolia W.</i>	Elder-leaved	✓	un	3	jl.au	Sc	S. Amer.	1801.	D co	Can. ic. 3. t. 229
11589 <i>bipinnata W.</i>	Hemlock-leav.	□	un	2	jl.au	Y	N. Amer.	1803.	S co	Her.parad. t.123
11590 <i>bullata W.</i>	rough-leaved	□	un	2	jl.au	Y	N. Amer.	1759.	S co	Ard. spec. 2. t. 18
11591 <i>procera B. Reg.</i>	tall	✓	un	6	n	Y	Mexico	1822.	S co	Bot. reg. 684
11592 <i>luxurians W.</i>	luxuriant	✓	un	3	jl.au	Y	Mexico	.....	D co	
11593 <i>foliosa W.</i>	leafy	□	un	3	jn.jl	Y	.....	1818.	S co	
11594 <i>connata W.</i>	connate	□	un	2	jn.jl	Y	N. Amer.	1817.	S co	
11595 <i>parviflora W.</i>	small-flowered	□	un	1	jn.jl	Y	Baical	1823.	S co	
11596 <i>odorata Cav.</i>	sweet-scented	□	ft	3	jn.jl	W	Mexico	1825.	S co	Cav. ic. 1. t. 13
11597 <i>reflexa Link.</i>	reflexed	✓	un	2	jn.jl	Y	Mexico	1824.	D co	
1698. <i>PLATYPTERIS</i> . <i>Kunth.</i>	PLATYPTERIS.				<i>Composite.</i>	<i>Sp. 1.</i>				
11598 <i>crocata Kth.</i>	safron-colored	✓	or	2	ja.mr	Or	S. Amer.	1812.	D co	Bot. mag. 1627
	<i>Spilanthus crocatus B. M.</i>									
1699. <i>LAGASCA</i> . <i>Cav.</i>	LAGASCA.				<i>Composite.</i>	<i>Sp. 2.</i>				
11599 <i>mollis Cav.</i>	soft	✓	or	2	jn.s	Y	S. Amer.	1815.	S co	Bot. mag. 1804
11600 <i>rubra Kth.</i>	red	✓	or	2	jl	R	Mexico	1823.	C co	Hum.no.g. t.311
1700. <i>LAVENIA</i> . <i>W.</i>	LAVENIA.				<i>Composite.</i>	<i>Sp. 1—2.</i>				
11601 <i>erecta W.</i>	upright	□	un	2	jl.s	Y	E. Indies	1739.	S co	Burm. zeyl. t. 42
1701. <i>CACALIA</i> . <i>W.</i>	CACALIA.				<i>Composite.</i>	<i>Sp. 26—60.</i>				
11602 <i>papillaris W.</i>	rough-stalked	✓	cu	2	nmr	Y	C. G. H.	1727.	C s.p	Dill.elt. t.55.f.63
11603 <i>Antephœrbum W.</i>	oval-leaved	✓	cu	3	fmr	Y	C. G. H.	1596.	C s.p	Dill.elt. t.55.f.2,3
11604 <i>Kleinia W.</i>	Oleander-leav.	✓	cu	3	s.o	Y	Canaries	1732.	C s.p	Plant. grass. 12
11605 <i>Ficoïdes W.</i>	flat-leaved	✓	cu	6	jn.n	Y	C. G. H.	1710.	C s.p	Plant. grass. 90
11606 <i>carnea W.</i>	narrow-leaved	✓	cu	1½	jn	Y	C. G. H.	1757.	C s.p	
11607 <i>repens W.</i>	glaucous-leaved	✓	cu	1	jn.o	Y	C. G. H.	1759.	C s.p	Plant. grass. 42
11608 <i>Hawörthii Sweet tomentosa M. n. not of Thunberg.</i>	woolly-leaved	✓	cu	2	...	Y	C. G. H.	1795.	C co	
11609 <i>articulata W.</i>	jointed	✓	cu	1½	s.n	Y	C. G. H.	1775.	C s.p	Plant. grass. 18
11610 <i>tomentosa Th.</i>	tomentose	✓	cu	2	...	Y	C. G. H.	1795.	C s.p	
11611 <i>appendicata W.</i>	appendaged	✓	cu	2	...	Y	Teneriffe	1815.	C co	
11612 <i>bicolor W.</i>	two-colored	✓	or	2	mys	Pu	E. Indies	1804.	C co	Bot. reg. 110
11613 <i>ovalis B. reg.</i>	oval-leaved	✓	or	3	mys	Y	E. Indies	...	C s.p	Bot. reg. 101
11614 <i>sonchifolia W.</i>	Sow-thistle-ld.	□	or	1½	jl	Pu	E. Indies	1768.	S co	Rhe.mal.10. t.68
11615 <i>salicina Lab.</i>	Willow-leaved	✓	or	6	jn.jl	Y	N. Holl.	1820.	C co	Bot. reg. 923
11616 <i>coccinea H. K.</i>	scarlet-flowered	□	or	1½	jn.jl	O	.....	1799.	S co	Bot. mag. 564
11617 <i>sarracenea W.</i>	creeping-rooted	✓	or	4	au.o	Y	France	1772.	D s.p	
11618 <i>hastata W.</i>	spear-leaved	✓	or	1	au.o	W	Siberia	1780.	D co	Gmel. sib. 2. t.66
11619 <i>rhombifolia W.</i>	rhomb-leaved	✓	or	3	au.o	Y	Siberia	1816.	D co	
11620 <i>suaevolens W.</i>	sweet-scented	✓	or	6	au.o	W	N. Amer.	1752.	D co	
11621 <i>triplicifolia W.</i>	Orache-leaved	✓	or	4	au	L.Pu	N. Amer.	1669.	D co	Pluk.al. t.101.f.2
11622 <i>reniformis W.</i>	Kidney-leaved	✓	or	1½	jl.au	W	N. Amer.	1801.	D co	
11623 <i>alpina W.</i>	Alpine	✓	or	2	jl.au	Pu	Austria	1739.	D co	Jac. aust.3. t.234
11624 <i>albifrons W.</i>	white-leaved	✓	or	2	jl.au	W	Austria	1779.	D co	Jac. aust.3. t.235
11625 <i>scandens W.</i>	climbing	✓	or	6	ap	Pk	C. G. H.	1774.	D co	
11626 <i>pinnata W. en.</i>	wing-leaved	✓	or	2	jl.au	Pk	Iberia	1816.	D co	
11627 <i>sagittata W.</i>	sagittate	□	or	3	jl.au	O.Pu	Java	1823.	S co	



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1697. *Bidens*. So called because its seeds are surmounted with two teeth. Very worthless inconspicuous weeds.

1698. *Platypterus*. So called from *πλατυς*, broad, and *πτερον*, a wing, in allusion to the margin of the seeds. A small stove herbaceous plant of little merit.

1699. *Lagasca*. Named in honor of Don Mariño La Gasca, professor of botany at Madrid, an amiable man and excellent botanist. He is, at the time of writing this, residing in England, whither he has fled from the dangers of persecution in his own country.

1700. *Lavenia*. A name of unknown meaning, originating with Sherard. Small useless annuals, natives of the East and West Indies.

1701. *Cacalia*. A name applied by Dioscorides to a mountain plant with large whitish leaves. By some it is believed to have been what is now called *Cacalia alpina*. To Sprengel it appears to be the *Bupierium*

- 11580 Flowers discoid stalked, Outer invol. 3 times as long as flower, Lvs. ovate with 1 or 2 teeth on each side
 11581 Leaves tripartite, Leaflets lanceolate deeply serrated, Bristles of the pericarp 2-3
 11582 Fls. droop. Bracteas lanc. ent. (longer than inv.) Lvs. lanc. serrat. undivid. Bristles of pericarp about 4 erect
 11583 Flower radiant erect, Outer invol. longer than inner, Cauline leaves lanc. serrated : radical subternate
 11584 Fls. discoid, Outer invol. 6 times as long as flower, Leaflets ciliated at base, Lower lvs. pinn. : upper ternate
 11585 Fls. radiant, Outer invol. length of inner, Lower leaves pinnate : upper ternate, Leaflets ovate serrated
 11586 Fls. radiant, Outer invol. length of inner, Low. lvs. pinn. : upper tern. Leaf. ov. subcord. serr. uneq. at base
 11587 Fls. discoid, Outer inv. length of inner, Low. lvs. pinn. : upper tern. Term. leaf. twice as large as the rest
 11588 Flowers radiant, Outer invol. longer than inner, Leaves decussively pinnated serrated
 11589 Flowers subradiant, Outer invol. length of inner, Leaves bipinnate : leaflets lanc. pinnatifid
 11590 Fls. discoid, Outer inv. longer than flower, Lvs. scabr. toothed : low. roundish ov. : upp. tern. Stem hairy
 11591 Leaves bi-tripinnate : pinnæ linear acute channelled entire, Outer leaves of invol. blunt downy
 11592 Flowers radiant erect, Outer involucre longer than inner, Leaves lanc. stalked equally serrate
 11593 Leaves lanc. acute serrated subciliated, Outer involucre leafy
 11594 Flowers discoid, Outer invol. 3 times as long as flower, Cauline leaves ternate : lateral connate
 11595 Flowers discoid, Outer invol. longer than inner, Leaves ternate : leaflets 3-parted cut-toothed
 11596 Flowers radiant, Outer invol. length of inner, Leaves bipinnate, Leaflets cuneiform 3-toothed
 11597 Leaves lyrate-pinnated : pinnæ ovate acute serrated pubescent, Flowers panicled

11598 Leaves hoary toothed, Stem with 4 wings

- 11599 Leaves stalked ovate acuminate subrenate softly silky
 11600 Leaves on short stalks elliptical blunt obsoletely toothed rigid

11601 Stem branched erect, Leaves elliptical finely serrated

- 11602 Stem shrubby with cylindr. truncate papillæ, Leaves lanc. flat
 11603 Stem shrubby, Leaves ovate-oblong flat, Petioles with a triple line at base
 11604 Stem shrubby, Leaves lanc. flat, Flowers corymbose
 11605 Stem shrubby, Leaves compressed fleshy
 11606 Stem shrubby, Leaves roundish fleshy incurved, Pedunc. terminal 1-fl. naked
 11607 Stem shrubby, Leaves depressed fleshy
 11608 Stem shrubby, Leaves depressed fleshy woolly

- 11609 Stem shrubby, Leaves fleshy flat ternate, Leaflets 3-lobed
 11610 Stem suffruticose, Leaves ovate-lanc. toothed downy beneath
 11611 Shrubby downy, Leaves cordate ovate acute angular downy beneath : stalks with leafy appendages
 11612 Stem herbac. branched, Lvs. lanc. smooth toothed : of the stem amplexicaul. ; of the branches stalked
 11613 Leaves thickish villous : lower oval repand-toothed stalked ; upper sublyrate amplexicaul.
 11614 Stem herbaceous, Leaves amplexicaul. toothed : lower lyrate ; upper sagittate toothed
 11615 Leaves obl. lanceolate connate downy beneath, Racemes axillary
 11616 Radical leaves ovate spatulate : cauline entire amplexicaul. crenate edged
 11617 Stem herbaceous, Leaves sessile obl. lanc. serrated : at the base cuneate entire decurrent
 11618 Stem herbaceous, Leaves stalked 3-lobed hastate serrate, Flowers racemose nodding
 11619 Stem herbaceous, Lvs. stalked rhomboid hastate unequally toothed, Flowers corymbose spreading erect
 11620 Stem herbaceous, Leaves stalked hastate-sagittate serrated, Flowers corymbose erect
 11621 Stem herbaceous, Leaves stalked : radical cordate toothed ; cauline rhomboid with 2 teeth on each side
 11622 Stem herbaceous, Leaves stalked : radical cordate reniform repand toothed ; cauline oblong toothed
 11623 Stem herbaceous, Leaves stalked cordate toothed, Petioles naked, Corymbs fastigate, Invol. 5-flowered
 11624 Stem herbac. Leaves stalked cordate toothed hoary beneath, Petioles auricled at base, Corymbs fastigate
 11625 Stem twining, Leaves triangular sinuate-toothed
 11626 Stem herb. Rad. lvs. bipinnatifid : caul. pinn. Pinnæ toothed : upper confluent, Corymb comp. fastigate
 11627 Stem herbaceous, Leaves toothletted : lower stalked obovate ; upper obl. lanc. sagittate amplexicaul.



and Miscellaneous Particulars.

longifolium of the moderns. The species are nearly all objects of ornament. Some of them are remarkable for their fleshy awkward looking stems, others for their discolored leaves. The succulent kinds require to be grown in old rubbish, and to be treated as directed for Mesembryanthemums. The leaves of some species (*C. procumbens* and *sonchifolia*) are used as salad by the Chinese ; and those of *C. Ficoides* are sometimes pickled by the French.

C. Kleinia is called cabbage tree, from the resemblance which the stalks have to those of the cabbage ; and carnation tree, from the shape of the leaves and color of the flowers.

Upon *Cacalia alpina*, &c., M. Cassini has founded his genus *Adenostyles* and tribe of *Adenostyleæ* ; distinguished from *Senecioneæ*, to which *Cacalia* belongs, by the roughness of all the back of the two lobes of the style. But we do not find the division adopted by other botanists. M. Cassini himself suspects that *Adenostyleæ* may be united with *Tussilagineæ*.

1702. KLEI'NIA. <i>W.</i>	KLEINIA.			<i>Compositæ.</i>	<i>Sp. 3-5.</i>				
11623 <i>ruderalis Jacq.</i>	dunghill	☐ un	1	jl.au	W	Jamaica	...	S	co
11629 <i>porophyllum W.</i>	perforated	☐ un	1½	jn.o	W	N. Amer.	1699.	S	co
11630 <i>suffruticosa W.</i>	suffruticose	☐ un	½	jn.o	Pu	Brazil	1820.	C	co
									Jacq. am. t. 127 Cav. ic. 3. t. 252 Cav. ic. 3. t. 257
1703. ETHU'LIA. <i>W.</i>	ETHULIA.			<i>Compositæ.</i>	<i>Sp. 3-7.</i>				
11631 <i>conyzoides W.</i>	panicled	☐ un		jl.au	Pa.pu	India	1776.	S	co
11632 <i>divaricata W.</i>	spreading	☐ un	½	jl.au	Pu	India	1815.	S	co
11633 <i>braziliensis Link.</i>	Brazil	☐ un	2	jl.au	Pu	Brazil	1823.	D	co
									Bot. reg. 695 Lam. ill. t. 699
1704. PIQUE'RIA. <i>W.</i>	PIQUERIA.			<i>Compositæ.</i>	<i>Sp. 1-3.</i>				
11634 <i>trinervia W.</i>	three-nerved	☐ un	2	jl.au	W	Mexico	1798.	D	co
									Cav. ic. 3. t. 235
1705. CHRYSO-COMA. <i>W.</i>	GOLDY-LOCKS.			<i>Compositæ.</i>	<i>Sp. 9-18.</i>				
11635 <i>Comaúrea W.</i>	great-shrubby	☐ or	6	jn.au	Y	C. G. H.	1731.	C	pl
11636 <i>cérnea W.</i>	small-shrubby	☐ or	4	my.s	W	C. G. H.	1712.	C	pl
11637 <i>ciliáris W.</i>	Heath-leaved	☐ or	4	jl.o	W	C. G. H.	1759.	C	pl
11638 <i>scábura W.</i>	rugged	☐ or	4	aus	W	C. G. H.	1732.	C	pl
11639 <i>denticuláta W.</i>	toothed	☐ or	2	aus	Y	.....	.....	D	co
11640 <i>linosýris W.</i>	German	☐ or	2	s.o	Y	Europe	1596.	D	co
11641 <i>dracunculoides W.</i>	Siberian	☐ or	2	s.o	B	Siberia	.....	D	co
11642 <i>biiflora W.</i>	two-flowered	☐ or	3	aus	B	Siberia	1741.	D	co
11643 <i>villósa W.</i>	hairy-leaved	☐ or	1½	aus	Y	Hungary	1799.	D	co
									Eng. bot. 2505 Gm. sib. 2. t. 82. f. 1 Pl. rar. hu. l. t. 53
1706. TARCHONANTHUS. <i>W.</i>	AFRICAN FLEABANE.			<i>Compositæ.</i>	<i>Sp. 1-7.</i>				
11644 <i>camphorátus W.</i>	shrubby	☐ or	6	jn.o	Pu	C. G. H.	1690.	C	pl
									Lani. ill. t. 671
1707. CA'LEA. <i>W.</i>	CALEA.			<i>Compositæ.</i>	<i>Sp. 1-3.</i>				
11645 <i>jamaicénsis W.</i>	purple-flowered	☐ un	3	jn.jl	Pu	W. Indies	1739.	C	co
									Slo. ja. 1. t. 151. f. 3
1708. ISOCAR'PHA. <i>R. Br.</i>	ISOCARPHA.			<i>Compositæ.</i>	<i>Sp. 1-3.</i>				
11646 <i>oppositifolia R. Br.</i>	opposite-leaved	☐ un	3	jl.au	W.	Indies	1739.	S	co
1709. PETRO'BIMUM. <i>R. Br.</i>	WHITE WOOD.			<i>Compositæ.</i>	<i>Sp. 1.</i>				
11647 <i>arbo'reum R. Br.</i>	St. Helena	☐ or	12	...	Y	St. Helena	1825.	C	co
1710. NEUROLE'NA. <i>R. Br.</i>	HALBERD-WEED.			<i>Compositæ.</i>	<i>Sp. 1.</i>				
11648 <i>lobáta R. Br.</i>	common	☐ un	2	jn.jl	Y	W. Indies	1733.	R	s.p
									Bot. mag. 1734
1711. HU'MEA. <i>Sm.</i>	HUMEA.			<i>Compositæ.</i>	<i>Sp. 1.</i>				
11649 <i>élegans Sm.</i>	rose-colored	☐ cl	6	jn.o	R	N. S. W.	1800.	S	s.p
									Exot. bot. 1. t. 1
1712. CÆSULIA. <i>W.</i>	CÆSULIA.			<i>Compositæ.</i>	<i>Sp. 1-3.</i>				
11650 <i>axilláris W.</i>	axillary-flower.	☐ un	½	jl.s	W	E. Indies	1804.	R	pl
									Bot. rep. 431
1713. IXO'DIA. <i>H. K.</i>	IXODIA.			<i>Compositæ.</i>	<i>Sp. 1.</i>				
11651 <i>achillæoides H. K.</i>	Milfoil-like	☐ pr	2	inr.s	W	N. Holl.	1803.	C	s.p
									Bot. mag. 1534
1714. SANTOLI'NA. <i>W.</i>	LAVENDER-COTTON.			<i>Compositæ.</i>	<i>Sp. 7-16.</i>				
11652 <i>Chama-Cyparissus W.</i>	common	☐ or	2	jl	Y	S. Europe	1573.	C	co
11653 <i>squarrósa W.</i>	hoary	☐ or	1½	jl.au	Y	S. Europe	1570.	C	co
11654 <i>viridis W.</i>	dark-green	☐ or	2	jl	Y	S. Europe	1727.	C	co
11655 <i>rosmarinifolia W.</i>	Rosemary-lvd.	☐ or	2	jl.s	Y	S. Europe	1683.	C	co
11656 <i>alpina W.</i>	Alpine	☐ or	1	jl.s	Y	Italy	1798.	D	co
11657 <i>anthemoides W.</i>	Chamomile-lv.	☐ or	½	jl.au	L Y	Italy	1727.	D	co
11658 <i>crithmifolia W.</i>	Samphire-leav.	☐ or	½	jl.au	Y	S. Europe	...	D	co



History, Use, Propagation, Culture,

1702. *Kleinia*. Named after James Henry Klein, a German botanist, who published, in 1719, a dissertation upon the Juniper.

1703. *Ethulia*. A word formed by Linnæus without any explanation of its meaning. It is not easy to understand wherefore Vaillant's more ancient name of *Sparganophorus* should not have been adopted.

1704. *Piqueria*. So named by Cavanilles, in honor of Andreas Piqueria, a Spanish botanist, who published a translation of Hippocrates, in 1757.

1705. *Chrysocoma*. From χρυσος, gold, and ζομη, hair, in allusion to the tufts of yellow flowers with which the stems are terminated. The specific name *Comaurea* is a mere translation of the generic appellation. *Linosyris*, the name of another species, is so called from *linum*, flax, and *osyris*, an ancient name for a plant with long flexible branches and flax-like leaves, which is the character of *C. linosyris*; which, when handled, sends forth a very fine aromatic smell.

1706. *Tarchonanthus*. *Tarchon* is a name given by the Arabian physicians to the *Artemisia Dracunculus*, and is the root of our English word *Tarragon*. *Andros* signifies flower, and the word thus compounded may be Englished *Tarragon-flower*.

1707. *Calea*. Derived from καλος, beautiful. The species are ornamental shrubs of South America, with undivided leaves, and corymbose, terminal, or axillary heads of yellowish purple flowers. Mr. Brown's history

- 11628 Leaves obl. lanc. acute at each end nearly entire
 11629 Leaves elliptical blunt mucronate repand with pellucid dots
 11630 Leaves linear entire with pellucid dots, Stem suffruticose

- 11631 Flowers paniced
 11632 Leaves linear toothed decurrent, Pedunc. opposite the leaves 1-fl. Stem divaricating
 11633 Stem winged, Leaves lanc. acute serrated downy decurrent, Flowers corymbose

- 11634 Leaves opp. ovate-lanc. serrated 3-nerved, Invol. with 4 flowers

- 11635 Leaves linear straight smooth decurrent at back
 11636 Leaves linear recurved roughish, Flowers cernuous
 11637 Leaves linear straight ciliated, Branches pubescent
 11638 Leaves lanc. ovate recurved toothletted serrated, Peduncles pubescent
 11639 Leaves oblong tapered at base toothletted wavy
 11640 Leaves linear glabrous, Involucres lax
 11641 Leaves linear-lanceolate 3-nerved scabrous, Flowers corymbose, Invol. lax
 11642 Paniced, Leaves lanc. 3-nerved dotted naked
 11643 Leaves lanc. villous, Involucres contracted

- 11644 Leaves oblong entire downy beneath

- 11645 Flowers about 3 stalked, Leaves ovate-oblong subserrate stalked

- 11646 Corymbs heaped, Peduncles very long, Leaves lanc. Stem herbaceous

- 11647 Leaves opp. undivided, Panicle terminal brachiate

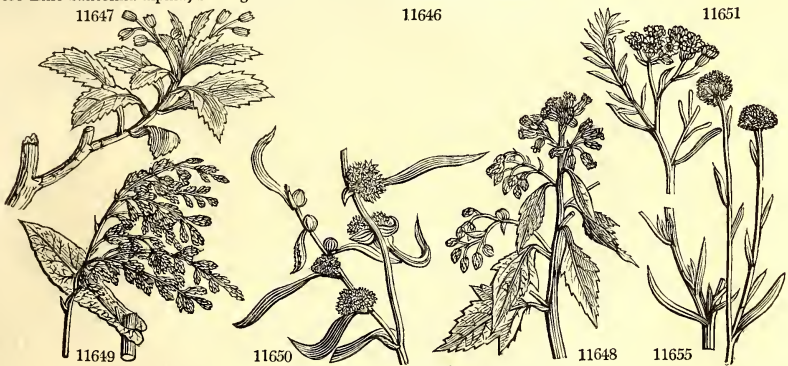
- 11648 Corymbs heaped, Leaves alternate: upper ovate-lanceolate; lower toothed hastate sinuate serrate

- 11649 Panicles very large erect diffuse capillary

- 11650 Leaves lanc. narrowed at base serrated alternate

- 11651 The only species

- 11652 Pedunc. 1-fl. Leaves hoary toothed in 4 rows, Teeth blunt, Branches downy, Invol. pubescent
 11653 Pedunc. 1-fl. Leaves hoary toothed in 4 rows, Teeth subulate much spreading, Branches downy
 11654 Pedunc. 1-fl. Leaves smooth toothed in 4 rows, Teeth subulate straight, Branches and invol. smooth
 11655 Pedunc. 1-fl. Leaves linear warted at edge: upper entire
 11656 Pedunc. 1-fl. Leaves bipinnate, Stems simple
 11657 Pedunc. 1-fl. Leaves bipinnate, Stems much branched villous
 11658 Like *Santolina alpina*, but segments of leaves are shorter and thicker



and Miscellaneous Particulars.

of this genus, in the twelfth volume of the Transactions of the Linnean Society, is a model of botanical erudition and acuteness, such as has been rarely seen in modern days.

1708. *Isocarpha*. From *isos*, equal, and *καρφη*, chaff, in allusion to the equality of the chaff of the receptacle and the leaves of the involucre. Herbs of South America, with opposite undivided leaves, and ovate terminal heads of whitish flowers.

1709. *Petrobium*. From *πετρος*, a stone, with reference, it is presumed, to the texture of the grains. A small tree, native of St. Helena, where it is called *white wood*.

1710. *Neuroleña*. From *νευρον*, a nerve, and *λαϊνος*, stony. An erect shrub of South America, with alternate, undivided, and lobed leaves, and terminal compound corymbs of yellow flowers.

1711. *Humea*. Named in honor of Sir Abraham Hume, Bart. of Wormleybury, in Hertfordshire, a gentleman whose whole life has been devoted to the protection and assistance of the arts and sciences, and especially of botany. A beautiful plant with immense capillary panicles of brilliant crimson flowers.

1712. *Cæsulia*. Meaning unknown. Little creeping weed-like plants, rooting at the joints.

1713. *Ixodia*. From *ἰξωδης*, viscid. A greenhouse shrub, native of the south coast of New Holland; flowering most part of the year.

1714. *Santolina*. Supposed to be a diminutive of *sancta*; a holy little herb; in allusion to some reputed virtues. A genus of slightly shrubby somewhat aromatic plants, with yellow discoid flowers.

1715. OTANTHUS. <i>Link.</i> OTANTHUS.					<i>Compositæ.</i>	<i>Sp. 1.</i>				
11659 maritimus <i>Link.</i>	sea	彙	pr	½ jls	Y	England	sea sh.	C	s.l	Eng. bot. 141
<i>Santolina maritima</i> L.										
1716. CALEAC'TE. <i>R. Br.</i> CALEACTE.					<i>Compositæ.</i>	<i>Sp. 1.</i>				
11660 urticifolia <i>R. Br.</i>	nettle-leaved	彙	□	or		Vera Cruz	1740.	C	co	
<i>Solidago urticifolia</i> Mill.										
1717. ATHANA'SIA. <i>W.</i> ATHANASIA.					<i>Compositæ.</i>	<i>Sp. 11—28.</i>				
11661 capitata <i>W.</i>	hairy	彙	□	or	1½ jn.au	Y	C. G. H.	1774.	C	l.p
11662 pubescens <i>W.</i>	villous-leaved	彙	□	or	6 jn.au	Y	C. G. H.	1768.	C	co
11663 annua <i>W.</i>	annual	彙	○	un	1 jn.au	Y	Barbary	1686.	S	co
11664 dentata <i>W.</i>	tooth-leaved	彙	□	un	1½ jn.au	Y	C. G. H.	1759.	C	l.p
11665 trifurcata <i>W.</i>	trifid-leaved	彙	□	pr	5 jn.au	Y	C. G. H.	1710.	C	l.p
11666 virgata <i>W.</i>	twiggy	彙	□	pr	1 jn.au	Y	C. G. H.	1815.	C	co
11667 tomentosa <i>W.</i>	Lavender-leav.	彙	□	pr	2 my.jn	Y	C. G. H.	1774.	C	l.p
11668 filiformis <i>W.</i>	fine-leaved	彙	□	pr	2 au	Y	C. G. H.	1787.	C	l.p
11669 crithmifolia <i>W.</i>	Samphire-leav.	彙	□	pr	2 jn.au	Y	C. G. H.	1723.	C	l.p
11670 parviflora <i>W.</i>	small-flowered	彙	□	pr	2 ap	Y	C. G. H.	1731.	C	l.p
11671 pectinata <i>W.</i>	pectinated	彙	□	pr	1½ my.jn	Y	C. G. H.	1774.	C	co
1718. BALSAMI'TA. <i>W.</i> COSTMARY.					<i>Compositæ.</i>	<i>Sp. 4—6.</i>				
11672 virgata <i>W.</i>	twiggy	彙	△	un	3 jn.jl	Y	Italy	1791.	D	co
11673 ageratifolia <i>W.</i>	Ageratum-ldv.	彙	△	un	2 jn.o	Y	Candia	1605.	C	co
11674 vulgaris <i>W.</i>	common	彙	△	or	3 au.s	Y	Italy	1568.	D	co
11675 annua <i>Link.</i>	annual	彙	○	un	2 jn.au	Y	Spain	1629.	S	co
1719. PENTZIA. <i>Th.</i> PENTZIA.					<i>Compositæ.</i>	<i>Sp. 1.</i>				
11676 flabelliformis <i>W.</i>	fan-leaved	彙	□	or	3 my.au	Y	C. G. H.	1774.	C	p.l

SUPERFLUA.

1720. TANACE'TUM. <i>W.</i> TANSY.					<i>Compositæ.</i>	<i>Sp. 5—21.</i>				
11677 linifolium <i>W.</i>	Flax-leaved	彙	□	un	1½ au	Y	C. G. H.	1774.	C	p.l
11678 suffruticosum <i>W.</i>	shrubby	彙	□	un	2 my.s	Y	C. G. H.	1751.	C	p.l
11679 argenteum <i>W.</i>	silvery	彙	△	un	1 my.s	Y	Levant	1812.	D	co
11680 vulgare <i>W.</i>	common	彙	△	cul	2 jn.au	Y	Britain	ro.sid.	D	co
<i>β crispum</i>										
	curled	彙	△	cul	2 jn.au	Y	.....	...	D	co
11681 angulatum <i>W.</i>	angular	彙	△	un	2 jn.au	Y	Levant	1820.	D	co
1721. ARTEMI'SIA. <i>W.</i> WORMWOOD.					<i>Compositæ.</i>	<i>Sp. 58—87.</i>				
11682 judaica <i>W.</i>	Judean	彙	□	or	1½ au	Y	Levant	1683.	C	co
11683 valentina <i>W.</i>	Spanish	彙	□	or	1 jn.au	Y	Spain	1739.	C	co
11684 subcanescens <i>W.</i>	hoary-leaved	彙	□	or	2 jn.au	Y	S. Europe	.....	C	co
11685 Abrotanum <i>W.</i>	Southernwood	彙	□	or	4 au.o	Y	S. Europe	1548.	C	co
11686 humilis <i>W. en.</i>	dwarf	彙	□	or	2 au.o	Y	Carniola	...	C	co
11687 tenuifolia <i>W.</i>	slender-leaved	彙	□	or	10 s.d	Y	China	1732.	C	co
11688 argerescens <i>W.</i>	tree	彙	□	or	10 jn.au	Y	Levant	1640.	C	co
11689 argentea <i>W.</i>	silvery	彙	□	or	4 jn.jl	Y	Madeira	1777.	C	co
11690 glaciatis <i>W.</i>	silky	彙	△	or	½ jn.au	Y	Switzerl.	1739.	D	co
11691 mutellina <i>W.</i>	Alpine	彙	△	or	¾ jn.au	Y	Al. of Eur.	1815.	D	co
11692 procera <i>W.</i>	lofty	彙	△	or	8 jn.au	Y	S. Europe	1820.	C	co
11693 caucasica <i>W.</i>	Caucasian	彙	△	or	¾ jn.jl	Y	Caucasus	1804.	D	co
11694 chinensis <i>Lour.</i>	Moxa	彙	△	or	4 jn.jl	Y	China	1818.	C	co
11695 spicata <i>W.</i>	spiked	彙	△	or	1 jn.jl	Y	Switzerl.	1790.	D	co
11696 pectinata <i>W.</i>	comb-leaved	彙	△	or	1 jn.jl	Br	Dauria	1806.	S	co
11697 tanacetifolia <i>W.</i>	Tansy-leaved	彙	○	or	1 jn.au	Br	Siberia	1768.	S	co
11698 Santonica <i>W.</i>	Tartarian	彙	○	or	1 s.n	W.g	Siberia	1596.	C	co
11699 scoparia <i>W.</i>	besom	彙	○	or	2 jls	W.g	Hungary	1796.	S	co



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1715. *Otanthus*. From *ὄστρος*, an ear, and *ἀνθος*, a flower, in allusion to the appendages which are placed on each side of the base of the florets. An infusion of the leaves and stem is said to be employed successfully in the east in cases of stone and gravel.

1716. *Caleacte*. So called because it is the ornament of the sea coasts where it grows, and derived from *καλος*, beautiful, and *ακρη*, the sea shore.

1717. *Athanasia*. From *α*, privative, and *θανατος*, death; that is to say, a plant which does not perish. But the application of the word, as far as the present genus is concerned, is far from obvious.

1718. *Balsamita*. Derived from *βάλσαμον*, balm, in allusion to its strong balsamic smell. Ugly plants of no merit whatever. B. vulgaris has the English name *Costmary*, from the Greek *Κοσμος*, an aromatic shrub, and Mary; the Virgin Mary's costus: from its being put into ale, it has our old English name of *Alc-cost*. It is more aromatic and has a pleasanter smell than tansy, to which it is nearly allied.

1719. *Pentzia*. Named by Thunberg, after his pupil Charles John Pentz. A bushy branching hoary shrub, with little yellow flowers.

11659 Pedunc. corymbose, Leaves oblong blunt crenated densely woolly

11660 The only species

- 11661 Leaves ovate villous, Heads terminal subsessile
 11662 Leaves obov. lanc. blunt villous, Umbels terminal, Branches villous
 11663 Corymbs simple contracted, Leaves pinnatifid toothed
 11664 Corymbs compound, Leaves recurved: lower linear toothed; upper ovate serrate
 11665 Leaves cuneiform cut-trifid, Flowers in umbels
 11666 Leaves cuneiform: lower pinnatifid cut: upper 3 or 5-toothed, Flowers in umbels
 11667 Leaves linear tomentose, Panicle compound
 11668 Leaves linear filiform smooth, Flowers panicled
 11669 Leaves trifid with linear smooth segments, Flowers somewhat in umbels
 11670 Leaves pinnated: pinnæ linear smooth, Panicle decomposed
 11671 Leaves pinnated: pinnæ linear smooth, Panicle compound

- 11672 Stem herbaceous branched at base, Branches 1-fl. Leaves sessile lanc. serrated
 11673 Leaves obovate serrated sessile clustered, Flowers subcorymbose
 11674 Leaves ellipt. toothed: lower stalked; upper sessile auricled at base, Flowers corymbose
 11675 Radical leaves bipinnate: cauline many pinnated downy; pinnæ linear acute mucronate

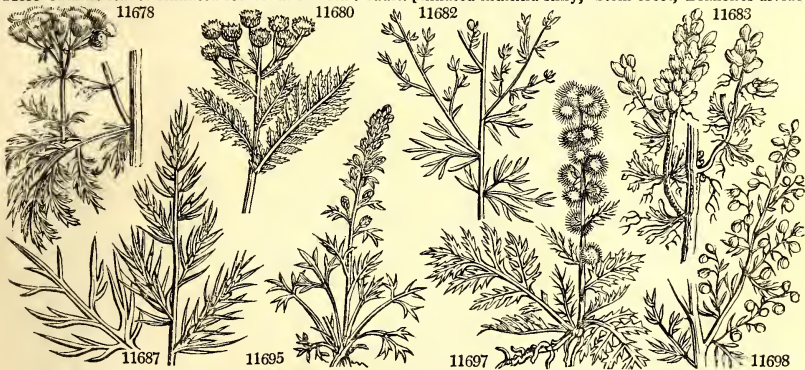
11676 Corymbs simple, Leaves deltoid serrated at end

SUPERFLUA.

- 11677 Leaves lanceolate channelled, Raceme terminal fastigiata
 11678 Leaves pinnated: pinnæ linear toothed pubescent, Corymb fastigiata leafy at base
 11679 Leaves pinnated silky with down, Pinnæ lanc. somewhat toothed at end, Corymb terminal
 11680 Leaves bipinnatifid inciso-serrate

11681 Leaves pinnatifid: segm. lanceolate serrated, Corymb contracted, Invol. angular

- 11682 Leaves obovate blunt lobed small, Flowers panicled stalked
 11683 Leaves hoary: lower pinnated with palmate pinnæ; upper palmate sessile, Heads panicled simple
 11684 Cauline leaves pinnated smoothish: floral undivided linear, Panicle virgata, Heads glob. stalked nodding
 11685 Stem upright, Lower leaves bipinnate: upper pinnated capillary, Invol. downy hemispherical
 11686 Caul. lvs. pinnat. very smooth: floral undivided setaceous, Involucres downy, Heads glob. stalk. nodding
 11687 Stem upright, Leaves bipinnate capillary: floral simple, Invol. oblong
 11688 Leaves tripinnatifid silky cinereous, Leaflets linear, Heads globose, Flowers branched simple
 11689 Leaves bipinnatifid silky white, Leaflets lanc. linear, Heads globose, Flowers branched virgate
 11690 Stem quite simple, Leaves all palmate multifid white, Heads terminal clustered
 11691 Stem quite simple, Leaves all palmate multifid white, Lower heads stalked: upper sessile
 11692 Stem branched spreading, Leaves all bipinnate capillary, Invol. smooth hemispherical
 11693 Stem quite simple, Leaves all palmate multifid silky acute
 11694 Leaves hoary: lower cuneiform obtuse 3-lobed; upper linear blunt, Flowers globose stalked cernuous
 11695 Stem quite simple, Leaves hoary: radical palmate multifid; caul. pinnatifid; upper linear entire blunt
 11696 Stem quite simple, Leaves pectinate pinnatifid glabrous, Pinnæ linear filiform, Pedunc. 1-fl. axillary
 11697 Stem quite simple, Lvs. bipinnatifid subpub. beneath: segm. lin. lanc. acum. entire, Raceme naked term.
 11698 Cauline leaves pinnated linear smooth, Branches undivided, Spikes 1-sided reflexed
 11699 Cauline leaves innated setaceous smooth: radic. pinnated multifid silky, Stem erect, Branches divided



and Miscellaneous Particulars.

1730. *Tanacetum*. An alteration of *Athanasia*, which see. *Tanaisie*, Fr., *Tansy*, Eng., *Reinfahren*, Ger. The common Tansy has a strong aromatic smell, and an extremely bitter taste. It is stimulant and carminative; and its seeds are reckoned anthelmintic and sudorific. It is said to drive bugs away from a bed in which it is laid. A distilled water and a kind of stomachic bitter are prepared from it. The young leaves are shredded down and employed to give color and flavor to puddings; they are also used in omelets and cakes, and those of the curled variety for garnishing.

1721. *Artemisia*. Artemis was one of the names of Diana, the goddess of chastity. The plant is said to have been named after this goddess, on account of the purposes to which it was applied in bringing on precocious puberty. Pliny, however, informs us, that in his time, there was an opinion that the plant was named after Artemisia, the Queen of Mausolus, King of Caria.

A. *Abrotanum*, *Santonica*, *maritima*, and *Absinthium*, are included in the *Materia Medica*, but, according to Dr. Thomson, the latter species is the only one deserving to be retained. It is tonic, antispasmodic, and anthelmintic; and when externally applied, is discutient and antiseptic. It has been used with advantage in inter-

11700	<i>campéstris W.</i>	field	△ w	1	au	Br	England	san.fi	D	co	Eng. bot. 338
11701	<i>afra Jacq.</i>	African	△ or	2	au	W.G	C. G. H.	...	C	co	
11702	<i>pauciflora W.</i>	few-flowered	△ au	1	Y	Siberia	1800.	D	co		G.sib.2.t.52.f.1,2
11703	<i>palustris W.</i>	marsh	△ or	2	jl.au	Y	Siberia	1804.	S	co	Gmel. sib.2. t.55
11704	<i>neglecta W. en.</i>	neglected	△ or	2	jl.au	G.Y	Siberia	1815.	D	co	
11705	<i>crithmifolia W.</i>	Samphire-leav.	△ or	1	au.o	Br	Portugal	1739.	C	co	
11706	<i>saxatilis W.</i>	rock	△ or	2	jn.au	W	Hungary	1816.	D	co	
11707	<i>glauca W.</i>	glaucous	△ or	1	jn.au	G	Siberia	1806.	D	co	
11708	<i>monogyna W.</i>	one-styled	△ or	2	jn.au	Y	Hungary	1816.	D	co	Pl.rar.hu.1.t.70
11709	<i>laciniata W.</i>	torn	△ or	2	jl.au	G	Siberia	...	D	co	Gmel.sib.2.t.57
11710	<i>palmata W.</i>	palmated	△ or	1	jn.jl	G.Y	S. Europe	1739.	C	co	
11711	<i>nivea W. en.</i>	snowy	△ or	2	jn.jl	G.Y	Siberia	1815.	D	co	
11712	<i>maritima W.</i>	drooping-flow.	△ or	1	aus.	Br	Britain	sea sh.	D	co	Eng. bot. 1706
11713	<i>gallica W.</i>	upright-flower.	△ or	2	aus.	Br	Britain	mud.s.	D	co	Eng. bot. 1001
11714	<i>fragrans W.</i>	Lavender-leav.	△ or	1	jn.jl	L.Y	Armenia	1739.	D	co	
11715	<i>albida W.</i>	whitened	△ or	3	ju.jl	L.Y	.....	...	D	co	
11716	<i>austriaca W.</i>	Austrian	△ or	1	jl.au	Br	Austria	1597.	D	co	Jac.aust.1.t.100
11717	<i>vallesiaca W.</i>	downy	△ or	1	jl.au	L.Y	Italy	1739.	D	co	
11718	<i>salina W.</i>	salt	△ or	1	jl.au	W.G	Hungary	1823.	D	co	
11719	<i>rupéstris W.</i>	nodding-flower.	△ or	1	au	Br	Siberia	1748.	D	co	Flor. dan. t. 801
11720	<i>sericea W.</i>	silky-leaved	△ or	1	jn.jl	W	Siberia	1793.	D	co	Gmel.sib.t.64.f.1
11721	<i>repens W.</i>	creeping	△ or	1	jn.jl	Br	Siberia	1805.	D	co	
11722	<i>nutans W.</i>	nodding	△ or	3	jn.jl	Br.G	Tartary	...	D	co	
11723	<i>saxatilis W.</i>	rock	△ or	3	jn.jl	Br.G	Hungary	...	D	co	
11724	<i>pontica W.</i>	Roman	△ or	3	s	Y	Austria	1570.	D	co	Jac. aust. 1. t. 99
11725	<i>chamaemelifolia W.</i>	Chamomile-lv.	△ or	1	jl.au	P.Br	S. Europe	1739.	D	co	Vil.dauph.3.t.35
11726	<i>annua W.</i>	annual	△ or	4	jl.au	W.G	Siberia	1741.	S	co	Am.ru.t.196.f.23
11727	<i>camphorata W.</i>	Camphorated	△ or	5	jl.au	W.G	Italy	1825.	C	co	
11728	<i>taurica W.</i>	Taurian	△ or	1	jl.au	W.G	Tauria	1818.	D	co	
11729	<i>biennis Ph.</i>	biennial	△ or	2	jl.au	Y.G	Missouri	1804.	S	co	Bot. mag. 2472
11730	<i>Absinthium W.</i>	common	△ or	1	jl.s	Y	Britain	rubble.	D	co	Eng. bot. 1230
11731	<i>Sieversiana W.</i>	Sievers's	△ or	2	jl.au	Br.G	Siberia	1800.	S	co	
11732	<i>fasciculata Bieb.</i>	fascicled	△ or	2	jl.au	Y.Pu	Iberia	1823.	D	co	
11733	<i>vulgaris W.</i>	Mugwort	△ w	3	aus.	Pu	Britain	rubble.	D	co	Eng. bot. 978
11734	<i>indica W.</i>	Ludian	△ or	3	s.o	Y.G	E. Indies	1796.	D	co	Rhe.mal.10. t.45
11735	<i>integrifolia W.</i>	entire-leaved	△ or	2	jl.au	Y.G	Siberia	1759.	D	co	G.sib.2.t.68.f.1,2
11736	<i>japonica W.</i>	Japanese	△ or	3	o.n	W	Japan	1804.	D	co	
11737	<i>cærulescens W.</i>	bluish	△ or	1	au.o	Y	England	sea sh.	C	co	Eng. bot. 2426
11738	<i>inodora W. en.</i>	inodorous	△ or	2	jl.au	Y.G	Siberia	1548.	D	co	G.ai.2.t.59.60.f.1
11739	<i>Dracunculus W.</i>	Tarragon	△ cul	2	jl.au	W.G	S. Europe	1548.	D	co	

1722.	<i>GNAPHALIUM W. EVERLASTING.</i>					<i>Composite.</i>	<i>Sp. 38—106.</i>				
11740	<i>crispum W.</i>	curled	△	6	...	Pk	C. G. H.	1809.	C	s.p	
11741	<i>arboresum W.</i>	tree	△	6	f.au	W	C. G. H.	1770.	C	s.p	
11742	<i>grandiflorum W.</i>	great-flowered	△	3	jn.au	W	C. G. H.	1731.	C	s.p	Bot. rep. 489
11743	<i>divaricatum Thunb.</i>	spreading	△	3	jn.au	W	C. G. H.	1820.	C	s.p	Bre.prod.t.18.f.3
11744	<i>tephrodites Link.</i>	brown	△	3	jn.au	Y.w	C. G. H.	1823.	C	s.p	
11745	<i>acuminatum Link.</i>	acuminate	△	3	jn.au	W	C. G. H.	1823.	C	s.p	
11746	<i>lasiocaulon Link.</i>	woolly-stemm.	△	3	jn.au	W	C. G. H.	1823.	C	s.p	
11747	<i>congestum W.</i>	close-headed	△	3	my.ju	Pu	C. G. H.	1791.	C	s.p	Bot. reg. 243
11748	<i>pátulum W.</i>	spreading	△	3	ja.au	W	C. G. H.	1771.	C	s.p	
11749	<i>discolorum W.</i>	two-colored	△	3	my.au	Br	C. G. H.	1815.	C	co	Bur. afr. t.97. 14
11750	<i>cephalotes W.</i>	large-headed	△	4	ja.n	Pk	C. G. H.	1789.	C	co	Plu.phy.t.410.f.2
11751	<i>fastigiatum W.</i>	close-flowered	△	3	my.au	W	C. G. H.	1812.	C	co	Pet.gaz.12.t.7.f.3
11752	<i>multiflorum W.</i>	many-flowered	△	1	jn.s	Pa.pu	C. G. H.	1802.	C	s.p	
11753	<i>diosmaefolium P. S.</i>	Diosma-leaved	△	1	mr.au	W	C. G. H.	1812.	C	co	Vent.malm. t.74
11754	<i>ericoides W.</i>	Heath-leaved	△	1	mr.au	Pk	C. G. H.	1774.	C	s.p	Bot. mag. 435
11755	<i>teretifolium W.</i>	round-leaved	△	1	mr.au	Br	C. G. H.	1812.	C	co	Bot. afr. t.77. f.3
11756	<i>Stæchas W.</i>	comm.-shrubby	△	2	jn.o	Y	Europe	1629.	C	co	Barr. ic. 410



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mittents, gout, scurvy, and dropsy; and although modern practitioners will scarcely rely on its efficacy in these complaints, yet it is undoubtedly of some value as a stomachic. (*London Dispens.* p. 182.) The seed of wormwood is used by the rectifiers of British spirits, and the species is a good deal cultivated on dry soil near Mitcham, in Surrey, for that purpose. *A. vulgaris* is used in some parts of Sweden instead of hops, in order to increase the inebriating quality of malt liquor. The plant is readily eaten by cattle and sheep, and is found in our best natural pastures on dry soils. It is said to be stomachic and slightly stimulating.

The species called *Abrotanum*, *Garde-robe*, Fr., derives its name from *ab*, privative, and *cegoros*, mortal; on account of the great virtues attributed to it as a preservative of life; *Absinthium*, from *ab*, privative, and *ψύθος*, pleasure, i. e. unpleasant.

Dracunculus, *Tarragon*, Eng., *Estragon*, Fr., *Dragon*, Ger., and *Dragoncelia*, Ital., is said to have been so called on account of its tortuous roots, which may be likened to the sinuous tail of a dragon; but it is much

- 11700 Caul. lvs. pinnated setae. smooth : radic. pinnated with 3-fid hoary segm. Stem procumb. branched virgate
 11701 Leaves bipinnatifid downy beneath : segm. lanceolate blunt, Panic, 1-sided, Heads nodding
 11702 Cauline leaves pinnated or trifid filiform pubescent, Stem ascending somewhat divided
 11703 Cauline leaves pinnated smooth : pinnæ filiform remote very long, Heads globose erect sessile
 11704 Cauline lvs. pinnated smooth : lower and radic. 3-partite multifid, Stem panic. erect, Peduncles nodding
 11705 Cauline lvs. pinnated smooth somewhat fleshy : pinnæ simple or bifid lin. blunt, Heads obl. stalked erect
 11706 Cauline lvs. hoary pinnated linear filiform : floral undivided filiform, Heads roundish angular nodding
 11707 Leaves glaucous downy : lower pinnated, Pinnæ linear-lanceolate, Heads globose stalked nodding
 11708 Leaves multipartite hoary, Racemes erect 1-sided, Heads erect about 5-fl. Only one female floret or none
 11709 Leaves pilose triply-pinnatifid, Stem simple with a leafless panicle, Heads globose nodding
 11710 Leaves simply pinnate with some of the segments bifid subpalnate, Heads erect
 11711 Leaves hoary-silky : lower pinnated, Stem nearly erect much branched, Heads sessile ovate
 11712 Leaves downy pinnated : the uppermost undivided, Racemes drooping, Recept. naked, Flow. obl. sessile
 11713 Leaves downy pinnate : the uppermost undivided, Racemes drooping, Recept. naked, Flowers obl. sessile
 11714 Leaves hoary : radical bipinnate, Pinnæ close linear blunt : of the branches pinnated sessile
 11715 Leaves pinnated white with down, Fascicles of flowers bracteate, Heads downy
 11716 Leaves hoary : lower pinnated ; pinnæ linear 3-parted, Heads stalked roundish nodding
 11717 Leaves snow-white : cauline bipinnate linear filiform ; floral simple, Heads obl. sessile erect
 11718 Leaves hoary : radical pinnated ; pinnæ 3-parted linear-filiform, Heads obl. stalked nodding
 11719 Leaves subpubescent : cauline pinnated ; pinnæ linear acute, Heads globose stalked nodding
 11720 Leaves silky : cauline pinnate ; pinnæ 3-parted linear runcinate, Heads globose nodding
 11721 Leaves silky white, Pinnæ 3-parted linear acute, Heads roundish stalked cernuous
 11722 Cauline leaves pinnated or trifid linear, Stem erect paniced, Branchlets nodding 1-sided
 11723 Cauline lvs. hoary pinnated linear-filiform, Stem ascending branched paniced, Invol. roundish angular
 11724 Leaves downy beneath : cauline bipinnate, Leaflets linear, Heads roundish stalked nodding
 11725 Leaves smooth : lower tripinnate ; upper bipinnate, Leaflets linear acute, Heads globose stalked nodding
 11726 Leaves smooth triply pinnatifid, Stem straight, Heads roundish subsessile erect
 11727 Cauline leaves pinnated hoary white : pinnæ trifid linear, Stem erect, Invol. hoary, Heads globose
 11728 Leaves hoary : lower bipinnate, Pinnæ linear-filiform, Heads oblong sessile
 11729 Leaves smooth : radic. triply pinnate ; upper undivided linear, Heads roundish subsessile erect
 11730 Lvs. bi-tripinnatif. clothed with short silky down, Segments lanc. Heads hemispheric. droop. Recept. hairy
 11731 Lvs. somewhat hoary : caul. bipinnatifid ; floral trifid or lanc. Heads globose stalked nodding, Inv. scarious
 11732 Lvs. downy : lower decomposed ; upper simple, Panicle corymbose, Heads fasciated ovate hoary
 11733 Leaves pinnatifid : their segm. cut downy beneath, Heads somewhat racemed ovate, Recept. naked
 11734 Leaves downy beneath : caul. pinnatifid ; floral undivided linear, Heads sessile obl. erect, Invol. smooth
 11735 Leaves lanc. acuminate downy beneath somewhat toothed, Heads ovate subsessile erect
 11736 Leaves smooth lanc. acute : cauline trifid at end, Heads roundish stalked nodding
 11737 Leaves hoary lanceolate entire : radical cut ; floral oblong stalked nodding
 11738 Lvs. smooth lanc. narrowed at each end, Heads roundish stalked erect, Scales of invol. membr. at edge
 11739 Leaves smooth lanceolate narrowed at each end, Heads roundish stalked erect

- 11740 Leaves downy beneath scabrous above : radical stalked oblong ; cauline amplexicaul. wavy
 11741 Leaves sessile linear smooth above revolute at edge, Heads capitate, Pedunc. long
 11742 Leaves amplexicaul. ovate oblong 3-nerved woolly above, Corymb. stalked, Invol. cylindrical
 11743 Leaves amplexicaul. panduriform spatulate blunt downy, Corymb. and branches divaricating
 11744 Branches downy, Lvs. linear revolute at edge smooth above downy beneath, Leaves of invol. lanc. acute
 11745 Branches pubesc. Lvs. lanc. lin. acumin. smooth above finely downy beneath, Heads corymb. cylindrical
 11746 Tomentose, Leaves linear acute curved, Heads in capitate stalked corymb
 11747 Leaves lanc. sessile 3-nerved naked above woolly beneath, Corymb contracted-capitate
 11748 Leaves amplexicaul. spatulate downy acute, Corymb. term. Branches spreading
 11749 Leaves sessile lanc. Involucres white : lower scales brown
 11750 Leaves lin.-lanc. mucronate revolute at edge downy beneath, Heads sessile capitate terminal
 11751 Leaves lanc. mucronate revolute at edge downy beneath, Heads corymbose
 11752 Leaves obl. blunt downy, Corymb. fastigiate, Heads cylindrical
 11753 Leaves lin. spreading recurved scabrous above, Corymb. dense, Invol. cinereous at base
 11754 Leaves sessile linear, Outer involucre rough : inner flesh-colored
 11755 Leaves clustered roundish, Corymb. branched, Involucres downy outside
 11756 Leaves linear, Corymb compound, Branches virgate



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more probable that the word is a corruption of *Tarchon*, the Arabic name of the plant. See *Tarchonanthus*. The leaves and points of the shoots are used as an ingredient in pickles. A simple infusion of the plant in vinegar makes a pleasant fish sauce ; it is eaten along with beef steaks, as horse-radish is with roast beef ; and is employed, both in Europe and Persia, to correct the coldness of salad herbs, and season soups and other compositions. The plant is of the easiest culture, but, like other species of the genus, dislikes a wet soil.

From the acrid leaves of *A. chinensis* the drug called Moxa is obtained ; a substance much in use among the Chinese as an actual cautery. For this purpose, the Moxa is laid upon the part affected and set on fire. The Cochinchinese, and also the Japanese, according to Kæmpfer, use *Artemisia vulgaris* for the same purpose, and it is said with great success, in removing tumours and rheumatic pains, or slight convulsions.

1722. *Gnaphaltum*. A word under which Dioscorides describes a plant with soft white leaves, which served the purpose of cotton. It agrees pretty well with the modern genus, which consists of very pretty, sometimes

11757 ignescens <i>W.</i>	red-flowered	■	□	or	2	jn.o	R	C. G. H.	1731.	C	s.p
11758 crassifolium <i>W.</i>	thick-leaved	■	□	or	1	jls	Y	C. G. H.	1774.	C	s.p
11759 maritimum <i>W.</i>	sea	■	□	or	4	jn.au	W.Y	C. G. H.	1772.	C	co
11760 dasyanthum <i>W. en.</i>	hairy-flowered	■	□	or	4	jn.au	Y	C. G. H.	1812.	C	co
11761 orientale <i>W.</i>	eastern	■	□	or	1½	ap.au	Y	Africa	1629.	C	s.p
11762 cymosum <i>W.</i>	branching	■	□	or	1½	ap.au	Y	Africa	1731.	C	co
11763 rutilans <i>W.</i>	shining-flower.	■	□	or	1	jn.jl	R.Y	C. G. H.	1731.	C	s.p
11764 arenarium <i>W.</i>	sand	■	□	or	1	jls.	Y	Europe	1739.	D	co
11765 angustifolium <i>Pers.</i>	narrow-leaved	■	□	or	2	jls.	Y	Naples	...	D	co
11766 luteo-album <i>W.</i>	Jersey	■	□	or	2	jl.au	Y.W	England	san.pl.	R	s.l
11767 albescens <i>W.</i>	white Jamaica	■	□	or	2	...	W.Y	Jamaica	1793.	C	co
11768 apiculatum <i>Lab.</i>	New Holland	■	□	or	1½	ja.d	Y	V. Di. Isl.	1804.	D	co
11769 odoratissimum <i>W.</i>	sweet-scented	■	□	ft	2	ap.au	Y	C. G. H.	1691.	C	s.p
11770 sanguineum <i>W.</i>	bloody	■	□	or	1½	my.jl	Cr	Egypt	1768.	D	co
11771 candidissimum <i>W.</i>	hoary	■	□	or	2	my.jl	Pa.Y	Caspian	1823.	D	co
11772 foetidum <i>W.</i>	strong-scented	■	□	or	2	jn.s	L.Y	C. G. H.	1692.	S	s.l
11773 helianthemifolium <i>W.</i>	Sun-rose-lvd.	■	□	or	1	jl.o	W	C. G. H.	1774.	C	co
11774 squarrosum <i>W.</i>	squarrose	■	□	or	¾	jl.o	Pu	C. G. H.	1816.	C	co
11775 purpureum <i>W.</i>	purple-flower'd	■	□	or	1½	jn.s	Pu	N. Amer.	1732.	S	co
11776 declinatum <i>W.</i>	creeping	■	□	or	1½	jls.	Br	C. G. H.	1787.	S	co
11777 glomeratum <i>W.</i>	cluster-flower.	■	□	or	½	mr.s	Pa.Y	C. G. H.	1774.	D	co

1723. LEONTOPODIUM <i>R. Br.</i>	LION'S-FOOT.	Compositae.	Sp. 1—2.
11778 vulgare <i>R. Br.</i>	common	½ jn.jl	Y Austria 1776. S p.l
1724. E'VAX. <i>Lam.</i>	EVAX.	Compositae.	Sp. 1—3.
11779 pygmaea <i>Lam.</i>	pygmy.	½ jl.au	Br S. Europe 1629. C co
1725. ANTENNA'RIA. <i>R. Br.</i>	ANTENNARIA.	Compositae.	Sp. 8—11?
11780 contorta <i>B. R.</i>	twisted-leaved	2 jl	W Nepal 1821. D co
11781 triplinervis <i>E. M.</i>	three-nerved	½ au	W Nepal 1823. D co
11782 dioica <i>R. Br.</i>	dicocious	¼ my.jl	Pk Britain ... D.p.l
11783 alpina <i>R. Br.</i>	Alpine	½ jn.jl	Pk Al. of Eur. 1775. D.p.l
11784 plantaginea <i>R. Br.</i>	Plantain-leav'd	1 jn.jl	W Virginia 1759. D.p.l
11785 margaritacea <i>R. Br.</i>	pearly	1½ jls.	Y England mea. D.p.l
11786 undulata <i>R. Br.</i>	wave-leaved	1 jn.s	W Africa 1732. S.s.l
11787 obtusifolia <i>R. Br.</i>	blunt-leaved	1 jls.	W N. Amer. 1699. S co
1726. METALASIA. <i>R. Br.</i>	METALASIA.	Compositae.	Sp. 1.
11788 seriphoides <i>R. Br.</i>	Seriphium-like	3 ...	Y C. G. H. 1825. D.p.l
1727. ASTEMA. <i>R. Br.</i>	ASTEMA.	Compositae.	Sp. 2—7.?
11789 eximium <i>R. Br.</i>	giant	3 jl.au	Cr C. G. H. 1793. S s.p
11790 fruticosum <i>R. Br.</i>	shrubby	3 jn.au	Y C. G. H. 1779. C co
1728. ATRIXIA. <i>Ker.</i>	ATRIXIA.	Compositae.	Sp. 1.
11791 capensis <i>Ker.</i>	Cape	3 ap	R C. G. H. 1821. C p.l
1729. XERANTHEMUM. <i>W.</i>	XERANTHEMUM.	Compositae.	Sp. 3.
11792 annuum <i>W.</i>	annual	3 jl.au	Pu S. Europe 1570. S s.l
11793 inapertum <i>W.</i>	small-flowered	2 jl.au	Pu S. Europe 1620. S co
11794 orientale <i>W.</i>	oriental	2 jl.au	W Levant 1713. S co
1730. ELICHRYSUM. <i>W.</i>	ELICHRYSUM.	Compositae.	Sp. 22—49.
11795 vestitum <i>W.</i>	upright	2 jls	W C. G. H. 1774. S s.p
11796 spirale <i>W.</i>	spiral-leaved	2 jl.o	W C. G. H. 1801. S s.p
11797 imbricatum <i>W.</i>	imbricated	2 jl.o	W C. G. H. 1820. S s.p
11798 spectabile <i>Lodd.</i>	showy	3 my.jn	Pk C. G. H. 1810. S s.p
11799 speciosissimum <i>W.</i>	showy	8 jls	W C. G. H. 1691. S s.p
11800 dealbatum <i>P. S.</i>	herbaceous	1½ ja.d	W V. Di. Isl. 1812. D co
11801 fulgidum <i>W.</i>	great-yellow	2 l.o	Y C. G. H. 1774. S s.p



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beautiful woolly leaved shrubs or herbs, all of the description called Everlasting, on account of the permanence of the colors and form of their dry flowers.

1723. *Leontopodium*. From *λεων*, a lion, and *πους*, a foot. The soft tufted silky heads have been compared to the foot of such an animal as a lion.

1724. *Evox*. A name, the meaning of which has not been explained. A little white annual weed.

1725. *Antennaria*. In allusion to the awns of the pappus, which resemble the *antenna* of some insect. A genus founded upon the Gnaphalium margaritaceum of Linnaeus. It consists of herbaceous plants, natives of Europe and North America, having the male and female flowers in distinct involucre, and on different individuals.

1726. *Metalsia*. Apparently so called from *μετα λασσα*, to change or alter: but the application of the name is not evident.

- 11757 Leaves sublanc. downy sessile, Corymbs altern. round, Heads globose
- 11758 Leaves broad-lanc. somewhat stalked coriaceous downy, Corymb. compound, Stem proliferous
- 11759 Much branched, Leaves lanc. acutish sessile, Inner scales of invol. yellow
- 11760 Leaves lanc. acute 3-nerved at base wavy pilose; beneath tomentose, Corymb contracted bracteate
- 11761 Leaves lin. lanc. hoary; radical blunt; cauline acute, Corymb compound, Pedunc. long
- 11762 Leaves lanc. 3-nerved smooth above, Raceme terminal, Stem branched below
- 11763 Leaves lanc. Corymb decompound, Stem branched below
- 11764 Leaves hoary downy blunt; radical spatulate lanc.; cauline lin.-lanc. Corymb compound
- 11765 Leaves linear long narrow downy replicate at edge, Corymb compound umbellate
- 11766 Leaves half amplexicaul. linear-lanc. subrepand downy on each side: lower blunt, Corymb clustered
- 11767 White with down, Lvs. lin.-lanc. undivided below, Heads clustered conical
- 11768 Leaves subspatulate downy naked at end membranous or subulate, Flowers paniced
- 11769 Leaves decurrent blunt mucronate downy on each side flat
- 11770 Leaves decurrent lanc. downy flat with a naked point
- 11771 Leaves white silky-downy linear-lanc. acute, Corymb compound
- 11772 Leaves amplexicaul. entire acute downy beneath, Stem branched
- 11773 Leaves subamplexicaul. lanc. Corymbs compound, Scales of invol. plaited
- 11774 Leaves sessile lingulate very downy, Inner scales of invol. subulate recurved
- 11775 Leaves lin. spatulate downy beneath, Stem erect simple, Heads sessile terminal and axillary
- 11776 Leaves lin. lanc. Invol. with white lanceolate rays
- 11777 Stem herbaceous diffuse, Lower scales of invol. subulate naked, Leaves subamplexicaul.

11778 Head terminal enveloped in woolly bractea

11779 Stem branched at base, Bractes obovate

- 11780 Leaves lin. mucronulate reflexed, Corymbs few-flowered simple or proliferous, Scales of invol. blunt
- 11781 Stem erect simple, Lvs. ellipt. mucronate amplexicaul. 3-nerved [elongated obtuse colored
- 11782 Shoots procumb. Stems simp. Corymbs crowded, Rad. lvs. spatulate, Fl. dioecious, Inner scales of invol.
- 11783 Stem simple, Rad. leaves lanc.: floral terminal aggregate sessile, Inner scales of invol. long
- 11784 Runners procumb. Rad. lvs. ov. nerved, Corymb contracted, Fl. dioecious, Inner scales of invol. long blunt
- 11785 Leaves lin. lanc. acuminate alternate, Stem branched upwards, Corymb fastigiate
- 11786 Leaves decurrent lanc. acute wavy downy beneath, Stem branched
- 11787 Leaves lin. lanc. acutish: smooth above; pubescent beneath, Corymbs terminal contracted

11788 Leaves small fascicled lin. subulate downy above, Flowers lateral

- 11789 Leaves sessile ovate close erect downy, Corymb sessile
- 11790 Leaves amplexicaul. ovate-oblong 3-nerved acute woolly beneath on each side

11791 The only species

- 11792 Scales of invol. blunt scarious: the inner ones of the ray lanc. blunt spreading
- 11793 Scales of invol. acute membranous at edge: the inner ones of the ray lanc. acute conniving
- 11794 Scales of invol. roundish scarious: the inner ones of the ray ovate acuminate erect

- 11795 Leaves sess. lanc. linear woolly acute: floral with a membrane at end, Branches 1-flowered
- 11796 Leaves sess. lanc. downy keeled spirally imbricated, Branches 1-flowered
- 11797 Leaves obl.-lanc. silky imbricated, Branches 1-flowered, Peduncles squarrose
- 11798 Leaves linear subulate erect imbricated, Peduncle scaly 1-flowered
- 11799 Leaves sessile lanc. obovate acute 3-nerved woolly, Branches 1-flowered
- 11800 Leaves lanc. white beneath silky recurved-spreading, Branches 1-fl. Peduncles nearly naked
- 11801 Leaves amplexicaul. ovate lanc. downy beneath tomentose at edge, Branches 3-flowered



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1727. *Astelma*. From α , privative, and $\sigma\epsilon\lambda\mu\alpha$, a crown, in allusion to the construction of the fruit. Beautiful Cape shrubs with everlasting flowers.

1728. *Athrixia*. So called by Mr. Ker, we presume from α , without, and $\theta\epsilon\iota\zeta$, hair, in allusion to the absence of hairs upon the receptacle and the stignas of the ray. A pretty greenhouse shrub, with narrow lanceolate leaves, and bright crimson solitary heads of flowers.

1729. *Xeranthemum*. From $\xi\eta\epsilon\sigma$, dry, and $\alpha\nu\theta\omicron\varsigma$, a flower, on account of the dry nature of the leaves of the calyx, which retain their color and form for years. The species are popular annual flowers, of easy culture in light rich soil. They are valued for their properties of retaining their texture and color, when gathered and dried, in the manner of Gnaphalium, Elichrysum, and other genera of what are vulgarly called everlastings.

1730. *Elichrysum*. From $\eta\lambda\iota\omicron\varsigma$, the sun, and $\chi\epsilon\upsilon\sigma\omicron\varsigma$, gold, in allusion to the brilliant yellow color of the flowers. The species are much admired for the brilliancy of their flowers even in a dried state. *E. bracteatum* is the handsomest annual species, and should be raised on a hotbed, and afterwards transplanted into a warm situation.

11802 variegátum <i>W.</i>	large globul.-fl.	fl.	□	or	2	my.jn	Br.w	C. G. H.	1801.	S	s p	
11803 proliferum <i>W.</i>	proliferous	fl.	□	or	2	my.n	Cr	C. G. H.	1789.	C	s p	Bot. reg. 21
11804 canescens <i>W.</i>	elegant	fl.	□	or	1½	ap.au	Pu	C. G. H.	1794.	C	s p	Bot. mag. 420
11805 argenteum <i>W.</i>	silvery	fl.	□	or	2	ap.jl	W	C. G. H.	1800.	C	co	Bot. rep. 552
11806 retortum <i>W.</i>	trailing	fl.	□	or	1	jl.au	W	C. G. H.	1732.	C	co	Dil. et. 322. f. 115
11807 sesamoides <i>W.</i>	superb	fl.	□	or	2	ap.jn	Pu.w	C. G. H.	1739.	C	s p	Bot. mag. 425
11808 fasciculátum <i>W.</i>	bundle-leaved	fl.	□	or	2	nr.s	W	C. G. H.	1799.	S	s p	Bot. rep. 242
β <i>ábum</i>	white-flowered	fl.	□	or	2	nr.s	W	C. G. H.	1799.	S	s p	Bot. rep. 279
γ <i>rúbrum</i>	red-flowered	fl.	□	or	2	nr.s	Pu	C. G. H.	1799.	S	s p	Bot. rep. 650
11809 rigidum <i>H. K.</i>	rigid-leaved	fl.	□	or	1½	my.jn	W	C. G. H.	1801.	C	co	Bot. rep. 387
11810 ericoides <i>P. S.</i>	filiform	fl.	□	or	½	ap.jn	W	C. G. H.	1796.	C	co	Lam. ill. t. 693. f. 2
11811 Stachelina <i>W.</i>	Stachelina-like	fl.	□	or	1½	ja.d	W	C. G. H.	1801.	C	co	Bot. rep. 428
11812 frágrans <i>B. R.</i>	fragrant	fl.	□	ft	½	jl	Pk	C. G. H.	1803.	C	co	Bot. rep. 561
11813 herbáceum <i>B. R.</i>	shining-flower.	fl.	△	el	1½	jl.s	Y	C. G. H.	1802.	D	co	Bot. rep. 487
γ <i>spléndens</i> <i>B. M.</i> 1773.												
11814 paniculátum <i>W.</i>	corymb-flower.	fl.	□	or	2	jn.s	Y	C. G. H.	1800.	S	co	Bur. afr. t. 67. f. 1
11815 bracteátum <i>W.</i>	wave-leaved	fl.	○	or	4	jl.o	Y	N. Holl.	1799.	C	co	Bot. rep. 375
1731. CARPE'SIUM. <i>W.</i>	CARPESIUM.							Compositæ.	Sp. 2.			
11816 cernuum <i>W.</i>	drooping	fl.	△	un	2	jl.au	Y	Austria	1739.	D	co	Jac. aust. 3. t. 204
11817 abrotanoides <i>W.</i>	Southern-w.-like	fl.	△	un	2	jl.au	Y	Chiaa	1768.	D	co	Osb. it. t. 10
1732. BAC'CHARIS. <i>W.</i>	PLOWMAN'S SPIKENARD.							Compositæ.	Sp. 6-43.			
11818 angustifolia <i>Ph.</i>	narrow-leaved	fl.	□	pr	2	jl.s	W	N. Amer.	1812.	C	co	
11819 ivæfolia <i>W.</i>	Peruvian	fl.	□	pr	3	jl.au	W	America	1696.	C	l p	Sch. hand. 3. t. 244
11820 neriiifolia <i>W.</i>	Oleander-leav.	fl.	□	pr	2	au.n	W	C. G. H.	1752.	C	l p	
11821 halimifolia <i>W.</i>	Groundsel Tree	fl.	□	or	4	o.n	W	N. Amer.	1683.	C	co	Schmidt. arb. t. 82
11822 adnata <i>W. en.</i>	adnate	fl.	□	un	6	au.n	Pu	S. Amer.	1823.	C	co	
11823 Dioscóridis <i>W.</i>	Dioscorides's	fl.	□	or	4	au.n	W	Levant	...	C	co	Rauwf. it. t. 54
1733. MOLIN'A. <i>Fl. per.</i>	MOLINA.							Compositæ.	Sp. 1-37.			
11824 parviflora <i>Fl. per.</i>	small-flowered	fl.	□	un	6	...	...	S. Amer.	1824.	C	co	
1734. CONY'ZA. <i>W.</i>	FLEA-BANE.							Compositæ.	Sp. 34-62.			
11825 squarrosa <i>W.</i>	great	fl.	○	w	2	jl.au	Y	Britain	ch. pa.	S	co	Eng. bot. 1195
11826 marylándica <i>Ph</i>	Maryland	fl.	□	un	1	au.o	Pu	N. Amer.	...	S	co	Dill. elt. t. 88. f. 104
11827 axilláris <i>W.</i>	axillary	fl.	□	un	1½	au.o	Y	.....	1823.	S	co	
11828 camphoráta <i>Ph.</i>	Camphor-scent.	fl.	□	un	3	au.o	Pu	N. Amer.	1704.	D	co	Dill. elt. t. 89. f. 105
11829 pátila <i>W.</i>	spreading	fl.	□	un	1½	jl.s	Y. Pu	China	1758.	S	co	Mill. ic. 2. t. 247
11830 balsamifera <i>W.</i>	balsam-bearing	fl.	□	un	2	jl.s	Br	E. Indies	1822.	S	co	Rump. 6. t. 24. f. 1
11831 bifrons <i>W.</i>	oval-leaved	fl.	□	un	1	au.s	Y	N. Amer.	1739.	D	p l	Plu. alm. t. 87. f. 4
11832 fastigiáta <i>W.</i>	fastigiata	fl.	□	un	2	jn.jl	Pu	Senegal	1820.	S	co	
11833 cándida <i>W.</i>	woolly	fl.	□	un	1	jn.jl	Y	Candia	1714.	C	co	Bar. ic. t. 217
11834 chinénsis <i>W.</i>	Chinese	fl.	□	un	2	jl.au	Y. Pu	China	1796.	S	co	Ru. am. 6. t. 14. f. 2
11835 verbascifolia <i>W.</i>	Mullein-leaved	fl.	□	un	1	...	Y	Sicily	1808.	C	co	Bocc. sic. t. 31. f. 2
11836 chilénsis <i>Spreng.</i>	Chil.	fl.	□	un	3	au.o	Y	Chili	1816.	D	co	
11837 aurita <i>W.</i>	auricled	fl.	□	un	1	au.o	W	E. Indies	1818.	S	co	
11838 hirsúta <i>W.</i>	shaggy	fl.	□	un	2	au.s	Y. Pu	China	1767.	S	co	
11839 ægyptiaca <i>W.</i>	Egyptian	fl.	□	un	1½	jl	Y	Egypt	1778.	S	co	Jac. vind. 3. t. 19
11840 Gouáni <i>W.</i>	Gouan's	fl.	□	un	1	jl.au	Y	Canaries	1772.	S	co	Jac. vind. 2. t. 79
11841 amœ'na <i>Link.</i>	agreeable	fl.	□	un	3	jl.au	Pu	Congo	1824.	S	co	
11842 sicula <i>W.</i>	red-stalked	fl.	□	un	1	au.s	Y	Sicily	1779.	S	co	Bocc. sic. t. 31. f. 4
11843 fœ'tida <i>W.</i>	stinking	fl.	□	un	2	au.s	Y	Africa	1724.	D	co	Mill. ic. 2. t. 233
11844 sórdida <i>W.</i>	small-flowered	fl.	□	un	1	jl.s	Br	S. Europe	1570.	C	co	Barr. ic. t. 308
11845 saxátillis <i>W.</i>	stone	fl.	□	un	1	jl.au	Br	S. Europe	1640.	C	co	Sch. han. 3. t. 241
11846 rupéstris <i>W.</i>	rock	fl.	□	un	1	...	Y	Arabia	1790.	C	co	Schmid. ic. t. 36
11847 sericea <i>W.</i>	snowy	fl.	□	un	1½	...	Y	Canaries	1779.	S	p l	
11848 inuloides <i>W.</i>	cluster-flower.	fl.	□	un	1	jl.au	Pu	Teneriffe	1780.	C	co	Jac. ic. 1. t. 171
11849 odoráta <i>W.</i>	sweet-scented	fl.	□	ft	2	jn.au	Pu	India	1759.	C	p l	Plum. ic. t. 97
11850 glomeráta <i>Link.</i>	glomerate	fl.	□	un	1½	jn.au	Pu	.....	1825.	S	co	
11851 spatuláta <i>Link.</i>	spatulate	fl.	□	un	3	jn.au	B	.....	1825.	D	p l	
11852 arboréscens <i>W.</i>	tree	fl.	□	un	6	n.d	B	Jamaica	1733.	C	p l	
11853 incisa <i>W.</i>	ear-leaved	fl.	□	un	3	jn.au	Pu	C. G. H.	1774.	S	p l	
11854 thapsoides <i>W.</i>	Thapsus-leav'd	fl.	□	un	2	jl.s	Pu	Casp. Sea	1806.	C	co	
11855 virgáta <i>W.</i>	wing-stalked	fl.	□	un	2	au.s	Pu	America	1783.	D	co	Slo. hi. 1. t. 152. f. 5
11856 geminiflora <i>Tenore</i>	twin-flowered	fl.	□	un	1½	au.s	Br	.....	1823.	C	co	



History, Use, Propagation, Culture,

The woody species require a sandy peat soil, and to be struck in sand on a hotbed, but not covered with a bell-glass, as they are very apt to damp.

1731. *Carpesium*. Named from *καρπεσιον*, a bit of straw; the long dry leaves of the involucre resemble straws.

1732. *Baccharis*. A name given by the Greeks to an aromatic plant dedicated to Bacchus. The species now

- 11802 Leaves ob.ong downy imbricated, Branches 1-headed, Heads nodding
 11803 Diffuse proliferous, Leaves roundish ovate smooth convex closely imbricated, Heads sessile
 11804 Leaves obl. blunt imbricated, Branches 1-fl. Scales of invol. ovate
 11805 Leaves obl. silky recurved
 11806 Decumbent, Leaves lanc. silky somewhat recurved, Branchlets 1-flowered, Peduncles squarrose
 11807 Leaves acerose lin. keeled smooth appressed, Branches 1-fl. flowered sessile
 11808 Lvs. acerose lin. roundish downy above : lower spreading ; upper appressed, Branches 1-fl. Pedunc. scaly

- 11809 Leaves linear lanc. channelled amplexicaul : adult smooth, Branches woolly
 11810 Branches numerous very fine filiform, Leaves very small 3-cornered imbricated appressed
 11811 Leaves obl. lanc. narrowed at base silky, Peduncles naked 1-flowered terminal
 11812 Leaves wavy woolly reflexed at end, Heads small terminal few
 11813 Leaves amplexicaul. oblong revolute at edge woolly, Flowers terminal solitary shining

- 11814 Leaves linear-lanc. silky, Corymb simple terminal
 11815 Leaves lanc. acute at each end roughish, Peduncles 1-flowered long, Invol. bracteate

- 11816 Heads terminal solitary cernuous
 11817 Heads axill. subsolitary

- 11818 Leaves narr. linear entire, Panicle compound many-flowered, Invol. small
 11819 Leaves lanc. longitudinally toothed serrate
 11820 Leaves lanc. serrated with one or two teeth forwards
 11821 Leaves obovate emarginate crenate forwards
 11822 Leaves lanc. serrate at end subdecurrent downy beneath
 11823 Leaves obl. sessile toothed : teeth of the base deeper and stipule-like

- 11824 Leaves lanc. 3-nerved tooth-serrated, Corymbs terminal leafy

- 11825 Lvs. pubesc. ov.-lanc. serr. the upper ones ent. Stem herbaceous corymb. Scales of the invol. recurved leafy
 11826 Leaves sessile broad-lanc. acute serrated, Corymbs terminal fastigiate
 11827 Leaves ovate acute at each end toothed stalked pilose, Stem erect branched, Pedunc. many-headed
 11828 Leaves stalked ovate lanc. very acute toothletted, Corymbs term. and axillary shorter than leaf
 11829 Leaves ellipt. serrated villous beneath, Invol. subglobose, Leaves lanc. subulate, Branches spreading
 11830 Leaves oblong lanc. doubly toothed acute downy beneath rugose veined, Petioles toothed
 11831 Leaves spatulate oblong amplexicaul. serrated rugose
 11832 Leaves sess. lanc. obl. : lower obovate-obl. subserrated at end, Branches corymbose-fastigiate
 11833 Leaves ovate stalked entire obtuse downy, Pedunc. 1-fl. solitary term. axillary thickened
 11834 Leaves lanc. ovate reflexed serrated downy beneath, Flowers terminal heaped
 11835 Leaves ov. stalked crenate blunt downy rugose veiny, Pedunc. 1-fl. solitary terminal and axillary
 11836 Leaves sublyrate : cauline entire, Stem downy paniced, Invol. campanulate
 11837 Leaves toothed radical smoothish obovate : cauline obl. downy, Scales of invol. subulate
 11838 Leaves oval entire hirsute beneath
 11839 Leaves obl. spatulate tooth pilose, Heads paniced globose, Leaves of invol. subulate soft
 11840 Lvs. lanc. serrated at end scabrous at edge : lower obov. Heads heaped, Lvs. of invol. membranous at edge
 11841 Stem hairy, Leaves sessile oval blunt denticulate hairy, Panicle terminal contracted
 11842 Leaves lin. lanc. scabrous nearly entire revolute at edge, Stem paniced, Scales of invol. lax
 11843 Leaves lin. attenuate at base mucronate, Corymbs stalked contracted terminal
 11844 Leaves lin. nearly entire, Peduncles long 3-headed
 11845 Leaves lin. somewhat toothed, Peduncles very long 1-headed
 11846 Leaves spatulate somewhat toothed and stem downy, Pedunc. long 1-fl.
 11847 Leaves linear filiform and stems silky with down, Flowers paniced
 11848 Leaves cuneiform lin. blunt crenate toothletted smooth, Stem shrubby, Anthers with two setae
 11849 Leaves ovate stalked hoary beneath serrated, Corymb terminal compound
 11850 Leaves broad lanc. blunt serrulate downy scabrous, Heads clustered surrounded by bracts
 11851 Stem branched with spreading hairs, Leaves subamplexicaul. blunt coarsely serrated hairy
 11852 Leaves ovate entire acute downy beneath, Spikes recurved 1-sided, Bracts reflexed
 11853 Leaves ovate subcordate pilose viscid toothed auricled at base, Recept. foveose
 11854 Leaves decurrent ovate mucronate downy : lower serrated, Flowers corymbose
 11855 Leaves decurrent lin. lanc. serrulate downy beneath, Spike long terminal interrupted
 11856 Stem white with down, Leaves lanc. serrulate downy beneath, Heads terminal

11824

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11831

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and Miscellaneous Particulars.

called B. Dioscorides is supposed to have been the Baccharis of the Greeks. An extensive genus of shrubby plants, few of which are deserving of cultivation.

1733. *Molina*. Named after John Ignatius Molina, a Spaniard, who published, in 1782, a Natural History of Chili.

1734. *Conyza*. This plant was believed to have the property, when suspended in a room, of driving away

11857 carolinensis W.	Carolina	☼ □ un	5 j.lo	Pu	Carolina	1821.	C co	Jacq. ic. t. 585
11858 rugosa W.	St. Helena	☼ □ un	6 n		Brazil	1772.	S pl	
1735. MA'DIA. W.	MADIA.			Compositae.	Sp. 2—3.			
11859 viscosa W.	clammy	○ un	1½ j.lau	Y	Chili	1794.	S co	Jac. schœ. 4.t.302
11860 mellösa W.	honeyed	○ un	1½ j.lau	Y	Chili	1825.	S co	
1736. ERI'GERON. W.	ERIGERON.			Compositae.	Sp. 21—53.			
11861 gravéolens W.	strong-smelling	○ pr	1½ j.lau	Y	S. Europe	1633.	S co	Ger. ema. 481.f.2
11862 compositum Ph.	Daisy-flowered	△ pr	1 j.lau	W. R	N. Amer.	1811.	D co	
11863 carolinianum W.	Hyssop-leaved	△ pr	1 j.lau	Pu	N. Amer.	1797.	D s.p	Dil. el. t. 306. f. 394
11864 canadense W.	Canada	△ pr	1 aus.	W	England rubble.		S co	Eng. bot. 9019
11865 bonariense W.	Buck's-horn	○ pr	1½ j.lau	Pu	S. Amer.	1732.	S co	Dil. el. t. 257. f. 334
11866 linifolium W.	Flax-leaved	○ pr	1 j.lau	Pu	S. Amer. ...		S pl	
11867 philadelphicum W.	spreading	△ pr	1 j.lau	Pu	N. Amer.	1778.	D co	
11868 nudicaule Ph.	naked-stalked	△ pr	1 j.l	B	N. Amer.	1812.	D co	
11869 purpureum W.	purple	△ pr	1 j.lau	Pu	Huds. Bay	1776.	D co	
11870 bellidifolium W.	Plantain-leaved	△ pr	1½ j.lau	Pu	N. Amer.	1790.	D co	
11871 heterophyllum W.	various-leaved	△ pr	1 j.l	W	N. Amer.	1640.	S co	Fl. dan. 486
11872 jamaicensis W.	Jamaica	□ pr	1 j.l	Pu	Jamaica	1818.	S co	Slo. jam. t. 152. f. 3
11873 longifolium Desf.	long-leaved	△ pr	2 j.lau	Pu	N. Amer.	1820.	D co	
11874 caucasicum Bieb.	large-flowered	△ pr	1½ j.lau	Pu	Caucasus	1821.	D co	
11875 asteroides Link.	Aster-like	△ pr	1½ j.lau	W	.....	1823.	D co	
11876 Villarsii W.	Villars's	△ pr	1 j.lau	Pu	Piedmont	1804.	S co	Bot. reg. 583
11877 acre W.	blue	△ pr	1½ j.lau	B	Britain gra. pa.		S co	Eng. bot. 1158
11878 alpinum W.	Alpine	△ pr	1 j.l	Pu	Scotland al. rills.		D s.l	Eng. bot. 464
11879 uniflorum W.	dwarf	△ pr	1½ aus.	Pu	Scotland highl.		D co	Eng. bot. 2416
11880 glaucum B. reg.	shrubby	□ pr	1 ja.d	Pu	S. Amer.	1812.	C co	Bot. reg. 10
11881 delphinifolium W. en.	Larkspur-leav.	□ pr	1½ j.l	Pu	S. Amer.	1816.	S co	
1737. TUSSILA'GO. W.	COLT'S FOOT.			Compositae.	Sp. 12—17.			
11882 nutans W.	drooping-flow.	△ pr	1 jn. j.l	L. Pu	W. Indies	1793.	S co	Plum. ic. t. 41. f. 1
11883 alpina W.	Alpine	△ pr	1 mr. my	L. Pu	Austria	1710.	D co	Bot. mag. 84
11884 discolor W.	two-colored	△ pr	1 ap. my	L. Pu	Austria	1633.	D co	Jac. aust. 3. t. 247
11885 sylvestris W.	wood	△ un	1 ap. my	L. Pu	Austria	1816.	D co	Jac. aus. 5. ap. t. 12
11886 Farfara W.	common	△ w	1 mr. ap	Y	Britain moi. pl.		D co	Eng. bot. 429
11887 frigida W.	Lapland	△ or	1 my	Pa	Lapland	1710.	D co	Fl. dan. t. 61
11888 fragrans W.	sweet-scented	△ or	1 ja. mr	W	Italy	1806.	D co	Bot. mag. 1388
11889 alba W.	White Butter Bur	△ pr	1 ja. ap	W	Europe	1683.	D co	Fl. dan. t. 524
11890 nivea W.	downy-leaved	△ pr	1 ap	W	Switzerl.	1713.	D co	Retz. obs. 2. t. 3
11891 Petasites E. B.	Common Butter Bur	△ w	1 mr. ap	F	Britain m. me.		D co	Eng. bot. 431
hybrida E. B.	hybrid	△ w	1 mr. ap	F	Britain m. me.		D co	Eng. bot. 430
11892 sparia W.	lobe-leaved	△ pr	1 mr. ap	W	Germany	1790.	D co	Retz. obs. 1. t. 2
11893 palmata W.	cut-leaved	△ pr	1 ap	W	Labrador	1778.	D co	Hort. kew. 3. t. 11
1738. SENE'CIO. W.	GROUNDSEL.			Compositae.	Sp. 62—171.			
11894 reclinatua W.	Grass-leaved	△ or	2 jn. au	Pu	C. G. H.	1774.	S co	Jac. ic. 1. t. 174
11895 hieracifolius W.	Hawkweed	○ or	1½ au	W	N. Amer.	1699.	S co	Her. parad. t. 226
11896 purpureus W.	purple	△ or	2 j.l	Pu	C. G. H.	1774.	D co	Jac. ic. 3. t. 580
11897 cernuus W.	drooping	○ or	1 j.lau	Vi	E. Indies	1780.	S co	Jac. vind. 3. t. 98
11898 erubescens W.	blush-colored	△ or	2 jn. o	Pk	C. G. H.	1774.	S l.p	
11899 divaricatus W.	straddling	△ or	1½ j.l	Pu	China	1801.	S l.p	
11900 croaticus W.	Croatian	△ or	4 j.lau	Y	Hungary	1805.	D co	Pl. ra. hu. 2. t. 143
11901 Pseudochina W.	Chinese	△ or	1½ jn. au	Y	E. Indies	1732.	C co	Dil. el. t. 258. f. 335
11902 hainatophyllum W. en.	purple-leaved	△ or	2 ap	Y	1789.	C co	
11903 japonicus W.	jagged-leaved	△ pr	1 au	Y	Japan	1774.	D co	



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gnats and fleas. From this imaginary property, its Greek name (from *zanzar* φ, a gnat), its Latin name, *pulicaria*, its English name, *flea-bane*, and its French name, *Herbe aux puces*, are all derived. Conyza marilandica gives out a strong smell of camphor.

1735. *Madia*. *Madi* is the name of the plant in Chili. Clammy weeds, only seen in botanical gardens.
 1736. *Erigeron*. A name synonymous with *senecio*, which is a translation of it. Named from *εg*, the spring, and *γενων*, an old man; because it becomes old in the beginning of the season. The name *Senecio* having been applied to another genus, the Greek term is preserved for this, which is related to it. E. viscosum is used to drive away fleas and gnats, probably from its strong scent, or, as some suppose, from the clammy juice of the leaves and stalks; hence the old name of Flea-bane, or Flea-wort.

1737. *Tussilago*. From *tussis*, a cough, for curing which the flowers are frequently employed at this day. Farfara is the name under which the Greeks designated the White Poplar, the leaves of which are like the modern T. Farfara.

T. Farfara is a certain indication of a clayey soil, and, according to Dr. Withering, is the first plant which vegetates in marle or lime stone rubble. The clayey part of the pestilential Maremmes of Tuscany, where scarcely any other plant will grow, is covered with common colts foot. The cotton of the leaves wrapped in a rag,

- 11857 Leaves ovate-lanc. entire hoary downy beneath, Corymb compound terminal
 11858 Leaves decurrent ellipt. crenate beneath, Heads capitate

- 11859 Leaves lanc. sessile viscid, Outer involucre 10-leaved
 11860 Leaves amplexicaul. lanc. viscid

- 11861 Leaves sublinear entire, Branches lateral many-flowered
 11862 Nearly stemless, Rad. leaves on long stalks triply 3-parted, cauline linear undivided
 11863 Stem panicle, Flowers subsolitary terminal, Leaves linear entire
 11864 Stem and flowers panicle hairy, Leaves lanc. ciliated
 11865 Lower leaves lanc. laciniate : cauline line-r, Heads racemose
 11866 Leaves scabrous : lower lanc. toothed in middle ; upper linear, Heads corymbose
 11867 Stem many-fl. Lvs. lanc. subserrate : cauline half amplexicaul. Florets of ray capillary the length of disk
 11868 Radical leaves oval-lanc. acute somewhat toothed, Stem nearly leafless simple long
 11869 Stem many-fl. pilose, Leaves obl. somew. toothed amplexicaul. Florets of ray capillary longer than disk
 11870 Rad. leaves obovate serrated : cauline lanc. entire, Stem about 2-fl. Ray longer than disk
 11871 Rad. leaves roundish ovate deeply toothed stalked : cauline lanc. toothed subserrated in middle
 11872 Stem few-fl. subvillosus, Leaves cuneiform lanc. Serratures 2 on each side
 11873 Branches spik'd, Scales of invol. long, Peduncles scaly, Leaves very long smooth sessile
 11874 Leaves entire bluntly mucronate : radical oblong stalked ; cauline cordate ovate sessile
 11875 Stem nearly naked, Rad. leaves spatulate smooth dotted : cauline linear, Heads corymbose
 11876 Leaves lanc. 3-nerved scabrous somewhat toothed sessile, Stem panicle, Ray shorter than disk
 11877 Pedunc. alternate (scarcely racemose) single-fl. Pappus as long as the florets of the ray, Lvs. lanc. obtuse
 11878 Stems with usually only one fl. Pappus much shorter than the florets of the ray, Lvs. lanceolate
 11879 Stem 1-flowered, Invol. pilose
 11880 Leaves ciliated glaucous clammy : radical with winged stalks and few teeth ; cauline sessile entire
 11881 Leaves pinnatifid ; segments of the cauline leaves linear entire ; of the radical lanc. somewhat toothed

- 11882 Scape 1-fl. naked, Head radiated nodding, Lvs. stalked obovate toothed sinuated at base downy beneath
 11883 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed smooth
 11884 Scape 1-fl. nearly naked, Head discoid, Lvs. reniform toothed downy beneath
 11885 Scape about 1-fl. nearly naked, Head discoid, Lvs. smooth reniform slightly 7-lobed
 11886 Scape single-fl. imbricated with scales, Lvs. cordate angular toothed downy beneath
 11887 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate unequally toothed downy beneath
 11888 Thyrus fastigiate, Heads radiant, Lvs. roundish cordate equally toothed downy beneath
 11889 Thyrus fastigiate, Heads discoid, Lvs. orbicular cordate doubly and finely toothed
 11890 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed white beneath : lobes spreading
 11891 Thyrus ovate-oblong, Lvs. cordate unequally toothed with the lobes approximate downy beneath
 11892 Thyrus oblong, Heads discoid, Lvs. obl. cordate unequally toothed snow-white beneath
 11893 Thyrus fastigiate, Heads obsoletely radiant, Lvs. roundish cordate half 7-lobed downy beneath

- 11894 Heads fuscous, Cor. naked, Invol. ventricose somewhat imbricated, Lvs. filiform lin. entire smooth
 11895 Heads fuscous, Cor. naked, Lvs. obl. amplexicaul. unequally and deeply toothed, Stem virgate
 11896 Heads fuscous, Cor. naked, Lvs. lyrate hairy : upper lanc. toothed
 11897 Heads fuscous, Cor. naked, Lvs. ellipt. tooth-serrated hairy, Peduncles long many-flowered
 11898 Heads fuscous, Cor. naked, Lvs. lyrate pilose on each side viscid
 11899 Heads fuscous, Cor. naked, Lvs. lanc. toothed scabrous, Flowering branches spreading
 11900 Heads fuscous, Cor. naked, Lvs. obl. lanc. finely serrated smooth, Heads corymbose
 11901 Heads fuscous, Cor. naked, Lvs. lyrate pinnatifid toothed, Scape nearly naked
 11902 Heads fuscous, Cor. naked, Lvs. obl. pinnatifid toothed acuminate stalked cuneate at base
 11903 Heads fuscous, Cor. naked, Lvs. pinnatifid : segm. lanc. acute cut, Stipules leafy subpalinate



and Miscellaneous Particulars.

dipped in a solution of saltpetre, and dried in the sun, makes an excellent tinder. The leaves are the basis of the British herb tobacco ; they have been regarded as expectorant from the earliest ages, having been smoked through a reed in the days of Dioscorides, with the view of relieving the chest from accumulated mucus in catarrh, asthma, and phthisis. At present, though it occupies a place in the *Materia Medica*, very little reliance is placed on its powers. (*London Disp.* p. 542.)

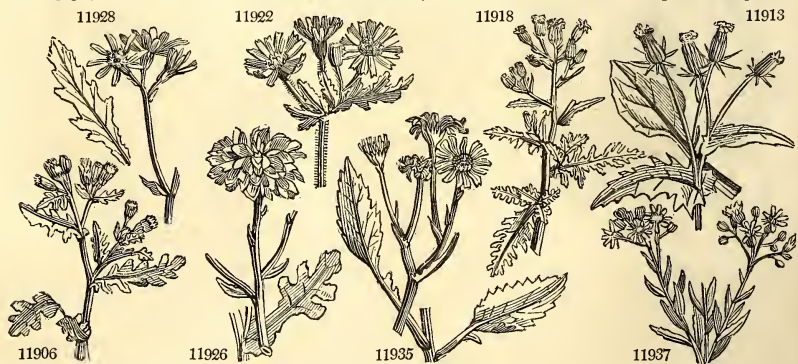
T. Petasites, from the Greek *πετασος*, a broad covering, in allusion to the leaves, which are larger than those of any British plant, and afford shelter from rain to poultry and other small animals. It is called *Butter bur*, in allusion to a former application, and *Pestilent-wort*, from its supposed efficacy in the plague. *T. hybrida* is by some considered, a variety of this species, as *T. alba* is of *T. paradoxa*. *T. fragrans* is valued in gardens as an early and fragrant flower ; like all the species, it is apt to run very much, and is therefore best kept in pots.

It is remarkable that no plant belonging to the tribe of *Tussilagineæ*, has been discovered with hermaphrodite flowers. They are distinguished from other tribes by their stigma, which occupies both surfaces of the lobes of the style. They are nearly all natives of Europe.

1738. *Senecio*. For the explanation of this word, see *Erigeron*. Most of these species are annual weeds, or

11904 glomerátus Desf.	clustered	○ un	1½ au	Y	N. Holl.	1816	S	co
11905 cacalioides Fisch.	Calacia-like	○ pr	1 au	Y	Brazil	1820.	S	co
11906 vulgaris W.	common	△ w	1 ja.d	Y	Britain	rubble.	D	co Eng. bot. 747
11907 arabicus W.	Arabian	△ w	1½ j.l.au	Y	Egypt	1804.	S	co
11908 dentatus Jacq.	toothed	△ un	1 j.l.au	Y	C. G. H.	1820.	D	co
11909 verbenacifolius W.	Vervain-leaved	○ un	1 jn.jl	Y	Egypt	1803.	S	co Jac. vind. 1. t. 3
11910 triflorus W.	three-flowered	○ pr	1½ j.l.s	Y	Egypt	1776.	S	co
11911 aegyptius W.	Egyptian	○ pr	1½ j.l.au	Y	Egypt	1771.	S	co
11912 crassifolius W.	thick-leaved	○ pr	¾ j.l.au	Pu	S. Europe	1815.	S	co Barr. ic. 261
11913 lividus W.	livid	○ un	1 j.l.au	Y	Spain	1801.	S	co Schk. ha. 3. t. 245
11914 trilobus W.	three-lobed	○ un	1 jn.au	Y	Spain	1728.	S	co
11915 cinerascens W.	gray	■ j.	6 my.jl	Y	C. G. H.	1774.	C	p.l Jac. schœ. 2. t. 150
11916 squamosus W.	squarrose	■ j.	3 my.jl	Y	C. G. H.	1820.	C	p.l
11917 viscosus W.	stinking	■ j.	1 jn.o	Y	Britain	ch. ba.	S	co Eng. bot. 32
11918 sylvaticus W.	mountain	■ w	1 j.l.au	Y	Britain	woods.	S	co Eng. bot. 748
11919 nebrodensis W.	Sicilian	○ un	1½ jn.au	Pa.pu	S. Europe	1704.	S	co Bârr. rar. 401
11920 glaucus W.	sea-green	○ un	1½ jn.au	Y	Egypt	1739.	S	co
11921 hastatus W.	halberd-leaved	■ j.	1½ my.au	Y	C. G. H.	1782.	D	l.p Dil. el. t. 152. f. 184
11922 vernalis W.	spring	○ un	1 ap.jn	Y	Hungary	1803.	S	co Pl. rar. hu. 1. t. 24
11923 artemisiifolius Lam.	Wormwood-lv.	■ j.	1½ jn.jl	Y	France	1816.	D	co
11924 rupëstris W.	rock	■ j.	1½ jn.jl	Y	Hungary	1805.	D	s.l Pl. rar. hu. 2. t. 128
11925 venustus W.	wing-leaved	■ j.	1½ j.l.s	Pu	C. G. H.	1774.	C	p.l Bot. reg. 901
11926 elegans W.	elegant	■ pr	2 jn.au	Pu	C. G. H.	1700.	S	co
β flore pleno	double-flowered	■ pr	2 ja.d	Pu	C. G. H.	1700.	C	s.l Bot. mag. 238
11927 squâlidus W.	inelegant	○ w	1½ jn.o	Y	England	walls.	S	co Eng. bot. 600
11928 speciosus W.	red-flowered	■ j.	1½ j.l.au	Sc	.....	1789.	D	s.l Bot. reg. 41
11929 erucifolius W.	Erucâ-leaved	■ j.	2 j.l.au	Y	Europe	1816.	D	co Barr. rar. t. 153
11930 uniflorus W.	Alpine	■ j.	1½ j.l.au	Y	Al. of Eur.	1799.	D	l.p All. ped. t. 17. f. 8
11931 incanus W.	downy	■ j.	2 j.l.au	Y	Al. of Eur.	1759.	D	s.p Plu. alm. t. 39. f. 6
11932 abrotanifolius W.	Southernw.-lv.	■ j.	2 j.l.o	Y	Al. of Eur.	1640.	D	co Jac. aust. 1. t. 79
11933 tenuifolius W.	slender-leaved	■ j.	2 j.l.au	Y	Britain	woods.	D	l.p Eng. bot. 574
11934 Jacobæ'a W.	Common Ragwort	■ w	2 j.l.au	Y	Britain	drypa.	D	s.l Eng. bot. 1130
11935 aquaticus W.	marsh	■ j.	3 my.jn	Y	Britain	mar.	D	l.p Eng. bot. 1131
11936 aureus W.	golden	■ j.	2 j.l.au	Y	N. Amer.	1758.	D	l.p
11937 rosmarinifolius W.	Rosemary-lv.	■ pr	3 j.l.au	Y	C. G. H.	....	C	l.p Jac. ic. 3. t. 587
11938 âper W.	rough	■ pr	3 j.l.au	Y	C. G. H.	1774.	C	p.l
11939 rigescens W.	stiff-leaved	■ pr	3 j.l.au	Y	C. G. H.	1815.	D	l.p Jac. coll. 5. t. 6. f. 1
11940 linifolius W.	Flax-leaved	■ un	2 j.l.au	Y	Spain	1820.	D	co Boec. mus. t. 49
11941 paludosus W.	bird's-tongue	■ pr	5 jn.au	Y	England	fens.	D	p Eng. bot. 650
11942 nemorensis W.	branching	■ j.	3 j.l.au	Y	Austria	1785.	D	co Jac. aust. 2. t. 184
11943 sarracenicus W.	creeping-rooted	■ j.	or 6 j.l.o	Y	Britain	moi.pl.	D	co Eng. bot. 2211
11944 ovatus W.	ovate	■ or	3 j.l.o	Y	Germany	1823.	D	co
11945 macrophyllus Bieb.	large-leaved	■ or	4 j.l.au	Y	Caucasus	1818.	D	co
11946 solidaginoides W.	Solidago-like	■ or	2 j.l.au	Y	C. G. H.	1824.	C	co
11947 umbrösus W. en.	various-leaved	■ or	2 j.l.au	Y	Hungary	1815.	D	l.p
11948 coriáceus W.	leathery-leaved	■ or	4 j.l.au	Y	Levant	1728.	D	l.p Dil. el. t. 105. f. 125
11949 Dória W.	broad-leaved	■ or	4 j.l.s	Y	Austria	1570.	D	co Jac. aust. 2. t. 185
11950 Doronicum W.	Leopard's Bane	■ or	1 j.l.s	Y	S. Europe	1705.	D	co Jac. aust. 2. t. ap. 45
11951 lanceus W.	spear-leaved	■ or	3 j.l.o	Y	C. G. H.	1774.	C	p.l
11952 longifolius W.	long-leaved	■ or	3 au.n	Y	C. G. H.	1775.	C	p.l Com. hort. 2. t. 71
11953 halimifolius W.	succulent-leav.	■ or	3 jl	Y	C. G. H.	1723.	C	l.p Dil. el. t. 104. f. 124
11954 illicifolius W.	llex-leaved	■ or	3 jn.jl	Y	C. G. H.	1731.	C	l.p Com. rar. t. 42
11955 rigidus W.	hard-leaved	■ or	3 jn.s	Y	C. G. H.	1704.	C	l.p Com. hort. 2. t. 75

1739. ASTER. W.	STARWORT.	Composite.	Sp. 109—169.
11956 reflexus W.	reflexed-leaved	■ or 3 fs	Cr C. G. H. 1759. C p.l Bot. mag. 884
11957 tomentösus W.	tooth-leaved	■ or 1½ my.jl	Pk N. S. W. 1793. C p.l Bot. rep. 61
11958 sericeus W.	silky-leaved	■ or 3 my.n	B Missouri 1802. C s.p Vent. calms. 33
11959 Cymbalaria W.	Ivy-leaved	■ or 2 my.n	W C. G. H. 1786. C p.l Vent. mels. 95
11960 liratus B. M.	fluted-stemmed	■ or 3 my.jl	W N. S. W. 1812. C l.p Bot. mag. 1509
11961 argophyllus H. K.	Musk-scented	■ or 10 my.jl	W V. Di. L. 1804. C s.p Bot. mag. 1563



History, Use, Propagation, Culture,

rude gigantic yellow flowered autumnal perennials; *S. venustus* and *cincrascens*, however, are elegant plants with purple flowers. Of *S. elegans* there is a double flowered variety, common in green houses, and readily propagated by cuttings. *Senecio hieracifolius* is the pest of newly cleared ground in North America, as *S. vulgaris* is in Europe. It is known by the name of the Fire-weed. *Senecio vulgaris* is esteemed emollient and resolutive. It is employed in spitting of blood, in the form of a poultice, and against the gout and hæmorrhoids. It is given to horses suspected to be troubled with worms.

- 11904 Herb downy upwards, Lvs. sinuate toothed and pinnatifid, Heads clustered, Invol. cylindrical
 11905 Herb hirsute, Lvs. broad-lanc. sinuate-toothed and toothletted: teeth callous at end, Heads panicled
 11906 Leaves semiamplexicaul. pinnatifid toothed, Heads in clustered corymbs destitute of a ray
 11907 Heads fuscous, Cor. naked, Leaves subbipinnate stalked smooth, Invol. not withered
 11908 Heads radiant, Leaves half-amplex. pinnatifid, Segments linear acute toothed distant, Peduncles long
 11909 Heads fuscous, Cor. naked, Leaves obovate stalked cut-toothed, Pedunc. filiform 3-headed
 11910 Heads radiate, Ray revolute, Leaves stalked obl. sinuate, Pedunc. 3-headed, Invol. conical
 11911 Heads radiate, Ray revolute, Leaves amplexic. lin. lanc. pinnatifid, Scales of invol. sphacelate in part
 11912 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate-linear fleshy bluntly sinuated
 11913 Heads radiate, Ray revolute, Leaves amplexicaul. lanceolate toothed, Scales of invol. all unwithered
 11914 Heads radiate, Ray revolute, Leaves amplexicaul. obovate 3-lobed at end serrated
 11915 Heads radiate, Ray revolute, Leaves pinnatifid obovate downy revolute at edge, Panicle spreading
 11916 Leaves amplexicaul. cut toothed scabrous above downy beneath, Heads racemose
 11917 Ray revolute, Leaves pinnatifid and viscid, Scales of the involucre lax hairy
 11918 Ray revolute, Lvs. sess. pinnatifid lobed and toothed, Scales of invol. very short glab. Stem erect straight
 11919 Ray revolute, Leaves lyrate sinuate blunt stalked, Stem hirsute [Corymbosae
 11920 Ray revolute, Leaves amplexicaul. lanceolate blunt toothed entire
 11921 Heads radiate, Petiole amplexicaul. Peduncles 3 times as long as pinnate sinuated leaves
 11922 Heads radiate, Leaves amplexicaul. pinnatifid hirsute crisp-toothed, Stem woolly
 11923 Cor. radiant, Leaves pinnated multifid: segm. filiform smooth, Heads corymbosae
 11924 Cor. radiant, Lvs. amplexic. pinnatifid glabrous above: segm. angular toothed, Stem and invol. glabrous
 11925 Cor. radiant, Stem invol. and leaves glabrous, Leaves pinnatifid: segm. linear acute toothed
 11926 Cor. radiant, Leaves pilose viscid pinnatifid equal spreading, Rachis narrowed below

 11927 Cor. radiant, Leaves half-amplexicaul. pinnatifid: segm. linear subdentate distant
 11928 Cor. radiant, Stem simple nearly naked, Radical leaves stalked oblong toothed ciliated
 11929 Cor. radiant, Leaves pinnatifid toothed somewhat hairy, Stem erect
 11930 Cor. radiant, Leaves tomentose oblong toothed, Stem leafy 1-flowered
 11931 Cor. rad. Lvs. toment. on each side snow-white pinnatif. : segm. lin. blunt somew. tooth. Corymb contracted
 11932 Cor. radiant, Leaves pinnate multifid linear naked acute, Peduncles about 2-flowered
 11933 Cor. radiant, Leaves pinnate: pinnae lin.-subulate somewhat cut downy beneath, Stem somewhat hairy
 11934 Ray spreading, Leaves lyrate bipinnatifid divaric. toothed glabrous, Stem erect, Pericarp hairy
 11935 Ray spreading, Florets elliptical. Leaves lyrate serrated: lower obovate entire, Pericarp hairy
 11936 Cor. radiant, Rad. lvs. ovate-cordate serrated stalked: cauline pinnatifid toothed, Peduncles thickened
 11937 Cor. radiant, Lvs. lanc. lin. nearly serrated smoothish, Corymb contracted terminal stalked
 11938 Cor. radiant, Lvs. lanc. lin. toothed rigid scabrous, Corymbs terminal and axillary stalked
 11939 Cor. radiant, Lvs. lanc. lin. subtomtose glauc. finely toothletted or entire, Corymb contracted terminal
 11940 Cor. radiant, Leaves linear entire, Corymb squamosae, Stem herbaceous
 11941 Cor. radiant, Lvs. half-amplexicaul. lanc. finely serrate subvillous beneath, Corymb terminal spreading
 11942 Cor. radiant, Lvs. ovate lanc. serrated ciliated at edge sessile unequal at base
 11943 Ray spreading, Lvs. lanc. sharply serrated nearly glabrous, Corymbs of rather few flowers
 11944 Cor. radiant, Lvs. ovate-lanc. finely serrated smooth on each side subsessile
 11945 Cor. radiant, Outer scales of invol. subulate spreading, Lvs. subdecurrent obl. lanc. villous
 11946 Cor. radiant, Lvs. sess. obovate toothed at end glaucous: younger silky, Corymb compound terminal
 11947 Cor. radiant, Lvs. toothed: lower ovate decurrent in the stalk: upper cordate obl. amplexicaul.
 11948 Cor. radiant, Scales of invol. appressed, Lvs. subdecurrent villous beneath lanc. serrated
 11949 Cor. radiant, Outer scales of invol. spreading, Lvs. subdecurrent obl. lanc. glauc. serrate
 11950 Cor. radiant, Stem undivided about 1-fl. Lvs. undivided serrated: radical ovate villous beneath
 11951 Cor. radiant, Lvs. lanc. cordate at base amplexicaul. smooth finely serrated
 11952 Cor. radiant, Lvs. lin. scattered
 11953 Cor. radiant, Lvs. obovate fleshy somewhat toothed
 11954 Cor. radiant, Lvs. obl. sessile toothed downy beneath: upper amplexicaul. toothed only at base
 11955 Cor. radiant, Lvs. amplexicaul. spatulate repand eroded scabrous

§ 1. *Shrubby.*

- 11956 Leaves ovate subimbricated recurved serrate-ciliated, Heads terminal
 11957 Leaves ovate serrate spreading downy beneath, Heads terminal about 3
 11958 Leaves obl. lanc. sessile entire 3-nerved silky with down, Flowers terminal
 11959 Leaves stalked roundish ovate hairy with 1 or 2 teeth on each side, Peduncles 1-headed long terminal
 11960 Stem fluted, Leaves alternate stalked lanc. blistered repand-toothed downy beneath, Flowers panicled
 11961 Leaves ovate lanc. toothed silky beneath, Panicles compound axillary, Rays 3



and *Miscellaneous Particulars.*

The tribe of Senecioneæ is nearly related to Anthemideæ, and a portion of Inuleæ, from which the differences in the style are insufficient to distinguish them. They appear, however, to be sufficiently well characterized by their other floral organs. They are found in every part of the world, especially in the south of Africa. Humboldt has observed, that they are very numerous in the upper region of the Andes, just below the limits of eternal snow, where the sun has little influence, where hurricanes are incessant, and not a tree is able to rear its head.

1739. *Aster.* The flowers of all the species of *Aster* resemble little stars, on account of the numerous rays

11962	<i>angustifolius W.</i>	narrow-leaved	■	□	or	6	my.jl	Pa.B	C. G. H.	1804	C	l.p	Jac.schr.3.t.370
11963	<i>villosus Th.</i>	villous	■	□	or	4	my.jl	W	C. G. H.	1812	C	l.p	
11964	<i>obtusatus W.</i>	obtuse-leaved	■	□	or	4	my.jl	W	C. G. H.	1793	C	l.p	
11965	<i>fruticulosus W.</i>	shrubby	■	□	or	3	mr.jl	W	C. G. H.	1759	C	p.l	Bot. mag. 2383
11966	<i>filifolius V.</i>	thread-leaved	■	□	or	3	mr.jl	W	C. G. H.	1812	C	l.p	Vent.malm. t.82
11967	<i>aculeatus Lab.</i>	prickly-leaved	■	□	or	2	mr.jl	W	N. Holl.	1818	C	l.p	Bot. cab. 830
11968	<i>exasperatus Link.</i>	rough	■	□	or	3	mr.jl	W	C. G. H.	1823	C	l.p	
11969	<i>carolinianus W.</i>	tall	■	□	el	8	aus	Pu	Carolina	...	D	co	
11970	<i>hyssopifolius W.</i>	Hyssop-leaved	Δ	Δ	or	1½	s.o	W	N. Amer.	1688.	D	co	Doda. mem. t.60
11971	<i>solidaginoides W.</i>	Solidago-like	Δ	Δ	or	2	aus	W	N. Amer.	1699.	D	co	Plu. alm. t.79.f.2
11972	<i>tardifolius Mich.</i>	late-flowering	Δ	Δ	or	1	aus	W	N. Amer.	1820.	D	co	
11973	<i>nemorialis H. K. tedifolius Ph.</i>	wood	Δ	Δ	or	1	aus	Li	N. Amer.	1778.	D	co	
11974	<i>rigidus Ph.</i>	stiff-leaved	Δ	Δ	or	¾	au.o	Pu	N. Amer.	1759.	D	co	Plu. alm. t.14.f.7
11975	<i>linarifolius Ph.</i>	Toad-flax-leav.	Δ	Δ	or	¾	s.o	Pa.B	N. Amer.	1699.	D	co	
11976	<i>graminifolius Ph.</i>	grass-leaved	Δ	Δ	or	¾	s.o	Pa.pu	Huds Bay	...	D	co	
11977	<i>linifolius W.</i>	Flax-leaved	Δ	Δ	or	2	jl.au	W	N. Amer.	1739.	D	co	
11978	<i>pilosus W.</i>	hairy	Δ	Δ	or	2	au.o	Pa.B	N. Amer.	1812.	D	co	
11979	<i>foliosus W.</i>	leafy	Δ	Δ	or	3	o	Pa.B	N. Amer.	1732.	D	co	Dill. elt. t.35.f.39
11980	<i>subulatus Mich.</i>	subulate	Δ	Δ	or	2	s.o	Pa.B	N. Amer.	...	D	co	
11981	<i>tenuifolius W.</i>	slender-leaved	Δ	Δ	or	3	s.o	W	N. Amer.	1725.	D	co	Plu. alm. t.78.f.5
11982	<i>dumosus W.</i>	bushy	Δ	Δ	or	3	s.o	W	N. Amer.	1734.	D	co	Plu. alm. t.78.f.6
11983	<i>ericoides W.</i>	Heath-leaved	Δ	Δ	or	3	s	W	N. Amer.	1758.	D	co	
11984	<i>multiflorus W.</i>	many-flowered	Δ	Δ	or	3	s.o	W	N. Amer.	1732.	D	co	Dill. elt. t.36.f.40
11985	<i>ciliatus Ph.</i>	ciliated	Δ	Δ	or	3	s.o	W	N. Amer.	...	D	co	
11986	<i>canescens Ph.</i>	canescent	Δ	Δ	or	2	s.o	Pa.pu	N. Amer.	1812.	D	co	
11987	<i>paludosus W.</i>	marsh	Δ	Δ	or	3	jl.o	B	N. Amer.	1784.	D	co	m.s
11988	<i>sparisiflorus Ph.</i>	scattered-flow.	Δ	Δ	or	3	s.n	Pa.pu	N. Amer.	1798.	D	co	
11989	<i>coridifolius W.</i>	Coris-leaved	Δ	Δ	or	1	au.n	B	N. Amer.	...	D	co	
11990	<i>surculosus Mich.</i>	rooting	Δ	Δ	or	1	au.n	B	N. Amer.	...	D	co	
11991	<i>squarrosus W.</i>	ragged	Δ	Δ	el	1½	jn.jl	B	N. Amer.	1801.	D	co	
11992	<i>argenteus Mich.</i>	silver-leaved	Δ	Δ	el	1	jl.s	Pu	N. Amer.	1801.	D	co	
11993	<i>concolor W.</i>	self-colored	Δ	Δ	el	1	au.n	Pu	N. Amer.	1759.	D	co	
11994	<i>myrtifolius Link.</i>	myrtle-leaved	Δ	Δ	or	2	aus	W	.....	1812.	D	co	
11995	<i>reticulatus Ph.</i>	netted-leaved	Δ	Δ	or	3	au.o	W	N. Amer.	1812.	D	co	
11996	<i>cornifolius W.</i>	Cornus-leaved	Δ	Δ	or	3	au.o	W	N. Amer.	1811.	D	co	
11997	<i>humilis Ph.</i>	low	Δ	Δ	el	1	au.o	W	N. Amer.	1699.	D	co	Willd. ho.ber.67
11998	<i>amygdalinus Ph. umbellatus W.</i>	Almond-leaved	Δ	Δ	or	2	jl.s	W	N. Amer.	1759.	D	co	
11999	<i>salicifolius W.</i>	Willow-leaved	Δ	Δ	or	6	s.o	F	N. Amer.	1760.	D	co	Rob. ic. 307
12000	<i>aestivus W.</i>	summer	Δ	Δ	or	2	jl.au	B	N. Amer.	1776.	D	co	
12001	<i>Novae Angliae W. ruber</i>	New England red-flowered	Δ	Δ	el	6	s.o	Pu	N. Amer.	1710.	D	co	Bot. reg. 183
12002	<i>spurius W. cyaneus Ph. rubricaulis Lam.</i>	beautiful-blue	Δ	Δ	spl	4	s.o	Pu	N. Amer.	1789.	D	co	Bot. re.183.f.inf. Hof.ph. 1.t.B.f.1
12003	<i>grandiflorus W.</i>	great-flowered	Δ	Δ	or	2	o.n	Pu	N. Amer.	1720.	D	co	Bot. reg. 273
12004	<i>phlogifolius W.</i>	Phlox-leaved	Δ	Δ	or	1½	jl.o	Vi	N. Amer.	1797.	D	co	
12005	<i>patens W.</i>	spreading-hairy	Δ	Δ	or	1½	s.n	Pu	N. Amer.	1773.	D	co	
12006	<i>alpinus W.</i>	Alpine	Δ	Δ	or	¾	my.au	Pu	Al. of Eur.	1658.	D	p.l	Bot. mag. 199
12007	<i>pulchellus W.</i>	pretty	Δ	Δ	or	¾	my.au	Pu	Armenia	...	D	co	
12008	<i>punctatus W.</i>	dotted	Δ	Δ	or	3	aus	Vi	Hungary	1815.	D	co	Pl.rar.hu.2.t.109
12009	<i>acris W.</i>	acid	Δ	Δ	or	2	aus	B	S. Europe	1731.	D	co	Plu. al. t. 271.f.3
12010	<i>canus W.</i>	hoary-leaved	Δ	Δ	or	2	aus	Pu	Hungary	1816.	D	co	Pl. rar. hu. 1.t. 8
12011	<i>pannonicus W.</i>	Hungarian	Δ	Δ	or	2	jl.au	Vi	Hungary	1815.	D	co	Bot. reg. 340
12012	<i>Amellus W.</i>	Italian	Δ	Δ	or	2	aus	Pu	Italy	1596.	D	co	
12013	<i>salignus W.</i>	Sallow-leaved	Δ	Δ	or	3	aus	W	Germany	1815.	D	co	
12014	<i>longifolius P. S.</i>	long-leaved	Δ	Δ	or	3	o	W	N. Amer.	1798.	D	co	Mor.s.7.t.22. f.26
12015	<i>amplexicaulis W.</i>	stem-clasping	Δ	Δ	or	3	s.n	B	N. Amer.	...	D	co	
12016	<i>prenanthoides W.</i>	Prenanthes-like	Δ	Δ	or	3	s.n	B	N. Amer.	1821.	D	co	
12017	<i>adulterinus W. en.</i>	bastard	Δ	Δ	or	3	au.o	Vi	N. Amer.	...	D	co	
12018	<i>laevigatus W.</i>	smooth-stemm.	Δ	Δ	pr	3	s.n	F	N. Amer.	1794.	D	co	



History, Use, Propagation, Culture,

of their circumference. A very numerous genus of plants, commonly called in England, Christmas Daisies, in allusion to the late period of the year at which they blossom. They are not very ornamental, and yet their flowers are acceptable at a season when few others are to be seen in open air. The species are extremely

- 11962 Leaves linear acute not dotted somewhat hoary, Pedunc. term. solitary 1-ft. long
- 11963 Leaves linear filiform obtuse hairy, Invol. imbricated
- 11964 Leaves linear fleshy smooth dotted blunt, Pedunc. 1-headed, Invol. imbricated shorter than disk
- 11965 Leaves linear blunt glabrous dotted, Pedunc. 1-headed long, Invol. imbricated as long as disk
- 11966 Leaves linear filiform fascicled smooth dotted, Ligules entire
- 11967 Leaves linear scattered revolute at edge : prickly above ; downy beneath, Heads in racemose panicles
- 11968 Stem and leaves rough, Leaves dense linear reflexed, Flowering branches short racemose
- 11969 Leaves obl. narrowed at each end sess. Stem somew. climbing, Branches downy, Scales of invol. squarrose

§ 2. *Herbaceous.*

* *Leaves entire.*

- 11970 Leaves lin. lanc. 3-nerved dotted acute scabr. at edge, Ray about 5-fl. Invol. imbric. twice as short as disk
- 11971 Lvs. lin. lanc. obsol. 3-nerv. blunt scab. at edge, Hds. in sess. clust. Ray about 5-fl. Inv. imbr. short. than disk
- 11972 Lvs. cuneate obov. acute nervel. scab. on each side twisted spread. Inv. cylindr. imbr. with 2 bractes at base
- 11973 Lvs. lin. lanc. narr. at base nerveless roughish revolute at edge, Inv. lax imbr. Branches filiform 1-headed

- 11974 Lvs. lin. mucro. somew. keeled rigid scabrous at edge : cauline reflexed ; of the branches much spreading
- 11975 Lvs. many lin. mucron. nerveless not dotted keeled scabrous rigid, Branches fastigiate 1-headed
- 11976 Lvs. narrow lin. nerveless not dotted smooth erect, Branchlets term. nearly naked 1-headed
- 11977 Lvs. lin. nerveless dotted scabr. reflexed spreading, Branches corymb. fastigiate leafy, Invol. imbr. short
- 11978 Lvs. lin. lanc. hoary, Stem branched villous, Branchlets somew. 1-sided 1-headed, Invol. obl. lax imbricated
- 11979 Lvs. lin. lanc. narrowed at each end acum. Stem downy panicle erect, Branches few-headed, Inv. imbr.
- 11980 Very smth. with small fl. Stem panicle, Branch. many-head. Lvs. lin. subulate, Invol. cylindr. Ray minute
- 11981 Lvs. lin. lanc. narrow. both ways hispid at edge, Stem smth. branched erect, Branches 1-headed, Inv. imbr.
- 11982 Lvs. lin. glabrous : those of the branches very short, Branches panicle, Invol. cylindr. closely imbricated
- 11983 Lvs. lin. glab. : those of the branches subul. close together ; of the stem long. Invol. subsquarr. Leaf. acute
- 11984 Lvs. lin. glab. Stem much branched diffuse downy, Branchlets 1-sided, Inv. imbr. : scales obl. squarr. acute
- 11985 Lvs. ciliat. : caul. lin. lanc. nerv. : those of the br. very short lanc. 3-nerv. Stem branch. downy, Br. panic.
- 11986 Hoary, Lvs. lin. Panic. corymb. much branched leafy, Invol. imbr. very acute longer than disk. [at base
- 11987 Lvs. remote lin. amplexicaul. erect very smth. scabr. at edge, Pedunc. almost naked, Inv. squarr. with 2 lvs.
- 11988 Very smth. Lvs. subul. lin. somew. fleshy subreflex. Stem slender much branch. Branch. setaceous 1-head.
- 11989 Lvs. very numerous lin. blunt reflexed hispid at edge, Stem branch. diffus. smooth, Branches 1-headed
- 11990 Dwarf with creeping roots, Stems weak simple, Lvs. long lanc. smoothish, Invol. with lin. obl. blunt scales
- 11991 Lvs. very numerous ovate-acum. reflexed hispid at hedge, Stem branched hairy, Branches 1-headed
- 11992 Lvs. obl. lanc. silky sess. Stem slender decumbent loosely branched, Branchlets and branchlets 1-headed
- 11993 Lvs. obl. lanc. hoary on each side, Stem simple erect downy, Raceme terminal
- 11994 Cauline leaves amplexicaul. scabrous : of the branches small, Invol. imbricated : scales length of disk
- 11995 Hoary all over, Lvs. lanc. obl. acute at each end sess. revolute at end netted and 3-nerved beneath
- 11996 Smooth, Lvs. obl. ovate acuminate shortly stalked scabrous at edge, Panicles few-headed, Stem smooth
- 11997 Lvs. subrhomboid oval-lanc. acuminate at each end somew. stalked glabr. hispid at edge, Corymb diverging
- 11998 Lvs. lanc. narrowed at base acuminate scabrous at edge, Stem simple corymb. at end, Invol. loosely imbr.

- 11999 Lvs. lin. lanc. nearly entire smth. Stem smth. panicle at end, Invol. lanc. imbr. Scales acute spread, at end
- 12000 Lvs. lanc. somewhat amplexical. narrowed at end scabrous at edge, Stem erect hispid, Branchlets pilose
- 12001 Lvs. lin. lanc. pilose amplexicaul. auricled at base, Stem simple pilose straight, Heads sess. term. clustered

- 12002 Lvs. lin. lanc. amplexicaul. polished, Stem virgate panicle. Branches racemose, Inner scales of invol. colored

- 12003 Lvs. lin. rigid acute subamplexicaul. : those of the branches reflexed hispid at edge, Scales of invol. squarr.
- 12004 Lvs. lanc. cordate amplexicaul. downy beneath, Stem quite simple downy, Pan. term. lax few-headed
- 12005 Lvs. obl. lanc. ciliate cordate amplexicaul. scabrous on each side hairy, Stem branched hairy
- 12006 Stem 1-fl. Rad. lvs. lanc. spatulate : cauline lanc. Scales of invol. nearly equal lanc. bluntnish
- 12007 Stem 1-fl. Rad. lvs. spatulate : cauline lin.-lanc. Scales of invol. nearly equal linear acuminate
- 12008 Lvs. lin. remote 3-nerved acuminate dotted scabrous at edge, Branches corymb. fastigiate, Ray 10-fl.
- 12009 Lvs. lin. lanc. glabrous not dotted 3-nerved, Invol. imbricated twice as short as disk
- 12010 Lvs. lin. lanc. 3-nerved hoary on each side, Invol. twice as short as disk imbricated
- 12011 Lvs. lin. lanc. hispid at edge, Stem simple corymb. Scales of invol. lanc. blunt equal
- 12012 Lvs. obl. lanc. scabrous, Invol. imbr. subsquarrose : lvs. blunt ; inner membranous colored at edge
- 12013 Lvs. lin. lanc. sessile scabrous at edge, Stem panicle smooth, Invol. lax imbricated
- 12014 Lvs. lin. lanc. rarely toothed long smooth, Heads terminal, Invol. squarrose

** *Leaves lanceolate and ovate : lower serrate.*

- 12015 Lvs. ov.-obl. acute amplexicaul. cordate serrated smooth, Stem panicle smooth, Branches 1-2-headed
- 12016 Lvs. amplexicaul. spatulate lanc. acuminate serrated in middle cordate at base, Branches pilose
- 12017 Lvs. amplexic. lanc. : lower subserr. smooth ; of the branches lin. squarr. Invol. squarr. shorter than disk
- 12018 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Branches many-headed



and Miscellaneous Particulars.

difficult to distinguish : the most ornamental are *A. puniceus*, *Novæ Angliæ pulchellus*, and *macrophyllus*. *A. chinensis* is a well known border annual ; of which there are varieties of different colors, and semi-double, and double. It is raised on a hotbed, and transplanted into the open ground in April or May.

12019	<i>versicolor W.</i>	various-colored	Δ	el	3	aus	W,pu	N. Amer.	1790.	D	co	
12020	<i>mutabilis W.</i>	changeable	Δ	or	2	s.o	Pu	N. Amer.	1710.	D	co	Herm.lugd. t.67
12021	<i>laevis W.</i>	smooth	Δ	or	2	s.o	B	N. Amer.	1758.	D	co	
12022	<i>concinus W.en.</i>	neat	Δ	pr	1½	s.o	Pu	N. Amer.	1800.	D	co	
12023	<i>punicus W.</i>	red-stalked	Δ	or	8	jl.o	B	N. Amer.	1710.	D	co	Herm. lug. t. 651
12024	<i>hispidus W.</i>	rough-stalked	Δ	or	1	s.o	W	China	1804.	D	co	lc. Kæmpf. t. 29
12025	<i>floribundus W.</i>	abundant-flow.	Δ	or	4	s.o	Pu	N. Amer.	...	D	co	
12026	<i>Novi-Héligi W.</i>	New-York	Δ	or	4	s.o	Pa.R	N. Amer.	1710.	D	co	Herm. lugd. t.69
12027	<i>bellidiflorus W.en.</i>	Daisy-flowered	Δ	or	2	aus	B	N. Amer.	...	D	co	
12028	<i>spectabilis W.</i>	showy	Δ	el	2	aus	B	N. Amer.	1777.	D	co	
12029	<i>serotinus W.</i>	late-flowering	Δ	or	3	s.n	B	N. Amer.	1775.	D	co	
12030	<i>tardiflorus W.</i>	spear-leaved	Δ	or	2	aus	P.B	N. Amer.	1775.	D	co	
12031	<i>bländus Ph.</i>	charming	Δ	or	2	o.n	Pa,pu	N. Amer.	1800.	D	co	Bot. cab. 959
12032	<i>chinensis W.</i>	Chinese	Δ	or	2	jl.s	D,Pu	China	1731.	S	co	Dill.elt. t.34.f.38
12033	<i>acuminatus Ph.</i>	acuminate	Δ	or	1½	au.o	W	N. Amer.	1806.	D	co	
12034	<i>conyzoides W.</i>	Comyza-like	Δ	or	1	aus	W	N. Amer.	1778.	D	co	
12035	<i>Rádula W.</i>	rasp-leaved	Δ	or	2	s.n	W	N. Amer.	1785.	D	co	
12036	<i>strictus Ph.</i>	upright-dwarf	Δ	pr	¼	s.n	Vi	N. Amer.	1806.	D	co	
12037	<i>Tradescánti W.</i>	Michaelmas Daisy	Δ	or	3	jl.s	W	N. Amer.	1633.	D	co	Mor.s.7.t.21.f.42
12038	<i>recurvatus W.</i>	recurved	Δ	or	3	aus	Pa,B	N. Amer.	1800.	D	co	
12039	<i>éminens Ph.</i>	eminent	Δ	or	2	s.n	Li	N. Amer.	...	D	co	
12040	<i>láxus Ph.</i>	loose-stalked	Δ	or	2	s.n	W	N. Amer.	...	D	co	
12041	<i>simplex W.en.</i>	single-stalked	Δ	or	3	au.o	W,pu	N. Amer.	...	D	co	
12042	<i>polyphýllus W.en.</i>	many-leaved	Δ	or	3	au.o	W	N. Amer.	...	D	co	
12043	<i>juncus W.</i>	slender-stalked	Δ	or	4	s.o	F	N. Amer.	1758.	D	co	
12044	<i>lanceolatus W.</i>	lanceolate	Δ	or	4	au.n	W,pu	N. Amer.	1811.	D	co	
12045	<i>dracunculoides W.</i>	Tarragon-like	Δ	or	3	s.n	W	N. Amer.	1811.	D	co	
12046	<i>frágilis W.</i>	brittle	Δ	or	2	s	W	N. Amer.	1800.	D	co	
12047	<i>miser W.</i>	meagre-flower.	Δ	un	3	s.o	W	N. Amer.	1759.	D	co	
12048	<i>divérgens W.</i>	spreading-downy	Δ	un	3	s.o	W	N. Amer.	1758.	D	co	
12049	<i>diffúsus W.</i>	diffuse	Δ	or	2	s.o	W	N. Amer.	1777.	D	co	
12050	<i>péndulus W.</i>	pendulous	Δ	or	2	s.o	W	N. Amer.	1758.	D	co	
12051	<i>caucásicus W.</i>	Caucasian	Δ	or	1	jl.au	Pu	Caucasus	1804.	D	co	
12052	<i>altáicus W.en.</i>	dwarf	Δ	or	¾	my.au	B	Siberia	1804.	D	co	
12053	<i>tenéllus W.</i>	slender	Δ	or	¾	apo	B	C. G. H.	1769.	C	p.l	Bot. mag. 33
12054	<i>Tripólium W.</i>	sea	Δ	or	2	au.s	B	Britani	sea sh.	D	co	Eng. bot. 87
12055	<i>sibiricus W.</i>	Siberian	Δ	or	2	jl.o	B	Siberia	1768.	D	co	Gm.sib;2.t.80.f.1
12056	<i>élegans W.</i>	elegant	Δ	or	2	au.o	B	.....	1790.	D	co	
12057	<i>pállens W.en.</i>	pale-flowered	Δ	or	3	s.o	Vi	N. Amer.	...	D	co	
12058	<i>præcox W.en.</i>	early-flowering	Δ	or	2	jl.au	Vi	N. Amer.	1800.	D	co	
12059	<i>undulátus W.</i>	wave-leaved	Δ	or	3	au.o	P.B	N. Amer.	1699.	D	co	Herm. parad. 96
12060	<i>paniculátus W.</i>	panicked	Δ	el	4	s.o	B	N. Amer.	1640.	D	co	Corn.canad. t.65
12061	<i>cordifólius W.</i>	heart-leaved	Δ	or	2	jl.au	P.B	N. Amer.	1759.	D	co	
12062	<i>corymbósus W.</i>	corymbed	Δ	or	2	s	W	N. Amer.	1765.	D	co	
12063	<i>macrophýllus W.</i>	large-leaved	Δ	or	2	jl.s	W	N. Amer.	1739.	D	co	
12064	<i>heterophýllus W.en.</i>	various-leaved	Δ	or	3	jl.s.	Pa,pu	N. Amer.	1811.	D	co	
12065	<i>alwártensis Lodd.</i>	fine rayed	Δ	el	1	my	R	Caucasus	1807.	D	co	Bot. mag. 2321
1740.	SÓLIDA'GO. W.	GOLDEN ROD.					<i>Compositæ.</i>	<i>Sp. 48—61.</i>				
12066	<i>canadénsis W.</i>	Canadian	Δ	pr	2	jl.s	Y	N. Amer.	1648.	D	co	Sch.hand.3.f.246
12067	<i>frágans W.en.</i>	fragrant	Δ	pr	3	jl.s	Y	N. Amer.	...	D	co	
12068	<i>prócera W.</i>	great	Δ	pr	6	s.o	Y	N. Amer.	1758.	D	co	
12069	<i>serotina W.</i>	upright-smooth	Δ	pr	4	jl.au	Y	N. Amer.	1758.	D	co	
12070	<i>gigántea W.</i>	gigantic	Δ	pr	6	aus	Y	N. Amer.	1758.	D	co	
12071	<i>ciliáris W.</i>	ciliated	Δ	pr	3	aus	Y	N. Amer.	1811.	D	co	
12072	<i>reféxa W.</i>	hanging-leaved	Δ	pr	3	aus	Y	N. Amer.	1758.	D	co	
12073	<i>lateriflóra W.</i>	lateral-flowered	Δ	pr	3	aus	Y	N. Amer.	1758.	D	co	



History, Use, Propagation, Culture,

Asteræe are chiefly characterized by their style, which, in its most complete state, is alone sufficient to distinguish them from every other tribe. They are found in every part of the world, but especially in North America and Africa.

1740. *Solidago*. From *solidari*, to unite, on account of the vulnerary qualities of the plants. The species are all autumnal coarse-looking herbaceous plants with yellow flowers; in the shrubbery they make a pretty

- 12019 Lvs. subamplexicaul. broad-lanc. subserrate smooth, Stem glabrous, Scales of invol. shorter than disk
 12020 Lvs. subamplexicaul. : upper lanc. acumi. entire; lower lanc. narrowed at base serrated, Branchlets virgate
 12021 Lvs. subamplexicaul. remote obl. entire lucid; radic. subserrated, Invol. imbr. with cuneiform leaflets
 12022 Lvs. subamplexicaul. lanc. lower subserrate smooth, Stem simple paniced at end, Invol. closely imbricated
 12023 Lvs. amplexicaul. lanc. serrate roughish, Branches paniced, Invol. lax longer than disk
 12024 Lvs. obl. lanc. scabrous ciliated; lower ovate, Stem hispid, Branches 1-headed, Scales of invol. obl. imbr.
 12025 Lvs. subamplexicaul. lanc. : lower serrated, Stem smooth, Branches corymbose
 12026 Lvs. subamplexicaul. lanc. glabrous scabrous at edge : lower subserrated, Branches divided
 12027 Lvs. amplexicaul. narr. lanc. scabr. above lower subserr. Stem much branched, Invol. with spread. scales
 12028 Lvs. lanc. roughish somewhat amplexicaul. : lower serrate in the middle, Scales of invol. lax leafy
 12029 Lvs. obl. lanc. acuminate sessile smooth scabrous at edge : lower serrated, Branches corymbose smooth
 12030 Lvs. sessile serrated smooth spatulate lanc. narrowed at base and bent down towards each side
 12031 Lvs. subamplexicaul. obl. lanc. acuminate serrated smooth, Stem pyramidal, Racemes scarcely longer than lvs.
 12032 Lvs. ov. coarsely toothed stalked : cauline sessile cuneate at base, Stem hispid, Branches with single heads
 12033 Lvs. broad lanc. narrow, at base entire with a very long point, Stem simp. flexuose angul. Panic. corymb.
 12034 Lvs. obl. 3-nerved narrowed at base acute : upper sess. nearly entire; lower stalked serrated, Stem corymb.
 12035 Lvs. lanc. serrate acuminate rugose very rough, Stem erect angular simple
 12036 Lvs. sess. narrow lanc. serrated scabrous, Stem 1 or few-headed
 12037 Lvs. lanc. sess. serr. smooth, Branches virgate, Invol. imbricated, Stem round smooth
 12038 Lvs. sess. narrow lanc. : lower serrated in middle, Stem branched smooth recurved, Invol. lax imbricated
 12039 Lvs. lin. lanc. acumin. scabrous at edge : lower subserrated, Stem paniced, Branches 1-headed
 12040 Lvs. lin. lanc. acumin. scabrous at edge : lower subserrated; cauline reflexed, Stem lax paniced
 12041 Lvs. lanc. acumin. scabrous at edge : cauline serrated at end; those of the branches entire, Stem paniced
 12042 Lvs. lin. entire : radic. obl. subserrated, Stem much branched downy, Invol. loosely imbricated
 12043 Lvs. lanc. lin. sessile smooth : lower subserrate, Stem paniced smooth, Invol. imbricated
 12044 Lvs. lin. lanc. sessile entire smooth : lower lanc. subserrate, Stem branched diffuse smoothish
 12045 Lvs. lin. acuminate entire : lower lin. lanc. subserrate, Branches corymbose, Invol. imbricated
 12046 Lvs. lin. acuminate entire : radical obl. serr. Branches in corymbose panices, Invol. imbricated
 12047 Lvs. sess. lanc. serrated smooth, Invol. imbricated : leaflets acute, Stem rather villous
 12048 Lvs. ellipt.-lanc. serrated smooth : cauline lan.-lanc. long, Branches spreading, Invol. imbr. Stem pubesc.
 12049 Lvs. ellipt.-lanc. serrated smooth even-sized, Branches spreading, Invol. imbricated, Stem pubescent
 12050 Lvs. ellipt.-lanc. serr. smooth : those of the branches distant, Branches much spreading pendulous
 12051 Stem 1-fl. Lvs. ovate sessile scabrous, Scales of invol. nearly equal linear
 12052 Lvs. lin. lanc. entire blunt mucronate 3-nerved at base veiny, Stem simple corymbose downy
 12053 Lvs. filiform aculeate ciliate, Invol. hemispherical, Leaflets equal
 12054 Stem glabr. corymb. Lvs. lin.-lanc. fleshy obscurely 3-nerv. Scales of invol. lanc. membran. obt. imbricated
 12055 Leaves lanc. subamplexicaul. serrate pilose scabrous, Invol. lax : leaf. lanc. acuminate foliaceous hispid
 12056 Leaves scabr. : caul. obl. acute; radical obl. stalked, Scales of invol. obl. cuneate blunt subsquarrose
 12057 Leaves sessile obl. lanc. serrate : floral ciliated, Stem branched glabrous, Invol. closely imbricated
 12058 Lvs. obl. lanc. serrat. narr. at base, Stem hairy, Inv. imbric. nearly equal, Outer scales somcw. spreading

*** *Leaves cordate and ovate, serrate.*

- 12059 Leaves obl. cordate amplexicaul. entire, Petioles winged, Stem paniced hispid, Branchlets 1-sided
 12060 Leaves ovate-lanc. subserrated stalked smooth, Petioles naked, Stem much branched smooth, Invol. lax
 12061 Leaves cordate pilose beneath finely serrated stalked, Stem paniced smoothish, Panicle spreading
 12062 Leaves ov. finely serrated acumin. smoothish : lower cord. stalked, Branches hairy, Scales of invol. blunt
 12063 Leaves ovate stalked serrated scabrous : upper ovate cordate sessile, Stem branched diffuse, Scales acute
 12064 Leaves smooth : cauline ovate subcord. acuminate deeply serrated entire at end, Stem paniced smooth
 12065 Leaves ovate narrowed at base entire 5-nerved, Invol. lax squarrose, Ray very fine

§ 1. *Racemes 1-sided, Leaves 3-nerved.*

[exceeding disk

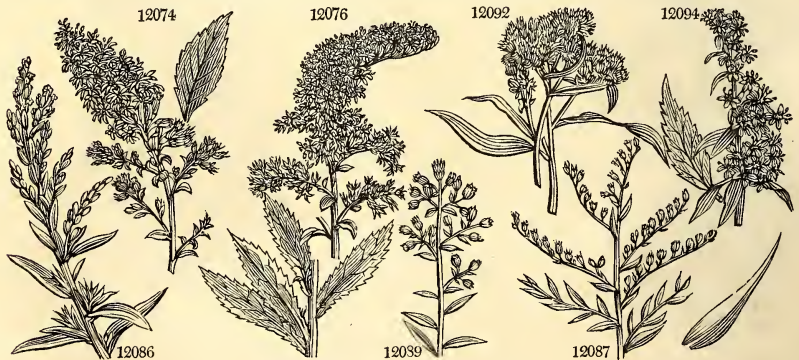
- 12066 Stem downy, Lvs. lanc. serrat. triple-ribb. rough, Clusters copious paniced unilateral recurv. Radius hardly
 12067 Leaves obl. 3-nerved subserrated, Racemes 1-sided, Ligule middling, Stem smooth, Peduncles downy
 12068 Stem villous erect, Lvs. lanc. serrated triple-ribbed rough villous beneath, Clusters spiked erect drooping
 before flowering, Radius short
 12069 Stem erect round very smooth, Leaves lin.-lanceol. smooth triple-ribbed serrated rough-edged, Clusters
 paniced unilateral, Stalks downy
 12070 Stem erect smooth, Lvs. lanc. smooth serrated rough edged obscurely triple-ribbed, Clusters paniced
 unilateral, Stalks hairy, Radius short
 12071 Stem erect smooth, Leaves lanc. somewhat triple-ribbed smooth rough-edged slightly serrated, Clusters
 paniced unilateral, Stalks smooth, Bract. fringed, Radius short
 12072 Stem erect vill. Lvs. lanc. somew. serrat. triple-ribbed rough reflexed, Clusters paniced slightly unilateral
 12073 Stem erect rather hairy, Lvs. lanc. obscurely triple-ribbed smooth rough-edged : the lower ones slightly
 serrated, Clusters paniced unilateral somewhat recurved



and *Miscellaneous Particulars.*

appearance among other coarse things, but there is not one of them which is worth a place in a choice collection of ornamental plants. The leaves of the *Solidago odora* have a delightfully fragrant odor, partaking of that of anise and Sassafras, but different from either. When subjected to distillation, a volatile oil, possessing the taste and aroma of the plant in a high degree, collects in the receiver. This oil apparently has its residence in the transparent cells which constitute the dotting of the leaves. The effects of the *S. odora* are

12074 áspera <i>W.</i>	rough-leaved	$\frac{3}{4}$ Δ pr	3 s	Y	N. Amer. 1732.	D co	Dil.el.t.305.f.392
12075 altissima <i>Ph.</i>	tall	$\frac{3}{4}$ Δ pr	8 a.us	Y	N. Amer. 1686.	D co	Mart. cent. 14
12076 rugósa <i>Ph.</i>	wrinkle-leaved	$\frac{3}{4}$ Δ pr	3 a.us	Y	N. Amer. 1732.	D co	Dil.el.t.308.f.396
12077 villósa <i>Ph.</i>	villous	$\frac{3}{4}$ Δ pr	2 a.us	Y	N. Amer. 1732.	D co	
12078 scábra <i>W.</i>	scabrous	$\frac{3}{4}$ Δ pr	3 a.us	Y	N. Amer. 1811.	D co	
12079 nemorális <i>W.</i>	woolly-stalked	$\frac{3}{4}$ Δ pr	1½ s	Y	N. Amer. 1769.	D co	
12080 pátuła <i>W.</i>	spreading	$\frac{3}{4}$ Δ pr	2 s.o	Y	N. Amer. 1805.	D co	
12081 ulmi-fólia <i>W.</i>	Elm-leaved	$\frac{3}{4}$ Δ pr	2 au.o	Y	N. Amer. 1805.	D co	
12082 argúta <i>W.</i>	sharp-notched	$\frac{3}{4}$ Δ pr	4 jl.au	Y	N. Amer. 1758.	D co	
12083 júncea <i>W.</i>	Rush-stalked	$\frac{3}{4}$ Δ pr	2 a.us	Y	N. Amer. 1769.	D co	
12084 elliptica <i>W.</i>	oval-leaved	$\frac{3}{4}$ Δ pr	3 a.us	Y	N. Amer. 1759.	D co	
12085 recurváta <i>W. en.</i>	recurved	$\frac{3}{4}$ Δ pr	2 s.n	Y	N. Amer. ...	D co	
12086 sempervirens <i>W.</i>	evergreen	$\frac{3}{4}$ Δ pr	5 s.o	Y	N. Amer. 1699.	D co	Cor.canad. t.169
12087 odóra <i>W.</i>	sweet-smelling	$\frac{3}{4}$ Δ pr	3 jl.au	Y	N. Amer. 1699.	D co	Pluk.al. t.116.t.6
12088 pauciflósculósa <i>Ph.</i>	slender-flower.	$\frac{3}{4}$ Δ pr	2 au.o	Y	N. Amer. 1811.	D co	
12089 bicolor <i>W.</i>	two-colored	$\frac{3}{4}$ Δ pr	2 a.us	Y	N. Amer. 1759.	D co	Pluk.al. t.114.t.8
12090 petioláris <i>W.</i>	late-flowered	$\frac{3}{4}$ Δ pr	4 o.d	Y	N. Amer. 1758.	D co	
12091 stricta <i>W.</i>	Willow-leaved	$\frac{3}{4}$ Δ pr	3 s	Y	N. Amer. 1758.	D co	
12092 lanceoláta <i>Ph.</i>	Grass-leaved	$\frac{3}{4}$ Δ pr	5 o	Y	N. Amer. 1758.	D co	Bot. mag. 2546
12093 tenuifólia <i>Ph.</i>	slender-leaved	$\frac{3}{4}$ Δ pr	2 s.o	Y	N. Amer. 1758.	D co	
12094 cæ'sia <i>W.</i>	Maryland	$\frac{3}{4}$ Δ pr	2 s.o	Y	N. Amer. 1732.	D co	Dil.el.t.307.f.395
12095 lívida <i>W. en.</i>	livid	$\frac{3}{4}$ Δ pr	2 s.o	Y	N. Amer. ...	D co	
12096 hírtá <i>W. en.</i>	hairy	$\frac{3}{4}$ Δ pr	2 s.o	Y	N. Amer. ...	D co	
12097 lithospermifólia <i>Ph.</i>	Gromwell-lvd.	$\frac{3}{4}$ Δ pr	2 au.o	Y	N. Amer. 1811.	D co	
12098 lævigáta <i>W.</i>	fleshy-leaved	$\frac{3}{4}$ Δ pr	6 o.n	Y	N. Amer. 1699.	D co	
12099 mexicána <i>W.</i>	Mexican	$\frac{3}{4}$ Δ pr	6 jl.o	Y	N. Amer. 1683.	D co	Dodar.ac.4.t.219
12100 vimínea <i>W.</i>	twiggy	$\frac{3}{4}$ Δ pr	3 s	Y	N. Amer. 1759.	D co	
12101 erécta <i>Ph.</i>	upright	$\frac{3}{4}$ Δ pr	3 au.o	Y	N. Amer. ...	D co	
12102 macrophýlla <i>Ph.</i>	large-leaved	$\frac{3}{4}$ Δ pr	3 au.o	Y	N. Amer. ...	D co	
12103 flexicaúlis <i>W.</i>	crook-stalked	$\frac{3}{4}$ Δ pr	2 s	Y	N. Amer. 1725.	D co	Herm.parad.244
12104 latifólia	broad-leaved	$\frac{3}{4}$ Δ pr	1½ s	Y	N. Amer. 1725.	D co	Pluk.al. t.235.f.4
12105 ambígua <i>W.</i>	angular-stalked	$\frac{3}{4}$ Δ pr	2 jl.au	Y	..... 1759.	D co	
12106 axilláris <i>Ph.</i>	axillary	$\frac{3}{4}$ Δ pr	2 au.o	Y	N. Amer. 1811.	D co	
12107 Virgáurea <i>W.</i>	common	$\frac{3}{4}$ Δ pr	2 jls	Y	Britain woods.	D co	Eng. bot. 301
12108 cámbrica <i>W.</i>	Welsh	$\frac{3}{4}$ Δ pr	¼ jl.au	Y	Wales ...	D co	Dil.el.t.306.f.393
12109 multiradiáta <i>W.</i>	Labrador	$\frac{3}{4}$ Δ pr	¼ jl.au	Y	Labrador 1776.	D co	
12110 mínúta <i>W.</i>	least	$\frac{3}{4}$ Δ pr	¼ jl.au	Y	Pyrenees 1772.	D co	Bot. cab. 189
12111 hómilis <i>Ph.</i>	dwarf	$\frac{3}{4}$ Δ pr	1 jl.au	Y	N. Amer. 1811.	D co	
12112 eláta <i>Ph.</i>	tall-hairy	$\frac{3}{4}$ Δ pr	6 au.o	Y	N. Amer. 1811.	D co	
12113 rígida <i>W.</i>	hard-leaved	$\frac{3}{4}$ Δ pr	3 s	Y	N. Amer. 1710.	D co	Herm.parad.243
1741. CINERA'RIA. <i>W.</i>	CINERARIA.				Compositæ. Sp. 31—72.		
12114 geifólia <i>W.</i>	Kidney-leaved	$\frac{3}{4}$ \square or	2 ap.au	Y	C. G. H. 1710.	C p.1	Com.hort.2. t.73
12115 canescens <i>Wendl.</i>	hoary	$\frac{3}{4}$ \square or	2 ap.au	Y	C. G. H. 1790.	C p.1	Bot. mag. 1990
	<i>parviflora</i> H. K.						
12116 auríta <i>W.</i>	purple-flower'd	$\frac{3}{4}$ \square or	1½ jn.jl	Pu	Madeira 1777.	C 1p	Bot. mag. 1786



History, Use, Propagation, Culture,

aromatic, pleasant to the taste, gently stimulant, diaphoretic, and carminative. An essence made by dissolving the essential oil in proof spirit, is used in the eastern states as a remedy in complaints arising from flatulence, and as a vehicle for unpleasant medicines of various kinds. It has been employed successfully to allay vomit-

§ 2. *Racemes 1-sided. Leaves not 3-nerved.*

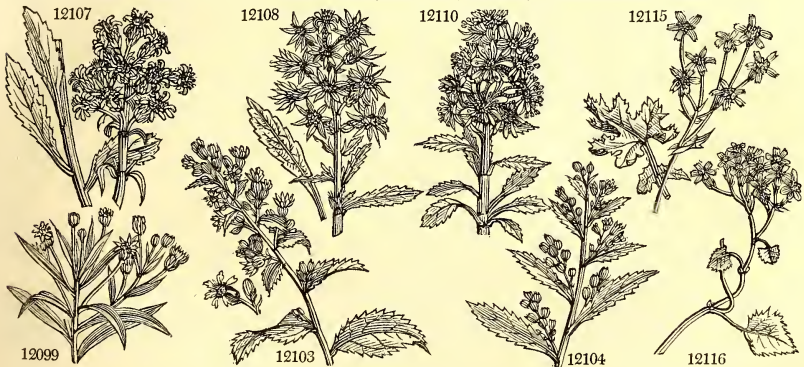
- 12074 Stem erect round hairy, Lvs. ov. rather ellipt. very rough rugged serrated without lateral ribs, Clusters panicked unilateral
 12075 Stem erect hairy, Lvs. lanc. the lower ones deeply serrated very rough rugose, Panicles unilateral
 12076 Stem erect hairy, Lvs. ovate-lanc. the lower ones closely serrated rugged very rough, Clusters panicked compound widely spreading unilateral
 12077 Stem erect vill. Lvs. lanc. rather soft serrated without lateral ribs, Clusters panicked unilateral
 12078 Stem erect hairy, Lvs. oblong pointed smooth above rugged and rough beneath, Clusters unilateral
 12079 Stem erect downy, Stem lvs. lanc. hisp. ent. : radic. ones somev. wedge-shap. serrat. Clust. panic. unilateral
 12080 Stem erect smooth angular, Lvs. ellipt. serrated smooth : the radic. ones obl.-spatulate, Clusters panicked unilateral spreading, Pedunc. downy
 12081 Stem erect striated smooth, Lvs. ellipt. pointed deeply serrated vill. beneath : radical ones obovate, Clusters panicked unilateral, Pedunc. villous, Rays short
 12082 Stem erect smooth, Lvs. smooth sharply and unequally serr. : those of the stem ellipt. ; radical ones ovate-obl. Clusters panicked unilateral, Rays elongate
 12083 Stem erect smooth, Lvs. lanc. smooth rough-edged : the lower ones serrated, Clusters panicked unilateral
 12084 Stem erect smooth, Lvs. ellipt. smooth serrated, Clusters panicked unilateral, Rays of a middling length
 12085 Stem erect downy, Lvs. lanc. serrated rough edged, Clusters elongated unilateral recurved panicked
 12086 Stem erect smth. Lvs. lin.-lanc. rather fleshy smth. entire rough-edg. Clust. panic. unilateral, Ped. roughish
 12087 Stem erect striated downy, Lvs. lin.-lanc. entire smooth rough-edged, Clust. panic. unilateral nearly simple

§ 3. *Racemes erect.*

- 12088 Smooth somewhat shrubby, Lvs. lanc. obtuse without ribs, Panicle compound many-fl. tuft of flowers erect, Invol. narr.-oblong with 5 flor. in the disk and 1 in the radius
 12089 Stem hairy, Lvs. ellipt. hairy : the lower ones serr. ; those on the fl.-branches entire numerous and small, Clusters erect, Scales of invol. obtuse
 12090 Stem erect villous, Lvs. ellipt. roughish stalked, Clusters erect, Rays twice the length of the invol.
 12091 Stem erect smth. Stem-lvs. lanc. entire smth. rough-edg. : radic. ones serrat. Clust. panic. erect, Ped. smth.
 12092 Stem smooth. furrowed much branched, Lvs. almost lin. ent. roughish nearly erect with 3 or 5 rough ribs, Rays not longer than the disk
 12093 Stem rough-angular branch. corymb. Lvs. spread. lin. very narr. slightly 3-ribb. rough with axilla tufts of smaller ones, Rays scarcely exceeding the disk
 12094 Stem nearly erect very smooth and even, Lvs. lanc. smooth with roughish edges and ribs, Clusters erect, Rays rather longer than the disk
 12095 Stem smooth panic. Lvs. lanc. serrat. smth. rough-edged, Branches racemose at the extremity, Rays long.
 12096 Stem panic. hairy, Lvs. lanc. rough on both sides : those of the stem serrat. ; of the branches ent. Clusters erect, Rays elongated
 12097 Stem branch. downy, Lvs. lanc. rough on both sides tapering 3-ribb. entire, Clusters erect, Rays elongated
 12098 Stem erect smth. Lvs. lanc. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly hairy, Radius twice the length of invol.
 12099 Stem oblique smooth, Lvs. lanc. somew. fleshy entire smooth in every part, Clusters panic. erect, Pedunc. scaly smooth, Rays longer than invol.
 12100 Stem erect slightly downy, Lvs. lin. lanc. smooth rough-edged tapering at the base : the lower ones somew. serrated, Clusters erect, Rays elongated
 12101 Stem rather vill. Lvs. lanc. veiny smooth entire somewhat stalked
 12102 Lower lvs. ov. pointed taper. unequally and sharply serr. smooth : those of the stem lanc. tapering at each end serr. nearly sess. Clusters axill. stalked leafy the length of the leaves
 12103 Stem zig-zag roundish smooth, Lvs. lanc. pointed serrated smooth nearly sess. Clust. axill. erect
 12104 Stem somew. zig-zag angular smooth, Lvs. ovate pointed strongly serrated smooth : tapering into a winged footstalk, Clusters axillary erect
 12105 Stem slightly zig-zag smooth angul. branch. Lvs. ov.-lanc. pointed densely serrated rather hairy beneath tapering into a wing. footstalk : upper ones ent. Clust. axill. erect the upper ones much long. than the lvs.
 12106 Stem smooth round erect, Lvs. lanc. serr. glabrous, Racemes axill. subglobose erect, Rays long
 12107 Cauline leaves lanc. : the lower ones ellipt. Racemes panicked erect crowded
 12108 Stem quite simple downy, Lvs. cuneiform lanc. downy, Racemes erect, Rays long
 12109 Stem a little villous, Lvs. sessile lanc. smooth ciliated : lower serrated at end, Rays long numerous
 12110 Stem quite simple pilose, Lvs. lanc. acute serrated smooth, Raceme term. simple erect, Rays long
 12111 Stem simple erect smooth, Lvs. lanc. serrated smooth tapering and elongated at the base, Clusters erect
 12112 Stem hairy round, Lvs. lanc. rather hairy beneath, Clusters erect, Rays elongated
 12113 Lvs. ov.-obl. rough like the corymbose stem with minute rigid hairs : the lowermost serrat. ; upper entire, [Clusters compact, Rays twice the length of the obtuse calyx

- 12114 Pedunc. branched, Lvs. reniform narrowed somewhat lobed downy, Petioles auricled at end
 12115 Pedunc. branched, Lvs. cordate 5-lobed toothed woolly, Petioles with appendages, Ray 3-flored

- 12116 Heads corymbose, Lvs. cordate somewhat angular downy beneath, Petioles auricled at base



and Miscellaneous Particulars.

ing, and to relieve spasmodic pains in the chest of a milder kind. The leaves are also used in some parts of the United States as an agreeable substitute for tea. (*Bigelow*.)

174. *Cineraria*. From *cincres*, in reference to the soft white down which clothes the lower, and

12117	<i>láctea W. en.</i>	milk-colored	½	or	3	jn.jl	W	.....	1816.	C	l.p
12118	<i>crúenta W.</i>	purple-leaved	½	or	2	f.my	Pu	Canaries	1777.	R	p.l
12119	<i>hýbrida W. en.</i>	hybrid	½	or	2	f.my	Pu	.....	...	C	p.l
12120	<i>populifolia H. K.</i>	Poplar-leaved	½	or	2	jn.s	R	Canaries	1780.	C	p.l
12121	<i>lobata W.</i>	lobed	½	or	3	jn.au	Y	C. G. H.	1774.	C	p.l
12122	<i>malvæfolia W.</i>	Mallow-leaved	½	or	2	au	Y	Azores	1777.	R	p.l
12123	<i>Petasites E. M.</i>	Butter-bur-ldv.	½	or	3	f.d	Y	Mexico	1812.	C	l.p
12124	<i>discolor W.</i>	white-leaved	½	or	4	jl.au	Y	Jamaica	1804.	C	l.p
12125	<i>elátiar Bouché</i>	tall	½	or	5	jl.au	Y	.....	...	D	l.p
12126	<i>parviflora Bieb.</i>	small-flowered	½	or	2	jl.au	Y	Caucasus	1820.	D	l.p
12127	<i>americana W.</i>	American	½	or	6	...	Y	Grenada	1825.	C	p.l
12128	<i>bicolor L.</i>	two-colored	½	or	2	jl.au	Y	.....	...	C	co
12129	<i>speciosa Schrad.</i>	shewy	½	or	6	jl.au	Y	Siberia	1815.	D	co
12130	<i>sibirica W.</i>	Siberian	½	or	4	jn.au	Y	Siberia	1784.	C	co
12131	<i>gigantæa H. K.</i>	gigantic	½	or	4	jl.au	Y	Cape Horn	1801.	C	p.l
12132	<i>glauca W.</i>	glaucous-leav'd	½	or	6	jn.jl	Y	Siberia	1790.	D	co
12133	<i>palústris W.</i>	marsh	½	or	3	jn.jl	Y	England	mar.	D	m.s.
12134	<i>campestris W.</i>	mountain	½	or	½	my.jn	Y	England	ch.pa.	D	co
	<i>integrifolia E. B.</i>										
12135	<i>longifolia W.</i>	long-leaved	½	or	2	jn.au	Y	Austria	1792.	D	co
12136	<i>cordifolia W.</i>	heart-leaved	½	or	2	jl.au	Y	Austria	1739.	D	co
12137	<i>alpina W.</i>	Alpine	½	or	2	jn.au	Y	Austria	1683.	D	co
12138	<i>marítima W.</i>	Sea Ragwort	½	or	2	jl.s	Y	S. Europe	1653.	C	p.l
12139	<i>canadensis W.</i>	Canadian	½	or	2	jn.au	Y	Canada	1739.	D	co
12140	<i>linifolia W.</i>	Flax-leaved	½	or	2	jn.au	Y	C. G. H.	...	C	p.l
12141	<i>humifusa W.</i>	trailing	½	or	½	jl.au	Y	C. G. H.	1704.	R	p.l
12142	<i>viscosa W.</i>	clammy	½	or	2	jn.au	Y	C. G. H.	1774.	C	p.l
12143	<i>lanata W.</i>	woolly	½	or	3	mys.s	Pu	Canaries	1780.	C	p.l
12144	<i>amelloides W.</i>	blue-flowered	½	or	1½	f.s	B	C. G. H.	1753.	S	p.l
1742.	<i>CALOTIS. R. Br.</i>	<i>CALOTIS.</i>						<i>Compositæ.</i>	<i>Sp. 1—2.</i>		
12145	<i>cuneifolia R. Br.</i>	wedge-leaved	½	or	1	my.jn	B	N. Holl.	1819.	D	co
1743.	<i>KAULFUSSIA. Nees.</i>	<i>KAULFUSSIA.</i>						<i>Compositæ.</i>	<i>Sp. 1.</i>		
12146	<i>amelloides Nees.</i>	Cape Aster-like	½	or	1	jl.au	B	C. G. H.	1819.	D	co
1744.	<i>INULA. W.</i>	<i>INULA.</i>						<i>Compositæ.</i>	<i>Sp. 25—37.</i>		
12147	<i>Helénium W.</i>	Elecampane	½	or	4	jl.au	Y	Britain	m. me.	D	co
12148	<i>Oculus-Christi W.</i>	hoary	½	or	1½	jl.s	Y	Austria	1759.	D	co
12149	<i>britannica W.</i>	creeping-rooted	½	or	2	jl.s	Y	Germany	1759.	D	co
12150	<i>undulata W.</i>	wave-leaved	½	or	1	ilo	Y	Egypt	1739.	S	co
12151	<i>indica W.</i>	Indian	½	or	1½	ilo	Y	E. Indies	1739.	S	co
12152	<i>squarrosa W.</i>	net-leaved	½	or	1	jl.s	L.Y	Italy	1768.	D	co
12153	<i>viscosa W.</i>	clammy	½	or	1½	jl.au	Y	S. Europe	1596.	C	p.l
12154	<i>tuberosa P. S.</i>	tuberous-rooted	½	or	1½	jl.au	Y	S. Europe	1640.	D	co
	<i>Erigeron tuberosum W.</i>										
12155	<i>salicina W.</i>	Willow-leaved	½	or	2	aus.s	Y	N. Europe	1648.	D	co
12156	<i>glandulosa W.</i>	glandular	½	or	2	jl.au	Y	Georgia	1804.	D	co
12157	<i>Bubónium W.</i>	Austrian	½	or	1½	jl.s	Y	Austria	1801.	D	co
12158	<i>hirta W.</i>	hairy	½	or	1	jn.s	Y	Austria	1759.	D	co
12159	<i>suavæolens W.</i>	woolly-leaved	½	or	1½	jn.au	Y	S. Europe	1758.	D	co
12160	<i>Vaillantii W.</i>	Vaillant's	½	or	2	jn.au	Y	France	1739.	D	co
12161	<i>mollis Bernhardi</i>	soft	½	or	2	jn.au	Y	.....	...	D	co
12162	<i>odora W.</i>	fragrant	½	or	1½	jn.au	Y	S. Europe	1821.	D	co
12163	<i>mariana W.</i>	American	½	or	1	jl.au	Y	N. Amer.	1742.	D	co
12164	<i>germanica W.</i>	German	½	or	4	jn.jl	Y	Germany	1759.	D	co
12165	<i>ensifolia W.</i>	sword-leaved	½	or	½	jl.s	Y	Austria	1793.	D	co
12166	<i>crithmifolia W.</i>	Sapphire-leav.	½	or	2	aus.s	Y	England	sal.m.	D	co
12167	<i>provincialis W.</i>	oval-leaved	½	or	1	jl.au	Y	France	1778.	D	co
12168	<i>montana W.</i>	mountain	½	or	1½	jl.au	Y	S. Europe	1759.	D	co



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often the upper surface of the leaves. *C. discolor*, *populifolia*, &c. are popular half-shrubby plants, well calculated for bearing the confined air of a sitting room. Most of the hardy herbaceous species are fine ornamental plants of easy culture. *C. lanata* and *amelloides* flower the greater part of the year; the former species is considered the handsomest of the genus; its petals exteriorly are of a most vivid purple, interiorly they are white.

1342. *Calotis*. The name has been derived from *zaldos*, beautiful, and *es wtos*, an ear, in allusion to the two membranous ear-shaped paleæ of the pappus. A pretty little New Holland herbaceous plant.

1743. *Kaulfussia*. Named after Dr. George Frederick Kaulfuss, professor of botany at Halle, a distinguished living Cryptogamic botanist. A small plant with bright blue flowers.

1744. *Inula*. The derivation of this word is uncertain. The Latins applied it to a plant which was eaten as

- 12117 Lvs. cordate angular downy beneath, Corymbs terminal paniced, Scales of invol. recurved at end
 12118 Heads corymbose, Lvs. cordate angular toothed purple beneath, Petioles winged auricled at base
 12119 Pedunc. about 1-headed, Branches corymb. Lvs. cord. angular toothed downy beneath, Petioles winged
 12120 Heads corymbose, Lvs. cordate subangular downy beneath, Petioles with many appendages at end
 12121 Heads subcorymbose, Lvs. roundish many-lobed smooth, Petioles auricled at base, Invol. calyculate
 12122 Heads cymose, Lvs. cordate angular downy beneath, Petioles simple
 12123 Leaves large round lobed downy and green on each side
 12124 Heads corymbose, Leaves oblong lanc. acuminate toothletted smooth white beneath
 12125 Lvs. cord. subangular smooth above downy beneath, Petioles with an appendage at top, Heads corymb.
 12126 Stem simple, Heads paniced, Lvs. smooth tooth. ; lower deltoid stalked : upper obl. lanc. amplexicaul.
 12127 Panicles axillary, Lvs. alternate stalked broad lanc. serrated smooth above hoary beneath [above
 12128 Heads corymb. Invol. hoary pubesc. Lvs. obl. pinnatif. at base : segm. somey. toothed shining and smooth
 12129 Raceme simple, Lvs. reniform toothletted, Petiole inflat. Stem simple leafy, Bractes in the midd. of stalk
 12130 Raceme simple, Lvs. cordate blunt toothletted smooth, Stem simple 1-leaved
 12131 Heads corymb. Lvs. cauline ov. acute finely serrated downy beneath : petioles winged at base ; radic. cord.
 12132 Raceme simple, Lvs. spatulate cordate entire smooth, Stem simple
 12133 Heads corymbose, Lvs. broad lanc. tooth-situated, Stem villous
 12134 Heads umbellate, Stem simple, Lvs. downy : radical ovate subcrenulate ; cauline lanc. entire
 12135 Heads in corymbose umbels, Stem simple, Lvs. somewhat toothed : radic. spatulate ; caul. obl. lanc.
 12136 Panicle few-headed, Stem simple, Lvs. all stalked cordate doubly toothed, Petioles toothed at base
 12137 Heads corymbose, Lvs. pinnated : term. pinnae large cordate cut-toothed ; lateral cuneate toothed at end
 12138 Heads paniced, Invol. downy, Lvs. pinnatifid : segments blunt about 3-lobed downy beneath
 12139 Heads paniced, Lvs. pinnatifid subvillous : segments sinuated, Stem herbaceous
 12140 Pedunc. 1-headed axillary, Lvs. linear subulate glabrous, Stem shrubby
 12141 Pedunc. 1-headed, Lvs. reniform somewhat angular, Petioles auricled at end or naked
 12142 Pedunc. 1-headed, Lvs. pinnatifid lobed acute viscid fleshy
 12143 Pedunc. 1-headed, Lvs. cordate roundish with 7 angles woolly beneath
 12144 Pedunc. 1-headed, Lvs. opposite ovate naked

12145 Leaves cuneate cut-toothed at end

12146 The only species

- 12147 Lvs. amplexic. somewhat toothed ovate rugged downy beneath, Scales of the involucre downy
 12148 Leaves amplexic. oblong entire hirsute, Stem pilose corymbose
 12149 Leaves amplexic. lanc. serrated at base pilose beneath, Stem corymbose villous
 12150 Leaves amplexic. cordate lanceolate wavy
 12151 Leaves amplexic. cordate lanc. quite smooth serrated, Stem corymbose smooth, Pedunc. 1-headed filiform
 12152 Leaves oval rigid sessile serrulate scabrous netted, Scales of invol. ovate reflexed
 12153 Leaves sessile reflexed at base lanc. serrated, Stem downy clammy, Peduncles axillary leafy
 12154 Leaves sessile lanc. lin. Stem pilose branched, Branches spreading 1-headed, Root tuberous

- 12155 Leaves lanc. recurved serrate scabrous, Branches angular, Lower heads tallest
 12156 Lvs. sess. obl. obsolete serrate : serratures glandular, Stem hairy 1-headed, Scales of invol. lanc. villous
 12157 Lvs. sess. obl. with cartilaginous teeth scabrous rigid, Stem corymbose, Scales of invol. blunt squarrose
 12158 Lvs. sessile lanc. bluntly serrated rigid pilose, Stem villous 1-headed, Scales of invol. lanceolate
 12159 Leaves ellipt. narrowed at base stalked pilose : lower toothed, Stem many-flowered
 12160 Leaves sessile oblong lanc. serrated downy beneath, Heads stalked about 4 in terminal umbels
 12161 Leaves lanc. acute serrulate hairy, Lvs. of invol. lanc. hairy outer reflexed
 12162 Leaves amplexicaul. toothed very hairy : radical ovate ; cauline lanceolate
 12163 Leaves sessile oblong lanc. attenuated at base obtuse entire mucronate with a gland, Pedunc. fi. if viscid
 12164 Leaves sessile obl. acute entire scabrous, Stem branched at top, Heads corymbose
 12165 Leaves sessile lin. acuminate nerved smooth scattered, Stem about 1-headed
 12166 Leaves linear fleshy generally 3-pointed
 12167 Leaves subserrate downy beneath : radical stalked ovate, Stem erect 1-flowered
 12168 Leaves lanc. hirsute entire, Stem 1-headed, Invol. short imbricated



and Miscellaneous Particulars.

a preserve with sugar. Inulæ in many respects resemble Anthemideæ, Senecioneæ, and Nassauviæ, especially in their style ; but they are perfectly well characterized by the peculiarities of their ovarium, pappus, stamens, and corolla. They are also related to Carlineæ. They are found in every part of the world, and especially in southern Africa ; almost all the Composite of the southern latitudes being referable to them.

1. *Helenium*, called *Elccampane*, from the officinal name *Enula campana*, is one of the largest of British herbaceous plants. It was formerly esteemed a tonic, and is still retained in the *Materia Medica*, though little used. Bruised and macerated in wine, with balls of ashes and whortle berries, it dyes a blue color. The young branches of *I. Crithmifolia* are frequently sold in the London markets for samphire, to which they bear some resemblance in appearance, but none in virtues.

12169 bifrons <i>W.</i>	Italian	☿ Δ	or	1½	jn.au	Y	S. Europe	1713.	D co	Herm. par. t.127	
12170 saturojoides <i>W.</i>	Savory-leaved	☿ Δ	or	1	...	Y	Vera Cruz	1733.	C l p	Rel. Hous. 3. t.19	
12171 foetida <i>W.</i>	stinking	☿ ○	or	2	jn.au	Y	Malta	1688.	S co	Boc. sic. 26. t. 13	
1745. PULICARIA. <i>Gartn.</i>	PULICARIA.					Compositae.		Sp. 3.			
12172 vulgaris <i>Gartn.</i>	Small Fleawort	○	w	1	au.s	Y	England	moi.h.	S co	Eng. bot. 1196	
12173 arabica <i>Link.</i>	Arabian	☿ Δ	pr	1½	au.s	Y	Arabia	1823.	D co	Pluk.al. t.149.f.4	
12174 dysenterica <i>Link.</i>	meadow	☿ Δ	un	2	au.s	Y	England	wat.pl.	D co	Eug. bot. 1115	
1746. GRINDELIA. <i>W. en.</i>	GRINDELIA.					Compositae.		Sp. 5-7.			
12175 glutinosa <i>H. K.</i>	glutinous	☿	]	or	2	ja.d	Mexico	1803.	C l p	Bot. reg. 187
12176 inuloides <i>W. en.</i>	Inula-like	☿]	or	1½	jn.s	Y	Mexico	1815.	C l p	Bot. reg. 248
12177 squarrosa <i>Ph.</i>	Snake's-headed	☿ Δ	or	2	jls.	Y	Missouri	1811.	D l p	Bot. mag. 1706	
12178 angustifolia <i>Kunth.</i>	narrow-leaved	☿ Δ	or	1	jls.	Y	Mexico	1822.	D l p	Bot. reg. 781	
12179 ciliata <i>Nutt.</i>	ciliated	☿ ○	or	1½	jls.	Y	N. Amer.	1821.	D l p	Hook. ex. fl. 45	
1747. PODOLEPIS. <i>H. K.</i>	PODOLEPIS.					Compositae.		Sp. 2.			
12180 rugata <i>H. K.</i>	wrinkle-scaled	☿ Δ	or		jl.au	W	N. Holl.	1803.	C s p	Lab.no.h.2.t.208	
12181 acuminata <i>H. K.</i>	sharp-scaled	☿ Δ	or		my.au	W	N. S. W.	1803.	C s p	Bot. mag. 956	
1748. CHÆTANTHERA. <i>Fl. per.</i>	CHÆTANTHERA.					Compositae.		Sp. 1-2.			
12182 ciliata <i>Fl. per.</i>	ciliated	☿ Δ	or	2	jl.au		Chili	1822.	D co		
1749. ARNICA. <i>W.</i>	ARNICA.					Compositae.		Sp. 5-34.			
12183 montana <i>W.</i>	mountain	☿ Δ	or	1	jl.au	Y	Europe	1731.	D p l	Bot. mag. 1749	
12184 scorpioides <i>W.</i>	alternate-leav.	☿ Δ	or	1	jl.au	Y	Austria	1710.	D p l	Bot. cab. 913	
12185 Doronicum <i>W.</i>	Alpine	☿ Δ	or	1½	jl.au	Y	Austria	1816.	D l p	Jac. aust. 1. t. 92	
12186 Bellidiastrum <i>W.</i>	Daisy-leaved	☿ Δ	or	1	jn.au	W	Austria	1570.	D p l	Bot. mag. 1196	
12187 glaciális <i>W.</i>	ice	☿ Δ	or	1	jn.au	Y	Switzerl.	1823.	D p l	Jacq. ic. t. 586	
1750. GERBERIA. <i>Burm.</i>	GERBERIA.					Compositae.		Sp. 1-2.			
12188 crenata <i>Lindl.</i>	crenated	☿ ○	pr	½	jl.au	Pu	C. G. H.	1822.	D p l	Bot. reg. 855	
1751. DORONICUM. <i>W.</i>	LEOPARD'S-BANE.					Compositae.		Sp. 6-11.			
12189 Pardalanchés <i>W.</i>	great	☿ Δ	or	3	my	Y	Britain	m.pas.	D co	Eng. bot. 630	
12190 scorpioides <i>W.</i>	mountain	☿ Δ	or	3	ap.jn	Y	Germany	...	D co		
12191 austriacum <i>W.</i>	Austrian	☿ Δ	or		ap.jn	Y	Austria	1816.	D co	Jac. aust. t. 130	
12192 altaicum <i>W.</i>	Siberian	☿ Δ	or	1	jn.au	W	Siberia	1783.	D s l	P.ac.p.1779. t.16	
12193 orientale <i>W. en.</i>	oriental	☿ Δ	or	1	jn.au	Y	Caucasus	1815.	D l p		
12194 plantagineum <i>W.</i>	Plantain-leav'd	☿ Δ	or	2	my	Y	S. Europe	1570.	D co		
1752. PERDICUM. <i>H. K.</i>	PERDICUM.					Compositae.		Sp. 1-12.			
12195 Anándria <i>H. K.</i>	Siberian	☿ Δ	un	¾	mr		Siberia	1759.	D co	Gm.sib.2.t.68.f.1	
1753. TETRAGONOTHECA. <i>W.</i>	TETRAGONOTHECA.					Compositae.		Sp. 1.			
12196 helianthoides <i>W.</i>	Sunflower-like	☿ Δ	or	4	au.o	Y	Virginia	1726.	D p l	Sch. han.3. t.263	
1754. XIMENESIA. <i>W.</i>	XIMENESIA.					Compositae.		Sp. 1.			
12197 encelioides <i>W.</i>	Mexican	☿ Δ	or	3	jn.n	Y	Mexico	1795.	S l p	Cav. ic. 2. t. 178	
1755. HELENIUM. <i>W.</i>	HELENIUM.					Compositae.		Sp. 4-8.			
12198 autumnale <i>W.</i>	smooth	☿ Δ	or	3	au.o	Y	N. Amer.	1729.	D p l	Sch. han.3. t.250	
12199 pubescens <i>W.</i>	downy	☿ Δ	or	3	au.s	Y	N. Amer.	1776.	D p l		
12200 quadridentatum <i>W.</i>	wing-stalked	☿ Δ	or	3	my.o	Y	Louisiana	1790.	D l p	Bot. reg. 598	
12201 quadripartitum <i>Link.</i>	four-parted	☿ Δ	or	3	my.o	Y	.....	1823.	D l p	



History, Use, Propagation, Culture,

1745. *Pulicaria*. So named in allusion to its property of driving away fleas, *pulices*. See Conyza. *P. dysenterica* has its specific name from having cured certain Russian soldiers of the bloody flux. It is called by our old authors middle flea-bane, and was supposed by its smoke in burning to chase away fleas and other insects. Forskahl says, it is named in Arabic *Rara cjub*, or *Job's tears*, from a notion that Job used a decoction of this herb to cure his ulcers. Of course it was formerly recommended to cure the itch. *P. vulgaris* is also said to drive away fleas and gnats.

1746. *Grindelia*. A handsome genus of herbaceous plants, with neat foliage, and pretty yellow flowers. They are sometimes called *Donia*.

1747. *Podolepis*. From *πυς*, a foot, and *λεπίς*, a scale. The stalks of the flowers are covered with scales.

1748. *Chætanthera*. From *χαιτα*, hair, and *ανθηρα*, an anther, the anther being furnished with a hairy tuft.

1749. *Arnica*. This is said to be a corruption of *ptarmica*, derived from *πταίω*, to sneeze. The *Arnica montana* is a powerful sternutatory; in the Vosges it is even called *tabac* on that account. The whole plant has important medicinal properties; it is fortifying, diuretic, emmenagogue, vulnerary, antiseptic, resolutive, and sternutatory. The root powdered is employed in diarrhœa, dysentery, and quartan fevers; it is also applied outwardly to bad ulcers, and in cases of gangrene. The flour is used in asthenia, rheumatic pains,

- 12169 Leaves ovate-oblong decurrent toothed entire at end, Flowers corymbose clustered
 12170 Leaves sessile opp. linear lanc. entire dotted beneath, Pedunc. long 1-headed
 12171 Leaves lanceolate linear entire, Corymbs branched, Rays of flowers very short

- 12172 Leaves amplexicaul. oblong wavy villous, Stem erect paniced, Pedunc. 1-fl. opposite the leaves
 12173 Leaves oblong sessile, Pedunc. filiform, Invol. cylindrical
 12174 Leaves oblongo-cordate amplexic. rugged downy, Stem woolly paniced, Scales of involucre setaceous

- 12175 Leaves ovate-obl. serrated, Involucres viscid
 12176 Leaves sessile obl. lanceolate acute serrated at end not viscid
 12177 Leaves obl. amplexicaul. serrated, Scales of involucre filiform at end revolute squarrose
 12178 Stems simple, Lower leaves spatulate: upper linear-oblong serrated 1-nerved
 12179 Leaves oblong blunt half-amplexicaul. ciliate serrated, Leaves of invol. linear flat bristle-pointed

- 12180 Scales of invol. rugose blunt, Stem quite simple
 12181 Scales of invol. equal ovate acuminate, Stem nearly simple

- 12182 Leaves lanceolate ciliated

- 12183 Leaves ovate entire: cauline twin opposite
 12184 Leaves toothed, Teeth acuminate: radical stalked elliptical roundish; cauline alternate oblong
 12185 Leaves remotely toothed hirsute: radical stalked obl. narrowed at base; caul. alternate obl. lanceolate
 12186 Scape 1-headed naked, Leaves stalked obovate repand
 12187 Leaves somewhat toothed and hairy: radical stalked obl. rounded at base; caul. altern. obl. lanceolate

- 12188 Leaves obovate crenate smooth, Scape 1-headed

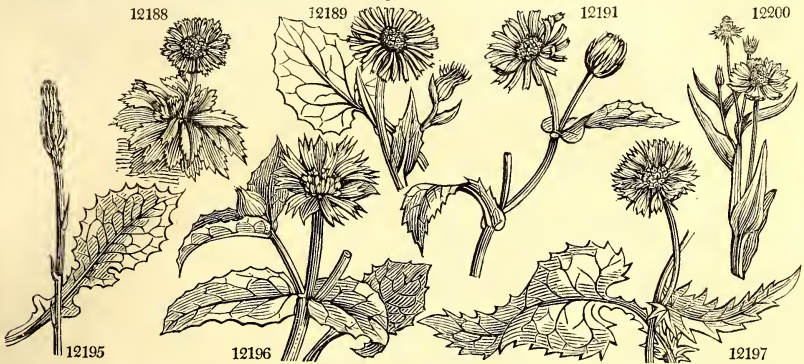
- 12189 Leaves cordate repando-dentate: radical ones petiolate; cauline ones amplexicaul.
 12190 Leaves remotely toothletted: upper oblong amplexicaul.; lower ovate stalked, Petioles winged auricled
 12191 Leaves toothletted: upper lanc. amplexicaul.; lower spatulate ovate; radical cordate stalked
 12192 Leaves toothed obov. amplexic.: radical obov. spatulate narrowed into the stalk, Stem simple 1-headed
 12193 Smooth, Radical leaves cordate deeply toothed; cauline oblong amplexicaul. Stem about 1-headed
 12194 Downy, Lower leaves stalked ovate with winged petioles: upper amplexicaul.; all toothed

- 12195 Leaves stalked or ovate toothed subsinuate at base downy beneath: the old ones quite smooth

- 12196 The only species

- 12197 The only species

- 12198 Leaves serrated quite smooth
 12199 Leaves serrated downy
 12200 Lower leaves pinnatifid: upper entire smooth, Florets of disk 4-toothed
 12201 Leaves lanceolate decurrent, Ray of corolla 4-parted



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bruises, gutta serena, and paralysis of the bladder. The root is given in doses of six to twelve grains; the flowers of from three to four grains. Dr. Thomson observes, that in the hands of British practitioners it has not merited the eulogium of the French and German. (*Lond. Disp.* p. 169.)

1750. *Gerberia*. T. Gerber, a German naturalist, is only known as a traveller in Russia. A very pretty little greenhouse plant with neat purple flowers.

1751. *Doronicum*. Derived from the Arabic name *Doronigi*. *Pardalianches* is from *παρδος*, a tiger, and *αρχην*, to strangle; on account of the use said formerly to have been made of the plant for the purpose of destroying wild animals.

1752. *Perdicium*. A name given by Pliny to a plant of which the partridge, *perdrix*, is very fond. The plant is not now recognized.

1753. *Tetragonotheca*. From *τετρα*, four, *γωνια*, an angle, and *θηκη*, a capsule, in allusion to the four angles of the grains.

1754. *Ximenesia*. Named by the Abbé Cavanilles, after Joseph Ximenez, a Spanish apothecary, who is said to have attended to plants.

1755. *Helonium*. Named after the celebrated Helen, who is said to have availed herself of the cosmetic properties of the plant named after her. That is believed to be the modern *Inula Helenium*; the ancient name being unoccupied, it has been applied to this American genus, which resembles the other.

1756. BEL/LIS. <i>W.</i>	DAISY.				<i>Compositæ.</i>	<i>Sp. 3-4.</i>						
12202 <i>perennis</i> <i>W.</i>	common	✓	△	pr	½	mr.au	W	Britain	past.	D	co	Eng. bot. 424
β <i>hortensis</i>	large-double	✓	△	pr	½	mr.au	R	.....	...	D	co	Bot. mag. 228
γ <i>fistulosa</i>	double-quilled	✓	△	pr	½	mr.au	R	.....	...	D	co	
δ <i>prolifera</i>	Hen & Chicken	✓	△	pr	½	mr.au	St	.....	...	D	co	
12203 <i>sylvestris</i> <i>W.</i>	large Portugal	✓	△	pr	¾	my.jl	W	Portugal	1797.	D	co	Bot. mag. 2511
12204 <i>annua</i> <i>W.</i>	annual	✓	△	pr	½	mr.jl	W	S. Europe	1759.	S	co	Bot. mag. 2174
1757. BEL/LIUM. <i>W.</i>	BELLIUM.											
12205 <i>superflua</i> <i>H. K.</i>	small	○	pr	½	jn.s	W	Italy	1796.	S	s.p		Lam. ill. t. 684
12206 <i>minutum</i> <i>W.</i>	dwarf	✓	△	cu	lin	jn.o	W	Levant	1772.	D	co	Sc.ac.up.1.t.5.f.2
1758. DAH/LIA. <i>Cav.</i>	DAHLIA.											
12207 <i>superflua</i> <i>H. K.</i>	fertile-rayed	✓	△	or	6	jl.n	Pu	Mexico	1789.	R	h.l	Cav. ic. 1. t. 80
12208 <i>frustranea</i> <i>H. K.</i>	barren-rayed	✓	△	or	6	s.n	Sc	Mexico	1802.	R	h.l	Cav. ic. 2. t. 226
β <i>coccinea</i>	scarlet	✓	△	or	6	s.n	Sc	Mexico	1802.	R	h.l	Bot. mag. 762
γ <i>aurantia</i>	Orange-colored	✓	△	or	6	s.n	Or	Mexico	1802.	R	h.l	
δ <i>lutea</i>	yellow	✓	△	or	6	s.n	Y	Mexico	1802.	R	h.l	
1759. BÆBE/RA. <i>W.</i>	BÆBERA.											
12209 <i>chrysurthemoides</i> <i>W.</i>	Chrysanth.-like	○	pr	1½	o	Y		Carolina	1821.	S	1.p	
1760. TAG/E/TES. <i>W.</i>	TAGETES.											
12210 <i>lucida</i> <i>W.</i>	sweet-scented	✓	△	or	1	jl.n	Y	S. Amer.	1798.	D	p.l	Bot. mag. 740
12211 <i>pátula</i> <i>W.</i>	French Marygold	○	or	2	jl.o	Y.o		Mexico	1573.	S	co	Bot. mag. 150
12212 <i>erecta</i> <i>W.</i>	African Marygold	○	or	3	jn.s	Y		Mexico	1596.	S	co	Lam. ill. t. 684
12213 <i>minúta</i> <i>W.</i>	small-flowered	○	or	2	au.o	Pa.Y		Chili	1728.	S	co	Dil.el.t.280.f.362
12214 <i>tenuifolia</i> <i>W.</i>	fine-leaved	○	or	3	jl.o	Y		Peru	1797.	S	co	Bot. mag. 2045
12215 <i>clandestina</i> <i>Lag.</i>	concealed	○	or	3	jl.o	Y		Mexico	1823.	S	co	
12216 <i>micrantha</i> <i>Cav.</i>	small-flowered	○	or	3	jl.o	Y		Mexico	1822.	S	co	
12217 <i>glandulosa</i> <i>Schrank.</i>	glandular	○	or	3	jl.o	Y		S. Amer.	1819.	S	co	
1761. HETEROSPER/MUM. <i>W.</i>	HETEROSPERMUM.											
12218 <i>pinnatum</i> <i>W.</i>	wing-leaved	○	un	2	au.s	Y		New Spain	1799.	S	co	Cav. ic. 3. t. 267
1762. SCHKU/HRIA. <i>W.</i>	SCHKUHRIA.											
12219 <i>abrotanoides</i> <i>W.</i>	Wormwood-lvd.	○	un	2	jl.s	Y		Mexico	1798.	S	co	Sch. ha. 3. t. 250. b.
1763. PECT/IS. <i>W.</i>	PECTIS.											
12220 <i>ciliaris</i> <i>W.</i>	ciliated	□	un	1	jl	Y		Hispanio.	1793.	S	co	Plum. ic. 151. f. 2
12221 <i>linifolia</i> <i>W.</i>	Flax-leaved	□	un	1	jl.au	Y		Jainaiica	1732.	S	co	Sl.jam.1.t.149.f.3
1764. LONGCHAMP/SIA. <i>Willd.</i>	LONGCHAMPSIA.											
12222 <i>capillifolia</i> <i>Willd.</i>	hair-leaved	○	pr	½	ju.jl	W		Barbary	1822.	S	co	



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1756. *Bellis*. So called from *bellus*, pretty. Every one knows the daisy.
 1757. *Bellium*. See *Bellis*, from which this genus differs chiefly in the pappus of the grains.
 1758. *Dahlia*. Named after Andrew Dahl, a Swedish botanist, and pupil of Linnæus. Continental botanists call the genus *Georgina*. This genus grows in Mexico, in sandy meadows, and till the peace of 1814 was more cultivated in France than in England: at present it is one of the most fashionable hardy plants. Though its leaves are coarse, resembling those of the common dwarf elder, yet the flowers are showy, and continue in beauty till late in autumn. The plants grow freely in any soil or situation; but the poorer the ground is, the smaller the size of the plant, and the earlier and more abundant the flowers. The single-flowered varieties of *D. superflua* are almost without end; the double varieties of both species are much less numerous. Any number of the former may be raised from seeds, which ripen in abundance, and if sown in February on artificial heat, and transplanted in the end of April, they will flower in the July or August following. The double varieties are increased by dividing the roots, or by grafting, or by cuttings; they may also be sometimes raised from seeds. A very general way in which both kinds are propagated is by cuttings. They may be either taken from the root-shoots in spring, or the tops of the young shoots early in summer; the lower end of each cutting should be cut smoothly off in the middle of a joint, and all the leaves left on, excepting those that would be buried in planting the cutting. If planted in sandy soil, on a gentle bottom heat, and covered with a hand-glass, they will soon strike root, and produce both flowers and tubers the same autumn. The double sorts are grafted on tubers of the single varieties much in the manner of whip-grafting, but without a tongue. There must be no buds on the tuber; cut off a slice from the upper part of it, in a sloping direction, and make, at the bottom of the part so cut, a ledge, whereon to rest the graft; next, cut the scion sloping to fit, it should contain two joints, and be cut so that one of these may be at the bottom of it to rest on the ledge; from that joint the scion will occasionally put forth roots; from the other the future stem will be formed. Having tied the graft, clay it as in common grafting; then put the root in fine mould, burying half the graft, and place the pot in a gentle moist heat under a glass. If this be done in March, the plant may be shifted into a larger pot in April, and planted out in the end of May.
 As the *Dahlia* is a bulky plant, it requires either to be grown in a very large pot, or in from three quarters to a yard and a half of surface. They look well in rows, or occurring singly in a shrubbery.
 The treatment of the *Dahlia* bears a considerable resemblance to that of the potato and the marvel of Peru; as soon as the frost has blackened the tops of these three plants, their roots require to be taken up, and

12202 Scape naked single-headed, Leaves obovate crenate

12203 Scape naked single-headed, Leaves obovate crenate 3-nerved
12204 Stem somewhat leafy

12205 Stolones creeping, Scapes 1-headed, Leaves spatulate
12206 Stem leafy capillary

12207 Rachis of lvs. winged, Leaf. ovate acumin. serrated shining and smooth beneath, Outer invol. reflexed
12208 Rachis of lvs. naked, Leaflets ovate acuminate serrated roughish beneath, Outer invol. spreading

12209 Leaves pinnated: leaflets linear pinnatifid-toothed

12210 Leaves simple lanceolate finely serrated ciliate at base
12211 Leaves pinnated: leaf. lanc. ciliate-serrated, Pedunc. 1-headed thickened, Inv. smooth, Stem spreading
12212 Leaves pinnated: leaflets lanc. ciliate-serrated, Pedunc. 1-headed ventricose, Invol. angular, Stem erect
12213 Leaves pinnated: leaf. lanc. serrated; term. subdecurent, Pedunc. many-fl. scaly, Flowers dense
12214 Leaves pinnated: leaflets linear serrated; lower serratures long, Stem panicle, Invol. clavate
12215 Leaves pinnated: leaflets filiform, Ray not longer than involucrem
12216 Leaves pinnated: leaflets filiform subulate entire, Stem branched diffuse, Pedunc. 1-headed solitary
12217 Leaves pinnated: lower segments lanceolate; upper linear, Serratures with intermediate glands

12218 Stem smooth, Leaves pinnated, Leaflets linear subulate entire

12219 Leaves altern. pinnate linear setaceous

12220 Leaves linear amplexicauli. ciliated at base attenuated at end
12221 Leaves linear sessile acute ciliated at base

12222 Stem filiform branched, Leaves woolly subulate filiform, Peduncles naked axillary 1-headed



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kept in a dry place, where the frost cannot get at them till spring. About April they may be divided, and planted in the open air where they are to flower; or, what is more common planted in large pots, and forwarded in heat till the middle of May, when they may be turned out of the pots where they are finally to remain. In this case they will flower a month or six weeks earlier than by the other method, and will, in general, continue flowering till they are destroyed by frost. Some care is requisite to preserve the roots sufficiently moist and plump to maintain the living principle, and yet not to rot, shrivel, or freeze them. The safest mode is to plant them in pots or boxes of dry earth, and place them in a shed or cellar, or under an ample covering of litter thatched over.

1759. *Bæbera*. Bæber is said by Willdenow to have been a learned Russian botanist.

1760. *Tagetes*. Named after Tages, a Tuscan divinity, the son of Genius, and the grandson of Jupiter. *T. patula* is a tender annual, deservedly popular, from the brilliancy and variegation of its flowers: it is cultivated in Japan, China, and many parts of India, but does not appear to be indigenous of those countries. The varieties of *T. erecta* differ chiefly in the shades of the same color, but there are also double and quilled flowers. Both species are raised from seeds, upon a moderate hot-bed, in the beginning of April, and when they are three inches high, transplanted to where they are finally to remain. The varieties are very apt to degenerate, and can only be reproduced by the most careful selection and separation.

This genus serves for the basis of M. Cassini's *Tagetinae*, which do not appear to be at all distinct from *Heliantheæ*, from which they differ principally in the form of their ovarium. M. Cassini's principal motive for distinguishing them as a separate race, seems to have been his wish to reduce his tribe of *Heliantheæ*, which he finds too extensive. Nearly all the species are found in America.

1761. *Heterospermum*. From *ἕτερος*, various, and *σπέρμα*, seed; on account of the variable shape of the grains.

1762. *Schkuhria*. Named in honour of Christian Schkuhr, an acute German botanist, who has published some of the most accurate and useful, if not splendid, botanical works which the world has seen. It is to be regretted that their rarity makes them more generally unknown than they deserve to be.

1763. *Pectis*. From *pecten*, a comb, to which the teeth of the pappus may be compared.

1764. *Longchampsia*. So named after Doctor J. L. A. Loiseleur Deslongchamps, a French botanist, author of a useful *Flora Gallica*, in two small duodecimo volumes, published at Paris, the first in 1806, the second in 1807.

1765. LEYSE'RA <i>W.</i>	LEYSE'RA.				<i>Compositæ.</i>	<i>Sp.</i> 2—8.				
12223 gnaphalodes <i>W.</i>	woolly	■	□	pr	2 jls	Or	C. G. H.	1774.	S p.l	Jac. ic. 3. t. 588
12224 squarrosa <i>W.</i>	squarrose	■	□	pr	2 jls	Or	C. G. H.	1815.	C lp	Pluk. al.t.302.f.3
1766. SELLO'A <i>Spreng.</i>	SELLOA.					<i>Compositæ.</i>	<i>Sp.</i> 1.			
12225 glutinosa <i>Spreng.</i>	clammy	∇	△	un	3 f	Y	Brazil	1819.	D co	Bot. reg. 462
1767. RELHA'NIA <i>W.</i>	RELHANIA.					<i>Compositæ.</i>	<i>Sp.</i> 3—19.			
12226 squarrosa <i>W.</i>	cross-leaved	■	□	pr	1½	my.jn	Y	C. G. H.	1774.	C p.l
12227 pungens <i>W.</i>	pungent	■	□	pr	1½	s	Y	C. G. H.	1820.	C p.l
12228 lateriflora <i>W.</i>	side-flowering	■	□	pr	1½	s	Y	C. G. H.	1823.	C p.l
1768. ZIN'NIA <i>W.</i>	ZINNIA.					<i>Compositæ.</i>	<i>Sp.</i> 6—8.			
12229 pauciflora <i>W.</i>	yellow-flowered	○	○	or	2	jl.au	Y	Peru	1753.	S r.m
12230 multiflora <i>W.</i>	red-flowered	○	○	or	2	jn.o	R	N. Amer.	1770.	S r.m
12231 verticillata <i>W.</i>	whorl-leaved	○	○	or	2	jl.au	R	Mexico	1789.	S r.m
12232 elegans <i>W.</i>	purple-flowered	○	○	or	2	jn.s	Pu	Mexico	1796.	S r.m
12233 tenuiflora <i>W.</i>	slender-flowered	○	○	or	2	jl.au	Sc	Mexico	1799.	S co
12234 hybrida <i>B. M.</i>	hybrid	○	○	or	2	jn.jl	Sc	S. Amer.	1818.	S co
1769. CHRYSAN'THEMUM <i>W.</i>	CHRYSANTHEMUM.					<i>Compositæ.</i>	<i>Sp.</i> 23—43.			
12235 pinnatifidum <i>W.</i>	cut-leaved	■	□	pr	3	my.au	W	Madeira	1777.	C p.l
12236 atratum <i>W.</i>	fleshy-leaved	∇	△	pr	1	jl.au	W	Austria	1731.	D co
12237 heterophyllum <i>W.</i>	various-leaved	∇	△	pr	1	jl.au	W	Switzerl.	1806.	D co
12238 Leucanthemum <i>W.</i>	Ox-eye Daisy	∇	△	pr	2	jn.jl	W	Britain	past.	D co
12239 montanum <i>W.</i>	mountain	∇	△	pr	2	jn.jl	W	France	1759.	D co
12240 ceratophylloides <i>All.</i>	Buckshorn	∇	△	pr	1	jn.jl	W	Piedmont	1803.	D co
12241 graminifolium <i>W.</i>	Grass-leaved	∇	△	pr	1	my.jl	W	Montpel.	1739.	D co
12242 inonspeliense <i>W.</i>	Montpelier	∇	△	pr	1	jn.s	W	Montpel.	1739.	D co
12243 Achillæe <i>W.</i>	Milfoil-leaved	∇	△	pr	1	jn.au	W	Italy	1775.	D co
12244 argenteum <i>W.</i>	silver-leaved	∇	△	pr	1	jl.au	W	Levant	1731.	D co
12245 arcticum <i>W.</i>	northern	∇	△	pr	1	jn.au	W,pu	Kamtsch.	1801.	D co
12246 carinatum <i>W.</i>	three-colored	○	○	or	2	jl.o	W,pu	Barbary	1796.	S co
12247 pumilum <i>W. en.</i>	small	○	○	or	1	jl.o	W	.....	1806.	S co
12248 sylvêstre <i>W. en.</i>	field	∇	△	pr	2	jn.jl	W	.....	1804.	D co
12249 sægetum <i>W.</i>	corn	○	○	w	1½	jn.au	Y	Britain	corn fi.	S co
12250 Myconis <i>W.</i>	tongue-leaved	○	○	pr	1	jl.au	Y	Italy	1775.	S co
12251 italicum <i>W.</i>	Italian	∗	△	pr	2	jn.jl	Pa.Y	Italy	1796.	D co
12252 coronarium <i>W.</i>	garden	○	○	or	4	jls	Y	Sicily	1629.	S co
12253 indicum <i>L.</i>	Indian	■	■	un	2	s.n	Y	China	...	C r.m
12254 sinense <i>Sab.</i>	Chinese	■	■	spl	3	o.n		China	1764.	C r.m

Garden Varieties.

- | | |
|--|---|
| 1 Purple <i>Bot. mag.</i> 327 | 12 Spanish Brown |
| 2 Changeable White <i>Bot. mag.</i> 2042 | 13 Quilled flamed Yellow <i>Hort. trans.</i> 4. t. 14 |
| 3 Quilled White <i>Bot. reg.</i> 4 | 14 Quilled Pink <i>Bot. reg.</i> 616 |
| 4 Superb White <i>Bot. reg.</i> 455 | 15 Early Crimson <i>Hort. trans.</i> 5. t. 3 |
| 5 Tasselled White | 16 Large quilled Orange <i>Hort. trans.</i> 5. t. 3 |
| 6 Quilled Yellow | 17 Expanded light Purple |
| 7 Sulphur Yellow | 18 Quilled light Purple |
| 8 Golden Yellow <i>Bot. reg.</i> 4* | 19 Curled Lilac <i>Sweet's fl. Garden.</i> t. 7 |
| 9 Large Lilac | 20 Superb clustered Yellow <i>Sweet's fl. Garden.</i> t. 14 |
| 10 Rose or Pink | 21 Semidouble quilled Pink <i>Hort. trans.</i> 5. t. 17* |
| 11 Buff or Orange | 22 Semidouble quilled White |



History, Use, Propagation, Culture,

1765. *Leysera*. So called in honor of Frederick William Leyser, a German, and author of a *Flora Halensis* in 1783.

1766. *Selloa*. Named after Mr. Sello, a German botanist, employed by the Prussian government in collecting materials for a natural history of Brazil. An uninteresting stove perennial plant, remarkable for having florets mixed among the leaves of the involucre.

1767. *Relhania*. In honor of the Rev. Richard Relhan, an English botanist, and author of a *Flora Cantabrigiensis*. The genus was named by L'Heritier. Plants of no beauty and easy culture.

1768. *Zinnia*. John Godfrey Zinn, a German, published, in 1757, a Catalogue of the Plants in the Garden of Gottingen, &c. Handsome border annuals, with persistent flowers, of the same culture as *Tagetes*.

1769. *Chrysanthemum*. From *χρυσος*, gold, and *ανθος*, a flower; because many of the kinds bear flowers of a yellow color. *Chrysantème*, Fr., *Goldblume*, Ger., and *Crisantero*, Ital. C. sinense is one of the handsomest of autumnal flowers, and of the easiest possible culture in any soil. It is a popular flower in China, whence all our numerous varieties have very recently been obtained, and chiefly through the exertions of the Horticultural Society. These are certainly a very great addition to the beauties of the flower garden in a dry autumn, and to the green-house or conservatory in the wet and foggy months of November and December, when scarcely any thing else is in flower. The plants are propagated by divisions, by suckers, and by cuttings;

- 12223 Leaves linear subulate ciliate rough, Scales of invol. lanceolate
 12224 Leaves filiform downy, Scales of invol. membranous reflexed
 12225 The only species
 12226 Leaves oblong acuminate nerveless recurved at end
 12227 Leaves linear somewhat pungent striated beneath, Heads sessile
 12228 Leaves linear villous, Pedunc. lateral shorter than leaf
 12229 Heads sessile, Leaves opp. cordate-lanceolate amplexicaul. sessile
 12230 Heads stalked, Leaves opp. ovate-lanceolate somewhat stalked
 12231 Heads stalked, Leaves whorled ovate-lanceolate stalked, Ray double
 12232 Heads stalked, Leaves opp. cordate ovate sessile amplexicaul. Stem hairy, Paleæ serrated
 12233 Heads stalked, Leaves opp. cordate lanceolate stalked, Ray linear-lanceolate reflexed
 12234 Leaves cordate sessile rough at edge, Grains of disk with 2 awns : of the ray awnless
 12235 Leaves smooth attenuated at base pinnatifid : segments cut
 12236 Leaves all cuneiform oblong finely serrated, Stem simple 1-headed erect
 12237 Heads sessile : lower linear lanceolate serrated ; upper spatulate
 12238 Leaves amplexic. obl. obt. cut pinnatifid at base ; radical ones obovate petiolat, Stem erect branched
 12239 Lower leaves stalked spatulate serrate : upper lin. lanc. serrated, Stem 1-headed
 12240 Leaves pinnated : pinnæ linear acute, Stem erect 1-headed
 12241 Leaves linear nearly entire, Stem quite simple
 12242 Lower leaves palmated : leaflets linear pinnatifid
 12243 Leaves bipinnate : pinnæ oblong serrated, Heads corymbose
 12244 Leaves bipinnate hoary : leaflets acute entire, Stem 1-headed simple
 12245 Radical leaves 3-parted cut-toothed : cauline cuneiform 3-parted blunt
 12246 Leaves bipinnated fleshy smooth, Scales of invol. keeled
 12247 Leaves bipinnated linear subulate smooth, Stem erect somewhat branched
 12248 Very near *C. leucanthemum*, but the lower leaves are more spatulate
 12249 Leaves amplexic. glaucous inciso-serrate above toothed at the base
 12250 Leaves lingulate blunt serrated, Scales of involucre equal
 12251 Leaves bipinnate serrated, Rays length of disk, Stem procumbent
 12252 Leaves pinnatifid acute broadest externally, Stem branched
 12253 Leaves flaccid stalked pinnatifid finely toothed : upper entire, Ray a little longer than flower
 12254 Leaves coriaceous stalked sinuate-pinnatifid toothed glaucous, Ray very long

Garden Varieties.

- | | |
|---|-----------------------------------|
| 23 Semidouble quilled Orange <i>Hort. trans. 5. t. 17**</i> | 34 Brown Purple |
| 24 Late pale Purple | 35 Late quilled Yellow |
| 25 Quilled Salmon Color <i>Hort. trans. 5. t. 17*</i> | 36 Double Yellow Indian |
| 26 Small Yellow <i>Hort. trans. 5. t. 17**</i> | 37 Parke's small Yellow |
| 27 Paper White | 38 Tasseled Yellow |
| 28 Pale Buff | 39 Tasseled Lilac |
| 29 Early Blush | 40 Semidouble quilled pale Orange |
| 30 Blush Ranunculus-flowered | 41 Golden Lotus-flowered |
| 31 Changeable pale Buff | 42 Two colored incurved |
| 32 Two colored Red | 43 Yellow Waratah |
| 33 Starry Purple | 44 Double White Indian |



and Miscellaneous Particulars.

as they are very apt, in every case, to throw up suckers, the latter mode is decidedly the best. The cuttings may be taken from the side branches at any season from April to September; taken off before the end of May, they will flower the succeeding autumn; those taken off afterwards will not flower till next year. Chrysanthemums are so very prolific in suckers, that they soon become unsightly plants, and produce small and degenerate blossoms, unless frequently renewed from cuttings. The Chinese are said to do this every year; they take off the cuttings in May, strike them as we do, and then put each plant in a very small pot, in which it flowers the succeeding autumn. The plants are thus kept in a dwarf state, and clothed with green foliage from the ground to the flower. In order that the blossoms may be strong, they leave only one or two flower-buds on the summit of each plant, and they remove all suckers and side shoots till the blossom is over. This mode is now generally adopted with us; but sometimes the plants are retained a second, or even a third year, in which case care is requisite to leave no more stems, and to have no more suckers growing at one time than the roots can support in a vigorous state. As under this management the stems attain a great height, they require to be supported by a rod, and adjusted so as to form a symmetrical figure by a nice application of black threads, or small copper wires.

Sometimes the Chrysanthemum is grown in beds or borders, in which case the plants should be taken up every year and their superfluous suckers removed; or, which is better, they should be totally renewed by cuttings.

12255	<i>paludosum</i> Desf.	marsh	○ pr	1½	jn.jl	W	Barbary	1816.	S	co	Desf. atl.2. t. 238	
12256	<i>rotundifolium</i> W.&K.	round-leaved	△ Δ	pr	1½	jn.jl	W	Hungary	1817.	D	co	
12257	<i>anomalum</i> Lag.	anomalous	△ Δ	pr	1	jn.jl	W	Spain	1816.	D	co	
1770.	PYRETHRUM. W. FEVERFEW.						<i>Composit.e.</i>	<i>Sp. 32—47.</i>				
12258	<i>feniculaceum</i> W.en.	Fennel-leaved	△ Δ	or	3	ja.d	W	Teneriffe	1815.	C	co	Bot. reg. 272
12259	<i>crithmifolium</i> W.en.	Samphire-leav.	△ Δ	or	3	ja.d	W	Teneriffe	1815.	C	co	
12260	<i>anethifolium</i> W.en.	Dill-leaved	△ Δ	or	3	ja.d	W	Teneriffe	1815.	C	co	
12261	<i>latifolium</i> W.en.	broad-leaved	△ Δ	pr	2	jn.jl	W	Pyrenees	1820.	D	co	
12262	Halleri W.	Haller's	△ Δ	pr	1	jn.jl	W	Switzerl.	1819.	D	co	Barr. ic. 458. f. 2
12263	<i>ceratophylloides</i> W.	Buckshorn-lvd.	△ Δ	pr	1	jn.jl	W	Piedmont	1819.	D	co	
12264	<i>frutescens</i> W.	shrubby	△ Δ	or	3	ja.d	W	Canaries	1399.	C	p.l	
12265	<i>coronopifolium</i> W.en.	Horn-leaved	△ Δ	or	2	ja.d	W	Canaries	...	C	l.p	
12266	<i>grandiflorum</i> W.	great-flowered	△ Δ	or	3	ja.d	W	Canaries	1815.	C	l.p	
12267	<i>pinnatifidum</i> W.	pinnatifid	△ Δ	or	2	my.jn	W	.....	1823.	D	co	
12268	<i>pulverulentum</i> W.	powdery	△ Δ	pr	1½	jn.au	W	Caucasus	1806.	D	co	
12269	<i>sericeum</i> Bieb.	silky	△ Δ	pr	1	jn.au	W	Iberia	1823.	D	co	
12270	<i>parviflorum</i> W.	small-flowered	△ Δ	un	2½	jn.au	W	.....	1820.	S	co	
12271	<i>speciosum</i> W.en.	large-flowered	△ Δ	or	3	ja.d	W	Canaries	1815.	C	l.p	
12272	<i>ptarmicæfolium</i> W.	Sneezewort-lv.	△ Δ	pr	1½	jl.au	W	Caucasus	1803.	D	co	
12273	<i>serotinum</i> W.	creeping-rooted	△ Δ	pr	1	s.o	W	N. Amer.	1731.	D	co	Jac. obs. 4. t. 90
12274	<i>uliginosum</i> W.	marsh	△ Δ	pr	1½	jl.s	W	Hungary	1816.	D	co	
12275	<i>alpinum</i> W.	Alpine	△ Δ	pr	2½	jl.au	W	Switzerl.	1759.	D	co	
12276	<i>Balsamita</i> W.	various-leaved	△ Δ	pr	2	jl.au	W	Levant	1779.	D	co	Jac. obs. 4. t. 89
12277	<i>macrophyllum</i> W.	large-leaved	△ Δ	pr	3	jl.au	W	Hungary	1803.	D	co	Pl. rar.hu.1. t.94
12278	<i>roseum</i> W.en.	scarlet-flower'd	△ Δ	el	1½	aus	pk	Caucasus	1804.	D	co	Bot. mag. 1080
	<i>Chrysanthemum coccineum</i> B. M.											
12279	<i>achilleæfolium</i> Bieb.	Milfoil-leaved	△ Δ	pr	2	aus	Y	Caucasus	1823.	D	co	Gm. sib. t.86. f.2
12280	<i>corymbosum</i> W.	mountain	△ Δ	w	1	jn.au	W	Germany	1596.	D	co	Jac. aust.4. t.379
12281	<i>Parthenium</i> W.	common	△ Δ	w	2	jn.s	W	Britain	rubd.	D	co	Eng. bot. 1231
	<i>β flore pleno</i>	double-flowered	△ Δ	or	2	jn.s	W	.....	...	C	r.m	
12282	<i>parthenifolium</i> W.	Parthenium-lv.	△ Δ	or	2	jn.jl	W	Caucasus	1804.	D	co	Vent. cels. t. 43
12283	<i>caucasicum</i> W.	Caucasian	△ Δ	pr	½	jl.au	W	Caucasus	1804.	D	co	
12284	<i>tenuifolium</i> W.en.	slender-leaved	△ Δ	pr	1	jl.au	W	Caucasus	1806.	D	co	
12285	<i>inodorum</i> W.	scentless	△ Δ	or	1	aus	W	Britain	dry fi.	S	co	Eng. bot. 676
12286	<i>maritimum</i> W.	sea	△ Δ	or	1	jn.o	W	Britain	sea sh.	D	co	Eng. bot. 979
12287	<i>millefoliatum</i> W.	many-leaved	△ Δ	pr	2	my.s	Y	Siberia	1731.	D	co	Mill. ic. 1. t. 9
12288	<i>bipinnatum</i> W.	wing-leaved	△ Δ	pr	½	jn.jl	Y	Siberia	1796.	S	co	Gm.sib.2.t.85.f.1
12289	<i>indicum</i> H. K.	Indian	△ Δ	un	½	jn.s	Y	E. Indies	1810.	C	p.l	Bot. mag. 1521
1771.	MATRICARIA. W. MATRICARIA.						<i>Composit.e.</i>	<i>Sp. 4.</i>				
12290	<i>suavæolens</i> W.	sweet	○ un	w	1½	jn.au	W	Europe	1781.	S	co	
12291	<i>Chamomilla</i> W.	Wild Chamomile	○ un	w	1	my.jl	W	Britain	ros.id.	S	co	Eng. bot. 1232
12292	<i>capensis</i> W.	Cape	○ un	w	½	jl.s	W	C. G. H.	1699.	S	co	Seb.th.1. t.16. f.2
12293	<i>pusilla</i> W.en.	small	○ un	w	½	jl.s	W	.....	...	S	co	
1772.	BOLTONIA. W. BOLTONIA.						<i>Composit.e.</i>	<i>Sp. 2.</i>				
12294	<i>asteroides</i> W.	Starwort-flow.	△ Δ	pr	2	au.o	F	N. Amer.	1758.	D	s.l	Bot. mag. 2554
12295	<i>glaucifolia</i> W.	glaucous-leav'd	△ Δ	pr	1½	s	pk	N. Amer.	1758.	D	s.l	Bot. mag. 2381
1773.	LIDBECKIA. W. LIDBECKIA.						<i>Composit.e.</i>	<i>Sp. 2—3.</i>				
12296	<i>pectinata</i> W.	silver-leaved	△ Δ	pr	2	my.jn	Y	C. G. H.	1774.	C	l.p	Ber.ca.306.t.5.f.9
12297	<i>lobata</i> W.	lobed	△ Δ	pr	2	my.jn	Y	C. G. H.	1800.	C	l.p	Lam. ill.t.701.f.3
1774.	CENIA. J. CENIA.						<i>Composit.e.</i>	<i>Sp. 1.</i>				
12298	<i>turbinata</i> P. S.	turbinated	○ un	w	1	jl.au	W	C. G. H.	1713.	S	co	Lam. ill.t.701.f.1
1775.	COTULA. W. COTULA.						<i>Composit.e.</i>	<i>Sp. 5—29.</i>				
12299	<i>anthemoides</i> W.	Anthemis-like	○ un	w	1	jl.au	Y	St. Helena	1696.	S	co	Dill. elt. t.23.f.25
12300	<i>coronopifolia</i> W.	Buckshorn-lvd.	○ w	w	½	jl.au	Y	C. G. H.	1683.	S	co	Lam. ill.t.700.f.1



History, Use, Propagation, Culture,

Though these plants will grow in any soil, yet when in small pots they require a rich loam, and are the better for being watered, as in China, with liquid manure. The different varieties are well described by Mr. Sabine, in the fourth and fifth volumes of the Horticultural Transactions.

1770. *Pyrethrum*. An ancient Greek name, applied to this plant from its supposed resemblance to the *πυρεθρον* of Dioscorides. That plant is believed to have been the Anthemis pyrethrum, or Pellitory of Spain, of the moderns, and to have received its name from the burning qualities of its root; *πυρ*, fire. All the plant of *Pyrethrum Parthenium* has a strong unpleasant smell, and a bitter taste. It is used externally, in the form of lotion and of poultice, and internally as an infusion for colic, hysterical affections, and weak digestion. There are some double-flowering varieties, which are very ornamental.

1771. *Matricaria*. So named on account of the use which is made of it in disorders of females. *Matricaire*, Fr., *Mutterkraut*, Ger., and *Matricaria*, Ital. It excites menstruation. *Chamomilla* is an alteration of the

- 12255 Leaves all cuneiform oblong bluntly serrated, Stem branched diffuse
- 12256 Leaves stalked serrated : lower roundish ; upper ovate, Stem 1-headed
- 12257 Leaves with very narrow segments, Petioles very short connate

- 12258 Leaves pinnatifid fleshy : segments linear entire, Pedunc. long corymbose
- 12259 Leaves trifid fleshy ; segments somewhat toothed linear blunt, Pedunc. long subcorymbose
- 12260 Leaves bipinnatifid linear acute, Pedunc. 1-headed terminal
- 12261 Leaves lanceolate serrated : radical oblong, Stem 1-headed
- 12262 Cauline leaves lanceolate deeply toothed : radical pinnatifid, Stem 1-headed
- 12263 Leaves pinnatifid : segments of the lower linear lanc. entire or bifid ; upper linear entire
- 12264 Leaves fleshy pinnatifid linear toothed : upper linear trifid
- 12265 Leaves pinnatifid : segments lanc. somewhat 3-toothed fleshy, Pappus unequally toothed
- 12266 Leaves pinnatifid : segm. lanc. deeply toothed somewhat fleshy : upper lin. toothed, Pappus uneq. toothed
- 12267 Leaves downy glaucous subsessile lyrate pinnatifid unequally toothed, Heads corymbose
- 12268 Leave pinnate powdery, Leaflets pinnatifid blunt toothed, Pedunc. corymbose, Pappus toothed
- 12269 Leaves woolly bipinnate, Pinnæ and pinnules obl. imbricated, Stem 1-headed, Invol. woolly
- 12270 Leaves bipinnate : pinnæ lin.-filiform 2 or 3-parted, Stem erect branched, Pappus 2-lobed
- 12271 Leaves pinnatifid : segm. lanc. finely serrated, Grains subulate, Pappus unequally toothed
- 12272 Leaves linear serrulate, Heads corymbose
- 12273 Leaves lanc. : lower serrated at end ; upper entire, Branches corymbose
- 12274 Leaves lanc. all deeply serrated, Stem erect branched at end
- 12275 Lower leaves pinnatifid toothed ; upper linear entire, Stem 1-headed
- 12276 Leaves ovate obl. serrated : radical stalked ; cauline sessile auricled at base, Heads corymbose
- 12277 Leaves hairy subsessile pinnatifid toothed blunt, Corymb terminal compound
- 12278 Leaves pinnated smooth : pinnæ once or twice pinnatifid with acute diverging segments, Invol. smooth

- 12279 Leaves bipinnate linear silky : pinnæ crossing, Pedunc. corymbose, Ray shorter than involucre
- 12280 Leaves pinnated, Pinnæ lanc. pinnatifid finely serrated : upper confluent, Pedunc. corymbose
- 12281 Lvs. petiol. flat bipinnate the segm. ovate cut, Pedunc. branch. corymb. Stem erect, Invol. hemispherical
[pubescent

- 12282 Leaves pinn. : pinnæ obl. obt. pinnatifid toothed ; upper confluent, Stem virgate, Heads corymbose
- 12283 Leaves bipinnate : leaflets linear subulate, Stem 1-headed
- 12284 Rad. leaves bipinnate : pinnæ linear pinnatifid ; cauline bipinnatifid, Heads corymbose
- 12285 Leaves sess. bipinnatifid with segm. capillary, Stem branched spreading, Pappus entire
- 12286 Leaves bipinnatifid the segm. linear fleshy awnless, Stem diffuse branched, Pappus lobed
- 12287 Leaves bipinnate linear blunt, Stem ascending somewhat corymbose, Ray length of invol.
- 12288 Leaves hoary bipinnate linear blunt, Stem simple, Pedunc. twin, Ray shorter than disk
- 12289 Leaves pinnatifid : pinnæ cut-toothed, Pedunc. long nearly naked 1-headed, Scales of invol. blunt

- 12290 Leaves triply pinnate, Scales of invol. acute
- 12291 Leaves glabrous bipinnatifid the segments capillary, Invol. nearly plane : its scales obtuse
- 12292 Leaves glabrous bipinnatifid : stem branched suffruticose
- 12293 Leaves pinn. somewhat fleshy, Pinnæ linear blunt, Scales of invol. blunt, Grains margined on one side

- 12294 Leaves all entire
- 12295 Lower leaves serrated

- 12296 Leaves pinnatifid glaucous beneath
- 12297 Leaves stalked 5-lobed

- 12298 Ray short white : red on the lower surface

- 12299 Leaves pinnate multifid dilated, Ray none
- 12300 Leaves lanc. lin. amplexicaul. pinnatifid toothed, Stem procumbent, Branches 1-headed



and Miscellaneous Particulars.

Greek *χαμαί μῆλον*, a dwarf-apple, which Pliny informs us was applied to the plant, on account of its smelling of apples, or rather quinces. It is remarkable, that the Spaniards call it *mancinilla*, which also means a little apple. The chamomilla of medicine is another plant. See Anthemis.

M. Chamomilla is supposed to possess the same qualities with the officinal chamomile (*Anthemis nobilis*), but in an inferior degree. Most of the species, and chiefly this one, are rejected by quadrupeds.

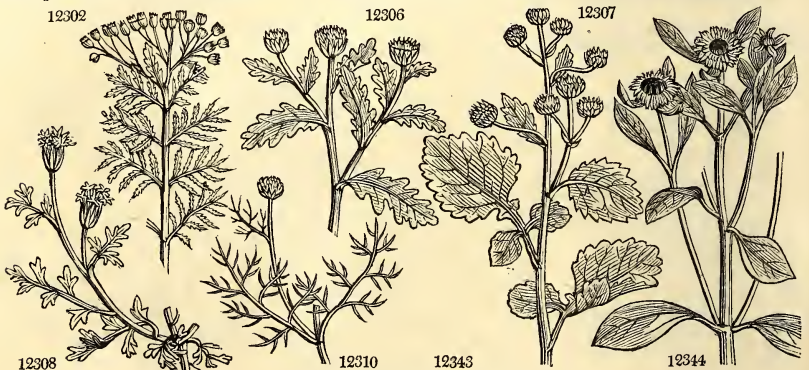
1772. *Boltonia*. Named after I. B. Bolton, an English botanist, who wrote a work upon the Ferns of Great Britain, and another upon the fungi growing about Halifax, published in 1788-9.

1773. *Lidbeckia*. E. G. Lidbeck, a German botanist, published some works upon agricultural matters.

1774. *Cenia*. From *κενός*, empty, in allusion to its inflated calyx.

1775. *Cotula*. A diminutive of *Cota*, an old name for some species of Anthemis, which this resembles in miniature.

12301 viscosa W.	clammy	☞	△	un	½	au	W	Vera Cruz	1739.	D	l,p
12302 taucetifolia W.	Tansy-leaved	○	un			¾	jn.au	Y	C. G. H.	1783.	S co
12303 sphaeranthus Link.	round-headed	☞	△	un	2	my.ju	Y	Congo	1821.	D	co
1776. GRAN'GEA. J.	GRAN'GEA.							Compositae.	Sp. 4—6.		
12304 cuneifolia Lam.	wedge-leaved	○	un		½	jl.s	Y	China	1816.	S	co
12305 minima W.	least	○	un	1in	¾	jl.s	Y	China	1768.	S	co
12306 maderaspatana Lam.	Madras	☞	un		¾	jl.au	Y	E. Indies	1780.	S	co
12307 latifolia Desf.	two-colored	☞	un	1½	¾	jl.au	W.v	E. Indies	1804.	S	co
	<i>Cótula bicolor</i> W.										
1777. ANACYCLUS. W.	ANACYCLUS.							Compositae.	Sp. 6—11.		
12308 créticus W.	trailing	○	pr	1	jn.au	Y	Y	Candia	1759.	S	co
12309 orientalis W.	oriental	○	pr	1½	jn.au	Y	Y	Levant	1731.	S	co
12310 aureus W.	golden-flowered	○	pr	1	jn.au	Y	Y	Levant	1570.	S	co
12311 valentinus W.	fine-leaved	○	pr	1	jn.jl	Y	Y	Spain	1656.	S	co
12312 radiatus Link.	purple-stalked	○	pr	1½	jl.au	Y	Y	S. Europe	1596.	S	s.l
	<i>Anthemis valentina</i> W.										
12313 clavatus Link.	clubbed	○	pr	1½	jl.au	W	W	Barbary	1801.	S	co
1778. AN'THEMIS. W.	CHAMOMILE.							Compositae.	Sp. 29—47.		
12314 rigescens W. en.	rigid	☞	△	pr	2	jl.s	W	Caucasus	1805.	D	co
12315 Cóta W.	Venetian	○	pr	1	jl.au	W	W	Italy	1714.	S	co
12316 altissima W.	tall	○	pr	6	au	W	W	S. Europe	1731.	S	co
12317 maritima W.	sea	○	pr	1	jl.au	W	W	England sea co.	S. s.l		Eng. bot. 2370
12318 tomentosa W.	downy	☞	△	pr	½	jl.o	W	Levant	1795.	D	co
12319 pubescens W.	pubescent	☞	△	pr	1	jl.au	W	S. Europe	1803.	D	co
12320 mixta W.	simple-leaved	☞	△	pr	1	jl.au	W	France	1731.	S	co
12321 saxatilis W. en.	rock	☞	△	pr	1	jl.au	W	Hungary	1807.	D	co
12322 Chamomilla W. en.	various-leaved	☞	△	pr	1	jl.au	W	S. Europe	1807.	D	co
12323 chia W.	cut-leaved	☞	△	pr	1½	jn.o	W	Chio	1731.	S	co
12324 nobilis W.	common	☞	△	m	¾	jl.s	W	Britain	gra.pa.	D	co
	<i>— flore pleno</i>										
	<i>double</i>										
12325 arvensis W.	corn	☞	○	w	1	jn.au	W	Britain	dr. fi.	S	co
12326 austriaca W.	Austrian	○	w	1	my.au	W	W	Austria	1759.	S	co
12327 Cótula W.	stinking	○	w	1	jn.s	W	W	Britain	cor.fi.	S	co
12328 fuscata W.	brown-scaled	○	pr	1	jl.au	W	W	Portugal	1805.	S	co
12329 montana W.	mountain	☞	△	pr	½	jl.o	Pu	Italy	1759.	D	co
12330 Pyréthrum W.	Pellitory of Spain	☞	△	or	1	jn.jl	W	S. Europe	1570.	D	s,p
12331 globosa W.	globe	☞	△	el	1	au.s	W	S. Europe	1570.	D	co
12332 tinctoria W.	Ox-Eye	☞	△	pr	1½	jn.n	Y	Britain	sto.pl.	D	co
12333 discoidea W.	saw-leaved	○	pr	1	jl.au	Y	Y	Italy	1800.	S	co
12334 arábica W.	Arabian	○	pr	1½	jl.au	D.Y	W	Barbary	1759.	S	s.l
12335 apiifolia R. Br.	Parsley-leaved	☞	△	pr	2	au.s	W	China	1819.	D	co
12336 punctata W.	dotted	☞	△	pr	1	au.s	W	Barbary	1818.	S	co
12337 ruthénica Bieb.	Russian	☞	△	pr	1½	my.jn	W	Tauria	1823.	D	co
12338 fruticulosa Bieb.	shrubby	☞	△	pr	1½	jn	W	Caucasus	1820.	D	co
12339 coronopifolia W.	Buckshorn-lvd.	☞	△	pr	1	jn.jl	W	Spain	1818.	D	co
12340 alpina W.	alpine	☞	△	pr	¾	jn.jl	W	Austria	1824.	D	co
12341 carpatia W.	Carpathian	☞	△	pr	½	jn.jl	W	Carpathia	1820.	D	co
12342 fallax W.	doubtful	○	pr	1	jl.au	W	W	.....	1825.	S	co
1779. CENTROSPERMUM. Spreng.	CENTROSPERMUM.							Compositae.	Sp. 1.		
12343 chrysanthum Spreng.	yellow	○	pr	¾	jl.au	Y	Y	Spain	1823.	S	co
1780. SANVITALIA. Cav.	SANVITALIA.							Compositae.	Sp. 1.		
12344 procumbens Cav.	trailing	☞	○	un	1	jl.au	Y	Mexico	1798.	S	co



History, Use, Propagation, Culture,

1776. *Grangea*. A genus of Adanson's. The meaning of the word is unknown.
 1777. *Anacyclus*. An abridgement of *Ananthocylus*, which was the name originally proposed by Vaillant, and which does not appear to have been altered for the better. He formed it from α , privative, $\alpha\nu\gamma\alpha\sigma$, a flower, and $\kappa\upsilon\lambda\lambda\omicron\varsigma$, a circle; on account of the rows of ovaries without flowers, which are placed in a circle round the disk.
 1778. *Anthemis*. From $\alpha\nu\gamma\alpha\sigma$, a flower, on account of the multitude of flowers with which the plants are covered. *A. nobilis* is in considerable repute, both in the popular and scientific *Materia Medica*. The flowers, which are the parts used, have a strong and fragrant smell, and a bitter aromatic taste; both are extracted by water and alcohol. The active principles appear to be bitter extractive, resin, and essential oil. Medicinally, the flowers are considered tonic, carminative, and slightly anodyne: yet when a strong infusion of them is taken in a tepid state, it proves powerfully emetic. Given in substance, united with opium and astringents, if the bowels be easily affected, they have been successfully used for the cure of intermittents; and the infusion, in combination with ginger, or other aromatics, and the alkalies, is an excellent stomachic in dyspepsia, cholera, gout, flatulent cholc, and chronic debility of the intestinal canal. The tepid strong infusion is a ready emetic, and is often employed to promote the operation of other emetics. By coction in water, the essential oil is

- 12301 Leaves lyrate pinnated, Flowers radiant
 12302 Leaves tripinnate : segment acute, Stem erect, Heads flosculose corymbose
 12303 Stem hirsute, Leaves lyrate pinnatifid hairy, Heads terminal hemispherical
- 12304 Leaves cuneiform smooth 3-toothed stalked, Heads axill. sessile
 12305 Leaves obl. cuneate repand-toothed stalked, Heads axill. sessile
 12306 Leaves obl. sinuate toothed downy, Stem branched procumbent, Pedunc. 1-headed opp. the leaves
 12307 Leaves obovate toothed cut at base stalked, Peduncles branched
- 12308 Leaves bipinnate, Leaflets oblong, Stem procumbent
 12309 Leaves bipinnate, Leaflets linear subulate flat, Stem ascending, Peduncle naked terminal
 12310 Leaves bipinnate roundish hoary with excavated dots
 12311 Leaves decomposed linear : segm. divided roundish acute, Heads flosculose
 12312 Leaves 3-pinnate, Pinn. linear-subulate downy, Stem branched divaricating, Pedunc. thick
 12313 Leaves bipinnate linear, Pedunc. inflated, Grains winged
- 12314 Leaves bipinnatifid : segm. somewhat toothed rigid, Paleæ oblong acuminate
 12315 Leaves bipinnatifid : segm. lin. subulate toothed, Paleæ round pungent dilated at base
 12316 Leaves bipinnatifid : segm. lanc. somewhat toothed ; lower teeth reflexed, Paleæ lanc. cuspidate
 12317 Leaves bipinnatifid dotted beneath : segm. lanc. entire, Grains naked, Stem herbaceous
 12318 Snow-white, Leaves pinnate : pinnæ 3 or 5-fid, Invol. downy, Stem erect
 12319 Leaves bipinnate : pinnæ linear, Stem erect and invol. downy, Inner scales sphacelate at end
 12320 Leaves sessile pinnatifid : segments toothed, Stem erect branched
 12321 Leaves pinnate : pinnæ linear entire subpubescent, Floral leaves simple, Branches 1-headed
 12322 Rad. leaves bipinnatifid toothed : cauline pinnatifid somewhat toothed
 12323 Leaves bipinnatifid stalked : segm. trifid oblong acute, Petioles sheathing, Sheaths toothed
 12324 Lvs. bipinn. the segm. lin. subul. a little downy, Scales of recept. membranous scarcely long. than the disk
 [entire pappus]
- 12325 Lvs. bipinnatif. their segments lin. lanc. pubesc. Recept. conical its scales lanc. Pericarps crowned with an
 12326 Recept. conical : paleæ obl. mucronate, Grains naked, Leaves bipinnate woolly
 12327 Leaves bipinnatif. glabrous their segm. subul. Receptacle conical its scales setaceous, Pappus O.
 12328 Recept. subconical, Paleæ obl. blunt, Grains naked, Lvs. bipinnate linear filiform 3-parted
 12329 Leaves pinnated downy : pinnæ linear trifid bluntish, Stem ascending, Pedunc. long naked downy
 12330 Leaves 3-pinnate : leaflets linear, Stem decumbent, Branches axillary 1-headed
 12331 Leaves hairy bipinnatifid : segments trifid lanc. linear, Stem nearly erect divided
 12332 Leaves bipinnatifid serrated downy beneath, Stem erect branched subcorymbose
 12333 Leaves bipinnate serrated smooth, Stem erect branched, Pappus membranous toothed cut on one side
 12334 Leaves pinnated : pinnæ linear 3-parted, Stem proliferous, Heads solitary axillary sessile
 12335 Leaves smooth pinnatifid : lobes cuneate trifid or cut, Heads solitary
 12336 Leaves bipinnatifid dotted beneath : segments entire, Crown of grains toothed
 12337 Leaves woolly bipinnate : pinnæ lanc. acute, Flowering branches corymbose, Recept. conical
 12338 Leaves stalked silky bipinnate : segm. linear acute, Invol. downy, Rays ovate
 12339 Leaves linear sessile pinnatifid : segm. entire, Stem erect branched
 12340 Leaves sessile pinnatifid : segm. linear subulate pectinate entire, Stem downy 1-headed
 12341 Leaves pinnated : pinnæ linear entire blunt, Stem downy 1-headed
 12342 Leaves pinnated revolute at edge : segm. lin. subul. subtrifid, Upper scales of invol. blunt with a membran. [edge]
- 12343 The only species, resembling a Calendula

12344 Stem procumbent, Leaves ovate entire



and Miscellaneous Particulars.

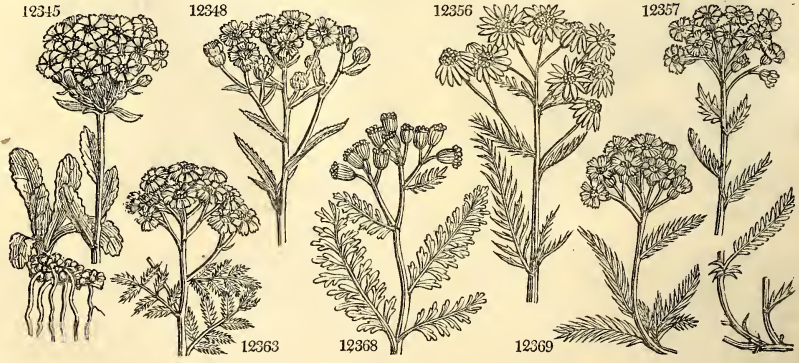
dissipated : chamomile flowers, therefore, ought never to be ordered in decoctions. Externally, they are used as fomentations in cholic, intestinal inflammation, and to phagedenic ulcers ; and their infusion is also found to be an useful addition to emollient anodyne gylsters in flatulent cholic, and in irritations of the rectum producing tenesmus. (*London Disp.* p. 158.) There is a double variety generally grown for the apothecaries ; it is more ornamental than the single, but much less efficacious as a medicine.

A. cotula is said by Linnæus to be a very grateful plant to toads ; to drive away fleas, and to annoy bees. It is a very common weed on soft rich soils and dunghills, and increases by seeds with amazing rapidity. The tribe of Anthemideæ, of which this genus is the example, are nearly related to Heliantheæ. In their style they resemble Inuleæ, Senecioneæ, and Nassauvieæ, but their floral organs are different. They inhabit Europe, Asia, and Africa, scarcely one has been found in America, or the southern parts of the world.

1779. *Centrospermum*. From *κεντρα*, a spur, and *σπερμα*, a seed, in allusion to the spiny points of the pappus. A small annual plant with the aspect of *Calendula*.

1780. *Sanvitalia*. Named by Lamarck without any explanation. A hardy annual plant, with flowers having a yellow ray and dark purple disk, like some species of *Rudbeckia*.

1781. ACHILLEA W.	MILFOIL.				Composite.	Sp. 50—69.				
12345	lingulata W.	tongue-leaved	Δ	or	1	jl.au	W	Hungary	1815. D co	Pl.rar.hun.1.t.2
12346	Herba-róta W.	Herbarota	Δ	or	1	jn.jl	W	France	1640. D co	All. ped. 1.t.9.f.3
12347	grandiflora M. B.	great-flowered	Δ	or	1	jl.au	W	Caucasus	1815. D co	
12348	Ptármica W.	Sneezewort	Δ	or	1	jl.n	W	Britain	moi.pl. D co	Eng. bot. 757
	β florea pleno	double-flowered	Δ	or	1	jl.n	W	.....	... C co	
12349	cristata W.	slender-branch	Δ	or	1	jl.au	W	Italy	1784. D p.1	
12350	Agératum W.	Sweet Mauidin	Δ	or	2	au.o	Y	S. Europe	1570. D s.p	
12351	decolorans W. en.	pale-yellow	Δ	or	1	jn.au	W, Y	.....	1798. D co	
12352	speciosa W. en.	spear-leaved	Δ	or	1	½ jls	W	.....	1804. D co	
12353	alpina W.	Alpine	Δ	or	1	jn.jl	W	Siberia	1731. D s.p	Bo. mu. 144.t.101
12354	serrata W.	saw-leaved	Δ	or	2	au.s	Y	Switzerl.	1686. D co	
12355	Clavénne W.	silver-leaved	Δ	or	1	jn.jl	W	Austria	1656. D p.1	Bot. mag. 1287
12356	impatiens W.	impatient	Δ	or	2	jn.s	W	Siberia	1759. D co	Gme. si.2.t.83.f.1
12357	pectinata W.	comb-leaved	Δ	or	1	½ au.s	Pa. Y	Hungary	1801. D co	Pl.rar.hun.1.t.34
	ochroleuca Waldst.									
12358	squarrosa W.	rough-headed	Δ	or	1	jl.au	W	.....	1775. D p.1	
12359	falcata W.	sickle-leaved	Δ	or	1	½ jns	Pa. Y	Levant	1739. D co	Lam. ill. t.683.f.3
12360	tenuifolia W.	slender-leaved	Δ	or	1	jn.au	Y	Levant	1733. D co	
12361	Santolina W.	Lavend.-cotton-iv.	Δ	or	1	jn.au	Pa. Y	Levant	1759. D p.1	
12362	anthemoides W.	Chamomile-like	Δ	or	1	jn.au	Pa. Y	.....	... D co	
12363	atrata W.	black-cupped	Δ	or	2	jls	W	Austria	1596. D co	Jac. aust. 1. t. 77
12364	biserrata Bieb.	biserrate	Δ	or	1	½ jn.jl	W	Albania	1820. D co	
12365	coronopifolia W.	Buckshorn-ivd.	Δ	or	1	½ jl.au	Pa. Y	Levant	1823. D co	Wil. achill. t. 1.f.2
12366	albida W. en.	whitish	Δ	or	1	jl	Pa. Y	.....	1819. D co	
12367	chamaemelifolia Dec.	dwarf	Δ	or	1	½ jl	W	France	1825. D co	
12368	Gerberi W.	Siberian	Δ	or	1	½ jl.au	Pa. Y	Siberia	1821. D co	Gmel.sib.t.83.f.2
12369	moschata W.	musk	Δ	or	2	jn.jl	W	Italy	1775. D co	Jac. aus. 5.t.ap.33
12370	nana W.	dwarf	Δ	or	1	jn.au	W	Italy	1759. D co	All. ped. 1.t.9.f.2
12371	cretica W.	Cretan	Δ	or	1	jl.au	W	Candia	1739. D p.1	Bocc. mus. t. 34
12372	egyptiaca W.	Egyptian	Δ	or	1	jls	Pa. Y	Levant	1640. R p.1	Tourn. it. 1. t. 87
12373	macrophylla W.	large-leaved	Δ	or	3	jl.au	W	Italy	1710. D co	Triumf. obs. t.23
12374	aurea W.	golden-flower'd	Δ	or	1	jn.s	Y	Levant	1739. D co	
12375	Eupatorium W.	Caspian	Δ	or	2	jl.au	Y	Casp. Sho.	1803. D co	
12376	compacta W.	compact	Δ	or	1	jl.au	Pa. Y	.....	1803. D co	
12377	pubescens W.	downy	Δ	or	1	jn.s	Pa. Y	Levant	1739. D p.1	
12378	crithmifolia W.	Samphire-leav.	Δ	or	1	jn.au	W	Hungary	1804. D p.1	Pl.rar.hun.1.t.66
12379	tanacetifolia W.	Tansy-leaved	Δ	or	1	jl.au	W	Switzerl.	1658. D co	Moris. 6.t.11.f.14
12380	distans W.	branching	Δ	or	3	jl.au	W	Italy	1804. D co	All. ped. t. 53.f.1
12381	lanata W. en.	woolly	Δ	or	1	jn.au	W	.....	1804. D co	
12382	magna W.	great	Δ	or	3	jn.n	W	S. Europe	1683. D co	
12383	Millefolium W.	Narrow	Δ	or	2	jn.o	W	Britain	pas. D co	Eng. bot. 758
	β rubra	red-flowered	Δ	or	2	jn.o	W	.....	... D co	
12384	asplenifolia P. S.	Rose-colored	Δ	or	1	½ jn.au	Pk	N. Amer.	1803. D s.p	Vent. cels. t. 93
12385	micrantha W.	small-flowered	Δ	or	1	jn.o	Y	Levant	1805. D p.1	Eng. bot. 2532
12386	tomentosa W.	tomentose	Δ	or	2	my.o	Y	Britain	hea. D co	
12387	ochroleuca W.	cream-colored	Δ	or	2	jls	Pa. Y	.....	1804. D co	
12388	microphylla W.	small-leaved	Δ	or	1	jn.au	W	Spain	1800. D co	Barr. ic. 1114
12389	Ligustica W.	Ligurian	Δ	or	4	jn.au	W	Italy	1791. D co	All.ped.1.t.53.f.2
12390	ngbilis W.	showy	Δ	or	2	jn.au	W	Germany	1340. D co	Scht.han.3.t.255
12391	myriophylla W. en.	many-leaved	Δ	or	1	½ jls	W	.....	1793. D co	Jac. col. 1. t. 21
12392	odorata W.	sweet-scented	Δ	or	1	jn.au	W	Spain	1729. D co	Pl.rar.hun.1.t.80
12393	setacea W.	bristly	Δ	or	1	jn.au	W	Hungary	1805. D p.1	
12394	abrotanifolia W.	Southernw.-lv.	Δ	or	2	jn.au	Y	Levant	1739. D p.1	
1782. TRI/DAX W.	TRIDAX.					Composite.	Sp. 1—2.			
12395	procumbens W.	long stalkcd	○	un	1	½ jl.au	Y	Mexico	1804. S co	
1783. AMEL/LUS W.	AMELLUS.					Composite.	Sp. 3—4.			
12396	Lychnitis W.	trailing	2	pr	1	½ jn.jl	Vi	C. G. H.	1763. C p.1	Jac.co.su.t.10.f1
12397	villosus Ph.	villous	Δ	pr	1	aus	Y	Missouri	1811. D co	
12398	spinulosus Ph.	spiny	Δ	pr	2	aus	Y	Missouri	1811. D co	



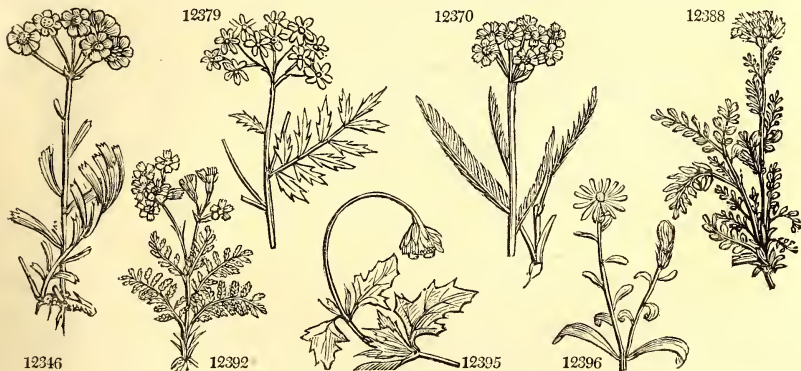
History, Use, Propagation, Culture,

1781. *Achillea*. Named after Achilles, a disciple of Chiron, and the first physician who used it in healing wounds. A. Ptarmica is called sneeze-wort, because the dried powder of the leaves snuffed up the nostrils provokes sneezing. In the spring, the young tender shoots were formerly put into salads, to correct the coldness of other herbs. There is a variety with double flowers, which is very ornamental, especially in pots. A. moschata, the *Genipi* of the Swiss, is an excellent sudorific, aromatic, and acrid, and is a grateful food to cattle.

- 12345 Leaves obl. linear blunt doubly serrulated downy ciliated, Stem villous
 12346 Leaves linear narrowed at base serrated and stem smooth [at end
 12347 Leaves lin. acute equally and finely serrulate smooth, Stem panicled, Corymbs few-headed, Palcæ bifid
 12348 Leaves linear lanc. acuminate sharply serrated
- 12349 Leaves lin. plane acuminate toothed: teeth emarginate transversely ciliated, Stem diffuse
 12350 Leaves obl. blunt serrated narrowed into the petiole fascicled glabrous, Corymb compound contracted
 12351 Leaves linear acuminate equally and finely serrated smooth: serratures of the base deepest, Palcæ entire
 12352 Leaves lanc. equally and finely serrated downy, Serratures of base deepest, Stem panicled, Palcæ entire
 12353 Leaves linear pectinate pinnatifid glabrous: segm. subserrated, Corymb compound
 12354 Leaves downy linear lanc. pinnatifid: segments deepest at base
 12355 Leaves downy pinnatifid smooth: segm. linear blunt: upper toothed at end, Corymb simple
 12356 Leaves pectinate pinnatifid smooth: segm. linear acute; lower 2-parted, Corymb simple
 12357 Leaves pectinate pinnatifid: segm. linear subulate entire, Corymb compound contracted, Stem downy
- 12358 Leaves pinnatifid: segm. obl. cuneate unequally toothed vertically bent, Corymbs simple
 12359 Leaves pinnated roundish pilose: pinnæ 3-parted toothed imbricated across, Corymbs simple
 12360 Leaves pinnat. somew. downy, Pinnæ 3-part. blunt entire transversely imbr. Ray scarcely long. than invol.
 12361 Leaves pinnated somewhat downy, Pinnæ 3-parted transverse distant: segm. 3-toothed, Stem branched
 12362 Leaves pinnated downy: pinnæ linear entire blunt; lowest longest, Cymes simple
 12363 Leaves pectinate pinnate smooth: pinnæ linear acuminate usually 3-parted
 12364 Leaves linear-lanc. acuminate unequally and finely biserrate villous beneath
 12365 Leaves downy pinnatifid: segm. lanc. serrated, Corymb compound
 12366 Stem downy, Leaves pinnated minutely cut acute rigid bent upwards with a downy nerve
 12367 Leaves pinnated: pinnæ long distant very narrow linear entire, Corymb compact branched
 12368 Cauline lvs. pinnatifid with entire segm.: radic. pinnatifid with 3-fid segm. Ray scarcely larger than invol.
 12369 Leaves pectinate pinnate smooth, Pinnæ linear blunthsh entire dotted
 12370 Leaves pinn. villous: pinnæ toothed linear; radical bipinnate, Stem quite simple
 12371 Leaves pinn. downy: pinnæ roundish 4-fid concave spreading, Stem branched at end
 12372 Leaves pinn. downy: pinnæ roundish bluntly toothed, Corymb compound
 12373 Leaves pinn. smooth: pinnæ lanc. cut-serrated; outer confluent, Corymb compound
 12374 Leaves bipinnate downy: pinnæ linear-lanc. toothed, Corymb simple, Peducles long
 12375 Leaves bipinnatifid hoary: segm. lin. lanc. serrated, Corymb compound globose, Flowers flosculous
 12376 Leaves bipinnatif. setaceous villous: segm. lanc. entire, Corymb compound contracted, Flowers flosculous
 12377 Leaves bipinnatifid pubescent: segm. linear lanc. unequal acute, Corymb compound
 12378 Leaves downy: cauline bipinnatifid with linear blunt segm.; radical bipinnate, Corymbs compound
 12379 Leaves bipinnatifid: segm. lanc. serrated, Corymb compound spreading
 12380 Leaves bipinnatifid: segm. lanc. cut-serrated, Rachis winged cut-serrated, Corymbs fastigiate compound
 12381 Leaves bipinnatifid villous: segm. lanc. blunt, Corymbs fastigiate compound
 12382 Leaves thrice pinnatifid: segm. lanc. acute, Corymbs compound fastigiate
 12383 Leaves bipinnate slightly hairy their segm. linear toothed acute, Stems furrowed
- 12384 Leaves pinnatifid downy beneath: segm. toothed, Stem branched fastigiate smooth
 12385 Leaves bipinnatifid downy: segm. lanc. entire, Corymb compound
 12386 Leaves bipinnatifid woolly: the segm. crowded linear acute, Corymbs repeatedly compound
 12387 Leaves subbipinnatifid: pinnæ of the base undivided: segm. lin. lanc. Corymb compound, Invol. cylindr.
 12388 Leaves bipinnatifid shorter than the intervals between them: segm. lin. entire, Corymbs comp. fastigiate
 12389 Leaves bipinnatifid: segm. lin. finely serrated, Rachis winged entire, Corymb compound fastigiate
 12390 Cauline leaves bipinnatifid: segm. lin. somew. toothed, Rachis winged toothed: radical thrice pinnatifid
 12391 Leaves bipinnate downy: pinnæ pinnatifid, Segments linear-subulate, Corymbs compound fastigiate
 12392 Leaves bipinnate pilose beneath: pinnæ linear entire, Corymb simple
 12393 Leaves bipinnate: leaflets linear setaceous mucronate very compact pilose, Corymbs compound fastigiate
 12394 Leaves bipinnate downy: pinnulæ very fine linear entire distant, Corymbs compound fastigiate

12395 The only species

- 12396 Leaves hoary linear lanc. opposite: those of the branches alternate
 12397 Very villous, Leaves sessile oblong acuminate entire, Heads axillary on short stalks
 12398 Hoary, Lvs. bipinnatifid cut-toothed, Segm. linear rigid mucronate, Heads lateral and terminal-clustered



and Miscellaneous Particulars.

1752. *Tridax*. From *τριδακνως*, cut into three pieces. The rays of the flower are divided in three.
 1783. *Amellus*. A name used by Virgil for a beautiful flower growing on the banks of the river *Mella*. The plant of Virgil is supposed to have been *Aster Amellus*.

1784. STAR'KEA. <i>W.</i>	STARKEA.	Compositæ.	Sp. 1.					
12399 umbellâta <i>W.</i>	umbel-flowered	☒ un	1½ jn.jl	Y	Jamaica	1768.	D lp	Lam. ill.t.682.f.2
1785. COLUMEL'LIA. <i>Jacq.</i>	COLUMELLIA.	Compositæ.	Sp. 1.					
12400 biennis <i>Jacq.</i>	biennial	☒ un	1 jn.jl	Y	C. G. H.	1821.	S co	Jac. schœ.3.t.301
1786. ECLIP'TA. <i>W.</i>	ECLIPTA.	Compositæ.	Sp. 2—10.					
12401 erectâ <i>W.</i>	upright	○ un	2 jls	W	America	1690.	S lp	Dil.elt.t.114.f.137
12402 prostrâta <i>W.</i>	trailing	* ☒ un	¾ jls	W	E. Indies	1732.	S lp	Dil.elt.t.113.f.138
1787. MEYER'A. <i>Swz.</i>	MEYERA.	Compositæ.	Sp. 1.					
12403 sessilis <i>Swz.</i>	sessile	☒ un	1 jl.au	Y	W. Indies	...	D co	Bot. rep. 429
1788. CHRYSANTHEL'LUM. <i>P. S.</i>	CHRYSANTHELLUM.	Compositæ.	Sp. 1.					
12404 procumbens <i>P. S.</i>	procumbent	☒ un	1½ jn.jl	Y	W. Indies	1768.	S co	Sw. ob.314.t.8.f.1
	<i>Verbesina mûtica W.</i>							
1789. SIEGESBECK'IA. <i>W.</i>	SIEGESBECKIA.	Compositæ.	Sp. 2—5.					
12405 orientâlis <i>W.</i>	oriental	○ pr	2 au.o	Y	India	1730.	S co	Schk.han.3.t.256
12406 flosculôsa <i>W.</i>	small-flowered	○ pr	2 jn.jl	Y	Peru	1784.	S co	L'Her. stirp.t.16
1790. VERBESI'NA. <i>W.</i>	VERBESINA.	Compositæ.	Sp. 10—23.					
12407 alâtâ <i>W.</i>	wing-stalked	☒ Δ pr	2 my.o	Or	S. Amer.	1699.	C lp	Bot. mag. 1716
12408 virginica <i>W.</i>	white-flowered	☒ Δ pr	2 jls	W	N. Amer.	1812.	D co	
12409 gigantêa <i>W.</i>	tree	☒ un	8 ...	Y	W. Indies	1758.	C lp	Jac. ic. 1. t. 175
12410 Siegesbeckia <i>W.</i>	American	☒ Δ pr	3 o.n	Y	Virginia	1731.	D co	
12411 Coreopsis <i>Ph.</i>	Coreopsis-like	☒ Δ pr	5 s.n	Y	N. Amer.	1640.	D co	Jac. vind. 2.t.110
	<i>Coreopsis alternifolia W.</i>							
12412 serrâta <i>W.</i>	saw-leaved	☒ Δ un	3 jl.o	Y	Mexico	1803.	D lp	Cav. ic. 3. t. 214
12413 sativa <i>H. K.</i>	Oil-seed	☒ un	6 au.s	Y	E. Indies	1806.	S co	Bot. mag. 1017
12414 calendulâcea <i>W.</i>	Ceylon	☒ un	2 jls	Y	Ceylon	1739.	S co	Bur. zey. t. 22.f.1
12415 dichôtoma <i>W.</i>	forked	☒ un	3 jn.jl	Y	E. Indies	1789.	S co	M. co.go.1779.t.4
12416 fruticôsa <i>W.</i>	shrubby	☒ un	3 jn.au	Y	W. Indies	1759.	C co	Plum. ic. t. 52
1791. SYNEDREL'LA. <i>P. S.</i>	SYNEDRELLA.	Compositæ.	Sp. 1—3.					
12417 nodiflôra <i>P. S.</i>	sessile-flowered	☒ w	½ jn.jl	Y	W. Indies	1726.	S s.l	Ex. flora. 60
1792. GALINSO'GEA. <i>W.</i>	GALINSOGEA.	Compositæ.	Sp. 2—6.					
12418 parviflôra <i>W.</i>	small-flowered	○ un	3 my.s	D.Y	S. Amer.	1796.	S co	Cav. ic. 3. t. 281
12419 trilobâtâ <i>W.</i>	three-lobed	○ un	3 au.n	O	Peru	1797.	S co	Bot. mag. 1895
1793. ACMEL'LA. <i>P. S.</i>	ACMELLA.	Compositæ.	Sp. 2—7.					
12420 mauritiâna <i>P. S.</i>	Balm-leaved	☒ un	1½ jl.au	Y	Mauritius	1768.	S s.l	Rump. am.6.t.65
	<i>Spilanthes Acmella W.</i>							
12421 buphthalmoides <i>P. S.</i>	oval-leaved	○ un	1½ jls	Y	S. Amer.	1798.	S co	Jac. schœ.2.t.151
1794. ZALUZA'NIA. <i>P. S.</i>	ZALUZANIA.	Compositæ.	Sp. 1—2.					
12422 triloba <i>P. S.</i>	three-lobed	☒ Δ un	1½ jls	Y	Mexico	1798.	D lp	
1795. PASCA'LIA. <i>W.</i>	PASCALIA.	Compositæ.	Sp. 1.					
12423 glâuca <i>W.</i>	glaucous-leaved	☒ Δ pr	1½ jn.au	Y	Chili	1799.	D co	Bot. rep. 549
1796. HELIOP'SIS. <i>P. S.</i>	HELIOPSIS.	Compositæ.	Sp. 1.					
12424 le'vis <i>P. S.</i>	Sunflower-ld.	☒ Δ or	6 jl.o	Y	N. Amer.	1714.	D co	L'Her.stirp.t.45
	<i>Buphthalmum helianthoides W.</i>							
1797. BUPHTHAL'MUM. <i>W.</i>	OX-EYE.	Compositæ.	Sp. 9—27.					
12425 frutescens <i>W.</i>	shrubby	☒ or	2 jn.au	Y	America	1696.	C p.l	Dill.elt.t.28.f.44
12426 arborëscens <i>W.</i>	tree	☒ or	3 my.s	Y	Bermudas	1699.	C p.l	Dill.elt.t.38.f.43



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1784. *Starkea*. Named by Willdenow, after the Rev. Mr. Starke, of Gros Tchernia, in Silesia, who paid much attention to the Cryptogamous plants of that country. This genus was included by Linnæus in *Amellus*, from which Willdenow remarks that it differs in habit, and in its hairy receptacle.

1785. *Columella*. So called by Jacquin, after the celebrated Geoponic writer, Lucius Junius Moderatus Columella, a Spaniard, born forty-two years before Christ. A plant resembling *Amellus annua*. The flowers are yellow and sessile in the dichotomies of the branches. The *Columella* of Loureiro is a different thing.

1786. *Eclipta*. A translation of the Malay name *Wangi-wangi-maih*, which signifies an eclipse of the sun, to which the form and disposition of the radiated flower has been likened. Worthless weeds with white flowers.

1787. *Meyera*. Named after Gottlieb-Andrew Meyer, a German, who published, in 1694, a dissertation upon the *Sycomor*us of Scripture.

1788. *Chrysanthellum*. A diminutive of *Chrysanthemum*, which see.

1789. *Siegesbeckia*. Dr. John George Siegesbeck, a German physician, director of the garden at St. Petersburg, published in 1736, a catalogue of it under the title of *Flora* of St. Petersburg. There was also a *Botanosophia* from his pen in 1737.

12399 Leaves opp. 3-nerved downy beneath, Heads in umbels

12400 The only species

12401 Stem erect strigose, Leaves oblong lanc. sessile remotely serrated

12402 Stem prostrate strigose, Leaves obl. lanc. somewhat stalked subserrate somewhat wavy scabrous

12403 Stem erect, Leaves amplexicaul. ovate toothed

12404 Leaves alternate 3-parted toothed : radical oblong serrated, Stem creeping

12405 Leaves stalked ov. unequally toothed subtriangular at base somewhat cut, Outer invol. longer than inner

12406 Leaves sessile ovate toothed, Florets of disk 3-toothed triandrous

12407 Leaves alternate decurrent wavy blunt

12408 Leaves alternate lanc. subserrate, Corymb compound

12409 Leaves alternate deeply pinnatifid, Stem shrubby

12410 Leaves opposite ovate lanc. serrated acuminate at each end decurrent

12411 Stem winged, Lvs. lanc. acuminate somewhat stalked serrated, Heads corymbose, Cor. of ray lanceolate

12412 Leaves opposite ovate-lanc. serrated downy beneath

12413 Leaves opposite cordate-lanc. amplexicaul. remotely serrated, Invol. simple 5-leaved

12414 Leaves opposite obl. lanc. bluntish strigose serrated at end, Pedunc. 1-headed long, Invol. simple

12415 Leaves opposite ov. acuminate serrated 3-nerved hairy, Pedunc. winged 1-headed, Invol. simple

12416 Leaves opposite ov. acuminate serrated 3-nerved scabrous on each side, Pedunc. 1-headed axillary

12417 Leaves opposite ov. serrated 3-nerved, Heads axillary subsessile, Invol. simple, Stem trichotomous

12418 Leaves ovate 3-nerved serrated

12419 Leaves oblong lanceolate toothed 3-nerved : lower hastate 3-lobed

12420 Stem procumbent downy, Lvs. ovate entire, Pedunc. lateral, Ray shorter than disk

12421 Leaves ovate serrated 3-nerved downy beneath, Ray many-flowered

12422 Leaves ternate 3-lobed : lower opposite, Stem suffrutescent

12423 The only species

12424 Leaves opposite ovate serrated 3-nerved, Invol. leafy, Stem herbaceous

12425 Leaves opposite obovate hoary, Petioles with 2 teeth

12426 Leaves opposite lanceolate narrowed at base not toothed smooth



and Miscellaneous Particulars.

1790. *Verbesina*. A name with the same meaning as *Verbena*, which see. The *V. alata* resembles *Vervain* in the appearance of its foliage.

1791. *Synedrella*. A name of unknown meaning. A little worthless weed.

1792. *Galinsoga*. Named after after Mar. Ma. Galinsoga, first physician to the queen of Spain, and intendant of the garden of Madrid. One of the species, *G. trilobata*, is sometimes cultivated as a hardy annual. But it does not possess much merit.

1793. *Acnella*. From *acum*, a point, on account of the pricking taste of the foliage.

1794. *Zaluzania*. Apparently an alteration of *Zaluzianskia*, a name applied in error to *Marsilea trifolia*, and formed in honor of an obscure Polish botanist.

1795. *Pascalina*. A genus dedicated by Ortega to Didan Pascal, doctor of medicine, and a professor at Parma.

1796. *Heliopsis*. A name with the same meaning, and a genus with the same habit, as *Helianthus*, which see.

1797. *Bupththalmum*. From *βυς*, an ox, and *οφθαλμος*, an eye, in allusion to the broad open disk of the flowers. It is believed that the *Bupththalmum* of Pliny is a species of *Anthemis*.

12427 sericeum <i>W.</i>	silky	☐	or	3	my.jl	Y	Canaries	1779.	C	p.l	Bot. mag. 1836
12428 spinosum <i>W.</i>	prickly	○	or	3	jn.s	Y	Spain	1570.	S	co	Barr. ic. 551
12429 aquaticum <i>W.</i>	sweet-scented	○	or	3	jl.au	Y	S. Europe	1731.	S	co	Breyn. cent. t.77
12430 maritimum <i>W.</i>	sea	☐	or	1	jl.s	Y	Sicily	1640.	D	s.l	Docc.mus. t.129
12431 salicifolium <i>W.</i>	Willow-leaved	☐	or	1½	jn.o	Y	Austria	1759.	D	co	Jac. aust. 4.t.370
12432 grandiflorum <i>W.</i>	great-flowered	☐	or	1½	jn.o	Y	Austria	1732.	D	p.l	Moriss.6.t.7.f.52
12433 cordifolium <i>W.</i>	heart-leaved	☐	or	1	jn.au	Y	Hungary	1739.	D	p.l	Pl.rar.hu.2.t.113

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1798. HELIANTHUS. <i>W.</i>	SUN FLOWER.	<i>Compositæ. Sp. 24—31.</i>									
12434 annuus <i>W.</i>	annual	○	or	6	jn.o	Y	S. Amer.	1596.	S	co	ReNeal.spec.t.83
12435 indicus <i>W.</i>	dwarf annual	○	or	3	jn.o	Pa. Y	Egypt	1785.	S	co	Tabern. ic. 764
12436 tubæformis <i>W.</i>	tube-flowered	○	or	5	jl.au	Y	Mexico	1799.	S	co	Jac.schœ.3.t.375
12437 dentatus <i>W.</i>	tooth-leaved	☐	or	6	s.n	Y	Mexico	1798.	C	lp	Cav. ic. 3. t. 220
12438 multiflorus <i>W.</i>	many-flowered	☐	or	6	au.o	Y	N. Amer.	1597.	D	co	Bot. mag. 227
	<i>g. pterus</i>	☐	or	6	au.o	Y	N. Amer.		D	co	
12439 tuberosus <i>W.</i>	Jerusalem Artich.	☐	or	8	s.o	Y	Brazil	1617.	R	co	Jac. vind.2.t.161
12440 angustifolius <i>Ph.</i>	narrow-leaved	☐	or	3	s.o	Y	N. Amer.	1789.	D	co	Bot. mag. 2051
12441 macrophyllus <i>Ph.</i>	large-leaved	☐	or	6	au.o	Y	N. Amer.	1800.	D	co	W.hort. bert.t.70
12442 mollis <i>W.</i>	soft	☐	or	4	jl.o	Y	N. Amer.	1805.	D	co	
12443 decapetalus <i>W.</i>	ten-petalled	☐	or	6	au.n	Y	N. Amer.	1759.	D	p.l	Rob. ic. 235
12444 prostratus <i>W.</i>	rough	☐	or	2	jl.s	Y	N. Amer.	1800.	D	co	
12445 strumosus <i>W.</i>	Carrot-rooted	☐	or	8	jl.s	Y	N. Amer.	1710.	D	p.l	Boc. sic. t. 27. f.4
12446 altissimus <i>W.</i>	tall	☐	or	8	jl.s	Y	N. Amer.	1711.	D	co	Jac. vind. 2.t.160
12447 gigantæus <i>W.</i>	gigantic	☐	or	10	jl.s	Y	N. Amer.	1714.	D	co	Moriss.6.t.7.f.66
12448 longifolius <i>Ph.</i>	long-leaved	☐	or	6	au.o	Y	Georgia	1812.	D	co	
12449 diffusus <i>E. M.</i>	diffuse	☐	or	3	au.o	Y	N. Amer.	1821.	D	co	Bot. mag. 2020
12450 linearis <i>Cav.</i>	linear	☐	or	2	au.o	Y	Mexico	1823.	D	co	Bot. reg. 523
12451 trachelifolius <i>W.</i>	Trachelium-lv.	☐	or	6	s.o	Y	N. Amer.	1825.	D	co	
12452 excelsus <i>W.</i>	lofty	☐	or	8	s.o	Y	Mexico	1820.	D	co	Cav. ic. t. 219
12453 missouriicus <i>Link.</i>	Missouri	☐	or	3	s.o	Y	Missouri	1821.	D	co	
12454 trilobatus <i>Link.</i>	three-lobed	☐	or	3	s.o	Y	Mexico	1824.	D	co	
12455 divaricatus <i>Ph.</i>	divaricate	☐	or	6	an.o	Y	N. Amer.	1759.	D	p.l	Mo.h. s.6.t.7.f.66
12456 pubescens <i>W.</i>	downy	☐	or	4	jl.o	Y	N. Amer.	1795.	D	co	Bot. reg. 524
12457 atrorubens <i>W.</i>	dark-purp.-eyed	☐	or	3	jl.o	Br	N. Amer.	1732.	D	p.l	Bot. reg. 508

1799. GYMNOLOMIA. <i>Kunth.</i>	GYMNOLOMIA.	<i>Compositæ. Sp. 1.</i>									
12458 maculatum <i>Kunth.</i>	spotted	☐	or	3	jn.jl	Y	W. Indies	1821.	D	p.l	Bot. reg. 662
1800. RUDBECKIA. <i>W.</i>	RUDBECKIA.	<i>Compositæ. Sp. 12—20.</i>									
12459 pinnata <i>Ph.</i>	fragrant	☐	or	3	aus.	Y	N. Amer.	1803.	D	co	Bot. mag. 2310
12460 digitata <i>W.</i>	narr.-jagged-lv.	☐	or	6	aus.	Y	N. Amer.	1759.	D	p.l	Moriss.6.t.6.f.E54
12461 laciniata <i>W.</i>	broad jagged-lv.	☐	or	6	jl.s	Y	N. Amer.	1640.	D	p.l	Moriss.6.t.6.f.53
12462 columnaris <i>Ph.</i>	high-crowned	☐	or	3	aus.	Y	N. Amer.	1811.	D	co	Bot. mag. 1601
12463 subtomentosa <i>Ph.</i>	downy-lobed	☐	or	3	aus.	Y	N. Amer.	1802.	D	co	
12464 triloba <i>W.</i>	three-lobed	☐	or	4	aus.	Y	N. Amer.	1699.	S	co	Bot. reg. 525
12465 hirta <i>W.</i>	great-hairy	☐	or	2	jn.n	Y	N. Amer.	1714.	D	p.l	Sweet's fl.gar.82
12466 fulgida <i>H. K.</i>	small-hairv	☐	or	3	jl.au	Y	N. Amer.	1760.	D	p.l	Sweet's fl.gar. 1996
12467 levigata <i>Ph.</i>	smooth	☐	or	3	jl.au	Y	Carolina	1812.	C	co	
12468 amplexifolia <i>W.</i>	stem-clasping	☐	or	3	jl.au	Y	Louisiana	1793.	S	co	Jac. ic. 3. t. 592
12469 purpurea <i>Ph.</i>	purple	☐	or	5	jl.o	D.P	N. Amer.	1639.	D	p.l	Bot. mag. 2
12470 serotina <i>Sweet</i>	late	☐	or	2	au	Y	N. Amer.	1823.	D	co	Sweet's fl.gard.4



History, Use, Propagation, Culture,

1798. *Helianthus*. From *ηλιος*, the sun, and *ανθος*, a flower. Nothing can be a more complete ideal representative of the sun, than the gigantic sun-flower, with its golden rays; it is dedicated with great propriety to the sun, which it never ceases to adore while the earth is illuminated by his light. When he sinks into the west, the flowers of *Helianthus* are turned towards him; and when he rises in the east, the flowers are again ready to be cherished by the first influence of his beams.

H. annuus is a well known border annual, which will grow in any soil. There are varieties with double flowers, the tubular florets being changed into ligular ones, like those in the ray. The whole plant, and particularly the flower, exudes a thin pellicud odorous resin, resembling venice turpentine. From the seeds an edible oil has been expressed, and they are also excellent food for domestic poultry. The flowers turning with the sun, is by some considered a popular error; Gerarde says he never could observe it; and Professor Martin has seen four flowers on the same stem pointing to the four cardinal points. *H. tuberosus*, *Topinambour*, Fr., *Erdapfel*, Ger., and *Girasole*, Ital., is called Jerusalem, from the corruption of the Italian word *Girasole*; and *Artichoke*, from the resemblance in flavor which the tubers have to the bottoms of artichokes. These tubers are in considerable esteem on the continent as a substitute for potatoes; and before the introduction of that vegetable, they were a good deal in use in this country. Their culture and treatment is the same as for that vegetable. *H. multiflorus* a showy autumnal flower.

- 12427 Leaves opposite close spatulate oblong silky, Scales of invol. setaceous hirsute
 12428 Leaves alternate obl. lanc. amplexicaul. entire hirsute, Invol. leafy mucronate
 12429 Invol. bluntly leafy sessile axillary, Leaves oblong blunt alternate nearly entire, Stem dichotomous
 12430 Invol. bluntly leafy stalked, Lvs. alternate spatulate, Stem herbaceous
 12431 Leaves alternate obl.-lanc. subserrate 3-nerved villous, Invol. naked, Stem herbaceous
 12432 Leaves alternate lanc. somewhat toothletted smooth, Invol. naked, Stem herbaceous
 12433 Leaves alternate : lower stalked cordate doubly serrated : upper sess. ovate serrated, Stems herbaceous

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- 12434 Leaves all cordate 3-nerved, Pedunc. thick, Heads cernuous
 12435 Leaves all cordate 3-nerved, Pedunc. evensized, Invol. leafy
 12436 Leaves cordate cuneate at base villous 3-nerved, Pedunc. thick fistular
 12437 Leaves ovate acuminate narrowed at base unequally serrate scabrous, Pedunc. filiform, Rays obovate
 12438 Leaves 3-nerved scabrous : lower cordate ; upper ovate, Ray many-fl. Scales of invol. lanceolate
 12439 Leaves 3-nerved scabrous : lower cordate-ovate ; upper ovate acum. alternate, Petioles ciliated at base
 12440 Stems slender about 1-headed, Leaves linear revolute at edge rough
 12441 Leaves ovate acuminate 3-nerved serrated scabrous above hoary beneath, Invol. squarrose
 12442 Leaves ovate acuminate 3-nerved closely serrated scabrous above : hoary and soft beneath
 12443 Lvs. ov. acum. remotely serrat. 3-nerv. scabr. Scales of invol. lanc. nearly equal subciliated, Rays 10 or 12
 12444 Lvs. lanc. acuminate scabr. serrated 3-nerved : upper entire, Scales of invol. lanc. ciliated, Stem procumb.
 12445 Lvs. ovate acuminate serrated 3-nerved scabrous beneath, Scales of invol. lin. lanc. ciliated at base
 12446 Lvs. altern. lanc. serr. scabr. 3-nerved narrow, at end stalked, Petioles ciliated, Scales of invol. lanc. ciliat.
 12447 Lvs. altern. lanc. serr. obsol. 3-nerv. narrow, at each end subsess. ciliat. at base, Scales of invol. lanc. cil.
 12448 Smooth, Stem panicled, Branches few-flowered at top, Lvs. sessile very long entire : lower serrated
 12449 Stem hispid spreading, Leaves ovate rigid scabrous, Peduncles very long 1-flowered
 12450 Leaves altern. or opp. sessile linear revolute at edge entire 1-nerved, Heads corymbose
 12451 Leaves ov. lanc. acuminate serrated 3-nerved very rough on each side, Scales of invol. lin. lanc. ciliated
 12452 Leaves altern. lanc. serrated scabrous 3-nerved narrowed at each end woolly at base, Stem vill. in 2 rows
 12453 Leaves amplexicaul. Heads on long stalks, Disk of head dark purple
 12454 Stem erect hairy, Lvs. stalked 3-lobed very rough, Invol. hairy, Pappus with 2 setæ
 12455 Stem smooth much branched, Lvs. opp. sessile lanc. ovate 3-nerved, Panicle trichotomous slender few-fl.
 12456 Leaves subsess. cordate ovate 3-nerved amplexicaul. closely serrated downy, Scales of invol. lanc. villous
 12457 Leaves opp. spatulate crenate 3-nerved scabrous, Scales of invol. erect the length of disk
 12458 Leaves oblong-lanceolate subserrate, Heads 1-3, Ray 8-flowered

[hispid

- 12459 Lvs. all pinnat. : one or other of the lower pinnae 2-parted ; the rest undivided, Pappus ent. Stem furrowed
 12460 Rad. lvs. pinn. : leaflets sessile lanc. toothed somewhat cut ; upper confluent, Pappus entire
 12461 Rad. lvs. pinn. : leaflets ovate unequal at base about 3-lobed toothed, Pappus 4-toothed
 12462 Stem upright simple few-fl. at top, Leaves pinnatifid cut : segm. linear, invol. simple 5-leaved
 12463 Stem branched, Branches erect many-fl. Lvs. obl. lanc. acute serrated : lower 3-lobed
 12464 Leaves spatulate : lower 3-lobed ; upper undivided
 12465 Leaves undivided spatulate ovate 3-nerved serrated hairy, Recept. conical, Paleæ lanceolate
 12466 Leaves obl. lanc. toothletted hispid narrowed at base subordinate, Recept. hemispherical, Paleæ lanceolate
 12467 Quite smooth, Peduncles long 1-headed, Lvs. ovate-lanc. acuminate each way 3-nerved
 12468 Leaves obl. lanc. cordate amplexicaul. : lower serrated, Disk cylindrical conical
 12469 Leaves lanc. ovate alternate undivided, Rays bifid
 12470 Stem hispid, Lower leaves broad-ovate tapered at base remotely toothed very rough, Rays 3-toothed



and Miscellaneous Particulars.

This genus has given rise to a most important and extensive tribe of plants, the Helianthæ, which is at once the most numerous of the various tribes of Compositæ, and on account of its strict affinity with several others, the most difficult to characterize with precision. Although it is perfectly natural, yet there is scarcely a character belonging to it which is not subject to many exceptions, and to more or less important modifications. Almost all the species of Helianthæ are natives of America, several of Asia, a few of Africa, and scarcely any of Europe. They appear to be entirely unknown in the southern parts of the world.

1799. *Gymnolomia*. From *γυμνος*, naked, and *λομα*, an edge ; in allusion to the nature of the margin of the grains.

1800. *Rudbeckia*. Named after the famous Olaus Rudbeck, professor of botany at Upsal, who died of grief in 1702, at witnessing the destruction by fire of his laborious work, called *Campi Elysi*, which was nevertheless published in 1701 and 2, by the diligence of his son. He is also celebrated for having made the discovery that the Paradise of Scripture was situated somewhere in Sweden. Handsome border annuals or perennials. *R. purpurea* is remarkable for bearing purple flowers.

1801. GALARDIA. <i>W.</i>	GALARDIA.				<i>Composite.</i>	<i>Sp. 1—2.</i>			
12471 bicolor <i>W.</i>	two-colored	☿ Δ or	2	jl.o	Or	Carolina	1787.	D co	Bot. mag. 1602
1802. TITHONIA. <i>Desf.</i>	TITHONIA.				<i>Composite.</i>	<i>Sp. 1.</i>			
12472 tagetiflora <i>W.</i>	Marigold-flow.	☐ pr	1	jl.o	Or	Vera Cruz	1818.	D co	Bot. reg. 591
1803. COSMEA. <i>W.</i>	COSMEA.				<i>Composite.</i>	<i>Sp. 4—6.</i>			
12473 lutea <i>B. M.</i>	yellow-flowered	☐ pr	2	o.n	Y	Mexico	1811.	S co	Bot. mag. 1689
12474 sulphurea <i>W.</i>	Southernw.-lvd.	☐ pr	2	jl.au	Y	Mexico	1799.	S co	Jac. ic. 3. t. 595
12475 bipinnata <i>W.</i>	purple-flowered	☐ Δ pr	2	jl.au	Pu	Mexico	1799.	C lp	Bot. mag. 1535
12476 parviflora <i>W.</i>	white-flowered	☐ pr	2	jl.au	W	Mexico	1800.	S co	Jac. schœ. 3. t. 374
1804. COREOPSIS. <i>W.</i>	COREOPSIS.				<i>Composite.</i>	<i>Sp. 19—32.</i>			
12477 ferulifolia <i>W.</i>	Fennel-leaved	☿ Δ or	3	o.n	Y	Mexico	1799.	D lp	Bot. mag. 2059
12478 verticillata <i>W.</i>	whorl-leaved	☐ Δ or	3	jl.o	Y	N. Amer.	1759.	D pl	Bot. mag. 156
12479 tenuifolia <i>W.</i>	slender-leaved	☐ Δ or	2	jl.au	Y	N. Amer.	1780.	D co	Pl. mun. t. 344. f. 4
12480 chrysantha <i>W.</i>	Angelica-leav.	☿ Δ or	2	jl.s	Y	W. Indies	1752.	S co	Plum. ic. 53. f. 1
12481 aurea <i>W.</i>	Hemp-leaved	☿ Δ or	3	aus.	Y	N. Amer.	1785.	D pl	
12482 tripteris <i>W.</i>	three-leaved	☿ Δ or	6	au.o	Y	N. Amer.	1737.	D pl	Moris. s. 7. t. 3. f. 44
12483 semifolia <i>W.</i>	six-leaved	☐ Δ or	4	au.o	Y	N. Amer.	1812.	D co	
12484 alba <i>W.</i>	climbing	☿ Δ or	6	jn. jl	W	Jamaica	1699.	D lp	Herm. para. 124
12485 incisa <i>B. reg.</i>	jagged-leaved	☐ Δ or	6	s.d	Y	W. Indies	...	D co	Bot. reg. 7
12486 reptans <i>W.</i>	trailing	☐ Δ or	6	jl.s	Y	W. Indies	1792.	S co	Smith spec. t. 22
12487 lanceolata <i>W.</i>	lanceolate	☐ Δ or	3	jl.s	Y	Carolina	1724.	S co	Bot. cab. 821
12488 tinctoria <i>Nutt.</i>	Dyer's	☐ Δ or	2	my.o	Y	Missouri	1832.	S co	Bot. reg. 846
12489 auriculata <i>W.</i>	ear-leaved	☿ Δ or	6	au.o	Y	N. Amer.	1699.	D pl	Plu. alm. t. 83. f. 5
12490 latifolia <i>W.</i>	broad-leaved	☐ Δ or	3	aus.	Y	N. Amer.	1786.	D co	
12491 argota <i>Ph.</i>	sharp-notched	☿ Δ or	2	aus.	Y	Carolina	...	D co	
12492 crassifolia <i>W.</i>	thick-leaved	☐ Δ or	3	au.o	Y	Carolina	1786.	D pl	
12493 angustifolia <i>W.</i>	narrow-leaved	☿ Δ or	2	jn.au	Y	N. Amer.	1778.	D pl	
12494 alata <i>W.</i>	wing-stalked	☐ Δ or	3	jl.au	Y	Mexico	1803.	D co	Cav. ic. 3. t. 260
12495 procera <i>W.</i>	tall	☿ Δ or	8	s.o	Y	N. Amer.	1765.	D pl	
1805. SIMSIA. <i>Pers.</i>	SIMSIA.				<i>Composite.</i>	<i>Sp. 2—3.</i>			
12496 ficifolia <i>Pers.</i>	fig-leaf	☐ un	3	jl.au	Y	Mexico	1799.	S co	Cav. ic. 1. t. 77
12497 amplexicaulis <i>Pers.</i>	stem-clasping	☿ un	4	jl.au	Y	.....	1806.	D pl	
1806. OSMITES. <i>W.</i>	OSMITES.				<i>Composite.</i>	<i>Sp. 2—5.</i>			
12498 camphorina <i>W.</i>	Camphire-scent.	☿ pr	1½	ap. jl	W	C. G. H.	1794.	C lp	Se. mu. 1. t. 90. f. 8
12499 dentata <i>Thunb.</i>	toothed	☿ pr	1½	ap. jl	W	C. G. H.	1820.	C lp	
1807. ENCELIA. <i>Cav.</i>	ENCELIA.				<i>Composite.</i>	<i>Sp. 1—2.</i>			
12500 canescens <i>Cav.</i>	downy-leaved	☿ pr	1½	jl	Or	Peru	1786.	C lp	Bot. reg. 909
1808. SCLEROCARPUS. <i>W.</i>	SCLEROCARPUS.				<i>Composite.</i>	<i>Sp. 1.</i>			
12501 africanus <i>W.</i>	African	☐ un	2	jl.au	Y	Guinea	1812.	S co	Jac. ic. 1. t. 176
1809. CULLUMIA. <i>H. K.</i>	CULUMIA.				<i>Composite.</i>	<i>Sp. 3.</i>			
12502 ciliaris <i>H. K.</i>	ciliated	☿ pr	2	my. jn	Y	C. G. H.	1774.	C pl	Bur. afr. t. 54. f. 1
12503 setosa <i>H. K.</i>	recurv. smooth-lv.	☿ pr	2	jn. au	Y	C. G. H.	1780.	C lp	
12504 squarrosa <i>H. K.</i>	recurv. awl-lvd.	☿ pr	2	jn. au	Y	C. G. H.	1786.	C lp	Th. act. haf. 3. t. 5
1810. BERCKHEYA. <i>H. K.</i>	BERCKHEYA.				<i>Composite.</i>	<i>Sp. 8—20.</i>			
12505 cynaroides <i>W.</i>	Artichoke-cup.	☐ Δ or	1	jn	Y	C. G. H.	1789.	D lp	
12506 obovata <i>W.</i>	smooth-shrub.	☐ Δ or	2	jn. au	Y	C. G. H.	1794.	C lp	Hon. h. 6. t. 34. f. 2
12507 incana <i>W.</i>	hoary	☐ Δ or	2	jl. au	Y	C. G. H.	1739.	C lp	Jac. ic. 3. t. 591
12508 cuneata <i>W.</i>	wedge-leaved	☐ Δ or	2	jn. au	Y	C. G. H.	1812.	C lp	Th. act. ha. 3. t. 10
12509 palmata <i>W.</i>	palmated	☐ Δ or	3	jn. au	Y	C. G. H.	1800.	C lp	Th. act. ha. 3. t. 13
12510 grandiflora <i>W.</i>	large-flowered	☐ Δ or	2	jn. au	Y	C. G. H.	1812.	C lp	Bot. mag. 1844
12511 uniflora <i>W.</i>	single-flowered	☐ Δ or	3	jn. au	Y	C. G. H.	1815.	D co	Th. act. haf. 3. t. 7
12512 cernua <i>H. K.</i>	drooping-flow.	☐ Δ or	2	my. jl	Y	C. G. H.	1774.	S co	Meerb. ic. 1. t. 40
1811. DIDEUTA. <i>W.</i>	DIDEUTA.				<i>Composite.</i>	<i>Sp. 2.</i>			
12513 carnosum <i>W.</i>	alternate-leav'd	☐ un	3	jn. jl	Y	C. G. H.	1774.	C lp	L'Her. stirp. t. 28
12514 spinosum <i>W.</i>	opposite-leaved	☐ un	3	jn. jl	Y	C. G. H.	1774.	C lp	Wen. obs. t. 4. f. 32



History, Use, Propagation, Culture,

1801. *Galardia*. Fougereux de Bondaroy, the nephew of Duhamel, dedicated this genus to M. Gaillardet Charentonneau, an amateur of botany.
 1802. *Tithonia*. A fanciful name given to this plant by Desfontaines, because of the color of its flower, which resembles Yellow Morning, or Aurora, whose husband was Tithonus.
 1803. *Cosmea*. From *κοσμος*, beautiful, on account of the elegance of the foliage.
 1804. *Coreopsis*. From *κορυς*, a bug, and *οψις*, resemblance. Its seed is convex on one side, and concave on the other; it has a membranous margin, and it has two little horns at the end which gives it very much the appearance of some insect. *C. verticillata* is a handsome shrubby plant, continuing long in flower; the florets are used in North America, to dye cloth red. *C. tinctoria* is a very handsome border annual.
 1805. *Simsia*. Named by Persoon, after Dr. John Sims, the co-editor with Mr. König, of the excellent Annals of Botany, and for many years the sole editor of the Botanical Magazine.

12471 Stem branched, Leaves lanc. Palææ of pappus entire awned

12472 The only species

12473 Leaves pinnate and bipinnatifid, Pinnæ serrated somewhat decurrent, Ray few-flowered neuter

12474 Leaves bipinnatifid : segm. lanc. Segm. of exterior invol. lanceolate

12475 Leaves bipinnate, Leaflets linear subulate, Scales of outer invol. ovate

12476 Leaves bipinnate, Leaflets filiform, Scales of outer invol. lanceolate

12477 Leaves bipinn. Pinnules lin. lanc. not broader than their rib

12478 Leaves whorled 3 or 5-pinnated : pinnæ lin. 3-parted and undivided, Disk discolored

12479 Leaves whorled 3 or 5-pinnated : pinnæ lin. 3-parted and undivided, Disk same color as ray

12480 Leaves ternate ovate-obl. serrated, Ray same color as disk

12481 Leaves serrated : radical 3-parted : cauline trifid or entire lanc. linear

12482 Leaves entire : radical pinnated ; cauline in threes lanc. stalked

12483 Leaves entire ternate sessile

12484 Leaves subternate cuneate serrated

12485 Villous, Leaves stalked quininate and ternate : leaflets ovate-lanc. subpinnatifid or cut serrated

12486 Leaves serrated ovate : upper ternate, Stem creeping

12487 Leaves lanceolate entire ciliated

12488 Rad. leaves pinnate or bipinnate entire, Outer leaves of involucre short, Ray discolored at base

12489 Leaves entire ovate : lower ternate

12490 Leaves ovate acuminate crenate toothed, Grains naked

12491 Leaves stalked lanc. ovate by degrees acuminate finely serrated, Corymbs dichotomous term. and axillary

12492 Leaves obovate oblong entire downy

12493 Leaves alternate lin. lanc. entire smooth, Ray oblong trifid : middle segm. largest

12494 Stem winged, Leaves alternate scabrous roundish ovate cuneate at base 3-nerved

12495 Leaves ellipt. acuminate serrated stalked veiny decurrent : lower whorled ; upper alternate

12496 Leaves 3-lobed toothed roughish, Petiole naked at base

12497 Hoary, Leaves somewhat palmate 3-lobed, Petiole leafy at base amplexicaul.

12498 Leaves lanc. obsolete serrated toothed at base smooth

12499 Leaves obovate toothed villous

12500 Cor. of ray 4-fid nearly equal to disk, Leaves hoary with down

12501 The only species

12502 Leaves ovate smooth imbricated at the edge and rib ciliate-spiny, Spine of the end reflexed

12503 Leaves alternate obl. recurved smooth ciliate-spiny, Leaves of invol. ciliated

12504 Leaves altern. lanc. subulate recurved smoothish ciliat. spiny decurr. at base, Segm. of invol. ciliate spiny

12505 Cauline leaves altern. amplexicaul. ciliate spiny : radical entire unarmed, Scales of invol. entire

12506 Leaves opp. obl. lanc. narrowed at base spiny-toothed smooth, Scales of invol. ciliate spiny

12507 Leaves altern. ovate spiny-toothed 3-nerved netted hoary villous, Scales of invol. toothed spiny villous

12508 Leaves altern. obl. cuneiform spiny-toothed villous on each side, Scales of invol. toothed spiny

12509 Leaves altern. lanc. pinnatifid downy beneath : segm. entire spiny at end, Scales of invol. 3 or 5-fid

12510 Leaves opp. lanc. 3-nerved spiny-toothed downy beneath, Scales of invol. spiny-toothed [toothed

12511 Leaves altern. lanc. spiny-toothed downy beneath, Stem herbaceous 1-headed, Scales of invol. lanc. spiny-

12512 Leaves altern. lanc. amplexicaul. spiny-toothed ciliated smooth on each side, Heads cernuous

12513 Leaves altern. lanceolate oblong fleshy

12514 Leaves opp. somewhat amplexicaul. ovate



and Miscellaneous Particulars.

1806. *Osmiles*. From *οσμη*, perfume. One of the species gives out a strong smell of Camphor.

1807. *Encelia*. A name of Adanson's, the meaning of which is unknown. A pretty half shrubby plant, with grey soft leaves.

1808. *Sclerocarpos*. From *σκληρος*, hard, and *καρπος*, fruit, with reference to the bony covering of the grain.

1809. *Cullumia*. Named after Sir Thomas Cullum, an English baronet, and one of the earliest promoters of the principles of Linnæus in this country. He is still living, at a very advanced age.

1810. *Berckheya*. Named after John Lefranc de Berckhey, a Dutch botanist.

1811. *Didelta*. From *δις*, double, and *δελτα*, a Greek letter equivalent to the English D; because the receptacle resembles a double triangle.

1812. GORTE'RIA. <i>W.</i>	GORTERIA.				<i>Compositae.</i>	<i>Sp.</i> 1—3.			
12515 personáta <i>W.</i>	procumbent	□ or	½	jl.au	Y	C. G. H.	1774.	S	co Jac. col. 4. t. 21. f. 1
1813. GAZA'NIA. <i>H. K.</i>	GAZANIA.				<i>Compositae.</i>	<i>Sp.</i> 4—9.			
12516 rigens <i>H. K.</i>	great-flowered	■ □ or	1	my.s	Or	C. G. H.	1755.	C	p. 1 Bot. mag. 90
12517 unifóra <i>B. M.</i>	garden	■ □ or	1	jl.au	Y	C. G. H.	1816.	C	p. 1 Bot. mag. 2270
12518 Pavónia <i>H. K.</i>	Peacock	■ □ or	1½	jn.jl	Y	C. G. H.	1804.	C	p. 1 Bot. reg. 35
12519 subuláta <i>H. K.</i>	awl-leaved	■ □ or	1	jl.au	Y	C. G. H.	1792.	D	l. p.
1814. CRYPTOSTEM'MA. <i>C.</i>	CRYPTOSTEMMA.				<i>Compositae.</i>	<i>Sp.</i> 3—5.			
12520 calenduláceum <i>H. K.</i>	Marygold-flow.	○ or	1	jn.au	Y. Pu	C. G. H.	1752.	S	co Bot. mag. 2352
12521 hypochondriacum <i>H. K.</i>	divided-rayed	○ or	1	jl.au	Y	C. G. H.	1731.	S	co
12522 runcinátum <i>H. K.</i>	Dandelion-lvd.	○ or	1	jl.au	Y	C. G. H.	1794.	S	co
1815. ARCTOTHE'CA. <i>W.</i>	ARCTOTHECA.				<i>Compositae.</i>	<i>Sp.</i> 1.			
12523 répens <i>W.</i>	creeping	△ or	1	jl.au	Y	C. G. H.	1793.	D	co Jac. schœ. 3. t. 306
1816. SPHENO'GYNE. <i>H. K.</i>	SPHENOGYNE.				<i>Compositae.</i>	<i>Sp.</i> 7.			
12524 anthemoides <i>H. K.</i>	white-flowered	○ el	½	jl.s	Y	C. G. H.	1774.	S	co Bot. mag. 544
12525 crithmifólia <i>H. K.</i>	Sampshire-leaf.	■ □ el	1	ap.au	Y	C. G. H.	1768.	C	l. p. Bur. afr. t. 65. f. 1
12526 scariósa <i>H. K.</i>	scaly-cupped	■ □ el	1	ap.au	Y	C. G. H.	1774.	C	l. p.
12527 abrotanifólia <i>H. K.</i>	Southern-w. lv.	■ □ el	1	my.au	Y	C. G. H.	1789.	C	l. p.
12528 dentáta <i>H. K.</i>	small-leaved	■ □ el	1½	jn.jl	Y	C. G. H.	1787.	C	l. p. Burm. afr. t. 64
12529 odoráta <i>H. K.</i>	smooth-seeded	■ □ el	1	ap.jn	Y	C. G. H.	1774.	C	l. p.
12530 pilifera <i>Ker.</i>	piliferous	■ □ el	1½	d	Y	C. G. H.	1821.	C	l. p. Bot. reg. 604
1817. ZOË'GEA. <i>W.</i>	ZOË'GEA.				<i>Compositae.</i>	<i>Sp.</i> 1.			
12531 Leptaúra <i>W.</i>	yellow-flowered	○ un	½	jl.au	Or	Levant	1779.	S	co Jac. ic. 1. t. 177
1818. LEU'ZEA. <i>Dec.</i>	LEUZEZA.				<i>Compositae.</i>	<i>Sp.</i> 2—5.			
12532 confifera <i>Dec.</i>	cone	■ △ or	¾	jn.s	Pu	S. Europe	1683.	D	l. p. Ann. mu. 16. t. 14
12533 altaíca <i>Link.</i>	Altai	■ △ or	¾	jn.s	Pu	Siberia	1822.	D	co
1819. CENTAU'REA. <i>W.</i>	CENTAURY.				<i>Compositae.</i>	<i>Sp.</i> 101—182.			
12534 phrýgia <i>W.</i>	feathery-calyx.	■ △ or	1½	jn.o	Pu	Switzerl.	1633.	D	co Fl. dan. 520
12535 salicifólia <i>Bieb.</i>	Willow-leaved	■ △ or	1½	jn.o	Pu	Caucasus	1823.	D	co
12536 pectináta <i>W.</i>	pectinated	■ △ or	1	jl.o	Pu	France	1727.	D	co
12537 austriaca <i>W.</i>	Austrian	■ △ or	1½	jn.o	Pu	Austria	1815.	D	co
12538 scariósa <i>W.</i>	one-headed	■ △ or	1	jn.o	Pu	S. Europe	1819.	D	co
12539 flosculósa <i>W.</i>	flosculous	■ △ or	1	ju.o	Pu	Italy	1818.	D	co
12540 nervósa <i>W. en.</i>	nerved	■ △ or	1½	jn.s	Pu	S. Europe	1815.	D	co
12541 trichocéphala <i>W.</i>	downy-calyxed	■ △ or	1	jl.au	Pu	Siberia	1805.	D	co Gm.s. 2. t. 45. f. 1. 2
12542 rivularis <i>Brot.</i>	river-side	■ △ or	2	jl.s	Br	Portugal	1812.	D	co
12543 hyssopifólia <i>W.</i>	Hyssop-leaved	■ □ or	½	jl.au	Pu	Spain	1812.	C	co Barr. ic. 306
12544 nígra <i>W.</i>	Black Knapweed	■ △ w	1	my.au	Pu	Britain	past.	D	co Eng. bot. 278
12545 nígrescens <i>W.</i>	dark	■ △ un	1½	jn.au	Pu	Hungary	1805.	D	co
12546 Triumfétti <i>W.</i>	Triumfetti's	■ △ un	1	jn.au	Pu	M. Cenis	1820.	D	co
12547 montána <i>W.</i>	mountain	■ △ or	1½	jn.au	B	Austria	1596.	D	co Bot. mag. 77
12548 axilláris <i>W.</i>	axillary	■ △ or	1	jn.au	Pu	Austria	1823.	D	co
12549 Cyánus <i>W.</i>	Blue-bottle	○ or	3	jn.au	B	Britain	corn f.	S	co Eng. bot. 277
12550 paniculáta <i>W.</i>	panicked	■ ○ or	1½	jl.au	Pu	Europe	1640.	S	co Jac. aust. 4. t. 320
12551 spinósa <i>W.</i>	prickly-branch.	■ △ or	2	jl.s	Pu	Candia	1640.	C	p. 1 Bot. mag. 2493



History, Use, Propagation, Culture,

1812. *Gorteria*. Named after David Gorter, a Dutchman, professor of botany at Harderwyck, and afterwards physician to Elizabeth, Empress of Russia. He published a *Flora Belgica* in 1767, and assisted Kraschennikoff in his *Flora Ingrica*. *G. Rigens* is a very showy plant when the flowers are fully expanded. All the species are of easy culture.

1813. *Gazania*. Supposed to have been so called from γαζα, riches, in allusion to the splendour of the flowers.

1814. *Cryptostemma*. From κρυπτον, concealed, and στεμμα, a crown; the scaly crown of the grains being involved in wool. Tender annuals, natives of the Cape of Good Hope.

1815. *Arctotheca*. See *Arctotis*, from which this has been divided.

1816. *Sphenogyne*. So called from σφην, a wedge, and γυνη, a female, in allusion to the wedge-shaped stigmas. Pretty annual flowers.

1817. *Zoegea*. Named after Dr. J. Zoega, who published a *Flora Islandica* in 1775. *Leptaurea* is an abbreviation of *Lepto-centaurea*, small centaurea.

1818. *Leuzea*. Divided by M. Decandolle, from *Centaurea*, from which it differs in not having the outer florets barren, nor the pappus with simple hair, nor the insertion of the fruit oblique. He named it after his friend Deleuze.

12515 Leaves lanc. entire and sinuated, Stem erect, Flowers stalked

12516 Leaves lanc. spatulate and pinnatifid entire white with down beneath, Pedunc. 1-headed terminal
 12517 Stem shrubby decumbent, Leaves spatulate-lanceolate downy beneath, Ray same color as disk
 12518 Leaves pinnatifid hairy above downy beneath : segm. oval-lanc. Scape 1-headed, Stem decumbent
 12519 Stem leafy decumbent 1-headed, Leaves subulate linear revolute at edge downy beneath

12520 Ligula undivided, Leaves pinnatifid toothed downy beneath
 12521 Ligula 3-5-parted, Leaves lyrate downy
 12522 Ligula 3-5-parted, Leaves runcinate toothed downy beneath

12523 The only species

12524 Smooth, Lvs. bipinnatifid or pinnatifid linear-filiform, Lvs. of pappus white
 12525 Smooth, Lvs. pinnatifid linear filiform, Outer leaflets of invol. subulate
 12526 Leaves bipinnatifid or pinnatifid linear filiform smooth, Scales of invol. scarious blunt shining
 12527 Leaves bitripinnatifid and invol. downy
 12528 Leaves pinnatifid smoothish : segm. 2-3-toothed, Teeth piliferous, Outer scales of invol. lanceolate
 12529 Leaves flat smooth cut pinnatifid at end, Outer lvs. of invol. scarious at end, Pappus obsolete
 12530 Leaves fleshy linear pinnatifid and bipinnatifid, Pappus much shorter than the florets of disk

12531 The radical and lower cauline leaves pinnatifid

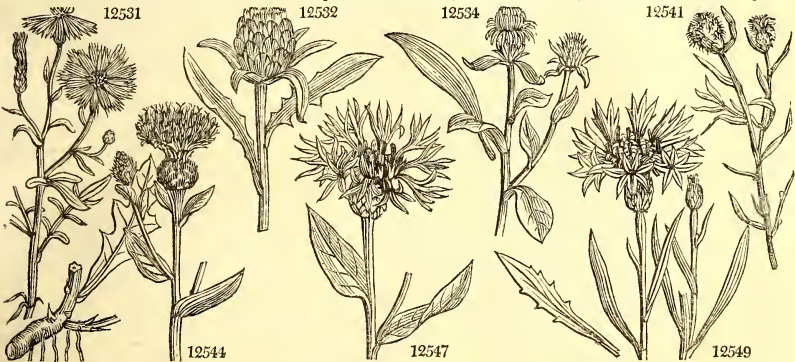
12532 Leaves tomentose : root ones lanceolate ; stem ones pinnatifid, Stem simple
 12533 Flower very large

§ 1. CYANUS. *Involucrum ciliated, unarmed.*
 * *Involucrum with feathery setae.*

12534 Inv. recurved-feathery, Leaves oblong undivided scabrous mucronate serrulated
 12535 Inv. recurved-feathery top-shaped, Leaves oblong undivided scabrous mucronate serrulated, Stem simple
 12536 Inv. recurved feathery, Leaves mucronate-serrated : lower stem ones sinuate pinnatifid
 12537 Inv. recurv. feathery, Lvs. egg-shap. undivid. scabr. gross. tooth. : upp. ones and those of branches undivid.
 12538 Inv. recurved feathery, Leaves lanceolate sometimes toothed downy
 12539 Inv. recurved feathery, Head without a neutral ray, Leaves hairy lanceolate remotely toothed
 12540 Inv. recurved feathery, Leaves ovate lanceolate toothed at base nerved downy, Corollas flosculous
 12541 Inv. recurved feathery pubescent, Leaves linear-lanceolate quite entire scabrous
 12542 Inv. erect feathery, Lower lvs. lanc. attenuat. into the petiole serrul. ; caul. ov.-obl. downy on each side
 12543 Inv. recurved feathery pubesc. Head without a neutral ray, Lvs. lin. quite entire, Stem somew. shrubby

** *Involucrum with ciliated appendages.*

12544 Scales of the invol. ovate ciliated with capillary teeth, Lower leaves angular lyrate : upper ones ovate
 12545 Innermost invol. scales scarious, Root lvs. obsolete pinnatif. : lower stem ones somew. tooth. at the base ; upper ones undivided quite entire
 12546 Inv. serrated with white ciliae, Leaves decurrent deeply pinnatifid, Pinnae generally two
 12547 Inv. serrated, Leaves smoothish lanceolate quite entire decurrent, Stem simple
 12548 Inv. ciliated variegated, Leaves sessile linear downy, Stem 1-headed
 12549 Scales of the involucre serrated, Leaves linear entire : the lowermost toothed
 12550 Inv. ciliated egg-shaped, Scales flat close-pressed : Lower lvs. bipinnatif. : upper pinnatif. Stem panicked
 12551 Inv. ciliated, Root lvs. undivided and pinnatifid smooth, Stem lvs. downy pinnatifid, Branches spinous



and Miscellaneous Particulars.

1819. *Centaurea*. It is said, that with this plant, the *Centaurea* Chiron cured the wound in his foot made by the arrow of Hercules. Crupina is from the Dutch verb *kruipen*, which signifies to creep; because the dark multifid pappus resembles the legs of a creeping insect.

Phrygia signifies dry (*φρυγία*), in allusion to its calyx.

Jacea is said to have been so named from *Jacere*, to lie down, on account of its prostrate habit.

Calcitrapa, the Latin of a caltrop, or iron ball covered with stiff spines, formerly used in warfare to impede the operations of cavalry. Its calyx is very like one of these instruments.

Centaurea Crocodilium is so named, because the spines of the calyx have been fancifully likened to the claws of a Crocodile.

Verutum, the name of another species, is the Latin of a short javelin used by the Roman foot-soldiers. The spines on its calyx resemble a small dart.

C. nigra is a harsh stubborn weed in meadows and permanent pastures, seldom touched by cattle either green or in hay, and with difficulty extirpated. *C. cyanus*, *Bluet*, Fr., *Kornblume*, Ger., and *Ciano*, Ital., is a common weed in corn fields, on gravelly soils, throughout Europe, and also a popular border annual. The expressed juice of the natural florets makes a good ink; it also stains linen of a beautiful blue, but the color is not permanent. *C. benedicta* was so called from its being supposed to possess extraordinary medical powers; it was

12552	<i>Cinerária W.</i>	hoary-leaved	Y	Δ	or	3	jl.au	Pu	Italy	1710.	D	co	Mor. s.7. t.26.f.20
12553	<i>cinérea W.</i>	gray	Y	Δ	or	2	jn.jl	Pu	Italy	1710.	D	co	Jac. vind. 1. t. 92
12554	<i>dealbáta W.</i>	mealy	Y	Δ	or	1½	jl.au	Pu	Caucasus	1804.	D	co	
12555	<i>argénteá W.</i>	silver-leaved	Y	Δ	or	1½	jl.au	Pa.Y	Candia	1739.	C	p.l	Barr. ic. t. 218
12556	<i>coriáceá W.</i>	leathery-leaved	Y	Δ	or	1½	jn.jl	Pu	Hungary	1804.	D	co	Pl.rar.hu.2.t.195
12557	<i>Fischéri W. en.</i>	Fischer's	Y	Δ	or	2	jn.jl	Vi	Siberia	1816.	D	co	
12558	<i>macrocéphala W.</i>	large-headed	Y	Δ	or	3	jn.au	Y	Caucasus	1805.	D	co	Bot. mag. 1248
12559	<i>átropurpúrea W.</i>	dark-purple	Y	Δ	or	3	jn.au	Pu	Hungary	1802.	D	co	Pl.rar.hu.2.t.116
12560	<i>aláta W.</i>	winged-stalked	Y	Δ	or	1½	au.s	Y	Tartary	1781.	D	co	Vent. cels. 80
12561	<i>elongáta W.</i>	long	Y	Δ	or	2	au.s	Vi	Barbary	1823.	D	co	
12562	<i>Scabiósa W.</i>	Greater Knapw.	Y	Δ	w	1½	jn.au	Pu	Britain	1809.	D	co	Eng. bot. 56
12563	<i>intybáceá H. K.</i>	Succory-leaved	Y	Δ	or	1½	jl.s	Pu	S. Europe	1778.	D	co	
12564	<i>maculósa P. S.</i>	spotted-calyced	Y	Δ	or	1	jl.au	Pu	Siberia	1816.	D	co	Gm.s.2.t.44.f.1,2
12565	<i>Stœ'be W.</i>	wing-leaved	Y	Δ	or	1	jn.jl	Y	Austria?	1759.	D	co	
12566	<i>ochroleúca W.</i>	Caucasian	Y	Δ	or	1½	jl.au	Pa.Y	Caucasus	1801.	D	co	Bot. mag. 1175
12567	<i>ovína W.</i>	sheep's	Y	Δ	or	1	jl.n	Y	Caucasus	1802.	D	co	
12568	<i>sempervirens W.</i>	evergreen	Y	Δ	or	1½	jl.au	Y	Spain	1683.	C	p.l	Bocc.sic. t.39.f.3
12569	<i>ragusína W.</i>	white-leaved	Y	Δ	or	2	jn.jl	Y	Candia	1710.	C	p.l	Bot. mag. 494
12570	<i>tatárica W.</i>	Tartarian	Y	Δ	or	2	jl.au	Y	Tartary	1801.	D	co	
12571	<i>calocéphala W. en.</i>	smooth-stalked	Y	Δ	or	3	jn.au	Y	Levant	1816.	D	co	
12572	<i>coronopifólia W.</i>	Buck's-horn	O	or		3	jn.jl	Y	Levant	1739.	S	co	
12573	<i>parviflóra W.</i>	small-flowered	Y	Δ	or	1½	jn.jl	Vi	Barbary	1823.	D	co	
12574	<i>refléxa W.</i>	crook-spined	Y	Δ	or	3	jl.au	Y	Iberia	1801.	D	co	
12575	<i>centauróides W.</i>	lyre-leaved	Y	Δ	or	3	my.jl	Y	S. Europe	1739.	D	co	Col. ecph. 1. t. 35
12576	<i>collína W.</i>	hill	Y	Δ	or	3	jn.jl	Y	S. Europe	1596.	D	co	
12577	<i>rupéstris W.</i>	rock	Y	Δ	or	2	jl.au	Y	Italy	1804.	D	co	Co.ecp.1.t. et f.2
12578	<i>pubescens W.</i>	downy	Y	Δ	or	1	jl.au	Y	.....	1804.	D	co	
12579	<i>Balsamita W.</i>	Syrian	Y	Δ	or	2	jl.au	Y	Syria	1820.	D	co	
12580	<i>aúrea W.</i>	great-golden	Y	Δ	or	2	jl.s	Y	S. Europe	1758.	D	co	Bot. mag. 421
12581	<i>peregrína W.</i>	soft-leaved	Y	Δ	or	2	jl.au	Y	S. Europe	1749.	S	co	
12582	<i>radiáta W.</i>	rayed	Y	Δ	or	1½	jl.au	W	Siberia	1804.	D	co	Gm.sib.2.t.47.f.1
12583	<i>sórdida W.</i>	soetid	Y	Δ	or	1	jl.au	Pu	.....	1818.	D	co	
12584	<i>hýbrida W.</i>	hybrid	Y	Δ	or	1½	jl.au	Y	Tauria	1822.	D	co	
12585	<i>rigída W.</i>	rigid	Y	Δ	or	1	jl.au	Y	.....	1823.	D	co	
12586	<i>sonchifólia W.</i>	Sow-thistle-ld.	Y	Δ	or	1	au.o	Pu	Mediterr.	1780.	D	co	Pluk.phyt.39.f.1
12587	<i>crúenta W. en.</i>	obovate-leaved	Y	Δ	or	1	jn.au	Pu	.....	1816.	D	co	
12588	<i>Séridis W.</i>	purple-flower'd	Y	Δ	or	1	jn.au	Pu	Spain	1686.	D	co	Plu.alm. t.38. f.1
12589	<i>romána W.</i>	Roman	Y	Δ	or	3	jl.s	R	Rome	1739.	S	co	Barr. rar. t. 504
12590	<i>férox W.</i>	hedgehog	Y	Δ	or	2	jl.s	Pu	Barbary	1790.	S	p.l	Desf. atl. 2. t.242
12591	<i>spherocéphala W.</i>	globe-headed	Y	Δ	or	2	jl.au	Pu	S. Europe	1683.	D	co	Bot. mag. 2551
12592	<i>Isnárdi W.</i>	Jersey	Y	Δ	or	1	jl.au	Pu	Britain	Jersey.	D	co	Eng. bot. 2256
12593	<i>napifólia W.</i>	Turnip-leaved	O	or		3	jl.s	Pu	Candia	1691.	S	co	Herm. par. t.189
12594	<i>áspera W.</i>	Rough	O	or		2	jn.o	Pu	S. Europe	1772.	S	co	Boc. mus.35. t.26
12595	<i>pulláta W.</i>	various-colored	Y	Δ	or	2	jn.au	Pu	S. Europe	1759.	D	co	Lob. ic. t.542. f.2
12596	<i>polycáthá W.</i>	many-spined	Y	Δ	or	2	jl.au	Pu	Portugal	1804.	S	co	
12597	<i>benedicta W.</i>	Blessed Thistle	O	or		2	jn.o	Y	Spain	1548.	S	co	Zorn. ic. 122
12598	<i>solsittialis W.</i>	Barnaby's Thistle	O	or		2	jl.au	Y	England	fields.	S	co	Boc. mus.35. t.26
12599	<i>meliténsis W.</i>	cluster-headed	O	or		½	jl.au	Y	Malta	1710.	S	co	Bocc. sic. t. 35
12600	<i>sulphúrea W. en.</i>	sulphur-colored	O	or		½	jl.au	Y	.....	1815.	S	co	
12601	<i>sicula W.</i>	Sicilian	O	or		1½	jl.au	Y	Sicily	1710.	S	co	Bocc. sic. t. 8. f.1
12602	<i>Adámi W.</i>	Adams	O	or		1	jl.au	Y	Siberia	1804.	S	co	
12603	<i>stramínea W.</i>	straw-colored	O	or		½	jl.au	Y	Egypt	1801.	S	co	W. hort. ber. 26
12604	<i>erifóphora W.</i>	woolly-headed	O	or		¾	jn.o	Y	Portugal	1714.	S	co	
12605	<i>Calíctrapa W.</i>	Star-thistle	O	or		1	jl.au	Pk	England	gra.so.	S	co	Eng. bot. 125
12606	<i>calíctrapoides W.</i>	Phenician	O	or		1	jn.jl	Pu	Levant	1683.	S	co	
12607	<i>Verútum W.</i>	dwarf	O	or		2	au.s	Y	Levant	1780.	S	co	Jac. ic. 1. t. 178
12608	<i>egyptiáca W.</i>	Egyptian	Y	Δ	or	1	jn.s	W	Egypt	1790.	C	p.l	



History, Use, Propagation, Culture,

said not only to destroy worms and cure fevers, but also the plague, and the most putrid and stubborn ulcers and cancers. At present it is in no estimation whatever.

It has by some botanists been thought advisable to separate this genus into several others; but the differences upon which the separation has been made depend upon variations in the form of the involucre,

- 12552 Invol. ciliated, Leaves downy very white all compound : lowest bipinnatifid ; highest pinnate-laciniate
 12553 Invol. ciliated, Leaves somewhat downy cinereous : lower ones pinnate-laciniate ; upper ones simple
 12554 Invol. ciliated, Lvs. downy undern. Root lvs. bipinnatifid : segm. lanceolate acute, Stem-leaves pinnatifid
 12555 Invol. serrated, Leaves downy : root ones pinnated ; upper 1-eared
 12556 Invol. ciliat. smooth, Lvs. pinnatif. scabr. Segm. obl. lanc. acute : highest root ones sometimes cut at base
 12557 Invol. ciliated spheaculate, Scales spreading, Leaves obl. lanc. entire villous downy : cauline decurrent
 12558 Invol. scales roundish egg-shaped ciliated, Leaves oblong lanc. undivided very scabrous acute serrated
 12559 Invol. scales ovate lanceolate serrate-ciliated, Leaves bipinnatifid, Segments lanceolate
 12560 Invol. egg-shaped smooth, Scales somew. scar. at tip, Lvs. greenish decurr. undivided : radical ones lyrate
 12561 Inv. scales scar. at tip serr. Lvs. scab. at edge : root ones obl. tooth. ; stem ones lanc. somew. decurr. quite ent.
 12562 Scales of the involucre ciliated ovate pubescent, Leaves pinnatifid roughish : the segm. lanceolate acute
 12563 Invol. ciliated nearly globular, Leaves deeply pinnatifid, Segments linear
 12564 Invol. ciliated ovate roundish beautifully spotted, Leaves slender bipinnatifid, Stem a little paniced
 12565 Invol. ciliated oblong, Leaves pinnatifid linear quite entire
 12566 Invol. serrated, Leaves oblong serrated decurrent and undivided [Branched divaricated
 12567 Invol. ciliat. Scales ovate-lanc. spread. at tip, Lower lvs. bipinnatif. lanc. lin. : upper ones pinnatifid, Stem
 12568 Invol. ciliated, Leaves lanceolate serrated : lowest tooth elongated so as to appear like a stipule
 12569 Invol. ciliated, Leaves downy pinnatifid, Segments obtuse egg-shaped quite entire : outer ones largest
 12570 Invol. ciliated, Leaves scabrous : underneath pinnatifid, Segments lanceolate sometimes toothed
 12571 Invol. scariosus, Scales ovate lanceolate serrated ciliated, Leaves scabrous beneath : radical bipinnatifid

§ 2. CALCITRAPA. *Involucrum ciliated with spines.*

* *Spines simple.*

- 12572 Invol. erect feathery, Head without a neutral ray, Lower lvs. pinnatif. : upper ones lin. All quite ent. Stem [paniced
 12573 Invol. ciliate-spinous egg-shaped, Scales reflexed at tip, Lvs. hoary : root ones lyrate ; stem ones linear
 12574 Invol. ciliate-spinous at tip, Spines of lower scales reflex. Lvs. pinnat. Pinnae lin. obt. Root leaves bipinnat.
 12575 Invol. ciliate-spinous, Leaves lyrate-pinnated generally entire : terminal lobe large toothed
 12576 Invol. ciliate-spinous, Stem-leaves pinnatifid : root ones bipinnatifid, Segments lanceolate
 12577 Invol. ciliate-spinous, Stem-leaves pinnated : root leaves bipinnated, Pinnae linear-filiform
 12578 Invol. ciliate-spin. at tip, Stem-lvs. pinnatif. lin. lanc. : root ones bipinnatif. Segm. lanc. terminal 1-toothed
 12579 Invol. ciliate fringed with straight rigid white bristles, Lvs. obl. a little toothed, Head yell. without a ray
 12580 Invol. simply spinous, Spines spreading, Florets equal, Leaves hairy : lower ones pinnatifid
 12581 Invol. bristly spinous, Leaves lanceolate petioled toothed near the base
 12582 Invol. scarcely spinous somewhat awned rayed, Leaves pinnatifid
 12583 Invol. ciliated spinous, Stem-leaves pinnated quite entire : root-leaves bipinnatifid
 12584 Invol. ciliate spinous at the tip, Leaves hoary pinnatifid quite entire : upper ones linear-lanceolate
 12585 Invol. ciliate subsipiny, Leaves oblong downy sessile somewhat toothed ; narrowed at base deeply toothed

** *Spines palmate.*

- 12586 Invol. palm.-spin. Spines reflex. Lvs. obl. smooth, embracing the stem $\frac{1}{2}$ decurr. repand tooth. Teeth prickly
 12587 Invol. palm.-spinous, Spines reflex. Lvs. obov. somew. tooth. stalked : floral somew. decurr. mucro.-toothed
 12588 Inv. palm.-spin. Spines reflex. Lvs. obl. hoary embrac. stem $\frac{1}{2}$ -decurr. tooth. cut at base, Teeth rather prickly
 12589 Invol. palm. spinous, Lvs. decurr. not prickly : root ones pinnatifid ; terminal lobe very large
 12590 Inv. palm. spin. Spines reflex. larger than calyx, Lvs. hoary obl. sess. decurr. pinnatifid, Teeth not prickly
 12591 Invol. palmate spinous, Lvs. ovate-lanc. petioled toothed
 12592 Invol. palmate spinous solitary sess. Lvs. lanc. a little embracing the stem pinnatifid toothed
 12593 Invol. palmate spinous, Stem lvs. lanc. toothed decurrent : root lvs. lyrate obtuse
 12594 Invol. palmate spinous, Spines 3 or 5, Lvs. lanc. sessile toothed
 12595 Invol. ciliated surrounded by a whorl of long lvs. Lvs. lyrate toothed obtuse
 12596 Invol. palmate spinous, Lvs. embracing the stem runcinate pinnatifid prickly : toothed root ones lyrate
 12597 Invol. doubly spinous woolly bracteated, Leaves half decurrent toothed spinous
 12598 Invol. palm. spinous term. solitary, Spines straight, Lvs. lanc. decurr. not prickly : root ones lyrate
 12599 Invol. palm. spin. term. ones clustered sess. Spines straight, Lvs. lanc. scabrous decurr. not prickly : lower stem ones a little toothed ; root ones sinuated
 12600 Invol. palm. spinous solitary subsessile, Spines straight, Lvs. lanc. scabrous toothletted decurrent
 12601 Inv. palm. spin. Spines spread. Lvs. scabr. : stem lvs. lanc. a little embrac. stem finely tooth. : root ones lyrate
 12602 Invol. palm. spinous solit. Spines straight : inner scales scariosus at the tip, Lvs. downy lanc. decurr. : lower ones finely toothed pinnatifid at the base

- 12603 Invol. palmate spinous terminal sess. glomerated, Leaves petioled pinnatifid cut-toothed

*** *Appendages of involucre spinous-pinnate.*

- 12604 Invol. doubly spinous woolly, Lvs. half decurrent entire and sinuated, Stem proliferous
 12605 Invol. doubly spinous sess. Lvs. pinnatifid toothed, Stem divaricated spreading hairy
 12606 Invol. somewhat doubly serrated, Lvs. embracing the stem lanc. undivided serrated [entire decurr.
 12607 Inv. palm. spin. : midd. spine very long ; lat. ones short, Root-lvs. sinuate-pinnatif. Stem ones lanc. quite
 12608 Invol. doubly spinous somewhat woolly, Lvs. sess. lanc. entire and toothed, Stem proliferous



and Miscellaneous Particulars.

unconnected with differences of organization ; they are therefore not adopted here. The tribe of Centaureæ of M. Cassini is not distinguished from Carduineæ by any very important characters. The greater part of the species are natives of Europe and Asia, several of Africa, a very few of America, and none of the southern parts of the world.

12609 <i>salmántica W.</i>	Ragwort-leaved	Y	○	or	3	jl.au	Pu	S. Europe	1596.	S	co	Jac. vind. 1. t. 64
12610 <i>muriática W.</i>	muricated	Y	○	or	1	jl.au	Pu	Spain	1621.	S	co	
12611 <i>Crocodylium W.</i>	blush-flowered	Y	○	or	1½	jl.au	Pu	Levant	1777.	S	co	Barr. rar. t. 503
12612 <i>Rhapóntica W.</i>	Swiss	Y	△	or	1½	jl.au	Pu	Switzerl.	1640.	D	co	Bot. mag. 1752
12613 <i>babylónica W.</i>	Babylonian	Y	△	or	7	jn.s	Y	Levant	1710.	D	co	Alp. exot. t. 282
12614 <i>spléndens W.</i>	shining	Y	△	or	3	jl.au	Pu	Spain	1597.	S	co	
12615 <i>díluta H. K.</i>	pale-flowered	Y	△	or	2	jl.au	Pa.pu	S. Europe	1781.	D	co	
12616 <i>decúmbens P. S.</i>	decumbent	Y	△	or	1½	jl.s	Pu	France	1815.	D	co	
12617 <i>Jácea W.</i>	Brown Knapw.	Y	△	w	1½	jl.s	Pu	England past.	D	co		Eng. bot. 1678
12618 <i>tagána W.</i>	Portugal	Y	△	w	1½	jl.au	Pu	Portugal	1640.	D	co	Brot.phy.lus. t.3
12619 <i>álba W.</i>	white-flowered	Y	△	or	2	jn.s	W	Spain	1597.	D	co	
12620 <i>amára W.</i>	bitter	Y	△	or	1½	jl.au	Pu	Italy	...	D	co	Boc. mus.31.t.17
12621 <i>nitens W.</i>	shining	Y	△	or	2	jl.au	Pu	Caucasus	1823.	S	co	Bu.cen.2.t.15.f.1
12622 <i>sibirica W.</i>	Siberian	Y	△	or	1	jl.au	R	Siberia	1782.	D	co	Bot. mag. 62
12623 <i>glastifolia W.</i>	Wood-leaved	Y	△	or	4	jn.s	Y	Siberia	1731.	D	co	
12624 <i>orientális W.</i>	oriental	Y	△	or	1½	jl.au	Y	Siberia	1759.	D	co	
12625 <i>Béhen W.</i>	saw-leaved	Y	△	or	1½	jl.au	Y	Levant	1797.	S	co	
12626 <i>répens W.</i>	creeping	Y	△	or		jn.au	Y	Levant	1739.	D	co	
12627 <i>moscháta W.</i>	Sweet Sultan	Y	○	or	2	jl.o	Pu	Persia	1629.	S	s.1	Kn. thes.2. t.C.4
12628 <i>Centaúrium W.</i>	great	Y	○	or	4	jl.au	Y	Italy	1596.	D	co	
12629 <i>ruthénica W.</i>	Russian	Y	△	or	3	jl.au	Pa.Y	Russia	1806.	D	co	Gmel. sib. 2. t.41
12630 <i>suavéolens W.</i>	Yellow Sultan	Y	△	or	1½	jl.o	Y	Levant	1682.	S	s.1	Sweet fl. gard.51
12631 <i>Crupina W.</i>	black-seeded	Y	○	or	3	jn.jl	F	Italy	1596.	S	co	Col.eplr. 1. t.34
12632 <i>Lippii W.</i>	Lippi's	Y	○	or	1	jn.jl	Pa.pu	Egypt	1739.	S	co	Is.a.pa.1719.t.10
12633 <i>glauca W.</i>	glaucous	Y	△	or	1	jn.jl	Pa.Y	Caucasus	1805.	D	co	
12634 <i>alpína W.</i>	Alpine	Y	△	or	3	jl.au	Y	Italy	1640.	D	co	Corn.can 69.t.70
1820. GALACTITES.	P. S. GALACTITES.							Compositæ.	Sp. 1.			
12635 <i>tomentosa P. S.</i>	woolly	Y	○	or	1½	jl.au	Pu	S. Europe	1738.	S	co	An. mus.16. t. 9

NECESSARIA.

1821. WEDELIA. W.	WEDELIA.							Compositæ.	Sp. 3—21.			
12635 <i>hispida Kth.</i>	hispid	Y	△	or	1½	jn	Y	N. Spain	1819.	D	co	Bot. reg. 543
12637 <i>radíosa Ker.</i>	many-rayed	Y	△	or	3	ap.n	Y	Brazil	1820.	C	co	Bot. reg. 610
12638 <i>perfoliata W.</i>	perfoliate	Y	○	un	2	jl.au	Y	Mexico	1796.	S	co	Cav. ic. 1. t. 15
	<i>Alcina perfoliata Cav.</i>											
1822. MILLERIA. P.S.	MILLERIA.							Compositæ.	Sp. 2.			
12639 <i>quinqueflora W.</i>	five-flowered	Y	○	un	2	jl.o	Y	Vera Cruz	1731.	S	co	Cav. ic. 1. t. 82
12640 <i>biflóra W.</i>	two-flowered	Y	○	un	1	jl.o	Y	Campeachy	1730.	S	co	Mart. dec. 47. f.1
1823. BALTIMORA. W.	BALTIMORA.							Compositæ.	Sp. 1.			
12641 <i>récta W.</i>	upright	Y	○	un	2	jn.jl	Pa.Y	Vera Cruz	1699.	S	co	Sch.ha.3.t.261.C
1824. SILPHIUM. W.	SILPHIUM.							Compositæ.	Sp. 10—15.			
12642 <i>laciníatum W.</i>	jagged-leaved	Y	△	w	12	jl.s	Y	N. Amer.	1781.	D	co	Lin. fil. fas.1. t.3
12643 <i>compósitum W.</i>	scollop-leaved	Y	△	w	6	jl.s	Y	N. Amer.	1789.	D	co	
12644 <i>terebintháccum W.</i>	broad-leaved	Y	△	w	6	aus	Y	N. Amer.	1765.	D	co	Jac. vind. 1. t. 43
12645 <i>perfoliátum W.</i>	perfoliate	Y	△	w	7	jl.o	Y	N. Amer.	1766.	D	co	
12646 <i>conjúctum W. en.</i>	conjoined	Y	△	w	7	jl.o	Y	N. Amer.	...	D	co	
12647 <i>connátum W.</i>	round-stalked	Y	△	w	6	jl.o	Y	N. Amer.	1765.	D	co	
12648 <i>Asteriscus W.</i>	hairy-stalked	Y	△	w	5	jl.s	Y	N. Amer.	1732.	D	co	Dill.elt. t.37.f.42
12649 <i>trifoliátum W.</i>	three-leaved	Y	△	w	6	jl.o	Y	N. Amer.	1755.	D	co	Moris.s.6.t.3.f.68
12650 <i>ternátum W.</i>	various-leaved	Y	△	w	4	jl.o	Y	N. Amer.	1806.	D	co	
12651 <i>átropurpúreum W.</i>	purple-stalked	Y	△	w	4	jl.o	Y	N. Amer.	1812.	D	co	



History, Use, Propagation, Culture,

C. moschata is a handsome border annual, of which there is a white-flowered variety. C. Centaureum, montana, splendens, and glastifolia, are among the most ornamental of the perennials.

1820. Galactites. A plant formerly included in Centaurea, and named on account of the milky veins of its leaves (γάλα, milk).

1821. Wedelia. Named after George Wolfgang Wedel, a German, born in 1625, died in 1721. He was professor at Jena, and published many learned dissertations upon the plants of the ancients. There was also a John Adolphus Wedel, professor in the same university.

§ 3. CROCODYLIUM. *Involucrum not ciliated, but spiny at end.*

- 12609 Invol. globul. smth. Spine very small weak a little reflex. Lvs. lanc. serrat. : root ones lyrate, Stem divaricat.
 12610 Invol. simply spinous villous, Lower lvs. lyrate toothed : upper ones lanc. Peduncles very long
 12611 Invol. scariosus simply spinous, Lvs. pinnatifid quite entire terminal : segm. larger toothed

§ 4. RHAPONTICUM. *Leaves of involucrum with a round scariosus appendage, which is often lacerated.*

- 12612 Invol. scales lacerated, Lvs. ovate-obl. finely toothed tomentose [ones lyrate
 12613 Invol. conical hard, Scales ending in a patulous point, Lvs. somew. tomentose decurr. undivided : root
 12614 Inv. egg-shap. Scales mucronat. Lower lvs. bipinnatif. lin. : upper one pinnat. Pinnæ lin. sometimes toothed
 12615 Invol. ciliated, Scales acum. somew. thorny, Lvs. obl. pinnatif. Florets of the ray longer than those of disk
 12616 Invol. scariosus, Scales dilated cut, Lvs. linear-lanc. : radical cut
 12617 Scales of invol. scariosus torn : lower ones pinnatifid, Lvs. lin. lanc. : the lower ones broader and toothed
 12618 Invol. scales roundish quite ent. Lvs. obl. smth. : root ones serrat. Stem ones sometimes slightly cut at base
 12619 Invol. scales entire mucronated, Lvs. pinnate toothed : stem ones linear toothed at the base
 12620 Stems decumbent, Lvs. lanc. quite entire
 12621 Invol. cylindrical, Scales mucronated, Lvs. pinnated, Pinnæ lin. mucronated quite entire
 12622 Invol. scales egg-shaped obtuse ciliated, Lvs. downy on both sides pinnatif. and undivided, Stem declining
 12623 Leaves undivided quite entire decurrent
 12624 Invol. scales pectinate ciliated, Lvs. deeply pinnatifid, Segm. linear lanceolate [the stem decurrent
 12625 Invol. conical, Scales quite ent. Lvs. coriaceous reticularly veined : root ones lyrate ; stem ones embracing
 12626 Leaves lanc. toothed somewhat petioled, Peduncles filiform leafless

§ 5. *Leaves of involucrum neither ciliated, nor spiny, nor with a scariosus appendage.*

- 12627 Invol. roundish smooth, Scales egg-shaped, Lvs. lyrate toothed
 12628 Invol. scales egg-shaped, Lvs. pinnated, Leaflets decurrent serrated
 12629 Invol. scales egg-shap. obt. Lvs. pinnat. smooth, Leaf. cartilagin. sharply serrat. termin. one obl. egg-shaped
 12630 Invol. round. smooth, Lower lvs. broad somew. spatul. tooth. : upp. ones lyr. at base, Head yell. sweet-scent.
 12631 Invol. scales linear awl-shaped, Leaves pinnated serrated
 12632 Invol. scales mucronate, Leaves somewhat decurrent lyrate toothed
 12633 Invol. pubescent, Scales roundish obtuse, Leaves deeply pinnatifid : lowest segments toothed
 12634 Invol. scales egg-shaped obtuse, Leaves pinnated smooth quite entire odd one serrated

- 12635 Invol. bristly spinous, Leaves decurrent sinuated spinous downy underneath.

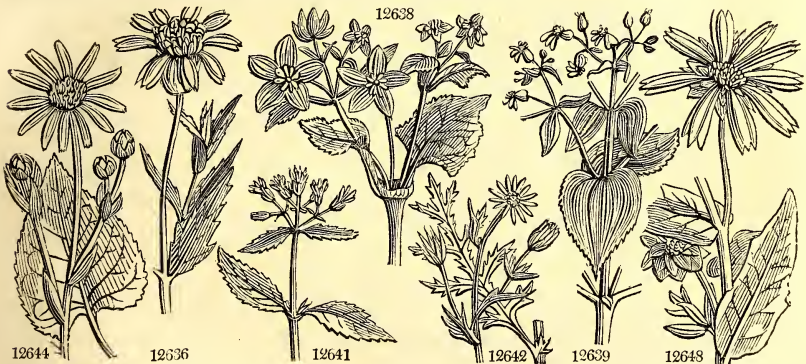
NECESSARIA.

- 12636 Leaves lanceolate acuminate serrated with a large tooth on each side at the base
 12637 Leaves ovate-lanceolate, Invol. urceolate squarrose, Rays imbricated
 12638 Stem herbaceous, Leaves rhomboid narrowed at base connate

- 12639 Leaves stalked roundish-ovate narrowed at base : floral subcordate, Pedunc. terminal dichotomous
 12640 Leaves stalked oblong ovate ciliated, Pedunc. terminal aggregate

- 12641 Stem winged, Heads pale-yellow small

- 12642 Radical and cauline leaves pinnatifid, Stem hirsute
 12643 Cauline leaves sinuate pinnatifid : radical ternate sinuate multifid
 12644 Leaves alternate ovate serrated scabrous : radical cordate
 12645 Leaves opposite deltoid stalked perfoliate, Stem square smooth
 12646 Lvs. opp. conn. unequally toothed, Stem smooth square, Four outer sc. of invol. longer than the inner
 12647 Leaves sessile stalked, Stem round scabrous
 12648 Leaves opposite or alternate sessile oblong hairy : lower serrate, Stem round hispid
 12649 Stems 6-angled, Leaves ternate ovate toothed, Panicle trichotomous
 12650 Stems round, Leaves ternate somewhat toothletted, Panicle dichotomous
 12651 Stems round, Leaves about 4 toothletted, Panicle dichotomous



and Miscellaneous Particulars.

1822. *Milleria*. So named by Linnæus, after Philip Miller, F. R. S., the well known author of the Gardener's Dictionary, and considered the first botanical gardener of his time. He was born in 1692, and died in 1769.

1823. *Baltimora*. This plant grows in the neighbourhood of Baltimore.

1824. *Silphium*. D'Herbelot asserts, that *silphi* or *serpi*, was a name given by the natives of Africa to the plant which produced the *laser* of the Romans, a substance held in great esteem among them for its flavor and its medicinal properties. All the species are tall herbaceous plants with bright yellow flowers, and are very proper ornaments for a shrubbery.

1825. TRIX'IS. <i>Dec.</i>	TRIXIS.			<i>Compositae.</i>	<i>Sp.</i> 1—5.				
12652 senecioides <i>Hooker</i>	Groundsel-like	○	pr	1½	au.s	W	Chili	1821.	S co Hook. ex. fl. 101
1826. POLYM'NIA. <i>W.</i>	POLYMNIA.			<i>Compositae.</i>	<i>Sp.</i> 3—4.				
12653 canadensis <i>W.</i>	Canadian	½	△	or	6	il.au	L.Y	N. Amer. 1768.	D co L.am.ac.3.t.1.f.5
12654 uvedália <i>W.</i>	broad-leaved	½	△	or	8	au.o	Y	N. Amer. 1699.	D co Cav. ic. 3. t. 227
12655 abyssinica <i>W.</i>	upright	½	○	or	4	ap.my	Y	Africa 1775.	S co
1827. CHRYSO'GONUM. <i>L.</i>	CHRYSOGONUM.			<i>Compositae.</i>	<i>Sp.</i> 1.				
12656 virginianum <i>L.</i>	Virginian	½	△	pr	½	my.jn	Y	N. Amer. ...	D p1 Plu.alm. t.83. f.4
1828. MELAMPO'DIUM. <i>W.</i>	MELAMPODIUM.			<i>Compositae.</i>	<i>Sp.</i> 2—6.				
12657 americanum <i>W.</i>	American	○	un	1½	au.o	W	Vera Cruz	1733.	S co Rel.Hous.9. t.21
12658 humile <i>W.</i>	dwarf	○	un	1½	jn.o	W	Jamaica	1782.	S co
1829. CHAPTA'LIA. <i>Vent.</i>	CHAPTALIA.			<i>Compositae.</i>	<i>Sp.</i> 1.				
12659 tomentosa <i>Ph.</i>	woolly	½	△	pr	½	my.jn	W	N. Amer. 1806.	D co Bot. mag. 2257
1830. CALEN'DULA. <i>W.</i>	MARYGOLD.			<i>Compositae.</i>	<i>Sp.</i> 19—34.				
12660 arvensis <i>W.</i>	field	○	or	2	my.s	D.Y	Europe	1597.	S co
12661 sicula <i>W. en.</i>	Sicilian	○	or	1	my.s	D.Y	Sicily	1816.	S co
12662 stellata <i>W.</i>	starry	○	or	2	jn.s	O	Barbary	1795.	S co Sch.hand.3.t.265
12663 officinalis <i>W.</i>	common	○	or	3	jn.s	O	S. Europe	1573.	S co
	<i>β plena</i>	○	or	3	jn.s	O	.....	.....	S co
12664 sancta <i>W.</i>	pale-flowered	○	or	2	my.s	Y	Levant	1731.	S lp
12665 incana <i>W.</i>	hoary	○	or	1½	jn.au	Y	Barbary	1796.	S lp Desf. atl. 2. t.245
12666 pluviális <i>W.</i>	Small Cape	○	or	1	jn.au	W.pu	C. G. H.	1699.	S al Mill. ic. t. 75. f. 2
12667 híbrida <i>W.</i>	Great Cape	○	or	1	jn.jl	W	C. G. H.	1752.	S s1 Sweet fl. gard. 39
12668 nudicaulis <i>W.</i>	naked-stalked	○	or	1	jn.au	W.pu	C. G. H.	1731.	S s1 Com. hort. 2. t. 33
12669 graminifolia <i>W.</i>	Grass-leaved	½	△	or	1	my.s	W.pu	C. G. H.	C p1 Bot. reg. 289
12670 Tráguis <i>W.</i>	bending-stalk'd	½	△	or	2	my.jn	W.pu	C. G. H.	C p1 Bot. mag. 1981
	<i>β flaccida</i> <i>V.</i>	½	△	or	2	my.jn	Or	C. G. H.	C p1 Bot. reg. 28
12671 viscosa <i>H. K.</i>	viscous	½	△	or	2	jn.s	Or	C. G. H.	C p1 Bot. rep. 412
12672 oppositifolia <i>W.</i>	glaucous-leaf'd	½	△	or	2	au	Y	C. G. H.	C p1
12673 fruticosa <i>W.</i>	shrubby	½	△	or	2	jn.jl	Y	C. G. H.	C p1 Mill. ic. 2. t. 283
12674 chrysanthemifolia <i>V.</i>	large-flowered	½	△	or	2	mr.au	Y	C. G. H.	C p1 Bot. reg. 40
12675 arborésces <i>W.</i>	rough-leaved	½	△	or	3	d	Y	C. G. H.	C p1 Jac. ic. 3. t. 596
12676 suffruticosa <i>W.</i>	suffruticose	½	△	or	1	d	Y	C. G. H.	C p1
12677 denticulata <i>W.</i>	toothletted	½	△	or	2	d	Y	Barbary	1821. C p1
12678 muricata <i>W.</i>	muricated	½	△	or	2	d	Y	C. G. H.	C p1
1831. ARCTO'TIS. <i>H. K.</i>	ARCTOTIS.			<i>Compositae.</i>	<i>Sp.</i> 26—40.				
12679 acalúis <i>W.</i>	dwarf	½	△	or	¼	ap.jl	Y.R	C. G. H.	R p1 Bot. reg. 122
12680 tricolor <i>W.</i>	three-colored	½	△	or	1½	my.jl	W.R	C. G. H.	D lp Bot. reg. 131
12681 undulata <i>W.</i>	wave-leaved	½	△	or	1	ap.jn	Or	C. G. H.	C p1 Jac.schae.2.t.160
12682 grandiflora <i>H. K.</i>	great-flowered	½	△	or	1½	mr.my	Pa.Y	C. G. H.	S lp
12683 glaucophylla <i>W.</i>	Sea-green-leav.	½	△	or	1	my.au	Y.Pu	C. G. H.	D lp Jac.schae.2.t.170
12684 plantaginea <i>W.</i>	Plantain-leaf'd	½	△	or	1	jn.au	Or	C. G. H.	C p1
12685 argentea <i>W.</i>	silver-leaved	½	△	or	1	au	Or	C. G. H.	D lp
12686 rósea <i>W.</i>	Rose	½	△	or	1	jl.s	Pk	C. G. H.	C lp Jac.schae.2.t.162
12687 decumbens <i>W.</i>	decumbent	½	△	or	1	jl.s	Y	C. G. H.	D lp Jac.schae.3.t.381
12688 angustifolia <i>W.</i>	narrow-leaved	½	△	or	1½	jl.s	Pu	C. G. H.	C lp
12689 flaccida <i>W.</i>	bending-stalked	½	△	or	1	my.jl	W.R	C. G. H.	S lp Jac.schae.2.t.163
12690 decurrens <i>W.</i>	decurrent	½	△	or	1½	jn.jl	W.R	C. G. H.	C lp Jac.schae.2.t.165
12691 melanocicla <i>W. en.</i>	various-colored	½	△	or	1	jn.jl	W.pu	C. G. H.	C lp
12692 réptans <i>W.</i>	creeping	½	△	or	¼	jl.s	W.o	C. G. H.	R p1 Jac.schae.3.t.382
12693 auriculata <i>W.</i>	ear-leaved	½	△	or	1	jn.au	Y	C. G. H.	C p1 Jac.schae.2.t.169
12694 fastuosa <i>W.</i>	Orange-flower.	½	△	or	1	my.jl	O.R	C. G. H.	S co Jac.schae.2.t.166



History, Use, Propagation, Culture,

1825. *Trixis*. From *trixis*, three, on account of its triangular capsule with three cells.

1826. *Polymnia*. *Polymnia* was the name of one of the Muses. Why it has been applied to this plant is not very obvious. A coarse broad-leaved weedy plant.

1827. *Chrysogonum*. From *chryso*, gold, and *gonu*, a knee. The bright yellow flowers are usually produced in the bends of the stems.

1828. *Melampodium*. One of the Greek names of black hellebore, with which the modern plant has no relation. The plant of the ancients was probably named from the blackness of the roots, (*μαλας*, black, and *πους*, a foot).

1829. *Chaptalia*. Dedicated by Ventenat to the famous French chemist, M. Chaptal. A pretty little North American herbaceous plant.

1830. *Calendula*. So named because it may be found in flower during the *Calends* of each month, or, which is the same thing, during every month in the year. *C. pluviális* has been named from its flowers closing at the approach of rain.

12652 Herbaceous downy, Leaves sinuate pinnatifid toothed : cauline amplexicaul.

12653 Leaves toothletted acuminate : lower pinnatifid ; upper 3-lobed or entire

12654 Leaves 3-lobed acute running down the petiole : lobes angular sinuated

12655 Leaves opposite sessile oblong lanceolate somewhat toothed, Invol. 5-parted, Florets all female

12656 Leafstalks longer than leaves

12657 Stem erect, Leaves somewhat linear 1-toothed on each side

12658 Stem erect, Leaves lyrate-toothed sessile

12659 Leaves ovate-oblong entire silvery beneath, Scape naked 1-headed, Head nodding

12660 Pericarps cymbiform muricated incurved : outer lanceolate-subulate muricated at back

12661 Pericarps cymbiform muricated incurved : outer ovate with a membranous edge toothed crested at back

12662 Pericarps cymbiform incurved muricated : outer 5 ovate-lanceolate membranous toothed at edge

12663 Pericarps cymbiform all incurved muricated

12664 Pericarps urceolate obovate smooth, Involucre somewhat muricated

12665 Pericarps cymbiform smooth : outer subulate erect somewhat muricated. Lvs. obl. spatul. downy on each side

12666 Leaves narrow lanceolate sinuate toothletted, Stem leafy, Peduncles filiform

12667 Leaves oblong lanceolate blunt toothed, Stem leafy, Peduncles thickened at end

12668 Leaves lanceolate sinuate toothed, Stem nearly naked

12669 Leaves linear nearly entire, Stem nearly naked

12670 Leaves linear somewhat toothletted muricate dotted beneath, Pericarps orbicular, Stem suffruticose

12671 Leaves cuneate cut toothed glabrous, Invol. downy ciliated, Stem shrubby weak

12672 Leaves opposite linear entire somewhat fleshy smooth

12673 Leaves obovate somewhat toothed, Stem fruticose decumbent

12674 Leaves obovate sublyrate roughish, Stem suffruticose erect

12675 Lvs. obl. toothed scabrous, Invol. in fruit cernuous, Pericarps nearly orbicular, Stem fruticose panicled

12676 Peric. cymbif. incurv. muricat. : outer lanc. subulate muricated erect, Lvs. obl. spatul. downy on each side

12677 Pericarps all uniform incurved cymbiform muricated, Leaves lanceolate toothletted acute smoothish

12678 Leaves oblong papillose scabrous : lower toothed ; upper entire, Stem shrubby

12679 Radiant florets fertile, Stem very short decumbent, Leaves hoary on each side ternate lyrate

12680 Radiant florets fertile, Leaves downy beneath ovate entire or lyrate-toothed, Scape furrowed 1-headed

12681 Radiant florets fertile, Leaves downy beneath wavy-toothed ovate or lyrate, Scapes 1-headed

12682 Leaves pinnatifid toothletted cobwebbed 3-nerved

12683 Radiant florets fertile, Leaves hoary pinnatifid repand somewhat toothed, Outer scales of invol. reflexed

12684 Radiant florets fertile, Leaves lanceolate ovate nerved toothletted amplexicaul.

12685 Radiant florets fertile, Leaves lanceolate linear entire downy

12686 Radiant florets fertile, Stem procumbent, Leaves spatulate-lanceolate repand-toothed hoary

12687 Radiant florets fertile, Stem procum. Leaves obl. lanc. unequally toothed hoary downy beneath 3-nerved

12688 Radiant florets fertile, Stem branched ascending, Leaves downy spatulate lanceolate 3-nerved pubescent

12689 Radiant florets fertile, Stem branched ascending, Leaves spatulate lanceolate entire 3-nerved downy

12690 Radiant florets fertile, Stem shrubby, Leaves hairy oblong undivided somewhat toothed

12691 Radiant florets fertile, Stem shrubby erect hoary, Lvs. obov. oblong vill. toothed decurr. down the petiole

12692 Radiant florets fertile, Stem ascend. Lvs. hairy hoary beneath : lower lyrate-toothed ; upper lanc. tooth.

12693 Radiant florets fertile, Stem snow white, Leaves lyrate amplexicaul. downy toothed : termin. lobe rhomb.

12694 Radiant florets fertile, Stem erect, Leaves hairy oblong toothed, Outer scales of invol. reflexed ciliated.



and Miscellaneous Particulars.

C. officinalis, *Souci du jardin*, Fr., *Goldblume*, Ger., and *Furrancio*, Ital., has been a garden plant time out of mind, and used in soups and broths, both to color them, and as comforters of the heart and spirits. It had formerly many virtues ascribed to it, but is now totally out of use in this country. According to Linnæus, the flowers are open from nine in the morning till three in the afternoon. There are double, lemon-colored, and prolific varieties. From the flowers of *Calendula officinalis* is obtained a distilled water, a kind of vinegar, and a conserve.

With this genus for his type, M. Cassini has formed a small tribe which he calls *Calenduleæ*, remarkable for a peculiar smell, very perceptible in the common pot-marygold, which is said to be confined to themselves alone. But this seems to be almost the only character by which they are distinguished from *Helianthææ*. The greater part of *Calenduleæ* are found in the country of the Cape of Good Hope ; but some are found in Europe and Asia.

1831. *Arctotis*. Vaillant, who named this genus, called it *Arctotheca*, from *αρκτος*, a bear, and *θηκη*, a capsule, because its fruit is shaggy like a bear. This and some neighbouring genera have given rise to *M.*

12695 spinulosa W.	thorny-leaved	□ or	1½ my.au	Or	C. G. H.	1795.	S	co	Jac.schœ.2.t.167
12696 maculata W.	spotted	□ or	1½ my.au	W.o	C. G. H.	1812.	C	l.p	Bot. reg. 130
12697 aspera B. reg.	broad rough-ly.	□ or	1½ jls.	Y	C. G. H.	1710.	C	p.l	Bot. reg. 34
12698 aurœola B. reg.	narr. rough-ly.	□ or	1 jls.	Or	C. G. H.	1710.	C	p.l	Bot. reg. 32
12699 bicolor W. en.	two-colored	□ or	1 jls.	W.R	C. G. H.	1812.	C	l.p	
12700 speciosa B. M.	shewy	□ or	1½ jn.au	Y	C. G. H.	1812.	C	p.l	Bot. mag. 2182
12701 elatior W.	tall	□ or	1½ jn.au	Y.Pu	C. G. H.	1820.	C	p.l	Jac.schœ.2.t.172
12702 arborescens W.	Tree.	□ or	1½ jn.au	W.pk	C. G. H.	1813.	C	p.l	Jac.schœ.2.t.171
12703 cœprea W.	copper-colored	□ or	1½ jn.au	Y.Pu	C. G. H.	1823.	C	p.l	Jac.schœ.2.t.176
12704 Cineraria W.	grey	□ or	1½ jn.au	Y.o	C. G. H.	1824.	D	p.l	Jac.schœ.2.t.174
1832. OSTEOSPERMUM. W. OSTEOSPERMUM.					Compositæ.	Sp. 9—27.			
12705 corymbosum W.	corymbose	□ or	3 au	Y	C. G. H.	1822.	C	l.p	
12706 spinosum H. K.	rough-leaved	□ or	3 f.o	Y	C. G. H.	1700.	S	l.p	Com. hort.2. t.43
12707 spinosum H. K.	smooth-leaved	□ or	3 mr.jn	Y	C. G. H.	1793.	C	l.p	Jac.schœ.3.t.377
12708 pisiferum W.	smooth	□ or	4 mr.my	Y	C. G. H.	1757.	S	l.p	Bot. cab. 470
12709 moniliferum W.	Poplar-leaved	□ or	3 jl.au	Y	C. G. H.	1714.	S	l.p	Dil. elt. 68. f.79
12710 ilicifolium W.	Holly-leaved	□ or	4 jl.au	Y	C. G. H.	1816.	C	l.p	Bur. afr. 172. t.62
12711 rigidum W.	rigid	□ or	3 ap.jl	Y	C. G. H.	1774.	C	l.p	
12712 cœruleum W.	blue-flowered	□ or	3 jn.s	B	C. G. H.	1774.	C	l.p	Jac. ic. 1. t. 179
12713 polygaloides W.	Milkwort-leav.	□ or	3 jn.s	Y	C. G. H.	1759.	C	l.p	Pluk.mant.t.382
1833. OTHONNA. W.					Compositæ.	Sp. 21—39.			
12714 pinnata W.	wing-leaved	□ or	3 ap.jn	Y	C. G. H.	1759.	C	l.p	Bot. mag. 768
12715 pectinata W.	Wormwood-ly.	□ or	3 ap.jn	Y	C. G. H.	1731.	C	p.l	Bot. mag. 306
12716 Athanasia W.	Athanasia-like	□ or	3 n.d	Y	C. G. H.	1795.	C	p.l	Jac.schœ.2.t.242
12717 abrotanifolia W.	Southern-w-ly.	□ or	3 ja.mr	Y	C. G. H.	1692.	C	p.l	Bot. reg. 108
12718 retrofracta W.	bending-stalk'd	□ or	2 mr.au	Y	C. G. H.	1812.	C	l.p	Jac.schœ.3.t.376
12719 coronopifolia W.	Buckhorn-lvd.	□ or	2 jls.	Y	C. G. H.	1731.	C	p.l	Com. hort.2.t.70
12720 cheirifolia W.	Stock-leaved	□ or	1½ ap.jn	Y	Barbary	1752.	C	p.l	Bot. reg. 266
12721 Tagetes W.	Marygold-leav.	□ or	1 ap.jn	Y	C. G. H.	1823.	S	co	
12722 flabellifolia B. C.	fan-leaved	□ or	1 ap.jn	Y	C. G. H.	1821.	C	co	Bot. cab. 728
12723 crassifolia W.	thick-leaved	□ or	2 s.o	Y	C. G. H.	1710.	C	p.l	Mil.ic.2.t.245.f.2
12724 denticulata W.	tooth-leaved	□ or	2 ap.jl	Y	C. G. H.	1774.	C	p.l	Bot. mag. 1979
12725 heterophylla W.	various-leaved	□ or	2 ap.jl	Y	C. G. H.	1812.	C	l.p	
12726 Lingua W.	tongue-leaved	□ or	2½ my.s	Y	C. G. H.	1787.	D	l.p	Jac.schœ.2.t.238
12727 filicaulis W.	Yam-rooted	□ or	1½ ap.my	Y	C. G. H.	1791.	D	l.p	Jac.schœ.2.t.241
12728 bulbosa W.	bulbous	□ or	2 my.jn	Y	C. G. H.	1774.	D	l.p	Breyn. cent. t.66
12729 perfoliata Jac.	perfoliate	□ or	1½ my.jl	Y	C. G. H.	1789.	D	l.p	Bot. mag. 1312
12730 parviflora W.	small-flowered	□ or	2 jl.au	Y	C. G. H.	1704.	C	p.l	Volk.norib.t.226
12731 ericoides W.	Heath-leaved	□ or	2 jl.au	Y	C. G. H.	1815.	C	l.p	
12732 tenuissima W.	fine-leaved	□ or	1½ ap.jl	Y	C. G. H.	1759.	C	l.p	Jac.schœ.2.t.239
12733 arborescens W.	tree	□ or	2 jl.au	Y	C. G. H.	1723.	C	p.l	Dil.elt.t.103.f.123
12734 cacaloides W.	tuberous	□ or	½ my.s	Y	C. G. H.	1774.	D	l.p	
1834. HIPPIA. W.					Compositæ.	Sp. 2—5.			
12735 frutescens W.	shrubby	□ un	½ f.au	Y	C. G. H.	1710.	C	p.l	Bot. mag. 1855
12736 integrifolia W.	annual	□ un	½ jl.au	Y	E. Indies	1777.	S	l.p	Huat h. t.67. f.2
1835. SOLIVA. Fl. per. SOLIVA.					Compositæ.	Sp. 1—6.			
12737 anthemifolia R. Br.	Chamomile-lvd.	○ un	½ jn.jl	Ap	N. Holl.	1818.	S	co	An.mus. t.61. f.1
	Gymnöstyles anthemifolia Juss.								
1836. PSIA'DIA. W.					Compositæ.	Sp. 1.			
12738 glutinosa W.	glutinous	□ un	2 ju.au	Y	Mauritius	1796.	C	p.l	Jac schœ .2.t.152
1837. ERIOCEPHALUS. W. ERIOCEPHALUS.					Compositæ.	Sp. 2—4.			
12739 africanus W.	cluster-leaved	□ or	3 ja.mr	Y	C. G. H.	1732.	C	p.l	Bot. mag. 833
12740 racemosus W.	silver-leaved	□ or	3 mr.ap	Y	C. G. H.	1739.	C	p.l	
1838. FILA'GO. L.					Compositæ.	Sp. 16—21.			
12741 germanica L.	common	○ un	¾ jn.au	Y.Br	Britain	san.fi.	S	co	Eng. bot. 948
12742 gallica L.	narrow-leaved	○ un	¾ jn.au	Y.Br	Britain	san.fi.	S	co	Eng. bot. 2369
12743 pyramidata L.	pyramidal	○ un	¾ jn.au	Br.Y	S. Europe	1779.	S	co	



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Cassini's tribe of Arctotideæ, which has the remarkable peculiarity of occasionally producing an ovarium with three cells. In the peculiarities of their style they approach the tribes of Echinosepae, Carduineæ, Centaureæ, and Carlineæ. They are entirely confined to the regions of the Cape of Good Hope.

1832. *Osteospermum*. From *osteo*, a bone, and *spermum*, seed, in allusion to the hardness of the fruit.

1833. *Othonna*. Dioscorides mentions this name as being applied to various things, but especially to a plant with a leaf like rocket, but perforated with little holes, whence it was called *Othonna*, from *ὄθων*, linen. The plant of the ancients can have had little affinity with that of the moderns.

1834. *Hippia*. A name applied by Cordus to the common Chickweed, because it was agreeable food for

- 12695 Radiant florets fertile, Stem erect, Leaves hoary viscid oblong amplexicaul. mucronate-toothed
- 12696 Radiant florets fertile, Leaves pinnatifid lyrate angular toothed downy beneath
- 12697 Radiant florets fertile, Stem erect, Leaves pinnatifid scabrous downy beneath revolute at edge
- 12698 Radiant florets fertile, Outer scales of invol. reflexed cuneate obl. with a broad short point somew. cobw.
- 12699 Radiant florets fertile, Stem erect, Leaves pinnatifid lyrate hoary downy beneath, Invol. imbricated
- 12700 Stemless, Leaves lyrate pinnatifid hoary beneath 3-nerved, Outer scales of invol. linear recurved
- 12701 Radi. flor. fertile, Stem erect, Branches downy hairy, Lvs. pinnatif. downy ben. : seg. lin. lanc. angul. downy
- 12702 Radiant florets fertile, Stem erect, Pedunc. hairy, Lvs pinnatif. hoary downy ben. : seg. lanc. angul. toothed
- 12703 Radiant florets fertile, Stem erect, Leaves downy beneath : segm. linear subpinnatifid wavy
- 12704 Radiant florets fertile, Leaves hoary downy long-stalked pinnatifid : segm. lanceolate blunt toothed

- 12705 Leaves lanceolate glabrous, Heads paniced
- 12706 Leaves obovate serrate downy, Spines branched
- 12707 Leaves lanceolate pinnatifid-toothed scabrous, Spines branched
- 12708 Leaves lanceolate mucronate somewhat stalked smooth serrated, Branches toothletted angular
- 12709 Leaves obovate serrated stalked subdecurent
- 12710 Leaves oblong toothed-angular scabrous $\frac{1}{2}$ -plexicaul. Branches furrowed
- 12711 Leaves toothed pinnatifid hairy, Branches unarmed
- 12712 Leaves pinnatifid smooth, Segments lanceolate unequally serrated
- 12713 Leaves lanceolate scattered decurrent smooth entire, Axillæ woolly

- 12714 Leaves pinnatifid : pinnæ lanceolate entire decurrent
- 12715 Leaves pectinate-pinnatifid downy : segm. linear toothed at the edge
- 12716 Leaves pinnate filiform, Invol. hemispherical many-toothed
- 12717 Leaves multifid pinnated linear, Joints of stem villous
- 12718 Leaves lanceolate 1-toothed on each side in the middle or entire, Peduncles axillary, Stem divaricating
- 12719 Lower leaves lanceolate entire : upper sinuate toothed
- 12720 Leaves lanceolate 3-nerved entire, Stem suffruticose creeping
- 12721 Leaves deeply pinnatifid glabrous : segments linear somewhat toothed, Stem herbaceous
- 12722 Leaves pinnatifid very small, Peduncles long slender axillary 1-headed, Ray longer than disk
- 12723 Leaves lanceolate entire somewhat fleshy, Stem erect
- 12724 Leaves oblong toothletted smooth narrowed at base amplexicaul. Heads paniced
- 12725 Radical leaves ovate angular toothed : cauline lanceolate entire
- 12726 Leaves entire : radical lanceolate ; cauline lanceolate subcordate $\frac{1}{2}$ -plexicaul. Stem erect
- 12727 Leaves entire : radical cordate ; cauline ovate-lanceol. cordate at base amplexicaul. Stem flaccid filiform
- 12728 Leaves ovate somewhat toothed, Peduncles 1-headed very long
- 12729 Root tuberous, Leaves amplexicaul. Peduncles 1-headed
- 12730 Leaves lanceolate smooth amplexicaul. Heads paniced
- 12731 Stem dichotomous imbricated : leaflets acrose, Peduncle very long solitary in the divarications
- 12732 Leaves filiform fleshy, Stem shrubby
- 12733 Leaves oblong entire, Stem arborescent fleshy with woolly scars
- 12734 Fleishy naked smooth a span high, Leaves fascicled obovate sessile, Peduncle 1-headed

- 12735 Shrubby villous, Leaves pinnatifid, Heads corymbose
- 12736 Hispid erect, Leaves ovate serrated 5-nerved, Racemes terminal

- 12737 Leaves pinnated : leaflets linear many-times lobed acute, Pericarps cuneiform hairy

12738 The only species

- 12739 Leaves entire and divided, Heads corymbose
- 12740 Leaves linear silky

- 12741 Stem erect prolifer. at summit, Lvs. lanc. downy acute, Fls. capitate in the axils of branches and terminal
- 12742 Stem erect dichotom. Lvs. lin. acum. downy, Fls. crowded axill. and term. Clust. much shorter than leaves
- 12743 Stem erect subdichotomous, Leaves lanceolate spatulate downy, Flowers clustered axillary and terminal



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horses, ἵππος, a horse ; and given to this plant by Linnaeus for no reason whatever. Little plants resembling Tansy.

1835. *Soliva*. Named by the authors of the *Flora Peruviana*, after Salvator Soliva, a Spanish physician and botanist.

1836. *Psidia*. From ψῖδα, a drop of dew, in allusion to the dew-bespangled foliage of the plants.

1837. *Ericephalus*. From ἔριον, wool, and κεφαλή, a head, on account of the woolly grains collected in terminal heads.

1838. *Filago*. All the parts of these plants are covered with delicate threads or *fila*.

12744 montána <i>Pers.</i>	mountain	○ un	$\frac{1}{2}$ jn.au	Br.Y	S. Europe	1820.	S co	
12745 mínima <i>Pers.</i>	least	○ un	$\frac{1}{2}$ jl.au	Y.Br	Britain	sa.pas.	S co	Eng. bot. 1157
12746 arvensis <i>Pers.</i>	corn	○ un	$\frac{1}{2}$ jl.au	Y.Br	Europe	1804.	S co	
12747 Lagópús <i>Pers.</i>	Hare's-foot	○ un	$\frac{1}{2}$ jl.au	Y.Br	Siberia	1820.	S co	
12748 rec'ta	upright-wood	✓ △ un	1 au	Y.Br	Britain	sa.pas.	D co	Eng. bot. 124
12749 coarctáta	contracted	○ un	1 au	Br	M.Video	1819.	D co	
12750 americána	Jamaica	✓ △ un	1 jl.au	Pa.Y	Jamaica	1815.	D co	
12751 supina <i>Lk.</i>	dwarf	✓ △ un	$\frac{1}{2}$ jn.jl	Y.Br	Scotland	sc.alp.	D co	Eng. bot. 1193
12752 pusilla <i>Hænke.</i>	pygmy	✓ △ un	lin jn.jl	Y.Br	Austria	1820.	D co	Krock.siles. t.41
12753 sphæ'rica <i>Lk.</i>	spherical	✓ △ un	$\frac{1}{2}$ jn.jl	Y.W	N. Holl.	1819.	D co	
12754 cephalóides <i>Lk.</i>	large-headed	✓ △ un	$\frac{1}{2}$ jn.jl	Y.W	N. Holl.?	1823.	S co	
12755 uliginósa	marsh	○ un	1 au	Y.Br	Britain	wat.pl. D	co	Eng. bot. 1194
12756 sylvática	highland	✓ △ un	1 au	Y.Br	Britain	al.pas. R.	s.1	Eng. bot. 913
1839. MICRÓPUS. <i>W.</i>	MICRÓPUS.				Compositæ.	Sp. 2—3.		
12757 supinus <i>W.</i>	trailing	○ un	$\frac{1}{2}$ jn.s		S. Europe	1710.	S 1p	Sch.hand.3.t.267
12758 erectus <i>W.</i>	upright	○ un	$\frac{1}{2}$ jn.s		S. Europe	1683.	S 1p	Leaf. hisp.t. f.3
1840. PARTHÉNÍUM. <i>W.</i>	PARTHENÍUM.				Compositæ.	Sp. 2.		
12759 Hysteróphorus <i>W.</i>	cut-leaved	○ un	1 jl.o	W	Jamaica	1728.	S 1p	Bot. mag. 2275
12760 integrofolíum <i>W.</i>	entire-leaved	✓ △ un	3 jn.o	W	Virginia	1661.	D p.1	W. hort. ber. 4
1841. I'VA. <i>W.</i>	I'VA.				Compositæ.	Sp. 2—5.		
12761 ánnua <i>W.</i>	annual	□ un	2 jl.au	W	S. Amer.	1768.	S 1p	Schmidelic. t.15
12762 frutescens <i>W.</i>	shrubby	■ or	4 au	W	N. Amer.	1711.	C co	Phu.alm. t.27. f.1
1842. ACICAR'PHA. <i>Juss.</i>	ACICARPHA.				<i>Calyceææ.</i>	Sp. 1—3.		
12763 spatuláta <i>Jacq.</i>	spatulate	✓ △ cu	$\frac{1}{2}$...		Brazil	1824.	D p.1	

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1843. ELEPHANTO'PUS. <i>W.</i>	ELEPHANTS FOOT.				Compositæ.	Sp. 3—7.		
12764 scáber <i>W.</i>	rough-leaved	✓ △ un	1 jn.s		E. Indies	1695.	C s.p	Rhee.mal.10. t.7
12765 caroliníanus <i>W.</i>	Carolina	✓ △ un	$\frac{1}{2}$ jl.s	R	America	1732.	C 1p	Dil.el.t.106. f.126
12766 tomentósus <i>W.</i>	woolly	✓ △ un	1 jl.au	R	W. Indies	1733.	D 1p	
1844. CÆDE'RA. <i>W.</i>	CÆDERA.				Compositæ.	Sp. 1—3.		
12767 prolifera <i>W.</i>	proliferous	■ □ pr	$\frac{1}{2}$ my.jn	Y	C. G. H.	1789.	C s.1	Bot. mag. 1637
1845. FLAVE'RIA. <i>J.</i>	FLAVERIA.				Compositæ.	Sp. 1—2.		
12768 contrayérba <i>W. en.</i>	Peruvian	✓ □ m	$\frac{1}{2}$ jl.s	Y	Peru	1794.	S 1p	Bot. mag. 2400
1846. STCÆ'BE. <i>W.</i>	STCÆBE.				Compositæ.	Sp. 2—4.		
12769 æthiópica <i>W.</i>	Juniper-leaved	■ □ pr	2 au		C. G. H.	1759.	C p.1	
12770 cinérea <i>W.</i>	Heath-leaved	■ □ pr	2 jl.s		C. G. H.	1784.	C p.1	Pl. man.t.297. f.1
1847. NAUMBUR'GIA. <i>W.</i>	NAUMBURGIA.				Compositæ.	Sp. 1.		
12771 trinerváta <i>W.</i>	three-nerved	○ un	3 jl.au	Y	S. Amer.	1799.	S 1p	Sch.b.j.1800.2.t.5
	<i>Brotéra Contrayer'va</i> Spr.							
1843. CASSÍ'NIA. <i>H. K.</i>	CASSINIA.				Compositæ.	Sp. 3—11.		
12772 aúrea <i>R. Br.</i>	yellow	✓ △ or	jl.au		N. Holl.	1803.	D 1p	Bot. reg. 764
12773 spectábilis <i>R. Br.</i>	shewy	○ or	6 jl.au	Y	N. Holl.	1818.	S co	Bot. reg. 678
12774 leptophýlla <i>R. Rr.</i>	small-leaved	■ □ pr	2 jl.o	W	N. Zeal.	1821.	C co	
1849. SPHÆRAN'THUS. <i>W.</i>	SPHÆRANTHUS.				Compositæ.	Sp. 3—8.		
12775 índicus <i>W.</i>	Indian	✓ △ un	2 au.d	B	E. Indies	1699.	C p.1	Bur.zeyl.t.94.f.3
12776 africánus <i>W.</i>	African	✓ △ un	1 jl.au	B	C. G. H.	1759.	S co	Pl.man. t.108.f.7
12777 hírtus <i>W.</i>	hairy	✓ △ un	2 lau	B	1823.	C co	Lam.ill.t.718.f.1



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1839. *Micropus*. From *μικρος*, small, and *πυς*, a foot; so called with reference to *Leontopodium* (which see), than which it is smaller, but which it resembles in its velvety silvery leaves.

1840. *Parthenium*. The Greek name of the *Matricaria*, which see. The indecent derivation of the word *Hysterophorus*, is sufficiently explained by Vaillant. (*Mem. Acad. Sciences, anno 1720.*)

1841. *Iva*. This name, according to Fuchsius, is a mere abbreviation of *abiga*; see *Ajuga*. It has been applied by Linnæus to these plants because their smell resembles that of the ancient *Iva*.

1842. *Acicarpha*. From *axis*, a point, and *καρφος*, a palea, because that appendage is spiny.

1843. *Elephantopus*. It is said that some resemblance may be found between the radical leaves of this plant and an elephant's foot (*λεῖφος*, an elephant, and *πυς*, a foot).

1844. *Cædera*. After George Cæder, a Dane, professor of botany at Copenhagen, and the founder of the extensive Flora Danica.

1845. *Flaveria*. From *flavus*, yellow, because the plants are used in Chili for dying of that color.

12744 Stem erect subdichotomous, Lvs. lin. lanc. appressed downy, Flowers clustered axillary and terminal
 12745 Stem erect branch. Branch. sprdg. Lvs. lanc. acute cottony, Fls. conic. clust. lat. term. Clust. longer than lvs.
 12746 Stem erect panicled, Leaves oblong lanceolate woolly, Heads clustered lateral and terminal downy
 12747 Stem erect branched, Lvs. lanc. cord. at base amplexicaul. woolly, Heads clust. lat. and terminal downy
 12748 Leaves nearly glabrous above, Spike longer more interrupted
 12749 Stem herbaceous quite simple, Leaves oblong spatulate downy beneath hoary, Heads clustered
 12750 Stem erect branched, Lvs. obov. spatulate downy beneath, Heads axillary and terminal clustered spiked
 12751 Stem decumb. branch. only from base, Flower. stems erect, Fls. solit. or racem. Lvs. lin. downy on both sides
 12752 Stem quite simple nearly erect about 3-flowered, Leaves linear acute downy, Runners procumbent
 12753 Stem branched erect, Leaves linear 3-nerved acute very narrow at base downy beneath
 12754 Stem simple, Leaves linear 3-nerved acuminate silky beneath, Heads terminal clustered [than lvs.
 12755 Stem very much branch. diffuse woolly, Lvs. lin.-lanc. downy, Fls. in term. crowded clust. which are shorter
 12756 Stem simple nearly erect downy, Fls. axillary forming a distant leafy spike Leaves linear lanc. downy

12757 Leaves opposite obovate cuneate
 12758 Leaves alternate lanceolate, Heads woolly

12759 Leaves bipinnatifid
 12760 Leaves undivided oblong toothed

12761 Leaves lanceolate-ovate, Bractes lanceolate and petioles downy
 12762 Leaves lanceolate dotted scabrous deeply serrated, Stem shrubby

12763 Leaves spatulate

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12764 Leaves scabrous : radical narrowed at base ; cauline lanceolate, Stem branched strigose
 12765 Radical and cauline leaves oblong narrowed at base somewhat hairy, Stem simple hairy
 12766 Leaves ovate downy

12767 Leaves lanceolate serrated reflexed

12768 Leaves somewhat stalked lanceolate 3-nerved mucronate-serrate

12769 Leaves mucronate subulate reflexed, Stem erect
 12770 Leaves linear subulate oblique, Spike cylindrical

12771 The only species

12772 Leaves lanceolate-linear smooth glandular beneath, Corymbs decomposed
 12773 Panicle decomposed, Leaves lanceolate decurrent with their under surface and the branches woolly
 12774 Corymb nearly sessile, Leaves small linear white beneath

12775 Leaves lanceolate serrate decurrent glabrous, Peduncles winged, Wings of stem and peduncles serrated
 12776 Leaves decurrent ovate serrated, Peduncles round
 12777 Leaves obovate serrated hairy decurrent, Peduncles winged, Wings of stem and peduncles serrated



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1846. *Stabe*. The name under which Theophrastus and Pliny designate a plant of a rough and spiny habit. This is the character of the modern plant, which is very dissimilar to that of the ancients, which is believed to have been *Poterium spinosum*.

1847. *Naumburgia*. Named by Willdenow without explanation ; but we presume in honor of John Samuel Naumburg, author of a Dissertation upon *Veronica Chamædrys*, &c., published at Erfurt in 1792.

1848. *Cassinia*. Named after M. Henri Cassini, a celebrated French botanist, who has devoted much attention to the study of the very difficult tribe of plants to which this belongs, and with singular success. But his observations are scattered through so many different works, that it is almost hopeless to acquire a knowledge of their actual extent. Neat New Holland shrubs with white or yellow flowers.

1849. *Sphaeranthus*. From *σφαῖρα*, a globe, and *ανθος*, a flower, on account of the globular form of the heads of flowers.

1850. ECHI'NOPS. <i>W.</i>	GLOBE THISTLE.				<i>Compositæ.</i>	<i>Sp. 7—9.</i>					
12778 sphærocéphalus <i>W.</i>	great	Δ	or	5	jl.au	L.B	Austria	1596.	D	co	
12779 spinósus <i>W.</i>	thorny-headed	Δ	or	4	jl.au	W	Egypt	1597.	D	lp	
12780 Ritro <i>W.</i>	small	Δ	or	3	jl.s	B	Europe	1570.	D	co	
12781 strigósus <i>W.</i>	annual	Δ	or	2	jl.s	W	Spain	1729.	S	lp	
12782 lanuginósus <i>W.</i>	woolly	Δ	or	2	jn.jl	B	Levant	1736.	D	lp	
12783 paniculátus <i>Jacq.</i>	panicled	Δ	or	6	jl.au	B	Spain	1815.	D	lp	
12784 strictus <i>B.M.</i>	upright	Δ	or	3	jl.au	Pa.B	Europe	1822.	D	lp	
1851. ROLAN'DRA. <i>W.</i>	ROLANDRA.				<i>Compositæ.</i>	<i>Sp. 1.</i>					
12785 argétea <i>W.</i>	silver-leaved	∞	∟	or	jl	W	W. Indies	1714.	C	lp	
1852. BROTE'RA. <i>W.</i>	BROTERA.				<i>Compositæ.</i>	<i>Sp. 1.</i>					
12786 corymbósa <i>W.</i>	umbellæ	∞	Δ	or	2	jn.jl	B	S. Europe	1640.	D	lp
1853. GUNDE'LIA. <i>W.</i>	GUNDELIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>					
12787 Tournefortii <i>W.</i>	Tournefort's	∞	Δ	un	1½	jn.au	L.G	Levant	1739.	D	s.p
1854. EUXE'NIA. <i>Cham.</i>	EUKENIA.				<i>Compositæ.</i>	<i>Sp. 1.</i>					
12788 gráta <i>Cham.</i>	pleasant	∞	∟	pr	2	...	Y	Chili	1825	C	p.l



History, Use, Propagation, Culture,

1850. *Echinops*. From *εχινος*, a hedgehog, and *οψις*, resemblance; because of the bristly round heads of flowers protected in every direction by stiff spines. The woolly leaves of *Echinops strigosus* are employed in Spain as tinder. Upon this genus M. Cassini has founded his tribe of *Echinopseæ*, which it must be confessed is entirely distinct from any other, and extremely remarkable on account of its very singular aberrations from the ordinary structure of *Compositæ*.

1851. *Rolandra*. After Daniel Rolander, a pupil of Linnæus, who visited Surinam. Nothing appeared from him except an account of *Doliocarpus* in the seventeenth volume of the Transactions of the Academy of Sciences of Stockholm.

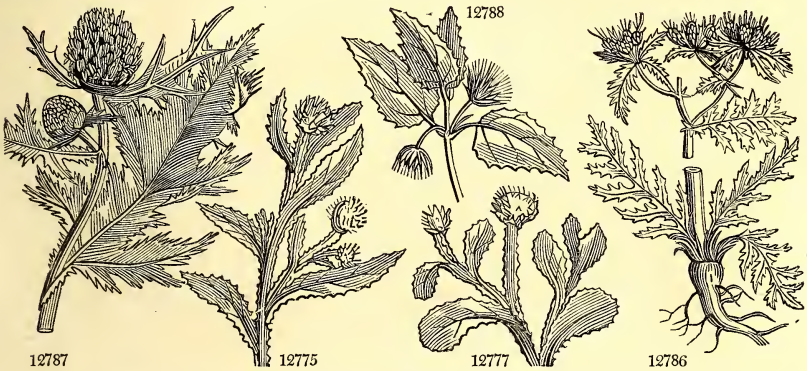
- 12778 Leaves pinnatifid downy above woolly beneath, Stem branched
 12779 Heads scattered with long spines
 12780 Head globose, Leaves pinnatifid smooth above
 12781 Heads fascicled, Lateral invol. sterile, Leaves strigose on the upper side
 12782 Stem branched woolly, Leaves subbipinnate: segments narrow smooth above, Head subsessile
 12783 Leaves rugose squarrose pinnatifid smooth above glaucous with down beneath
 12784 Stem simple upright 1-headed, Leaves eroded pinnatifid spiny-toothed smooth above downy beneath

12785 The only species

12786 Heads corymbose numerous

12787 Leaves long and spiny

12788 The only species



and Miscellaneous Particulars.

1852. *Brotera*. Named after Felix Avelhar Brotero, a Portuguese botanist, professor at Coimbra; author of a useful *Flora Lusitania*.

1853. *Gundelia*. Named after Andrew Gundelsheimer, a German botanist, who accompanied Tournefort in his journey into the Levant in 1709.

1854. *Euxenia*. A name unexplained by its author. Apparently derived from *εὐξενος*, hospitable, but in what sense we do not perceive.



CLASS XX. — GYNANDRIA.

THE singular plants which constitute this class are distinguished from all others by the anomalous structure of their flowers. These do not, as is usually the case, contain a certain number of stamens surrounding a central ovarium or style, but on the contrary are furnished with a solitary fleshy undivided process, round which the sepals radiate, and which supplies the place of stamens and style. The nature of this process has been variously explained: the modern opinion is that it is formed by the accretion of the stamens and style into a single mass, and this opinion seems to be confirmed by analysis and analogy. Omitting, therefore, a notice of such theories respecting its nature as are opposed to that which is now received as the most correct, it will suffice to explain a little in detail, the opinion which is adopted in this work. The central process, called the columna or column, is understood to be formed by the filaments of three stamens surrounding a style, and by mutual accretion firmly united with it and with each other into a solid mass. Of these three stamens, it most frequently happens that the *two lateral* are sterile, and not furnished with even the vestige of an anther; and that their presence is not indicated by more than two irregular excrescences, as in *Orchis*, or by the same number of small appendages, as in *Satyrion*, or by two horn-like or tooth-like processes, present in several of the genera with waxy pollen-masses: it even happens, and not unfrequently, that no vestige whatever of them remains. But in *Cypripedium* both are fertile and bear perfect anthers, while the central stamen is barren and foliaceous. When the lateral stamens are, as above stated, abortive, which is the most common form of the columna, the central stamen bears at its upper extremity an anther, which is either moveable or fixed firmly in its place. The pollen which this contains, assumes three very distinct appearances in different tribes. It is either granular, dividing into many separable small pieces, as in *Orchis*; or powdery, consisting of an infinite number of granules, as in *Spiranthes*; or waxy, when it consists of a few large concrete masses, as in *Epidendrum*. The stigma is most frequently concave, and placed nearly under the anther, but in such a manner, that there is no contact between it and the pollen. In what way, therefore, fecundation can take place among truly Gynandrous plants, is one of those mysterious contrivances of nature which has not yet been explained. It is generally believed to take place by absorption in some undiscovered manner, before the flowers expand; but it is extremely difficult to understand how this can occur in many genera. The foregoing remarks apply only to the tribe of plants called Orchideoideae. The few genera attached to the latter part of the class are Gynandrous by the cohesion indeed of their stamens and style, but in a much more obvious manner.

Gynandrous plants are among the most interesting of the vegetable productions of the globe, whether we consider the vivacity of their colors, or the singularity of their organization, or the grotesque appearance of their tortuous roots, or the delicious perfume of their flowers. They are distributed in abundance over all the earth. In Europe and the temperate parts of the world, they are principally found in meadows and pastures among grass; but in tropical regions they often constitute the chief beauty of the forest, occupying the forked branches of living trees, or the prostrate trunks of fallen timber, over which, in company with ferns and parasitical Aroidæ, they climb and trail in every direction, until they adorn the one with bright hues and rich odours foreign to their nature, and render the others more beautiful in death, than in the full vigour of their existence.

Order I. MONANDRIA.



Stamen I.

§ 1. *Anther terminal, erect. Pollen granular, cohering by an elastic thread.*

1855. *Disa*. Flowers ringent: helmet with a spur or bag at the base. Inner sepals united to the column. Lip without a spur.
1856. *Satyrion*. Flower ringent: five anterior sepals united at base. Lip behind, fornicate with two spurs or bags at the base. Anther resupinate. Stigma 2-lipped.
1857. *Platanthera*. Flower vaulted. Lip entire with a spur. Cells of the anther widely divided at their base by the broad interposed stigma. Glands of pollen masses naked. Lips of stigma absent.
1858. *Gymnadenia*. Cor. ringent. Lip spurred at the base beneath. Glands of the stalks of the pollen-mass naked, approximate.
1859. *Orchis*. Cor. ringent. Lip spurred on the underside at the base. Glands of the stalks of the pollen-mass (1-2) contained in one common little pouch.
1860. *Nigritella*. Ovary straight. Flower spreading. Lip posterior, entire, with a scrotiform spur. Glands of pollen-masses distinct, and enclosed in a single 2-celled pouch.
1861. *Habenaria*. Cor. ringent. Lip spurred on the upper side at the base beneath. Glands of the stalk of the pollen-mass naked, distinct, with the cells of the footstalks adnate or separated.
1862. *Bartholina*. Flower ringent: inner sepals united below with the lip. Lip spurred beneath at the base. Stalks of the pollen-masses long; cells united to the column: glands distinct, half covered by the exterior lobe.
1863. *Glossula*. Sepals conniving in a galea: the upper without a spur. Lip anterior, spurred, 3-parted, with an inflated spur. Pollen-masses 2, 2-parted, with 2 glands inclosed in distinct pouches.
1864. *Anacamptis*. The flower of *Orchis*, from which it differs in having the gland of the pollen-masses single, with inflexed edges, and enclosed in a pouch.
1865. *Aceras*. Flower ringent. Lip without a spur. Glands of the pollen-masses included in a common pouch.
1866. *Ophrys*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses inclosed in two distinct pouches.
1867. *Chamorchis*. Ovary reclinate at end. Flower galeate. Lip without a spur, undivided. Glands of the pollen-masses naked. Upper lip of stigma divided. Anther of *Orchis*.
1868. *Herminium*. Flower somewhat spreading. Lip without a spur. Glands of the pollen-masses naked, distinct.
1869. *Serapias*. Flower ringent. Lip without a spur. Column sharp-pointed. Pollen-masses attached to a single gland inclosed in one pouch.

§ 2. *Anther parallel with stigma. Pollen powdery.*

1870. *Goodyera*. Cor. ringent, with the 2 exterior or lateral segments of the perianth placed beneath the lip, which is gibbous at the base and undivided at the extremity. Column free. Pollen angular.
1871. *Diuris*. Flower irregular. Two outer linear sepals placed beneath the trifid lip: the inner clawed and spreading. Column with the lateral lobes petaloid. Pollen farinaceous.
1872. *Ponthicva*. Flower irregular. Lip behind, with the inner sepals inserted in the column. Pollen farinaceous.

1873. *Neottia*. Flowers connivent. Lip sessile, 2-lobed, with no calli. Anther terminal, sessile. Stigma 2-lipped pervers; the front lip thickened.

1874. *Spiranthes*. Spike spiral. Ovary oblique at the end. Sepals connivent. Lip clawed, parallel with columna, with 2 calli at the base, entire. Anther terminal stalked. Stigma flat, cuspidate, membranous, finally split.

1875. *Stenorhynchus*. Like the last; but the lip adheres to the columna by means of the margins of its lateral lobes: it has no callosities. Stigma corneous, always entire.

1876. *Listera*. Flowers connivent. Lip 2-lobed, sessile, with no calli. Anther intramarginal, half covered over by the hooded clinandrium. Stigma closed, nearly flat, with a strong transverse furrow.

§ 3. *Anther terminal, persistent. Pollen powdery.*

1877. *Arethusa*. Lip united at base with the columna, at the end hooded, in the inside crested. Sepals 5, united at base. Pollen angular.

1878. *Calopogon*. Lip at the back clawed, with a bearded inside. Sepals 5, distinct. Column separate. Pollen angular.

1879. *Pogonia*. Lip sessile, hooded, crested inside. Sepals 5, distinct, without glands. Pollen farinaceous.

1880. *Eppacris*. Lip ventricose below; the extremity either undivided or 3-lobed: the middle lobe the largest, connected as it were by a joint. Pollen farinaceous.

1881. *Caleana*. Lip unguiculate, placed at the back, with a peltate hollow lamina, having a perforation on the outside. Pollen farinaceous.

1882. *Coralorrhiza*. Lip produced behind, adnate with the spur or free. Column free. Masses of pollen 4, oblique, not parallel.

§ 4. *Anther terminal, opercular deciduous. Pollen waxy.*

1883. *Rodriguezia*. Perianth. 4-leaved ringent. Lip entire, unguiculate cornute at base; callous in the middle. Pollen-masses 2, with an elastic caudicula. Stigma with 2 horns.

1884. *Gomezia*. Like the last, but lip not cornute at base.

1885. *Cymbidium*. Lip not spurred, concave, jointed with the simple base of the columna. Sepals spreading, distinct. Pollen masses 2, 2-lobed behind.

1885. *Brassia*. Lip expanded, undivided. Sepals spreading, distinct. Column not winged. Pollen-masses 2, 2-lobed behind; fixed by the middle to a common process of the stigma.

1887. *Lissochilus*. Pollen-masses 2, obliquely 2-lobed. Lip saccate at base, sessile, undivided, convex at the base, united with the apterous toothless column. Inner sepals divaricating, petaloid; outer reflexed, calycine.

1888. *Geodorum*. Lip cucullate-ventricose, sometimes spurred at base, sessile, not jointed with the column. Sepals like the lip, 1-sided. Pollen-masses 2, lobed at back.

1889. *Catasetum*. Perianth. not inverted, generally globose. Lip saccate, concave, different from the sepals. Pollen-masses 2, 2-lobed behind, inserted on a large naked transverse caudicula, which finally separates with elasticity.

1890. *Trizeusis*. Perianth. 2-parted; upper segment 2-lobed; lower 3-parted, inflated. Lip parallel with column, with a recurved dilated limb. Stigma excavated. Anther 1-celled, fleshy. Pollen-masses 2, adhering to a fusiform caudicula.

1891. *Xylobium*. Perianth. spreading. Lip behind jointed, with an unguiform process of the column, 3-lobed, incumbent on columna. Outer lateral sepals united by their bases, with the process of column. Pollen-masses 2, furrowed on one side, seated on a broad caudicula.

1892. *Maxillaria*. Perianth. spreading. Lip in front 3-lobed, jointed with the unguiform process of the column. Lateral outer sepals united by their bases with the process of column. Pollen-masses 2, bipartite, united by their bases to a common gland.

1893. *Notylia*. Perianth. 4-leaved: upper sepals spreading. Lip divaricating entire. Columna acuminate. Pollen-masses 2, entire. Anther posterior, not terminal.

1894. *Pleurothallis*. Lip jointed with the simple or slightly lengthened base of column. The two anterior sepals united at base. Pollen-masses 2, not furrowed.

1895. *Oncidium*. Lip expanded, lobed, tubercled at base. Petals spreading, sometimes only 4. Column winged. Pollen-masses 2, 2-lobed behind, fixed by the middle to the common process of the stigma.

1896. *Cyrtopodium*. Sepals 5, distinct. Lip 3-lobed, connected with a joint with the unguiform process of the base of the apterous column. Pollen-masses 2, 2-lobed behind.

1897. *Calogyne*. Perianth. resupinate, spreading. Lip 3-lobed, cucullate, jointed with columna. Column winged. Anther lateral, 2-celled. Pollen-masses 2, 2-parted. Stigma funnel-shaped, 2-lipped.

1898. *Macradenia*. Lip sessile, cucullate, concave, undivided, acuminate. Sepals distinct, spreading. Column distinct, with the lobes of its end conniving. Pollen-masses 2, unfurrowed, seated on a long filiform caudicula.

1899. *Dendrobium*. Lip without a spur, jointed with the unguiform process of the column, to whose edges the anterior sepals adhere. Pollen-masses 4, parallel.

1900. *Anisopetalum*. Flowers erect. Sepals conniving. The two lateral exterior large, cohering at end: two inner very small subulate. Lip oblong, with 2 teeth near the base. Pollen-masses 4, without gland or caudicula.

1901. *Camaridium*. Perianth. resupinate, expanded. Sepals distinct. Lip distinct, sessile, cucullate, 3-lobed. Column round. Stigma arched. Pollen-masses 4, parallel, compressed, without a caudicula at the time of expansion.

1902. *Ornithidium*. Lip sessile, hooded, connate with the base of column. Sepals conniving. Pollen-masses 4, oblique, furrowed at base.

1903. *Isochilus*. Lip almost of the same shape as the distinct, connivent, sepals. Pollen-masses 4, parallel.

1904. *Pholidota*. Flowers resupinate. Sepals uniform; the three outer erect, keeled at back. Lip ventricose. Column dilated at end. Anther 2-celled. Pollen masses 4, each pair having a gland.

1905. *Broughtonia*. Column distinct, or at the very base united with the unguiculate lip, which is lengthened at the base into a tube, connate with the ovary. Pollen-masses 4, parallel, with a granular caudicula reflexed upon the masses.

1906. *Cattleya*. Sepals spreading. Lip sessile, cucullate, surrounding the half round column. Pollen-masses 4, with as many powdery reflexed caudiculae.

1907. *Epidendrum*. Column united with the claw of the lip, and forming a tube which sometimes runs down the ovary. Pollen-masses 4, with as many powdery reflexed caudiculae.

1908. *Polystachya*. Perianth. not inverted, cuneate, closed. Pollen-masses 4, placed on a simple naked caudicula with a gland.

1909. *Cryptarrhena*. Sepals 5, distinct, spreading. Lip not spurred, with a dilated flat lamina. Column distinct, not winged. Anther enclosed in the cucullate head of the column. Pollen-masses 4.

1910. *Ornithocephalus*. Flowers resupinate. Lip stalked. Sepals nearly equal; the two upper finally reflexed. Column short, with a very long beak. Pollen-masses 4, adhering to a very long glandular caudicula.

1911. *Bletia*. Lip sessile, cucullate; sometimes spurred at the base. Sepals 5, distinct. Column separate. Pollen-masses 8 or 4, 2-lobed.

1912. *Eria*. Perianthium woolly, conniving or expanded. Lip 3-lobed, jointed with an unguiform process of the column to whose sides the anterior sepals are united. Pollen-masses 8, cohering at the end by means of a powdery substance.

1913. *Octomeria*. Lip jointed with an unguiform process, to the edges of which the anterior sepals adhere. Pollen-masses 8. Perianthium quite smooth.

1914. *Brassavola*. Lip with a simple claw, undivided. Sepals distinct, spreading. Pollen-masses 8 or more.

1915. *Sarcanthus*. Lip fleshy, entire, calcarate; the spur furnished with various appendages in the interior. Sepals spreading equally. Pollen-masses 2, seated on an elastic caudica.
1916. *Vanda*. Lip saccate, continuous with the simple base of the apterous column, trifid, with the middle lobe fleshy. Sepals spreading, distinct. Pollen-masses 2, obliquely 2-lobed, attached to an elastic caudica.
1917. *Aerides*. Lip spurred or saccate, inserted at the end of the unguiform process, to whose edges the anterior sepals are united. Pollen-masses 2, two-lobed behind, fixed by a common process to the middle of the stigma.
1918. *Renanthera*. Like the last, but sepals very long and spreading, and lip only a little saccate at base.
1919. *Ionopsis*. Sepals connivent, the anterior placed under the labellum. Lip spurred at base. Pollen-masses 2.
1920. *Eulophia*. Sepals 5, distinct, uniform, ascending, spreading. Lip spurred at base, with a sessile crested lamina, 3-lobed. Pollen-masses 2, two-lobed, with a posterior lobe attached to an elastic caudica.
1921. *Angraecum*. Sepals conniving, galeate. Lip spurred 3-lobed, jointed with column. Pollen-masses 2. Stigma concave, transverse.
1922. *Aeranthus*. Lip spurred, membranous, entire, jointed with an unguiform process of the column, to which the two front sepals are adherent. Pollen-masses 2, hollow, perforated on one side, with no caudica, and two glands.
1923. *Calanthe*. Lip spurred, lobed, united with the columna. Perianth spreading. Pollen-masses 8.
1924. *Stelis*. Lip of the same form as the inner dwarf vaulted sepals. Three outer sepals united at base. Pollen-masses 2.
1925. *Malaxis*. Lip flat, expanded, regularly vertical. Column round. Pollen-masses 4, loose.
1926. *Prescotia*. Perianth spreading. Two upper sepals connate at base. Lip behind, erect, fleshy, cuculate, entire, embracing the very minute column. Pollen-masses 2, twin, granular, united by the end to a gland.
1927. *Microstylis*. Lip flat, sagittate, or deeply cordate. Column very small, round. Pollen-masses 4, loose.

MONANDRIA.

1855. <i>DISA</i> . <i>Sw.</i>	<i>DISA</i> .		<i>Orchideæ</i> .	<i>Sp. 6-37.</i>				
12789 <i>cornuta W.</i>	horned	* Δ el	1 1/2 jn.jl	Pa.B	C. G. H.	1805.	R s.p	
12790 <i>spatulata W.</i>	spoon-lipped	* Δ cu	1 jn.jl	Pa.pu	C. G. H.	1805.	R s.p	Journ.sc.4.t.5.f.3
12791 <i>prasinata B. Reg.</i>	green-flowered	* Δ cu	3/4 jn.jl	G.r	C. G. H.	1815.	R s.p	Bot. reg. 210
12792 <i>bracteata W.</i>	small-flowered	* Δ cu	3/4 jn.jl	G	C. G. H.	1818.	R s.p	Bot. reg. 324
12793 <i>grandiflora W.</i>	large-flowered	* Δ spl	1 jl.au	Sc	C. G. H.	1825.	R s.p	Bot. reg. 926
12794 <i>graminifolia Banks</i>	blue	* Δ spl	1 1/2 ...	B	C. G. H.	1825.	R s.p	Journ.sc.6.t.1.f.2
1856. <i>SATYRIUM</i> . <i>W.</i>	<i>SATYRIUM</i> .		<i>Orchideæ</i> .	<i>Sp. 3-19.</i>				
12795 <i>cucullatum W.</i>	cucullate	* Δ cu	3/4 jn.s	Pa.Y	C. G. H.	1787.	R s.p	Bot. reg. 416
12796 <i>carneum H. K.</i>	great-flowered	* Δ el	1 1/2 jn.s	Pk	C. G. H.	1787.	R s.p	Bot. mag. 1512
12797 <i>coriifolium W.</i>	leathery-leaved	* Δ or	1 o	Y	C. G. H.	1820.	R s.p	Bot. reg. 703
1857. <i>PLATAN'THERA</i> . <i>Rich.</i>	<i>PLATAN'THERA</i> .		<i>Orchideæ</i> .	<i>Sp. 3-11.</i>				
12798 <i>biflora Rich.</i>	Butterfly Orchis	* Δ pr	1 my.jn	W	Britain	woods.	R pl	Eng. bot. 22
12799 <i>dilatata</i>	dilated	* Δ pr	1 1/2 au	W	Canada	1823.	R s.p	Hook. ex. fl. 95
12800 <i>orbiculata</i>	round-leaved	* Δ cu	1 ap.my	G	Canada	1823.	R s.p	Hook. ex. fl. 145
1858. <i>GYMNADE'NIA</i> . <i>R. Br.</i>	<i>GYMNADE'NIA</i> .		<i>Orchideæ</i> .	<i>Sp. 3-6.</i>				
12801 <i>conopsea R. Br.</i>	fragrant	* Δ pr	1 jn.jl	Pu	Britain	me.pas.	R hl	Eng. bot. 10
12802 <i>viridis Rich.</i>	Frog Orchis	* Δ pr	3/4 jn.jl	G	Britain	me.pas.	R lp	Eng. bot. 94
12803 <i>albida Rich.</i>	small-white	* Δ pr	3/4 jn.jl	W	Britain	sun.hi.	R lp	Eng. bot. 505
1859. <i>OR'CHIS</i> . <i>L.</i>	<i>ORCHIS</i> .		<i>Orchideæ</i> .	<i>Sp. 19-84.</i>				
12804 <i>Mório W.</i>	meadow	* Δ or	3/4 my.jn	Pu	Britain	me.pas.	R lp	Eng. bot. 2059
12805 <i>longicómu P. S.</i>	flat-spurred	* Δ or	3/4 ap.my	Pu	Barbary	1815.	R lp	Bot. reg. 202
12806 <i>máscula W.</i>	early purple	* Δ or	1 ap.my	Pu	Britain	woods.	R lp	Eng. bot. 631



History, Use, Propagation, Culture,

1855. *Disa*. A name of unknown meaning, adopted by Linnaeus from Bergius. Beautiful Cape herbaceous plants, with flowers of various colors, either growing singly, or in long spikes. *Disa cornuta* produces a spike, often a foot or a foot and a half long. *D. grandiflora* has large, nearly solitary flowers, of a brilliant scarlet color. The species are cultivated without difficulty in a stove or in a greenhouse, if the roots are planted in light sandy peat, mixed with a very little loam, and not overwatered. The same treatment is suitable to the other tender tuberous or fibrous-rooted Orchideæ.

1856. *Satyrium*. The aphrodisiacal properties of Orchideous plants induced the ancients to give this name to almost all the species they knew; from *satyrus*, a satyr. The bag-like appendages of the lip have perhaps assisted in the application of the name. The species are mostly handsome plants, with yellow or pink flowers. Mr. Salisbury says, he preserved *Satyrium cucullatum* some years, by attending to planting the bulb in a pot, nearly full of broken tiles, mixed with pure sandy loam, and keeping it quite dry when not vegetating.

1928. *Liparis*. Perianth. spreading. Lip flat, expanded, entire, turned various ways. Column winged. Pollen-masses 4, with neither caudicula nor glands.

1929. *Calypto*. Lip ventricose, spurred beneath near the end. Sepals ascending, 1-sided. Column petaloid, dilated. Pollen-masses 4.

§ 5. *Pollen granular*. Seeds not arillate.

1930. *Vanilla*. Flower jointed with ovary, and deciduous. Lip united at base with columna. Capsule fleshy.

Order 2. DIANDRIA.



Stamens 2.

1931. *Cypripedium*. Lip ventricose, inflated. Column terminated by a petaloid lobe dividing the anthers. Two anterior sepals usually united.

1932. *Stytidium*. Cal. 2-lipped. Cor. irregular, 5-fid; the fifth segment dissimilar. Column reclinate, with a double bend. Anthers with 2 spreading lobes. Caps. 2-celled.

1933. *Gunnera*. Cal. 2-toothed, superior. Cor. O. Style 2-parted. Drupe 1-seeded, crowned by the teeth of the calyx.

Order 3. HEXANDRIA.



Stamens 6.

1934. *Aristolochia*. Cal. O. Cor. 1-petalous, ligulate, ventricose at base. Caps. 6-celled, many-seeded, inferior.

MONANDRIA.

- 12788 Helmet blunt : spur conical deflexed, Inner sepals 2-toothed, Lip obovate velvety flat, Spike lax
- 12790 Helmet erect acute, Lip stalked dilated at end trifid, Stem few-flowered, Leaves linear
- 12791 Helmet blunt : spur obl. keeled convex at back, Lip linear acutish, Spike lax, Bractes shorter than fls.
- 12792 Helmet blunt : spur obl. Lip linear broadest at end, Spike cylindrical, Bractes erect longer than flowers
- 12793 Helmet acute erect : spur conical nodding, Lip linear blunt, Stem about 2-f.
- 12794 Leaves filiform shorter than 3-flowered scape, Spur blunt ascending

- 12795 Radical leaves twin cordate roundish concave : cauline remote cucullate bluntish
- 12796 Radical leaves twin cordate roundish : cauline sheath-like close, Spike compact, Sepals keeled outside
- 12797 Leaves ovate acuminate somew. reflexed sheathing coriaceous crenated at edge, Fls. and helmet cernuous
- 12798 Horn filiform twice as long as ovary, Lip linear entire, Rad. leaves twin oblong narrowed at base
- 12799 Lip lanceolate obtuse dilated at base, Spur the length of lip a little shorter than the ovary, Stem leafy
- 12800 Lip linear lanceolate, Three upper sepals erect conniving : lateral reflexed, Leaves 2 orbicular

- 12801 Bulbs palmate, Lip trifid entire, Spur setaceous twice as long as ovary
 - 12802 Horn short double, Lip linear 3-toothed : lateral teeth acute ; middle very short
 - 12803 Horn blunt 3 times shorter than ovary, Lip 3-parted : segments acute ; middle one largest
- [ovary
- 12804 Lip 3-lob. : lobes cren. obt. midd. one emargin. Seg. of perianth ascend. obt. Spur conic. ascend. shorter than
 - 12805 Lip 3-lobed : lateral reflexed toothletted ; middle shorter than blunt, Spur long comp. truncate ascending
 - 12806 Lip 3-lob. crenul. obt. : the midd. lobe cleft, Seg. of the perianth cleft ; exterior one reflex. Spur lin. ascend. compressed at the extremity rather longer than the ovary



and Miscellaneous Particulars.

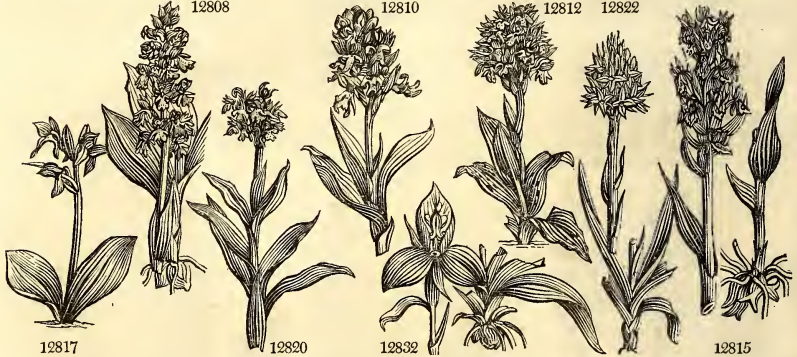
1857. *Platanthera*. So named from πλατυς, broad, and ανθηρα, an anther, on account of the width of that organ, which is as broad or broader than the base of the labellum. Curious wood plants with greenish flowers.

Platanthera bifolia is one of our indigenous plants, which may be cultivated without any difficulty, if planted in pure loam from a lime-stone bottom. It succeeds in a pot, if filled half full of broken tiles ; and when in the open ground, the border should be well drained, at least six inches in depth. No plant bears forcing better, or exhales a more delightful perfume. This species is never observed but in a lime-stone soil, and is exceedingly plentiful near Buxton.

1858. *Gymnadenia*. From γυμνος, naked, and αδην, a gland ; because it differs from *Orchis* in not having the glands enclosed in a pouch, but altogether uncovered. The principal species of the genus is the *Orchis conopsea* of old botanists.

1859. *Orchis*. The Greek name of the plant. In Arabia, according to Forskahl, it is called *sahhleeb*, from

12807 ustuláta <i>W.</i>	dwarf	* Δ or	$\frac{1}{3}$ my.jn	Pu	England	dr.pa.	R	l.p	Eng. bot. 18
12808 fúscá <i>W.</i>	brown	* Δ or	$\frac{1}{3}$ my.jn	Br.P	England	ch.hil.	R	l.p	Eng. bot. 16
12809 tephrosan'thos <i>Desf.</i>	fine-lipped	* Δ or	$\frac{1}{3}$ my.jn	Pa.pu	Britain	ch.hil.	R	l.p	
12810 militáris <i>W.</i>	military	* Δ or	1 my.jn	Pu	England	ch.so.	R	h.l	Eng. bot. 1873
12811 unduláta <i>Bivona</i>	wavy-leaved	* Δ or	1 d	Pa.pu	Sicily	1818.	R	l.p	Bot. reg. 375
12812 acumináta <i>W.</i>	pointed-flower.	* Δ or	1 ap.my	Pa.pu	Barbary	1815.	R	l.p	Bot. mag. 1932
12813 globósa <i>W.</i>	round-spiked	* Δ or	$\frac{1}{3}$ jn.jl	Pa.pu	Austria	1792.	R	l.p	Jac. aust. 3.t.265
12814 hircína <i>W.</i>	Lizard	* Δ or	$\frac{1}{3}$ jn.jl	Pu	England	ch.wo.	R	l.p	Eng. bot. 34
12815 latifólia <i>W.</i>	marsh	* Δ or	$\frac{1}{3}$ my.jn	Pk	Britain	m.me.	R	l.p	Eng. bot. 2308
12816 maculáta <i>W.</i>	spotted-palmate	* Δ or	$\frac{1}{3}$ jn.jl	Pf	Britain	woods.	R	h.l	Eng. bot. 632
12817 spectábilis <i>W.</i>	showy	* Δ or	$\frac{1}{3}$ jn.jl	Pk	N. Amer.	1801.	R	l.p	Bot. cab. 78
12818 papilionácea <i>W.</i>	papilionaceous	* Δ or	$\frac{1}{3}$ jn.jl	Pa.pu	S. Europe	1788.	R	l.p	
12819 longibractéata <i>Biv.</i>	Sicilian	* Δ or	$\frac{1}{3}$ d	Pu	Sicily	1818.	R	l.p	Bot. reg. 357
12820 variegáta <i>All.</i>	variegated	* Δ or	$\frac{1}{3}$ ap.my	Pa.pu	S. Europe	1818.	R	l.p	Bot. reg. 367
12821 sulphúrea <i>Schrad.</i>	sulphur-colored	* Δ or	1 my.jn	Y	Portugal	1820.	R	l.p	Bot. mag. 2569
1860.	NIGRITEL'LA.				<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12822 angustifólia <i>Rich.</i>	dark-flowered	* Δ cu	$\frac{1}{3}$ jn.jl	Br.P	Austria	1759.	R	l.p	Flo. dan. t. 998
1861.	HABENARIA.				<i>Orchideæ.</i>	<i>Sp. 9—17.</i>			
12823 bractéata <i>R. Br.</i>	long-bracted	* Δ cu	1 my.jn	G	N. Amer.	1805.	R	l.p	Sweet fl. gar. 62
12824 hyperbórea <i>R. Br.</i>	northern	* Δ cu	$\frac{1}{3}$ jn.jl	G	Iceland	1805.	R	l.p	
12825 herbiola <i>R. Br.</i>	American	* Δ cu	1 jn.jl	G	N. Amer.	1789.	R	p.l	
12826 fimbriáta <i>R. Br.</i>	purple-fringed	* Δ el	$\frac{1}{3}$ jn.jl	Pu	Canada	1789.	R	p.l	Bot. cab. 552
12827 cristáta <i>R. Br.</i>	yellow-crested	* Δ el	$\frac{1}{3}$ s	Y	N. Amer.	1806.	R	p.l	
12828 ciliáris <i>R. Br.</i>	yellow-fringed	* Δ el	1 jn.jl	Y	N. Amer.	1796.	R	p.l	Bot. mag. 1668
12829 lácera <i>Mich.</i>	torn	* Δ pr	$\frac{1}{3}$ jn.jl	Pa.Y	N. Amer.	1812.	R	p.l	Bot. cab. 229
12830 blephariglóttis <i>Hook.</i>	white-fringed	* Δ pr	1 my.jn	W	Canada	1820.	R	s.p	Hook. ex. fl. 87
12831 tridentáta <i>Hook.</i>	three-toothed	* Δ pr	$\frac{1}{3}$ my.jn	W	Canada	1820.	R	s.p	Hook. ex. fl. 81
1862.	BARTHOLIN'A.				<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12832 pectináta <i>R. Br.</i>	pectinated	* Δ cu	$\frac{1}{3}$ o	W	C. G. H.	1787.	R	l.p	Journ.sc.4.t.8.f.2
1863.	GLOSS'ULA.				<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12833 tentaculáta <i>Lindl.</i>	feeler-flowered	* Δ cu	$\frac{1}{3}$ d	G	China	1824.	R	l.p	Bot. reg. 862
1864.	ANACAMP'TIS.				<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12834 pyramidális <i>Rich.</i>	pyramidal	* Δ or	$\frac{1}{3}$ jn.jl	R	Britain	dr.pa.	R	h.l	Eng. bot. 110
1865.	A'CERAS.				<i>Orchideæ.</i>	<i>Sp. 1—3.</i>			
12835 atrophóphora <i>R. Br.</i>	Green Man	* Δ cu	1 jn	G	England	ch.pa.	R	l.p	Eng. bot. 29
1866.	OPHRY'S.				<i>Orchideæ.</i>	<i>Sp. 6—14.</i>			
12836 apifera <i>W.</i>	Bee	* Δ el	$\frac{1}{3}$ jn.jl	Pu	England	ch.pa.	R	h.l	Eng. bot. 383
12837 tenthredinifera <i>W.</i>	Saw-fly	* Δ el	$\frac{1}{3}$ ap.my	Y.B	Barbary	1815.	R	s.l	Bot. reg. 205
12838 aranifera <i>W.</i>	Spider	* Δ el	$\frac{1}{3}$ ap.my	G	England	ch.so.	R	s.l	Eng. bot. 65



History, Use, Propagation, Culture,

whence doubtless our word *salep* has been obtained. This is a curious and beautiful genus, but rather difficult of culture. Few of the species produce seeds, but are propagated by their bulbs or tubers, which, in most of the species, are of a peculiar structure and economy. An Orchis being taken out of the ground is found with two solid masses, ovate or fasciculated at the base of the stem, above which proceed the thick fleshy fibres which nourish the plant. One of these bulbs or tubers is destined to be the successor of the other, and is plump and vigorous, whilst the other or decaying one is always wrinkled and withered. From this withered one has proceeded the existing stem, and the plump one is an offset, from the centre of which the stem of the succeeding year is destined to proceed. By this means, the actual situation of the plant is changed about half an inch every year; and as the offset is always produced from the side opposite to the withered bulb, the plant travels always in one direction at that rate, and will in a dozen years have marched six inches from the place where it formerly stood.

In the garden, the Orchis can hardly be said to be propagated; the species are generally taken up from their native habitations with balls, and transferred to a shady border, where they remain for a year or two, but seldom increase. Those which grow in the open fields are generally found in calcareous soil, and those in bogs or woods thrive best in peat, or peat and loam mixed. The culture of this genus, however, has been very little attended to. According to Sweet, the best time to transplant the British Orchideæ, is when they are in a growing state.

The Orchis affords the preparation known as Salep, imported from Turkey, and other parts of the Levant; and which has also been made in this country from *O. mascula*, and other species. The root is washed, the brown skin rubbed off, and then dried in an oven and ground into powder. This powder, as an article of diet, is accounted extremely nutritious, containing a great quantity of farinaceous matter in a small bulk. *O. mascula* is very abundant in the meadows of Gloucestershire, and Salep has been made from its bulbs, equal to that imported. (*Encyc. of Agr. 5527.*)

- 12807 Lip 3-part. : seg. lin. dotted scabr. ; midd. 2-parted, Sepals erect ac. Spur uncin. thrice as short as ovary
 12808 Lip 3-part. dott. scabr. : later seg. obl. ; midd. larg 2-lob. cren. with a point betw. Spur straightish thrice as short as ovary, Bractes 4 times as short as ovary
 12809 Lip 4-parted very narrow : segm. filif. ; middle longer with a tooth between, Spike conic. Bractes minute
 12810 Lip 3-parted very narrow : seg. lin. ; midd. 2-lob. blunt with a point between, Spur straight twice as short as ovary, Bractes obsolete
 12811 Bulbs ovate, Stem leafy, Lip 3-parted scabr. : lat. seg. very narr. : midd. very long bifid with an appendage, Leaves wavy spotted
 12812 Lip 3-lobed dotted : middle broadest with a tooth between, Spur compressed, Outer sep. subul. Spike dense
 12813 Lip 3-part. : midd. seg. emarg. Sep. mucron. at end, Spur twice as short as ovar. Spike dense ov. Lvs. lanc.
 12814 Lip 3-parted : lat. seg. lin. sub. : middle long bifid thrice as long as ovary, Spur very short conical double
 12815 Lip slightly 3-lobed : sides reflex. Three inn. segm. of perianth conniv. Spur cylind. shorter than germen, Bract. longer than the flowers
 12816 Lip plane 3-lobed crenate : 3 inn. segm. of perianth conniv. ; lat. ones patent, Spur cylind. shorter than the germen, Bract. as long as the germen
 12817 Lip obov. undiv. cren. ret. Sep. straight : lat. long. Spur clav. short. than ovary, Bract. longer than fl. [ovary
 12818 Lip obov. undiv. tooth. emarg. Sep. nerv. conniv. Spur subul. short. than ovar. Bract. membr. col. as long as
 12819 Bulbs untrifid, Sepals conniving, Lip trifid : middle segment projecting 2-lobed, Bractes longer than fl.
 12820 Lip trifid dotted : segments ovate serrulate ; middle broadest emarginate, Spike ovate compact
 12821 Scape naked, Lip slightly 3-lobed at end, Spur ascending, Bractes as long as ovary

12822 The only species

- 12823 Spur short double, Lip linear retuse 3-toothed : lateral blunt ; middle obsol. Bractes twice as long as fl.
 12824 Spur cylindrical shorter than ovary, Lip entire linear oblong [than flower
 12825 Spur filif. shorter than ovary, Lip obl. blunt toothed on each side at base, Palate 1-toothed, Bractes longer
 12826 Spur filiform longer than ovary, Lip 3-parted with cuneiform fringed segments
 12827 Spur filiform shorter than ovary, Lip lanceolate pinnately fringed, Inner sepals toothed cut
 12828 Spur filiform longer than ovary, Lip lanceolate pinnately fringed, Inner sepals fringed cut
 12829 Lip long 3-parted : segm. somewhat digitate filiform, Spur length of ovary, Spike obl. Flowers alternate
 12830 Roots fasciated, Lip lanc. ciliated the length of upper sepals, Spur very long a little shorter than ovary
 12831 Scape conniving, Lip nearly equal broad ovate bluntly 3-toothed, Spur filiform curved longer than ovary

12832 The only species

12833 The only species

[spread. Spur filif.

- 12834 Lip 3-cleft : lobes eq. ent. with 2 longitud. append. on upp. side near base, Seg. of perin. lanc. 2 outer ones

12835 Lip the length of ovary

- 12836 Lip 3-fid : middle lobe largest $\frac{1}{2}$ -trifid ; middle segm. longest subulate deflexed
 12837 Lip 2-lobed villous obovate appendaged, Sepals spreading : three outer oblong blunt ; inner very short
 12838 Lip 3-lobed : lateral short blunt ; middle retuse



and Miscellaneous Particulars.

Orchis fusca and *militaris*, according to Salisbury, succeed best in chalky soil, free from all manure whatever ; but they will endure more moisture than would be supposed ; for he found them in a very wet part of the meadow below the terrace, at Mill Hill, where they had, no doubt, been planted by Mr. Peter Collinson. *Gymnadenia conopsea* affords another singular instance of this sort, which is found growing wild on the driest limestone, mixed with *Anacamptis pyramidalis*, and in bogs where one can hardly tread, mixed with *Epipactis palustris*.

1860. *Nigritella*. So named by M. Richard, from *niger*, black, in allusion to the color of the flowers.
 1861. *Habenaria*. From *habena*, a thong or rein, on account of the long spur of the flower, which resembles something of that sort. Most of the species have white flowers, and natives of America. Some have bright yellow flowers, others purple ones.
 1862. *Bartholina*. Named in honor of Thomas Bartholini, a Danish physician, who flourished at the end of the seventeenth century. A small Cape plant, with a beautifully fringed white flower.
 1863. *Glossula*. So called by Mr. Lindley, from *γλωσσα*, a tongue, in reference to the tongue-like segments of the labellum. An obscure Chinese plant, with pale green minute flowers.
 1864. *Anacamptis*. From *ανακαμπτιν*, to bend back, in allusion, it is presumed, to the reflexed edges of the appendage of the pollen-masses. In all respects similar to *Orchis* in habit. It is the *Orchis pyramidalis* of Linnaeus.
 1865. *Aceras*. From *α*, without, and *κερας*, a horn, in allusion to the absence of the spur from the labellum, by which character it is chiefly distinguished from *Orchis*. *Aceras anthropophora* is difficult to cultivate. It can only be propagated by seeds, which thrive best in a mixture of sand, loam, and chalk.
 1866. *Ophrys*. From the Greek word *οφρυς*, which signifies an eye-lash, to which the delicate fringe of the inner sepals may be very well compared. *O. apifera* is a singularly beautiful plant, not uncommon on calcareous soils, near woods, and in open meadows. It ripens seeds plentifully, as will all the species, if care be taken, as

12839	<i>muscifera</i> H. K.	Fly	✳ Δ el	my.jn Pu	England	ch.pa.	R h.l	Eng. bot. 64
12840	<i>aráchnites</i> W.	villous	✳ Δ el	my.jn Br	Europe	...	R h.l	Bot. mag. 2516
12841	<i>lútea</i> W.	yellow	✳ Δ el	ap.my Y	Spain	1818.	R h.l	Hook. ex. fl. 10
1867.	CHAMORCHIS. <i>Rich.</i>	CHAMORCHIS.		<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12842	<i>alpina</i> <i>Rich.</i>	alpine	✳ Δ pr	ap.my	Switzerl.	1824.	R s.p	
1868.	HERMINIUM. <i>R. Br.</i>	HERMINIUM.		<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12843	<i>Monórchis</i> <i>H. Br.</i>	musk	✳ Δ cu*	jn.jl G	England	ch.ba.	R l.p	Eng. bot. 71
1869.	SERA'PIAS. <i>R. Br.</i>	SERAPIAS.		<i>Orchideæ.</i>	<i>Sp. 2-4.</i>			
12844	<i>Lingua</i> <i>W.</i>	tongue-lipped	✳ Δ cu	1 my.jn Br	S. Europe	1786.	R l.p	Bot. cab. 655
12845	<i>cordigera</i> <i>W.</i>	heart-lipped	✳ Δ cu	1 jl.au Br	S. Europe	1806.	R l.p	Bot. rep. 475
1870.	GOODYERA. <i>H. K.</i>	GOODYERA.		<i>Orchideæ.</i>	<i>Sp. 5-9.</i>			
12846	<i>répens</i> <i>H. K.</i>	creeping	✳ Δ pr	jl.au W	Scotland	al.wo.	D l.p	Eng. bot. 289
12847	<i>pubescens</i> <i>H. K.</i>	downy	✳ Δ pr	jl W	N. Amer.	1802.	D l.p	Lind. coll. 25
12848	<i>discolor</i> <i>B. reg.</i>	purple-leaved	✳ Δ pr	1 n.d W	S. Amer.	1815.	D l.p	Bot. reg. 271
12849	<i>prócera</i> <i>Hook.</i>	Nepal	✳ Δ pr	2 jn.jl W	Nepal	1821.	D l.p	Hook. ex. fl. 39
12850	<i>tesselláta</i> <i>Lodd.</i>	tessellated	✳ Δ pr	jn.jl W	N. Amer.	1821.	D l.p	Bot. cab. 952
1871.	DIURIS. <i>Sw.</i>	DIURIS.		<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12851	<i>áurea</i> <i>Sw.</i>	golden-flowered	✳ Δ el	1 1/2 ... Y	N. S. W.	1810.	R l.p	Exot. bot. 1. t. 9
1872.	PONTHIEVA. <i>R. Br.</i>	PONTHIEVA.		<i>Orchideæ.</i>	<i>Sp. 2.</i>			
12852	<i>glandulósa</i> <i>R. Br.</i>	glandular	✳ Δ cu	1 ja.mr G	W. Indies	1800.	D l.p	Bot. mag. 842
12853	<i>petioláta</i> <i>Lindl.</i>	stalked	✳ Δ cu	1 au Br	S. Vincent	1822.	D l.p	Bot. reg. 760
1873.	NEOT'IA. <i>L.</i>	NEOTIA.		<i>Orchideæ.</i>	<i>Sp. 1.</i>			
12854	<i>Nidus avis</i> <i>W.</i>	bird's-nest	✳ Δ cu	1 my Br	Britain	ch.wo.	R l.p	Eng. bot. 48
1874.	SPIRANTHES. <i>Rich.</i>	SPIRANTHES.		<i>Orchideæ.</i>	<i>Sp. 6-13.</i>			
12855	<i>picta</i> <i>Lindl.</i>	Lemon-scented	✳ Δ pr	2 ap.jn W	Trinidad	1805.	D s.p	Bot. mag. 1562
12856	<i>eláta</i> <i>Lindl.</i>	tall	✳ Δ pr	2 ap.jn W	W. Indies	1790.	D s.p	Bot. mag. 2026
12857	<i>pubica</i> <i>Lindl.</i>	modest	✳ Δ pr	1/2 n.d Pk	China	1819.	D s.p	Lindl. coll. 30
12858	<i>bicolor</i> <i>Lindl.</i>	two-colored	✳ Δ pr	1 ja.f W	Trinidad	1823.	D s.p	Bot. reg. 794
12859	<i>cérnea</i> <i>Rich.</i>	nodding-flower.	✳ Δ pr	1 jl W	N. Amer.	1796.	D l.p	Bot. mag. 1568
12860	<i>restivális</i> <i>Rich.</i>	Ladies-traces	✳ Δ pr	3/4 au.s W	Britain	me.pa.	D l.p	Eng. bot. 541
1875.	STENORHYNCHUS. <i>Rich.</i>	STENORHYNCHUS.		<i>Orchideæ.</i>	<i>Sp. 2-7.</i>			
12861	<i>speciósus</i> <i>Rich.</i>	showy	✳ Δ el	1 ap.jn Sc	W. Indies	1790.	D s.p	Bot. mag. 1374
12862	<i>orchióides</i> <i>Rich.</i>	frosted-flower'd	✳ Δ el	1 1/2 my F	Jamaica	1806.	D s.p	Bot. mag. 1036
1876.	LISTERA. <i>R. Br.</i>	TWAY-BLADE.		<i>Orchideæ.</i>	<i>Sp. 2.</i>			
12863	<i>ováta</i> <i>H. K.</i>	common	✳ Δ cu	1 my.jn G	Britain	woods.	R l.p	Eng. bot. 1548
12864	<i>cordáta</i> <i>H. K.</i>	heart-leaved	✳ Δ cu	1/2 jn.jl G	Britain	moi.h.	R l.p	Eng. bot. 358
1877.	ARETHUSA. <i>L.</i>	ARETHUSA.		<i>Orchideæ.</i>	<i>Sp. 1-4.</i>			
12865	<i>bulbósa</i> <i>H. K.</i>	bulbous	✳ Δ el	3/4 my.jn Pk	N. Amer.	...	R l.p	Bot. mag. 2204



History, Use, Propagation, Culture,

Sweet directs, to "rub the pollen on the stigma." The seeds must be sown as soon as ripe, and the plants transplanted to where they are finally to remain, when of a small size. Several species of this genus, and of *Orchis*, were successfully cultivated by Collinson, in his botanic garden at Mill-Hill. His method was to place them in a soil and situation as natural to them as possible, and to suffer the grass and herbage to grow round them. *O. aranifera*, with a little attention and management, will grow and flower freely in pots. Curtis found the following method successful: "take up the roots carefully when in flower; bare them no more than is necessary to remove the roots of the other plants; fill a large sized garden-pot with three parts choice loam moderately stiff, and one part chalk, mixed well together, and passed through a sieve somewhat finer than a common cinder sieve; in this mixture place your roots at about the depth of two inches, and three inches apart; water them occasionally during summer, if the weather prove dry; at the approach of winter place the pot in a frame under a glass, to keep it from wet and frost, which combined, destroy the beauty of the foliage, if not the plant itself; in the autumn, before any of the others make their appearance, this species emerges." (*Curtis, Fl. Lond. n. 68.*)

Salisbury says, that *Ophrys muscifera*, and most of its congeners, are very easily cultivated; but require the purest loam from a chalky bottom, and the border to be most effectually drained; for any permanent wet in summer makes them push too soon. On the hillocks and declivities where they grow wild, the slight showers are absorbed by the surrounding turf or long grass, and the heavy rains we usually have after midsummer-day run off quickly.

1867. *Chamorchis*. From *χαμαί*, dwarf, and *Orchis*. A pretty little alpine plant, exceedingly difficult to cultivate. Roots have been brought in damp moss from Switzerland, but they probably have perished ere now.

1868. *Herminium*. A name which is not explained by its author. It is the *Ophrys Monorchis* of old botanists.

1869. *Serapias* is the name of an Egyptian divinity, whose temples were notorious scenes of profligacy. In this sense, with reference to the uses of the plant, as also in *Satyrium*, the word seems to have been applied by Pliny. Rare herbaceous plants of the south of Europe, but cultivated in a frame.

1870. *Goodyera*. So called after Mr. John Goodyer, an obscure British botanist. The species grow freely in sandy peat, and, unlike most of the *Orchideæ*, may be increased by dividing the roots.

- 12839 Lip 3-fid : middle lobe large 2-lobed, Anther blunt
 12840 Stem leafy, Lip vill. 3-lobed : midd. lobe obov. shortly 3-lobed at end, Inner sepals linear-lanc. very short
 12841 Stem leafy, Lip downy obov. 3-lobed at end : lobes nearly equal, Inner sepals lanc. twice as short as outer
 12842 Leaves linear setaceous, Scape naked
 12843 The radical leaves lanceolate twin
 12844 Lip 3-parted : middle lobe oblong lanceolate acute smoothish hanging down
 12845 Lip 3-parted : middle lobe ovate acuminate hanging down with a hairy disk
 12846 Radical leaves ovate, Lip and petals lanceolate
 12847 Radical leaves ovate, Lip ovate acuminate, Sepals ovate
 12848 Leaves fleshy chocolate-colored ovate without nerves
 12849 Stem leafy, Leaves ovate-lanceolate stalked, Lip rounded glandular inside, Petals broad ovate
 12850 A smooth variety of *G. pubescens*
 12851 Leaves linear channelled shorter than scape, Middle segm. of lab. with a double keel inside
 12852 Lip unguiculate acuminate, Inner sepals $\frac{1}{2}$ -ovate
 12853 Spike lax erect, Leaves stalked erect crisp smooth, Flowers discolored
 12854 The only species

- 12855 Rad. lvs. obl. lanc. Scape with bractes, Anterior sepals decurrent placed under the $\frac{1}{2}$ -inferior labellum
 12856 Lip obovate emarginate, Scape sheathed, Bractes shorter than flower, Leaves ovate stalked flat at edge
 12857 Leaves linear-lanc. Lip subsessile crenulate at end, Sepals ovarium and rachis quite smooth
 12858 Lvs. linear lanceolate 2-colored, Scape villous much longer than leaves, Fl. gibbous on its outside at base
 12859 Leaves lanceolate 3-nerved, Stem sheathed, Flowers recurved cernuous, Lip oblong entire acute
 12860 Rad. leaves oblong somewhat stalked, Spike twisted with the flowers on one side, Lip ovate

- 12861 Lip lanc. undivided, Scape bracteate, Bractes longer than flower, Leaves oblong wavy towards the end
 12862 Rad. leaves broad lanceolate, Spike erect, Lip saccate at base with the sepals, Lip acuminate

- 12863 Stem with only a pair of ov.-ellipt. opp. lvs. Col. of fructification having an appendage in which the anther
 12864 Stem with only 2 cordate opposite leaves, Col. without any appendage behind, Lip with 2 teeth at the base

- 12865 The only species, Flower solitary large lilac



and Miscellaneous Particulars.

1871. *Diuris*. From $\delta\iota\varsigma$, double, and $\upsilon\epsilon\gamma\alpha$, a tail, in allusion to the form of the sepals. Beautiful New Holland plants, which may be cultivated in the same way as *Disa*.

1872. *Ponthieva*. Named after De Ponthieu, who sent many specimens of West Indian plants to Sir J. Banks. The species may be cultivated in pots, well drained, and filled with sandy loam and peat. Water must be sparingly given when the plants are not in a growing state.

1873. *Neottia*. This word in Greek signifies bird's nest, and has been applied to the present plant on account of the interwoven fibres of its roots. No means of cultivating the only species has been yet discovered. It grows naturally in woods among decayed leaves, and is supposed to be parasitical.

1874. *Spiranthes*. From $\sigma\pi\rho\upsilon\alpha$, a screw, or any thing spirally twisted; on account of the disposition of the flowers on their spike. Delicate little herbaceous plants with fibrous roots, and generally white flowers. *S. estivalis* has the germs on the flower-stalks placed regularly one above another, somewhat resembling tresses of plaited hair; whence its name of Ladies' traces or tresses. This species grows more readily in the garden than most of its tribe.

According to Salisbury, no plant whatever is more easy to cultivate than this. At Chapel-Allerton it propagated itself every where, springing up from seeds in the neighbouring pots, whatever soil or plants happened to be in them; and they were once found germinating on a dead root of a Persian Cyclamen, in a pot, which, for want of draining, was full of *Jungfermannias*.

1875. *Stenorrhynchus*. A splendid genus of evergreen stove herbaceous plants, with brilliant red or yellow flowers. They have been named from $\sigma\tau\epsilon\nu\omicron\varsigma$, narrow, and $\rho\upsilon\chi\eta\varsigma$, a beak, on account of the long pointed stigma. *N. orchioides* is one of the most beautiful plants of this genus, introduced by E. J. A. Woodford, Esq. in 1806, from the Island of Barbadoes, where it grows wild in the most arid places among grass. It requires, nevertheless, moderate waterings here while the leaves are green.

1876. *Listera*. Dr. Martin Lister was a celebrated English physician and naturalist, who died in 1711. The species require a shady situation and a light sandy soil, with some peat intermixed. They will grow on a bank under the drip of trees, or in small pots. They are increased by dividing the roots.

1877. *Arethusa*. A poetical name. *Arethusa* was a nymph of Diana, who was transformed into a fountain. The species of this genus are all found in moist places. They are very impatient of cultivation. The best way to manage them, is to plant them in loose wet peaty soil, and to keep them in a frame well exposed to the sun.

1878. CALOPO'GON. <i>R. Br.</i> CALOPOGON.	<i>Orchideæ.</i>	<i>Sp. 1.</i>							
12866 pulchellus <i>H. K.</i> tuberous-rooted	✳ Δ | el	1 ½ | j, au	Pu	N. Amer.	1771.	R l p	Bot. mag.	116	
<i>Limodorum tuberosum</i> B. M.									
1879. POGO'NIA. <i>R. Br.</i> POGONIA.	<i>Orchideæ.</i>	<i>Sp. 3-4.</i>							
12867 cphiglossoides <i>B. reg.</i> Adder's-tongue	✳ Δ | el	1 | jn, jl	Pk	N. Amer.	1816.	R l p	Bot. reg.	148	
12868 divaricata <i>H. K.</i> Lily-leaved	✳ Δ pr	¾ | jn, jl	Pk	N. Amer.	1787.	D l p	Lam. ill. t. 729.	f. 3	
12869 péndula <i>Lindl.</i> pendulous	✳ Δ pr	¾ | au	Pk	N. Amer.	1824.	D l p	Bot. reg.	908	
1880. EPIPACTIS. <i>Sw.</i> EPIPACTIS.	<i>Orchideæ.</i>	<i>Sp. 5-9.</i>							
12870 latifolia <i>W.</i> broad-leaved	✳ Δ or	1 ½ | j, au	Pu	Britain	m. wo.	D l p	Eng. bot.	269	
12871 palústris <i>W.</i> marsh	✳ Δ or	¾ | j, au	Pu	Britain	mar.	D l p	Eng. bot.	270	
12872 pállens <i>W.</i> white	✳ Δ or	1 | jn	W	Britain	...	D l p	Eng. bot.	271	
12873 ensifolia <i>W.</i> narrow-leaved	✳ Δ or	1 ½ | jn	W	Britain	m. wo.	D l p	Eng. bot.	494	
12874 rúbra <i>W.</i> purple	✳ Δ or	1 ½ | jn, jl	Pu	Britain	m. wo.	D l p	Eng. bot.	437	
1881. CALEA'NA. <i>R. Br.</i> CALEANA.	<i>Orchideæ.</i>	<i>Sp. 1-2.</i>							
12875 májor <i>H. K.</i> smooth-lipped	✳ Δ | pr	1 ½ | ...	G	N. S. W.	1810.	D l p			
1882. CORALLORRHIZA. <i>H. K.</i> CORALLORHIZA.	<i>Orchideæ.</i>	<i>Sp. 1-4.</i>							
12876 innáta <i>H. K.</i> spurise	✳ Δ cu	¾ | jn, jl	G	Scotland	sc. wo.	D l p	Eng. bot.	1547	
1883. RODRIGUEZIA. <i>Fl. per.</i> RODRIGUEZIA.	<i>Orchideæ.</i>	<i>Sp. 1-2.</i>							
12877 secúnda <i>Kunth.</i> one-sided	✳ Δ | el	1 ½ | o	R	S. Amer.	1818.	D p. r. w	Hook. ex. fl.	129	
<i>Pleurothallis coccinea</i> Hooker									
1884. GOMEZA. <i>R. Br.</i> GOMEZA.	<i>Orchideæ.</i>	<i>Sp. 1.</i>							
12878 recúrra <i>B. M.</i> recurved	✳ Δ | el	¾ | my, jn	Y	Brazil	1814.	D p. r. w	Bot. mag.	1748	
1885. CYMBIDIUM. <i>Swz.</i> CYMBIDIUM.	<i>Orchideæ.</i>	<i>Sp. 7-11.</i>							
12879 tripterum <i>W.</i> triangul.-fruit.	✳ Δ | cu	½ | jn, jl	W	Jamaica	1790.	D p. r. w	Smith ic. pict.	14	
12880 aloifolium <i>W.</i> Aloe-leaved	✳ Δ | or	1 | my, jn	Br	E. Indies	1789.	D l p	Bot. mag.	387	
12881 ansifolium <i>W.</i> sword-leaved	✳ Δ | ft	2 ½ | jn, o	Br	China	1780.	D l p	Bot. mag.	1751	
12882 sinénsis <i>W.</i> Chinese	✳ Δ | ft	1 ½ | s. o	Br	China	1793.	D l p	Bot. mag.	888	
12883 lancifolium <i>Hook.</i> lance-leaved	✳ Δ | el	¾ | my	Y. R	E. Indies	1822.	D l p	Hook. ex. fl.	51	
12884 depéndens <i>Lodl.</i> hanging-down	✳ Δ | cu	¾ | jl	Y. G	China	1822.	D p. r. w	Bot. cab.	936	
12885 xiphiifolium <i>Lindl.</i> sword-leaved	✳ Δ | pr	¾ | my, au	G	China	1814.	D l p	Bot. reg.	529	
1886. BRAS'SIA. <i>R. Br.</i> BRASSIA.	<i>Orchideæ.</i>	<i>Sp. 2.</i>							
12886 maculáta <i>H. K.</i> spotted-flower.	✳ Δ | el	1 | jn, jl	Y. R	Jamaica	1806.	D p. r. w	Bot. mag.	1691	
12887 caudáta <i>Lindl.</i> long-tailed	✳ Δ | el	1 | jn, jl	G. Y. R	W. Indies	1823.	D p. r. w	Bot. reg.	832	
1887. LISSOCHYLUS. <i>R. Br.</i> LISSOCHYLUS.	<i>Orchideæ.</i>	<i>Sp. 1.</i>							
12888 speciosus <i>R. Br.</i> showy	✳ Δ | spl	2 | my, jn	Y	C. G. H.	1818.	D l p	Lindl. coll.	31	
1888. GEODORUM. <i>Jacks.</i> GEODORUM.	<i>Orchideæ.</i>	<i>Sp. 3-4.</i>							
12889 purpúreum <i>H. K.</i> purple	✳ Δ | el	1 | jn, au	Pu	E. Indies	1800.	D l p	Roxb. cor. 1. t. 40		
12890 citrinum <i>H. K.</i> Lemon-colored	✳ Δ | el	1 | o. d	Y	E. Indies	1800.	D l p	Bot. mag.	2195	
12891 dilatátum <i>H. K.</i> shovel-lipped	✳ Δ | el	1 | my, au	Pk	E. Indies	1800.	D l p	Bot. reg.	675	
1889. CATASETUM. <i>Rich.</i> CATASETUM.	<i>Orchideæ.</i>	<i>Sp. 5-7.</i>							
12892 tridentatum <i>Hook.</i> three-toothed	✳ Δ | gr	2 | jl, au	Y. Br	Trinidad	1822.	D p. r. w	Hook. ex. fl.	90	
12893 Claverin'gi <i>Lindl.</i> Capt. Clavering's	✳ Δ | gr	2 | jl, au	Y. Br	Brazil	1822.	D p. r. w	Bot. reg.	840	
12894 floribúndum <i>Hooker</i> many-flowered	✳ Δ gr	2 n	Y. Br	Trinidad	1824.	D p. r. w	Hook. ex. fl.	151	



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1878. *Calopogon*. From *καλος*, beautiful, and *πυργον*, a beard, in allusion to the beautiful fringe of the lip. An elegant plant, which was introduced accidentally, as Mr. Curtis informs us, by the laudable exertions of his gardener, who, in the spring of 1783, examining attentively the bog earth which had been brought over with some *Dionæas*, found several tooth-like knobby roots, which, upon being planted in heat, afforded this plant: on the shelf of a stove, or on a bark pit it thrives exceedingly; and seems merely to require a longer and hotter summer than our climate affords.

1879. *Pogonia*. A name with the same derivation as the last genus. The species also require the same treatment.

1880. *Epipactis*. A name given by the Greeks to a sort of Hellebore, and used by Swartz to distinguish a tribe of plants previously called Helleborine. Pretty herbaceous hardy plants. "Some of its species thrive in the borders in the common garden soil, and most of them will do well in pots, in a mixture of loam and peat; they require but little water when in a dormant state, and are increased by dividing the roots." (*Bot. Cult.* 365.)

1881. *Caleana*. Named after Mr. George Calea, a most indefatigable and acute botanical collector, who resided several years among the natives of New South Wales, where he made a valuable collection of plants. The name has been subsequently changed by Mr. Brown to *Caleya*: which as being too similar to *Calea*, a very different plant, we cannot prefer to the original designation. The species require the common treatment of the tribe, and are increased by division of the roots.

1882. *Corallorrhiza*. From *κοραλλιον*, coral, and *ριζα*, a root, on account of its branched roots, which much resemble coral. A plant supposed to be incapable of cultivation. It is a native of boggy places in the northern parts of the world. The three American species *C. verna*, *multiflora*, and *odontorrhiza*, are said to have been introduced in 1824, but we have not heard of their having been cultivated with any success.

12866 Leaves plaited long linear lanceolate. The only species

12867 Root fibrous, Leaf of the scape and bractea elliptical lanceolate, Outer sepals oblong-ovate

12868 Root subpalmate, Leaf and bractea of scape linear oblong, Outer sepals lanceolate linear

12869 Leaves ovate squamiform amplexic. Fls. subcernuous solitary, Middle lobe of lip obl. crisp, Stem angular

12870 Lvs. ov. amplexic. Lower bractes long. than fls. Fls. drooping, Lip entire acuminate shorter than petals

12871 Lvs. lanc. amplexic. Bractes short. than fl. Fls. slightly drooping, Lip cren. obt. rather long. than perianth

12872 Leaves ovate-lanceolate sessile, Bractes longer than the flower, Lip obtuse shorter than perianth

12873 Lvs. lanc. much acum. substich. Bract. very minute subul. Fls. erect, Lip obt. much short. than perianth

12874 Lvs. lanc. Bractes longer than ovary, Flowers erect, Lip acute with wavy elevated lines, Ovary smooth

12875 Leaf lanc. lin. flat, Scape with a single bract in the middle, Lip smooth narrowed and $\frac{1}{2}$ -ovate at each end

12876 Spur abbreviated adnate

12877 Spikes nodding 1-sided, Leaves lanceolate complicate

12878 Spikes nodding 1-sided, Leaves lanceolate flat

12879 Stemless, Leaves growing on a bulb : radical sheathing, Scares many-flowered, Ovary 3-winged

12880 Leaves radical broad-linear channelled fleshy retuse at end, Scares many-flowered pendulous

12881 Leaves radical ensiform nerved, Scape round few-flowered, Lip ovate somewhat recurved spotted

12882 Leaves radical ensiform nerved, Scape few-flowered, Flowers 1-sided, Sepals striated : 3 outer reflexed

12883 Leaves radical lanceolate nerved narrowed at base, Scape round few-fl. Lip obl. recurved at end spotted

12884 Bulbous, Leaves plaited, Racemes divaricating pendulous radical

12885 Leaves thickish lin.-subulate channelled nerved crenate as long as scape, Spike few-fl. Lip not spotted

12886 Sepals lanceolate spreading not longer than ovary

12887 Sepals linear lanceolate acuminate : the lower caudate very much longer than ovary

12888 The only species. A tall plant with long rigid linear lanceolate leaves on a bulbous base

12889 Scape longer than leaves, Raceme pendulous, Flowers alternate, Lip ovate acute painted

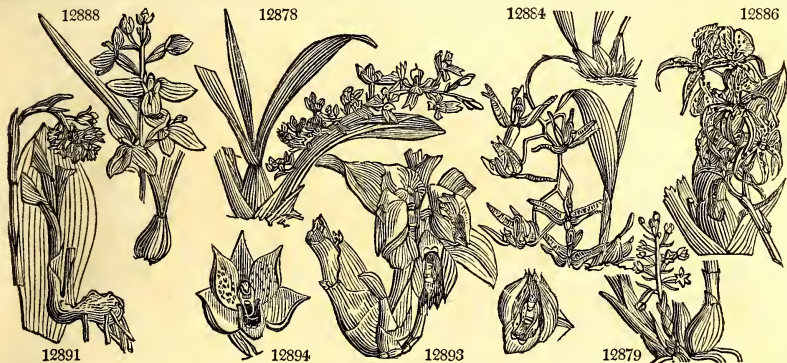
12890 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somewhat spurred at base blunt and entire at end

12891 Scape shorter than lvs. Spike pendulous, Fls. close, Lip somew. spurred at base dilated and crenul. at end

12892 Two inner sepals spotted, Lip galeate 3-toothed

12893 Spike shorter than leaves, Leaves galeate fleshy 3-toothed at end, Sepals puber. : inner spotted

12894 Spike short. than lvs. Lip gal. blunt. 3-tooth. Two inner sep. mott. with purple, others as well as col. green



and Miscellaneous Particulars.

1883. *Rodriguezia*. Named by the authors of the Flora Peruviana, after Emanuel Rodriguez, a Spanish physician, and, as it is said, of considerable botanical merit. A beautiful herbaceous plant, growing upon decayed wood. Its flowers are placed in cernuous racemes of a lively pink color.

1884. *Gomezia*. So called by Mr. Brown, in honor of Senor Gomez, a Spanish apothecary. Mr. Lindley thinks it not distinct from the last. A bulbous epiphyte, with drooping spikes of yellow flowers.

1885. *Cymbidium*. From $\kappa\upsilon\mu\beta\eta$, a little boat, in allusion to the form of the labellum. All the genuine species of *Cymbidium* are terrestrial, and rarely are found growing upon trees. In cultivation the species grow in loam, chips of wood, potsherds, and other rubbish, broken small, and put in well-drained pots. They are increased by dividing at the root.

1886. *Brassia*. Named after Mr. Brass, an intelligent gardener, who collected seeds and plants in Africa for the Kew Garden. The two species now known are among the most beautiful of the various tribes of Epidendrum. *Brassia maculata* has large pale yellow flowers, elegantly spotted with brown; *B. caudata* has similar flowers, with long tails to their lower segments.

1887. *Lissochilus*. From $\lambda\iota\sigma\sigma\epsilon\varsigma$, smooth, and $\chi\iota\lambda\omicron\varsigma$, a lip, in reference to the absence of callosity or crests from that part. An exceedingly rare and very noble plant, which grows freely in sandy loam with a little peat. The flowers grow in long spikes of a bright yellow color.

1888. *Geodorum*. From $\gamma\eta$, the earth, and $\delta\omicron\upsilon\epsilon\omicron\nu$, a gift, in reference to the beauty of the blossoms lying on the earth. Handsome plants, succeeding with the treatment of *Cymbidium*.

1889. *Catasetum*. Apparently a word of hybrid extraction, from $\kappa\alpha\tau\alpha$, and $\sigma\epsilon\tau\alpha$, a bristle, in allusion to the two long bristles or horns of the columnna, which constitute one of the most remarkable characters of the genus.

12895	Hookéri Lindl.	Hooker's crested	£ ☒ or	1½ n	Y.Br	Brazil	1818.	D p.r.w	Lind. coll. bot.
12896	crístatum Lindl.		£ ☒ cu	2 o.n	G	Brazil	1823.	D p.r.w	
1890.	TRIZEUXIS Lindl.	TRIZEUXIS.	£ ☒ cu						
12897	falcáta Lindl.	falcate	£ ☒ cu	½ f.mr	G	W. Indies	1820.	D p.r.w	Lindl. coll. 2
1891.	XYLOBIUM Lindl.	XYLOBIUM.	£ ☒ cu						
12898	squálens Lindl.	dingy-flower'd	£ ☒ cu	¾ my.jn	Y.Br	Brazil	1822.	D p.r.w	Bot. reg. 732
1892.	MAXILLARIA. Fl. per.	MAXILLARIA.	£ ☒ cu						
12899	Barringtoniæ Lindl.	large-flowered	£ ☒ cu	1½ jn.au	Y.g	W. Indies	1790.	D p.r.w	Hook. ex. fl. 119
12900	Harrisoniæ Lindl.	Mrs. Harrison's	£ ☒ spl	1½ s	Y.g	S. Amer.	...	D p.r.w	Bot. reg. 897
1893.	NOTYLIA Lindl.	NOTYLIA.	£ ☒ cu						
12901	punctáta Lindl.	dotted	£ ☒ cu	½ au.s	G	Trinidad	1822.	D p.r.w	Bot. reg. 759
	<i>Pleurothallis punctata</i> B. reg.								
	<i>Gomiza tenuiflora</i> Bot. cab.								
1894.	PLEUROTHALLIS R. Br.	PLEUROTHALLIS.	£ ☒ cu						
12902	racemiflora Lindl.	racemose	£ ☒ cu	1 ap	G	W. Indies	1823.	D p.r.w	Hook. ex. fl. 123
12903	ruscifolia H. K.	Butcher's-broom-iv.	£ ☒ cu	½ my.jn	G	W. Indies	1791.	D p.r.w	Jac. am. t.133.f.3
1895.	ONCIDIUM Sw.	ONCIDIUM.	£ ☒ or						
12904	altissimum W.	sharp-petaled	£ ☒ or	4 au.s	Y	W. Indies	1793.	D p.r.w	Jac. amer. t. 141
12905	carthaginense W.	Spread-eagle	£ ☒ or	4 my.jn	Oi	W. Indies	1791.	D p.r.w	Bot. mag. 777
12906	bifolium H. K.	two-leaved	£ ☒ or	¾ jl	Y	S. Amer.	1811	D p.r.w	Bot. mag. 1491
12907	triquetrum H. K.	triangular-ld.	£ ☒ or	¾ jl.au	Y	Jamaica	1793.	D p.r.w	
12908	liridum Lindl.	Mr. Griñin's	£ ☒ or	¾ f.mr	Oi	S. Amer.	1822.	D p.r.w	Bot. reg. 727
12909	barbatum Lindl.	bearded	£ ☒ or	1½ ap.my	Y	S. Amer.	1818.	D p.r.w	Lindl. coll.
12910	flexuosum B. M.	zigzag	£ ☒ el	1½ jn.jl	Y	Brazil	1818.	D p.r.w	Bot. mag. 2203
12911	pumilum Lindl.	dwarf	£ ☒ pr	1½ jn.jl	Oi	Brazil	1824.	D p.r.w	Bot. reg. 920
12912	Papilio Lindl.	Butterfly Plant	£ ☒ gr	1½ mr	Y.r	Trinidad	1823.	D p.r.w	Bot. reg. 910
1896.	CYRTOPODIUM R. Br.	CYRTOPODIUM.	£ ☒ cu						
12913	Andersonii H. K.	Anderson's	£ ☒ el	2 my.au	Y	W. Indies	1804.	D p.l	Bot. mag. 1800
12914	Woodfordii E. M.	Woodford's	£ ☒ el	2 o	Pk	S. Amer.	1814.	D p.l	Bot. mag. 1814
1897.	CELOGYNE Lindl.	CELOGYNE.	£ ☒ cu						
12915	punctulata Lindl.	dot-flowered	£ ☒ cl	¾ ...	Y	E. Indies	1822.	D p.r.w	
12916	nitida Lindl.	shining-leaved	£ ☒ el	1 ...	Y	E. Indies	1822.	D p.r.w	
12917	fimbriata Lindl.	fringed	£ ☒ pr	½ jl.o	Y.Br	China	1824.	D p.r.w	Bot. reg. 868
1898.	MACRADENIA R. Br.	MACRADENIA.	£ ☒ cu						
12918	lutescens R. Br.	yellowish	£ ☒ cu	½ d	Oi	Trinidad	1821.	D p.r.w	Bot. reg. 612
1899.	ANISOPETALUM Hooker.	ANISOPETALUM.	£ ☒ cu						
12919	Careyanum Hooker	Dr. Carey's	£ ☒ cu	¾ o	Br.P	Nepal	1823.	D p.r.w	Hook. ex. fl. 149
1900.	DENDROBIUM H. K.	DENDROBIUM.	£ ☒ spl						
12920	speciosum R. Br.	showy	£ ☒ spl	1 jn.au	Pu	N. S. W.	1801.	D p.l	Exot. bot. 1. t. 10
12921	linguiforme R. Br.	tongue-leaved	£ ☒ cu	½ ...	Pu	N. S. W.	1810.	D p.r.w	Exot. bot. 1. t.11
12922	cucullatum R. Br.	cucullate	£ ☒ el	2 mr	Pk	E. Indies	1815.	C p.l	Bot. mag. 2242
12923	Pierardi Roxb.	Pierard's	£ ☒ el	2 mr	Pk	E. Indies	1815.	C p.l	Hook. ex. fl. 9
12924	fimbriatum Hook.	fringed	£ ☒ spl	2 ap	Y	E. Indies	1823.	C p.l	Hook. ex. fl. 71
12925	crumenatum W.	sweet-scented	£ ☒ ft	2 ap.iay	W	Sumatra	1823.	C p.l	Ru. am.6.t.47.f.2



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Very fine epiphytes, with large bulbous roots, plaited leaves, and fine, often spotted, flowers of a greenish purple color. The bulbs contain a quantity of viscid juice, which is used, when fresh, in Brazil, for the purpose of sealing letters. The plants are there called *Cebolleta*.

1890. *Trizeuxis*. So called by Mr. Lindley without explanation. We suppose the name has been formed from $\tau\rho\iota\varsigma$, three, and $\zeta\upsilon\lambda\epsilon\iota\varsigma$, union, in allusion to the remarkable union of three segments into one, which takes place in this genus. A very singular epiphyte, which is with difficulty kept alive in the stove by being placed in finely pulverised decayed wood.

1891. *Xylobium*. From $\xi\lambda\omicron\varsigma$, wood, in allusion to the substance upon which it grows. A curious Brazilian bulbous epiphyte with plaited leaves. This is of easy cultivation.

1892. *Maxillaria*. So called by the authors of the Flora Peruviana, as they inform us, because the labellum when looked at sideways, resembles the *Maxilla* of some insects. All fine South American plants, with plaited leaves and showy flowers. They are cultivated like other epiphytes, and not with much difficulty.

1893. *Notylia*. So called, we presume, from $\nu\omicron\tau\omicron\varsigma$, the back, and $\tau\upsilon\lambda\omicron\varsigma$, a hump, in reference to a singular callosity at the back of the stigma, which Mr. Lindley, the author of the genus, considers very curious. An unostentatious epiphyte without bulbs, and with solitary leaves, out of the bosom of which grows a pendulous raceme.

1894. *Pleurothallis*. From $\pi\lambda\epsilon\upsilon\gamma\alpha$, a rib, and $\theta\alpha\lambda\lambda\omicron\varsigma$, to flower, in allusion to the one-sided disposition of the flowers. Singular little epiphytes with solitary leaves, no bulbs, and flowers of a green color. They grow rarely in decomposed wood.

12895 Spike length of leaves erect, Flowers globose, Sepals rounded
12896 Perianth. spreading, Lip opened out saccate crested

12897 The only species. Flowers very small in little heads upon a branched scape

12898 Bulbs conical truncate, Flowers close, Leaves lanceolate plaited about 3-nerved twice as long as scape

12899 Leaves about 3 oblong nerved seated on a bulb, Scape about 1-flowered sheathed

12900 Lvs. solitary lanc. plaited, Raceme 2-fl. Perianth. very large wavy spreading, Lobes of lip recurved crisp

12901 Spikes pendulous lax as long as the narrow oval nerved leaves

12902 Stem long 1-leaved, Scape erect longer than obl. emarginate leaf, Fls. racemose 1-sided

12903 Stem long 1-leaved, Leaf ovate-lanceolate, Flowers clustered in the bosom of the leaf

12904 Sepals 5 lanceolate longer than lip, Scape paniced

12905 Sepals 5 obovate unguiculate a little shorter than lip, Scape paniced

12906 Sepals 4 obov. wavy, Lip long. than sep. : midd. lobe dilated reniform $\frac{1}{2}$ -bifid, Scape racem. Bulbs 2-leaved

12907 Sepals 4 acute, Middle lobe of lip roundish undivided, Scape racemose, Leaves 3-cornered

12908 Leaves ellipt. acute, Scape upright branched, Sepals wavy retuse spreading nearly equal, Lip reniform

12909 Lvs. flat obl. lanc. Sepals 5 obovate undulate blunt, Lip transverse shorter than seg. bearded in the middle

12910 Lip 2-lobed spotted much longer than the sepals, Bulbs ovate comp. leafy at base and end, Scape paniced

12911 Lvs. rigid oval oblique, Panicle thyrsoid length of lvs. Sep. obov. Lip 3-lobed crested, Wings of col. ent.

12912 Lvs. solitary oval dotted spread. Scape jointed 2-edged few-fl. Upper sepals lin. very long, Col. 2-horned

12913 Lip narrow clawed : lateral lobes divaricating longer than the middle which is hollowed out

12914 Lip ventricose : lateral lobes shorter than middle which is crested and callous

12915 Bulbs fascicled, Lvs. lanc. atten. at base, Sepals lanc. finely dotted, Midd lobe of lip acute, Crest obsolete

12916 Bulbs and leaves coriaceous and shining

12917 Lvs. twin obl. lanc. spreading, Fls. terminal solitary, Inner sepals filiform, Lip fringed with two crests

12918 Bulbs 1-leaved : leafy at base, Leaves oblong 3-nerved, Spike erect shorter than leaves

12919 Leaves lanceolate keeled solitary on their bulb, Spike imbricated radical very little longer than the bulb

12920 Stems erect 2-3-leav. at end, Lvs. oval obl. shorter than many-fl. terminal raceme, Sepals narrow oblong

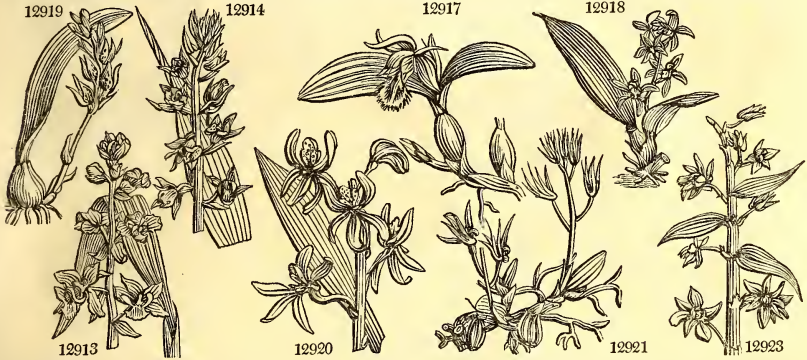
12921 Stems creep. Lvs. oval blunt depressed fleshy several times shorter than raceme, Sepals long linear acute

12922 Stems pendul. Lvs. bifarious lanc. acum. Ped. opp. the leaves about 2-fl. Lip undivided ov. cucul. at base

12923 Stems pendul. Lvs. bifarious broadly lanc. Pedunc. about 2-fl. Lip undivid. tubul. oblique almost truncate

12924 Leaves lanc. striated, Racemes many-fl. Lip undivided obliquely campanulate fringed

12925 Stem branched somewhat compr. tuberous at base, Leaves ovate-lanc. Spikes erect, Fls. remote alternate



and Miscellaneous Particulars.

1895. *Oncidium*. From *ογκος*, a tumour, on account of the callosities with which the disk of the labellum is covered. Among the most beautiful of epiphytous plants, growing either upon the ground or upon trees. They are rather difficult to manage well, and are seldom seen in collections. Their flowers, which are handsome, are rarely produced. 1897. *Celogync*. So named by Mr. Lindley, from *ζωλος*, hollow, and *γυνη*, a female, on account of the form of the stigma, which is peculiar for an Epidendrum. Some of the species, natives of Nepal, which have not yet been introduced into our gardens, are most beautiful bulbous epiphytes, with shining fleshy leaves, and spikes of gorgeous flowers proceeding from a rigid imbricated scaly base.

1898. *Macradenia*. From *μακρος*, long, and *αδην*, a gland, on account of the long subulate process to which the pollen-masses are attached. A singular little epiphyte with yellowish brown flowers.

1899. *Anisopetalum*. From *α*, without, *ισος*, equal, and *πιταλον*, a petal, on account of the inequality of the sepals, or petals as they commonly called. A curious Nepal plant, with bulbous roots, and little erect spikes of brown flowers.

1900. *Dendrobium*. From *δενδρον*, a tree, with reference to the habit of the species in growing upon trees. In the woods of the East Indies they climb and twist themselves about the branches of live trees, or throw

12926	<i>émulum R. Br.</i>	aspiring	£ ☒ pr	½	...	...	N. S. W.	1824.	D p.r.w
12927	<i>moniliforme W.</i>	glassy	£ ☒ pr	½	...	...	Pu	China	D p.r.w Kœmpf. t.865
12928	<i>rigidum R. Br.</i>	rigid	£ ☒ cu	½	...	...	N. Holl.	1824.	D p.r.w
1901.	CAMARIDIUM. <i>Lindl.</i> CAMARIDIUM.		<i>Orchideæ.</i> <i>Sp. 1.</i>						
12929	<i>ochroleucum Lindl.</i>	pale-yellow	£ ☒ pr	1	jl	W	Trinidad	1823.	C p.r.w Bot. reg. 844
	<i>Dendrobium álbum Hook.</i>								
1902.	ORNITHIDIUM. <i>Salisb.</i> ORNITHIDIUM.		<i>Orchideæ.</i> <i>Sp. 1.</i>						
12930	<i>coccineum H. K.</i>	scarlet-flowered	£ ☒ or	2	ja.d	R	W. Indies	1790.	C p.r.w Bot. mag. 1437
1903.	ISOCHILUS. <i>R. Br.</i> ISOCHILUS.		<i>Orchideæ.</i> <i>Sp. 2—5.?</i>						
12931	<i>linearis R. Br.</i>	linear	£ ☒ pr	¾	my.jl	R	W. Indies	1791.	D p.r.w Bot. reg. 745
12932	<i>prolífer R. Br.</i>	prolíferous	£ ☒ pr	¾	...	W	W. Indies	1793.	C p.r.w Bot. reg. 825
1904.	PHOLIDOTA. <i>Lindl.</i> PHOLIDOTA.		<i>Orchideæ.</i> <i>Sp. 1—2.</i>						
12933	<i>imbricatá Lindl.</i>	imbricated	£ ☒ or	1½	...	Br.W	Nepal	1824.	D p.r.w Hook. ex. fl. 138
1905.	BROUGHTONIA. <i>R. Br.</i> BROUGHTONIA.		<i>Orchideæ.</i> <i>Sp. 1.</i>						
12934	<i>sanguinea R. Br.</i>	blood-colored	£ ☒ spl	1½	jn.jl	Sc	Jamaica	1793.	D p.r.w Bot. cab. 793
1906.	CATTLEYA. <i>Lindl.</i> CATTLEYA.		<i>Orchideæ.</i> <i>Sp. 3—4.</i>						
12935	<i>labiátá Lindl.</i>	dark-lipped	£ ☒ spl	1	jl.au	Vi	S. Amer.	1818.	D p.r.w Lindl. coll. 33
12936	<i>Loddigésii Lindl.</i>	pale-lipped	£ ☒ el	1	jl.au	Vi	S. Amer.	1816.	D p.r.w Bot. cab. 337
12937	<i>Forbesii Lindl.</i>	yellow	£ ☒ or	¾	jl.au	Y	S. Amer.	1823.	D p.r.w
1907.	EPIDENDRUM. <i>L.</i> EPIDENDRUM.		<i>Orchideæ.</i> <i>Sp. 14—67.</i>						
12938	<i>cochleátum W.</i>	dark-purple	£ ☒ cu	1	f.d	Br.P	W. Indies	1786.	D s.p Bot. mag. 572
12939	<i>frágrans W.</i>	sweet-scented	£ ☒ ft	¾	o	Y.g	Jamaica	1778.	D s.p Bot. mag. 1669
12940	<i>secúndum W.</i>	side-flowering	£ ☒ or	2	jn.jl	R	W. Indies	1793.	C p.r.w Jac. amer. t. 137
12941	<i>fuscátum W.</i>	brown	£ ☒ cu	¾	jn.jl	Br	W. Indies	1790.	D p.r.w Bot. reg. 67
	<i>E. anceps Jacq.</i>								
12942	<i>elongátum W.</i>	long-stalked	£ ☒ or	2	my.au	R	W. Indies	1798.	C p.r.w Bot. mag. 611
12943	<i>umbellátum W.</i>	umbelled	£ ☒ cu	¾	jn.jl	G	Jamaica	1793.	D p.r.w Bot. reg. 80
12944	<i>nótans W.</i>	nodding	£ ☒ or	1	jn.jl	G	Jamaica	1793.	D p.r.w Bot. reg. 17
12945	<i>conópseum H. K.</i>	Florida	£ ☒ au	¾	au	Y	Florida	1775.	D p.r.w
12946	<i>ciliáre W.</i>	fringed	£ ☒ or	1	mr.au	W	W. Indies	1790.	D p.r.w Bot. reg. 784
12947	<i>cuspidátum Lodd.</i>	pointed	£ ☒ or	1	'n	W.X	W. Indies	1808.	D p.r.w Bot. reg. 783
12948	<i>diffúsium W.</i>	diffuse	£ ☒ pr	¾	o	G	Jamaica	1816.	D p.r.w Bot. cab. 846
12949	<i>noctárnum W.</i>	night	£ ☒ or	1	o	G	Jamaica	1816.	D p.r.w Bot. cab. 713
12950	<i>monophýllum Hook.</i>	one-leaved	£ ☒ cu	¾	d	G	Jamaica	1823.	D p.r.w Hook. ex. fl. 109
12951	<i>polybul'bon Sw.</i>	many-bulbed	£ ☒ cu	¾	d	W	Jamaica	1822.	D p.r.w Hook. ex. fl. 112
1908.	POLYSTACHYA. <i>Hooker.</i> POLYSTACHYA.		<i>Sp. 2—5.</i>						
12952	<i>lutéola Hook.</i>	smooth	£ ☒ cu	¾	jl.au	Y.g	W. Indies	1818.	D p.r.w Lindl. coll.
12953	<i>pubérula Lindl.</i>	downy	£ ☒ cu	¾	o	Y.g	S. Leone	1822.	D p.r.w Bot. reg. 851
1909.	CRYPTARRHENA. <i>R. Br.</i> CRYPTARRHENA.		<i>Orchideæ.</i> <i>Sp. 1.</i>						
12954	<i>lunáta R. Br.</i>	crenate-lipped	£ ☒ de	½	my.au	Y	W. Indies	1815.	D p.r.w Bot. reg. 153



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down their long shoots almost in the same manner as the *Mislettoe* in England. The flowers are generally very beautiful, and frequently highly fragrant; they vary from a deep yellow to nearly white. All the species in the gardens are cultivated without the least difficulty by being planted in any light vegetable earth. Sometimes they are put in baskets among damp moss, but they do not succeed so well under that treatment as when planted in earth.

1901. *Camaridium*. Named by Mr. Lindley, from *καμαρα*, an arched roof. The stigma of this genus has the upper lip vaulted in a remarkable degree. An inellegant leafy caulescent bulbous epiphyte, with solitary white flowers.

1902. *Ornithidium*. From *ορνιθίς*, a bird, in allusion to the resemblance which exists between the cuspidate upper lip of the stigma, and a bird's beak. The habit of this plant is like that of the last, but the flowers are red. They are both cultivated without difficulty in a stove, by being planted among rotten wood, or tan.

Mr. Salisbery says, *Ornithidium coccineum* is a parasite on old trees, near torrents, in the island of Martinico; its fibrous roots insinuating themselves into the crevices of their moist bark. Here it thrives exceedingly, in pots filled with the same, flowering at various seasons, but chiefly in October and November. During summer it should be placed in a shady part of the stove, and often sprinkled with water, but it requires little or none in winter, especially when plunged.

1903. *Isochilus*. From *ισος*, equal, and *χιλος*, a lip, because the lip and the other divisions of the flower are of nearly equal breadth. The species grow in baskets of moss and old tan, or planted in pots of sandy soil, and chips of wood, and other dry rubbish. They are increased by divisions at the root.

1904. *Pholidota*. A singular bulbous epiphyte, native of Nepal, remarkable for the close manner in which the flowers are covered over by the imbricated scale-like bractea, from which circumstance (*φολις*, a scale), we

- 12926 Stems erect 2-3-leaved at end, Leaves oval obl. entire shorter than terminal many-fl. raceme
 12927 Stems round jointed striated moniliform naked quite simple, Leaves oblong lanceolate
 12928 Stems creeping, Leaves obl. lanceolate acute fleshy the length of the few-flowered spreading raceme

12929 The only species

12930 Flowers small and appearing in the axillæ of the long leaves, Stems branched bulb-bearing

12931 Spike terminal, Leaves distichous linear blunt emarginate, Stem simple
 12932 Flowers axillary, Leaves distichous lanceolate oblong, Stem proliferous, Bulbs axillary 2-leaved

12933 Lvs. solitary on a truncated conical naked bulb: lanceolate plaited, Raceme pendulous densely imbricated

12934 Leaves twin oblong seated on a bulb, Scape divided

12935 Outer sepals linear lanceolate acute 3 times as narrow as inner, Lip undivided
 12936 Sepals nearly equal obtuse, Lip 3-lobed with the middle lobe saddle-shaped
 12937 Sepals lanceolate: inner narrower wavy obtuse, Middle lobe of lip cordate lunate

12938 Leaves twin oblong seated on a bulb, Scape long, Lip cordate blunt
 12939 Leaf lanceolate seated on a bulb, Scape short many-flowered, Lip cordate acuminate
 12940 Stem simple, Leaves oblong emarginate, Peduncle terminal very long, Spike lax 1-sided
 12941 Stem simple, Leaves obl. or acuminate, Peduncle terminal long, Spike globose, Col. shorter than sepals

12942 Stem simple, Leaves oblong, Peduncle terminal long, Spike lax, Lip toothed ciliated
 12243 Stem simple, Leaves obl. somewhat emarginate, Flowers clustered in the bosom of a terminal leaf
 12944 Stem simple, Leaves ov. lanc. amplexicaul. Flowers spiked nodding, Lip 3-lobed: middle lobe 3-toothed
 12945 Stem simple, Fls. spiked erect, Lip 3-lobed: middle lobe retuse, Inner sepals narrower, Leaves lanceol.
 12946 Stem simple, Lvs. twin oblong veinless, Lip 3-parted: middle seg. subulate longest; lateral fringed
 12947 Stem simple, Leaves 3, Spike remote few-fl. Lip 3-parted: middle segm. linear; lateral cut fringed
 12948 Stem simple 2-edged, Leaves oblong, Panicle terminal much branched, Lip cordate acuminate
 12949 Stem simple, Leaves obl. veinless, Flowers terminal, Lip 3-parted entire: intermediate segm. linear long
 12950 Stem 1-leaved, Leaf ellipt. lanc. obt. Raceme few-fl. from the bosom of the leaf, Two inner sepals small
 12951 Stem creeping bulbiferous, Bulbs 2-leaved 1-flowered, Lip cordate

12952 Spike compound: spikelets alternate erect, Flowers smooth
 12853 Spike panic. thyriform, Leaves lanc. 7-nerved longer than scape, Fls. and ovaries downy, Bulbs ovate

12954 Leaves tufted lanceolate nerved shorter than erect spike



and Miscellaneous Particulars.

presume, Mr. Lindley has constructed the name. No explanation, however, of his names is ever given by this author, who seems to attach too little importance to the etymology of botany.

1905. *Broughtonia*. Named by Brown, in the Hortus Kewensis, without explanation. A handsome plant, with fine scarlet flowers. It is very rare, and cultivated with little success.

1906. *Cattleya*. Named by Mr. Lindley, after William Cattley, Esq., a munificent encourager of botany, and his early friend. A superb genus of bulbous epiphytes, with fleshy leaves growing in pairs, and large violet or yellow flowers.

1907. *Epidendrum*. From *επι*, upon, and *δενδρον*. All the species are found naturally growing upon trees, not however, as De Theis tells us, sucking their sap, by insinuating their little roots beneath the bark, but vegetating in the soil which collects upon the forks of the branches. Many of the species have singular flowers, but none of those in the gardens are remarkable for their beauty. They are generally cultivated with less difficulty than most other epiphytes. Salisbury tells us, *Epidendrum ciliare* should be planted in pots, filled with porous stones, a few decayed leaves, and knobs of bark taken fresh from the woods: but it requires very little water; and if the leaves turn yellow, it is a sign that they have either too much wet, or too much sun. With such treatment, by keeping four or five pots of it, the stove will be enlivened with their long tubular flowers, slowly succeeding one another, at most periods of the year. It is easily propagated by dividing its stems.

1908. *Polystachya*. From *πολυς*, many, and *σπικη*, a spike, on account of the compound nature of the inflorescence. Inconspicuous plants, requiring the treatment applied to similar kinds.

1909. *Cryptarrhena*. A pretty little stemless epiphyte with distichous leaves, and neat yellow flowers. It was named by Mr. Brown, from *κρυπτος*, concealed, and *αρσεν*, a male, on account of the hooded apex of the column which covers up the anther. The plant is believed to be now lost to the gardens.

1910. ORNITHOCEPHALUS. Hook.	ORNITHOCEPHALUS. <i>Orchideæ. Sp. 1.</i>	✳	☒	cu	¼	...	G	Trinidad	1823.	D p.r.w	Hook. ex. fl. 127
12955 gladiatus Hook.	sword-leaved	✳	☒	cu	¼	...	G	Trinidad	1823.	D p.r.w	Hook. ex. fl. 127
1911. BLETTIA. Fl. per.	BLETTIA. <i>Orchideæ. Sp. 6—8.</i>	✳	☒	spl	2	mr.ap	W.Br	China	1778.	R p.l	Bot. mag. 1924
12956 Tankervilleæ H. K.	Tankerville's	✳	☒	el	3	ja.my	Pu	W. Indies	1733.	R p.l	Bot. mag. 930
12957 verecunda H. K.	tall	✳	☒	el	3	ja.my	Pu	W. Indies	1733.	R p.l	Bot. mag. 930
<i>Limnoderum altum</i> B. M.		✳	☒	el	2	jl.au	Pu	W. Indies	1786.	R p.l	Redouté lil. 83
12958 florida H. K.	purple	✳	☒	el	1	mr.jn	Pu	China	1802.	R p.l	Bot. mag. 1492
12959 hyacinthina H. K.	hyacinthine	✳	☒	el	1	mr.jn	Pu	China	1802.	R p.l	Bot. mag. 1492
12960 capitata R. Br.	headed	✳	☒	el	...	jn.jl	...	W. Indies	1795.	R p.l	Bot. cab. 629
12961 pallida Lodd.	pallid	✳	☒	el	2	f	Pk	W. Indies	1820.	R p.l	Bot. cab. 629
1912. ERIA. Lindl.	ERIA. <i>Orchideæ. Sp. 2—4.</i>	✳	☒	el	2	f	Br.Y	E. Indies?	...	D p.r.w	Bot. reg. 904
12962 stellata Lindl.	stellate	✳	☒	el	2	f	Br.Y	E. Indies?	...	D p.r.w	Bot. reg. 904
12963 pubescens Lindl.	downy	✳	☒	el	1½	mr	Y	E. Indies	1820.	D p.r.w	Hook. ex. fl. 124
<i>Dendrobium pubescens</i> Hooker.		✳	☒	el	1½	mr	Y	E. Indies	1820.	D p.r.w	Hook. ex. fl. 124
1913. OCTOMERIA. R. Br.	OCTOMERIA. <i>Orchideæ. Sp. 1.</i>	✳	☒	cu	½	jn.jl	W.	Indies	1793.	D p.r.w	Plum. ic. 176. f. 1
12964 graminifolia R. Br.	Grass-leaved	✳	☒	cu	½	jn.jl	W.	Indies	1793.	D p.r.w	Plum. ic. 176. f. 1
1914. BRASAVOLA. R. Br.	BRASAVOLA. <i>Orchideæ. Sp. 1—2.</i>	✳	☒	el	½	jn.s	W	W. Indies	1793.	D p.r.w	Bot. mag. 543
12965 cucullata R. Br.	single-flowered	✳	☒	el	½	jn.s	W	W. Indies	1793.	D p.r.w	Bot. mag. 543
1915. SARCANTHUS. Lindl.	SARCANTHUS. <i>Orchideæ. Sp. 3—5.</i>	✳	☒	el	2½	my.au	Y	China	...	C p.r.w	Bot. reg. 220
12966 paniculatus Lindl.	panicled	✳	☒	el	2½	my.au	Y	China	...	C p.r.w	Bot. reg. 220
12967 teretifolius Lindl.	slender-leaved	✳	☒	cu	1½	r	Y.Pu	China	1819.	C p.r.w	Lindl. coll. 6
12968 rostratus Lindl.	rostrate	✳	☒	pr	1	n	Y.r	China	1819.	C p.r.w	Lindl. coll. 39
1916. VAN'DA. R. Br.	VANDA. <i>Orchideæ. Sp. 3—6.</i>	✳	☒	el	2	jn	Y	China	1800.	C p.r.w	Lindl. coll. 38
12969 multiflora Lindl.	many-flowered	✳	☒	el	2	jn	Y	China	1800.	C p.r.w	Lindl. coll. 38
12970 Roxburghi R. Br.	Roxburgh's	✳	☒	el	1½	n	W.pu	China	1810.	C p.r.w	Bot. reg. 506
12971 trichorhiza Hooker	hairy-rooted	✳	☒	pr	¼	au	Pu.G	E. Indies	1822.	C p.r.w	Hook. ex. fl. 72
1917. AERIDES. Sw.	AIR-PLANT. <i>Orchideæ. Sp. 2—11.</i>	✳	☒	ft	1½	...	Pk	China	1800.	C p.r.w	...
12972 odoratum H. K.	fragrant	✳	☒	ft	1½	...	Pk	China	1800.	C p.r.w	...
12973 arachnites Sw.	spider	✳	☒	or	1	...	Br.P	Japan	1793.	C p.r.w	Kämpf.t. 869. f. 1
1918. RENANTHERA. Lour.	RENANTHERA. <i>Orchideæ. Sp. 1.</i>	✳	☒	spl	5	...	Sc	China	1816.	C p.r.w	...
12974 coccinea Lour.	scarlet	✳	☒	spl	5	...	Sc	China	1816.	C p.r.w	...
1919. IONOPSIS. Kunth.	IONOPSIS. <i>Orchideæ. Sp. 1—3.</i>	✳	☒	pr	½	o.n	W.pu	W. Indies	1822.	D p.r.w	Hook. ex. fl. 113
12975 utricularioides Lindl.	small-flowered	✳	☒	pr	½	o.n	W.pu	W. Indies	1822.	D p.r.w	Hook. ex. fl. 113
<i>Jantha pallidiflora</i> Hooker.		✳	☒	pr	½	o.n	W.pu	W. Indies	1822.	D p.r.w	Hook. ex. fl. 113
1920. EULOPIA. R. Br.	EULOPIA. <i>Orchideæ. Sp. 2—7.</i>	✳	☒	pr	2	my.n	G	S. Leone	1822.	R p.l	Bot. reg. 742
12976 gracilis Lindl.	slender	✳	☒	pr	2	my.n	G	S. Leone	1822.	R p.l	Bot. reg. 742
12977 guineensis R. Br.	shovel-flowered	✳	☒	el	1	my.n	Pk	S. Leone	1822.	R p.l	Bot. reg. 866



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1910. *Ornithocephalus*. A very curious little plant, only an inch or two in height, found in Trinidad growing upon rotten sticks in the woods. It bears two or three green flowers, which contain a column, the upper extremity of which is lengthened out into a fine subulate process, resembling a snipe's bill in miniature, whence the name, from *ορνιθης*, a bird, and *κεφαλη*, a head. No successful method of cultivating this plant has yet been discovered.

1911. *Bletia*. Dedicated to Luis Blet, a Spanish apothecary, who has always, as we are informed by the authors of the *Flora Peruviana*, distinguished himself in his botanical studies. Very noble plants, growing in the earth.

Bletia Tankervilleæ is a common but beautiful species. The first plant which flowered in this country, was cultivated at Apperly Bridge, near Bradford, in Yorkshire, in May 1776, and had been sent there to Mrs. Hird, by her uncle, Dr. Fothergill, in a black Chinese pot full of stiff loam, in which it had been imported. Many small bulbs, with leaves like those of a snow drop, grew near the edge of the same pot in a regular circle, and these afterwards proved to be *Amaryllis Aurea*. The *Bletia Tankervilleæ* delights in warmth, fresh loam, and plenty of water, by which treatment, and attention to fecundate the stigma, it will ripen fruit abundantly.

1912. *Eria*. From *εριον*, wool, on account of the woolliness of the flower of all the known species. Curious epiphytous plants, with bulbous roots, and flowers usually of a yellowish color. They differ from *Dendrobium* chiefly in the number of their pollen-masses, and in habit. *E. stellata* is a fine free-growing plant, with long broad fleshy leaves, and spikes of beautiful brown-yellow flowers nearly a foot and half in length.

1913. *Octomeria*. So called by Mr. Brown, with reference to the eight parts, *οκτω*, and *μερος*, into which the pollen is divided. A singular little plant, with filiform leaves and small nearly solitary flowers. The true limits between this genus and the last remain to be determined. The two seem to be separated by nature.

1914. *Brasavola*. Named after Antonio Musa Brasavola, an Italian botanist, born at Ferrara in 1500. Plants with long subulate fleshy leaves, and large white flowers. They are cultivated without difficulty in peat and sand, if good decomposed wood is not to be procured.

1915. *Sarcanthus*. A curious genus of plants not remarkable for their beauty. Their habit is various, but always caulescent; their flowers either yellow or yellowish, marked with various shades of purple. The name

12955 Leaves distichous obtuse compressed

12956 Lip spurred undivided : spur short, Leaves radical ovate lanceolate

12957 Lip not spurred : ribs of the disk branched ; middle lobe broader than long, lateral narrower upwards

12958 Lip not spurred : ribs of the disk simple ; middle lobe somewhat cuneiform, lateral broader at end

12959 Lip not spurred beardless, Pollen-masses 4, 2-lobed, Stem leafy, Flowers racemose

12960 Lip not spurred with a callus in the inside near the base, Stem leafy, Flowers capitate

12961 Leaves linear-lanceolate plaited, Sepals connivent, Scape higher than leaves

12962 Lvs. lanc. fleshy 5-nerved, Sep. ov. lanc. acum : midd. lobe of lip acum. Ovary and outer sep. ferruginous

12963 Bulb obl.-ov. Lvs. distich. lanc. smooth, Fls. loosely spik. Lip obl. 3-lobed, Three exterior sep. unit. at base

12964 Stem long 1-leaved, Leaf lanceolate, Peduncles twin 1-flowered, Root creeping

12965 Stem 1-flowered, Lip ciliated

12966 Stem panicled, Spur straight hanging down scarcely so long as ovary, Leaves bifid and unequal at end

12967 Leaves subulate, Lip spurred 2-celled, Raceme shorter than leaves

12968 Leaves lanc. flat somewhat recurved, Spike simple horizontal, Lip and anther rostrate

12969 Caulicent, Leaves remotely distichous broad linear channelled obtuse, Spikes opp. the leaves

12970 Sepals oblong obovate wavy, Leaves obliquely 3-toothed at end

12971 Lip without a spur, Sepals linear-lanceolate nearly equal, Leaves cylindrical

12972 Spur ascending conical subulate, Middle lobe of lip shorter than lateral ones, Leaves blunt

12973 Stem branched rooting, Leaves lanceolate, Sepals revolute dilated at the end, Lip bifid in front

12974 The only species

12975 Leaves lanceolate lined flat, Scape panicled, Sepals shorter than the lip

12976 Scape very slender 3 times as long as the lanceol. 3-nerved leaves, Spur clavate, Midd. lobe of lip obsolete

12977 Leaves lanceolate nerved, Spur ascending, Lip membranous complete



and Miscellaneous Particulars.

has been given by Mr. Lindley, from *σαρκῆ*, flesh, and *ανθῆς*, a flower, in allusion to the texture of the sepals and labellum.

1916. *Vanda*. The Hindoo name of the original species. Noble caulescent plants adhering to old decayed arms of trees or fallen wood, by means of their tendril-like fleshy tortuous roots. The flowers of all the species are large and showy. Their treatment is the same as the next.

1917. *Aerides*. Derived from *aër*, the air ; in allusion to the peculiar property the species possess of existing many months suspended in that element. This genus and the two last are those to which the name of Air-plant is most properly applied, very few others being capable of enduring for any considerable period such a removal from their natural places of growth. The true species of this genus are beyond all comparison the most delightful productions of the vegetable world. Their flowers are arrayed in long spikes or racemes of delicate colors and delicious fragrance. Hung up in a room in their native country, a little before flowering, they continue to unfold their blossoms in gradual succession for many weeks. In this country they are rarely seen in flower. The only genuine species, the *A. odoratum*, should be planted in rotten wood with a little peat, or a few decayed leaves, or any light black vegetable mould, and kept in the hottest and dampest place of the stove. If put in baskets among moss and kept very damp, the plants will succeed for a short time, but they soon languish, and put on a yellow appearance, the certain indication of unhealthiness.

1918. *Renanthera*. A name contrived by Loureiro, to express the kidney-form or reniform shape of the pollen-masses. This plant is not uncommon in good collections, where it has sometimes acquired the height of six or eight feet ; but it has never yet produced its flowers. These appear, in the native country of the plant, in large loose panicles, and are individually of considerable size and of a rich crimson color, a little mottled with yellow.

1919. *Ionopsis*. So called by Mr. Kunth, from *iov*, a violet, and *opsis*, resemblance. I. utricularioides is a pretty little epiphyte, with purplish falcate leaves. It succeeds ill under any management which has hitherto been applied to it.

1920. *Eulophia*. From *ευλοφος*, well crested, with reference to the surface of the middle lobe of the lip. The two species in the gardens are terrestrial tender stove plants, with bulbous roots, plaited leaves, and flowers, in *E. exaltata*, green and inconspicuous, in *E. guineensis*, whitish pink, and very handsome. They should be treated like *Cymbidium*.

1921. ANGRÆCUM. <i>Pet. Th.</i> ANGRÆCUM.	Orchidæe.	Sp. 3—41.					
12973 maculatum <i>Lindl.</i> spotted	☞ ☒ pr	1	o.n	Pk	Africa	1819.	D p.r.w Lindl. coll. 15
12973 falcatum <i>Lindl.</i> falcate	☞ ☒ pr	1	n.d	W	China	1815.	D p.r.w Bot. mag. 2097
12980 luridum <i>Lindl.</i> lurid	☞ ☒ pr	1½		Br	S. Leone	1822.	D p.r.w
1922. AERANTHES. <i>Lindl.</i> AERANTHES.	Orchidæe.	Sp. 2—3.					
12981 grandiflora <i>Lindl.</i> large-flowered	☞ ☒ or	½		G.y	Madagasc.	1823.	D p.r.w Bot. reg. 817
12882 sesquipedalis <i>Lindl.</i> long-horned	☞ ☒ spl	1		W	Madagasc.	1823.	D p.r.w P.Th.or.af.r.t.66
1923. CALANTHE. <i>R. Br.</i> CALANTHE.	Orchidæe.	Sp. 1—7.					
12983 veratrifolia <i>R. Br.</i> plaited-leaved	☞ ☒ or	2	jn.jl	W	E. Indies	1819.	R pl Bot. reg. 720
1924. STELIS. <i>Sw.</i> STELIS.	Orchidæe.	Sp. 2—10.					
12984 ophioglossoides <i>W.</i> Adder's-tong.-lv.	☞ ☒ cu	½	my.jn	G	W. Indies	1791.	D p.r.w Bot. cab. 442
12985 micrantha <i>W.</i> small-flowered	☞ ☒ cu	½	n.d	G	Jamaica	1805.	D p.r.w Hook. ex. fl. 158
1925. MALAXIS. <i>L.</i> MALAXIS.	Orchidæe.	Sp. 1—3.					
12986 paludosa <i>W.</i> marsh	☞ ☒ de	½	jl	Y.G	England	tur.bo.	R p.s Eng. bot. 72
1926. PRESCOTIA. <i>Lindl.</i> PRESCOTIA.	Orchidæe.	Sp. 1—2.					
12987 plantaginea <i>Lin. f.</i> plantain-leaved	☞ ☒ cu	1½	jl	G	Brazil	1822.	R pl Hook. ex. fl. 115
1927. MICROSTYLIS. <i>Nutt.</i> MICROSTYLIS.	Orchidæe.	Sp. 1—2.					
12988 ophioglossoides. N.Snake's-tongue.-lv.	☞ ☒ de	¼	jl	Y.G	N. Amer.	1824.	R p.s Plu.am. t.434.f.4
1928. LIPARIS. <i>Rich.</i> LIPARIS.	Orchidæe.	Sp. 5—9.					
12989 liliifolia <i>Rich.</i> Lily-leaved	☞ ☒ pr	½	jn.jl	G.Pu	N. Amer.	1758.	R p.s Bot. mag. 2004
12990 Lœselii <i>Rich.</i> Loesel's	☞ ☒ cu	½	jl	Y	England	sa.ma.	R p.s Eng. bot. 47
12991 bituberculata <i>Lindl.</i> long-leaved	☞ ☒ cu	¾	jl	G	Nepal	1822.	D p.r.w Hook. ex. fl. 116
12992 foliosa <i>Lindl.</i> leafy	☞ ☒ cu	½	au	G	Isl. France	1823.	D p.r.w Bot. reg. 882
12993 reflexa <i>Lindl.</i> reflexed	☞ ☒ cu	1	au	G	N. Hohl.	1824.	D p.r.w
1929. CALYPSO. <i>Satisb.</i> CALYPSO.	Orchidæe.	Sp. 1—2.					
12994 borealis <i>Satisb.</i> northern	☞ ☒ pr	¼	my.jn	Y.R	N. Amer.	1805.	R sp Hook. ex. fl. 12
1930. VANILLA. <i>Sw.</i> VANILLA.	Orchidæe.	Sp. 2—3.					
12995 aromatica <i>H. K.</i> aromatic	☞ ☐ ec	10	jn.au	W	S. Amer.	1739.	C pl Plu. ic. 183. t. 188
12996 planifolia <i>H. K.</i> fragrant	☞ ☐ or	10	ap.jn	W	W. Indies	1800.	C pl Bot. cab. 733



History, Use, Propagation, Culture,

1921. *Angræcum*. A latinized form of the Malay appellation *angree*, which is bestowed upon all epiphytous plants. This is a pretty genus, remarkable for the distinct spur to the lip. *A. maculatum* has handsome flat fleshy spotted leaves, and varies with flowers of a delicate pink and of a pale green color. *A. luridum* is an exceedingly rare species, with plaited leaves and conical bulbs covered with the vestiges of former leaves. *A. falcatum* is a little Japanese plant, whose flower has a spur nearly as long as the plant itself. It is easily grown among loose moss in a warm damp place, but there should always be some bits of rotten wood mixed among the moss for the tender roots to adhere to.

1922. *Aeranthès*. A word with the same meaning as *Aerides*. Fine Madagascar plants. *A. sesquipedalis*, which has not yet blossomed, bears in its own country very large white flowers, with a spur a foot and half in length. The species are not caulescent as in *Aerides*, and the flowers appear singly, or two or three together, not in long racemes.

1923. *Calanthe*. From *καλος*, beautiful, and *ανθος*, a flower. The genus consists of robust terrestrial, not epiphytous, plants, with long plaited leaves, and fine white flowers, remarkable for the curious conformation of the labellum. They are easily cultivated as *Cymbidium*.

1924. *Stelis*. This was the Greek name of some parasitical plant found growing upon trees. The modern genus consists of little inconspicuous West Indian plants, with solitary leaves, and minute green flowers disposed in long filiform axillary spikes. They are not very easily managed; the best mode of cultivation is to plant them in very rotten wood with a little moss about them, and to keep them in a hot damp stove.

1925. *Malaxis*. From *μαλαξίς*, softness, in allusion to the delicate texture of the genuine species. They are natives of moist places in marshes, and are scarcely capable of successful cultivation.

1926. *Prescotia*. So called by Lindley in compliment to his friend John Prescott, Esq., an English gentleman resident at St. Petersburg, and highly distinguished for his botanical acquirements. A curious little plant, with long spikes of green flowers. It is easily cultivated in peat and sand.

1927. *Microstylis*. From *μικρος*, little, and *στυλος*, a column, on account of the minuteness of the column. Little bog plants, resembling *Malaxis* in habit and manner of growth.

1928. *Liparis*. Probably derived from *λιπαρος*, unctuous, in allusion to the surface of the leaves of the original species, *L. Lœselii*. This genus consists of plants varying somewhat in habit, but agreeing in having pale green or greenish purple flowers, in terminal spikes or racemes. Part of the species are terrestrial, requiring the treatment of *Malaxis*; the remainder are epiphytes.

1929. *Calypso*. A poetical name, from *καλυπτω*, to conceal; not merely alluding to the covering of the stigma, but preserving an analogy between this botanical beauty, so difficult of access, and the secluded goddess, whose isle was fabled to be protected miraculously from the observation of navigators.

1930. *Vanilla*. An alteration of *vaynilla*, which is a diminutive of *vaina*, a Spanish word, signifying a sheath. The fruit is a long cylindrical pod, very like the sheath of a knife. *Vanilla aromatica* produces the fruit of that name, which is used in England to flavor chocolate, and in Spanish America for that purpose, for perfuming snuffs, and as a medicine. The Spaniards have three different sorts, which they distinguish in com-

12978 Leaves lanceolate spotted flat entire
 12979 Leaves somewhat radical ensiform channelled falcate, Scapes few-fl. Spur filiform very long
 12980 Stem compr. sheathing panicled, Branches quite simple spreading, Lip 3-lobed, Spur inflex. blunt emarg.

12981 Leaves 2-lobed and very unequal at end shorter than the weak radical sheathed scape, Spur emarginate
 12982 Spur very long filiform, Spikes sheathed axillary

12983 Leaves lanc. plaited nerved, Spike dense many-flowered, Bractes small lanceolate

12984 Stem 1-leaved, Leaves oblong lanceolate the same length as raceme, Flowers 3-cornered
 12985 Stem long 1-leaved, Leaf broad-lanceolate shorter than raceme, Flowers 6-cornered

12986 Lvs. about 4 at the base of the stem scabrous at the extremity, Scape pentagonal, Lip concave acute

12987 Leaves oblong cæsious flat nerved, Flowers in a long dense spike

12988 Scape 1-leaved, Leaf amplexicaul. Lip truncate emarginate

12989 Lvs. twin ovate-lanc. Scape 3-cornered, Inner sepals reflexed discolored, Lip concave obov. acute at end
 12990 Leaves twin ovate-lanceolate, Scape 3-cornered, Lip ovate at end recurved

12991 Somewhat bulbous, Leaves 4-ovate plaited striated wavy, Lip reflexed with two tubercles at base
 12992 Radical leaves unequal lanceolate entire acute fleshy about the same length as raceme, Lip oblong retuse
 12993 Leaves lanceolate ensiform keeled, Raceme many-flowered, Lip 3-toothed at end

12994 Lip narr. at base somew. clawed, Spur $\frac{1}{2}$ -bifid long. than lip with acute teeth, Pedunc. longer than ovary

12995 Leaves ovate oblong nerved, Sepals wavy, Lip acute, Caps. cylindrical very long
 12996 Leaves oblong lanceolate flat obsolete striated, Lip retuse



and Miscellaneous Particulars.

merce, viz. ; the *pompona*, the *ley*, and the *simarona*. When the fruit begins to turn yellow, it is gathered and fermented in small heaps, in the same manner as is practised with the cocoa or chocolate pods (*Theobroma*) ; it is then spread in the sun to dry, and when about half dried, pressed flat with the hand and rubbed over with the oil of Palma Christi, or of the cocoa ; it is then exposed to the sun to dry, the oiling repeated, and the pods covered with the leaves of the Indian reed to preserve them. The fruits which are brought to Europe are of a dark brown color, about six inches long, and scarce an inch broad ; they are wrinkled on the outside, and full of a vast number of black seeds, like grains of sand, of a pleasant smell, resembling Balsam of Peru.

The species of this genus, like many other *Epidendreae*, are falsely called parasitical ; but are no more so than our *Polypodium vulgare*, which is often found growing on the trunks of old trees, especially pollards, rooted in the decaying bark. The *Vanillæ* shoot out roots at every joint like the *Ivy*, and may be either grown on a piece of a rotten trunk of a tree, or planted in a pot of rotten tan mixed with rubbish, and the stem trained against any surface which it can root into. Like all the tribe, these plants require very little water.

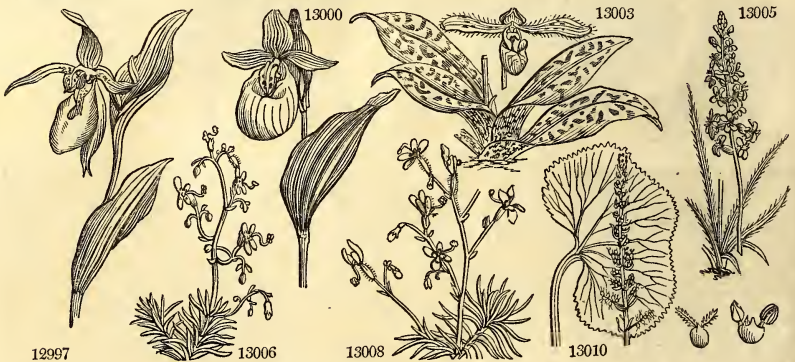
Mr. Salisbury has the following observations upon *Vanilla planifolia*. "It was discovered by Father Plumier, in the island of St. Domingo, where it grows wild, climbing to the tops of the highest trees ; and is easily preserved in our stoves, throwing out one or more roots at every leaf ; but as it seldom flowers here, I would recommend the following treatment : — plant it at one end of a low bark stove, the temperature of which must be kept constantly hot and damp, never below sixty degrees of Fahrenheit in the night, during winter. Let the earth be fat loam, taken about an inch deep from the surface, in some old wood : mix this with a few decayed leaves and small pieces of rotten sticks, either in a tub bored full of holes, and sunk at the back corner of the bark pit ; or pale off a space of two square feet for it, draining the bottom a foot in depth very effectually with hollow tiles and porous stones. Select a healthy young plant to place in this earth, and as soon as it pushes vigorously, divide the stem, by pinching off its top, into three or four principal branches, which train backwards and forwards over that end of the bark pit, at two inches and a half distance from each other, on stout rods of a rough-barked elm nailed firmly across ; the roots which issue from the bottom of the stem or branches, must be suffered to penetrate into the earth, where they will swell and nourish the plants ; but if those beyond attempt to strike downwards, wind them gently along the elm rods, to which they will soon cling by small fibres, like those of *Ivy*. When the principal branches have extended to fifteen or twenty feet in length, divide them again by pinching their tops, as you find it necessary, into about a dozen branches in all, which must be left to flower, guiding them first horizontally, and afterwards in every possible direction, upon smaller rods of rough-barked elm, stuck into the bark pit at various angles. From the twentieth of March to the twentieth of September, shade that end of the stove by the light foliage of a *Passiflora*, trained all over the top, but pruned so thin as to admit the rays of the sun to play on the bed underneath : I prefer this method to a mat, for many reasons. Let the earth be always damp by gentle sprinklings of water, but never very wet, except in the great heats of summer, when I should be inclined to give the plant two or three drenching showers all over from a fine-nosed watering-pot, shutting up the house at night full of steam."

DIANDRIA.

1931. CYPRIPEDIUM. <i>W.</i> LADIES-SLIPPER.		<i>Orchideae. Sp. 8-14.</i>	
12997 <i>Calcéolus W.</i>	common	1	my.jl Y England woods. R s.p Eng. bot. 1
12998 <i>parviflorum W.</i>	small-flowered	1	my.jn Y N. Amer. 1759. R s.p Bot. mag. 911
12999 <i>pubescens W.</i>	yellow downy	1	my.jn Y N. Amer. 1790. R s.p Bot. cab. 895
13000 <i>spectabile W.</i>	white-petalled	1½	jn.jl W N. Amer. 1731. R s.p Bot. mag. 216
13001 <i>humile W.</i>	two-leaved	½	my.jn R.W N. Amer. 1786. R s.p Bot. mag. 1929
13002 <i>arietinum H. K.</i>	Ram's-head	½	my W N. Amer. 1808. R s.p Bot. mag. 1509
13003 <i>venustum Wall.</i>	handsome	1	jl.au G.Pu Nepal 1816. D s.p Bot. reg. 788
13004 <i>insigne Wall.</i>	noble	1	jl.au G.Pu Nepal 1819. D s.p Lindl. coll. 32
1932. STYLIDIUM. <i>R. Br.</i> STYLIDIUM.		<i>Stylideae. Sp. 5-45.</i>	
13005 <i>graminifolium R. Br.</i>	Grass-leaved	1	ap.au Pk N. S. W. 1803. S s.p Bot. reg. 90
13006 <i>fruticosum R. Br.</i>	shrubby	1½	my.o Pk N. Holl. 1803. S s.p Par. lond. 77
13007 <i>scandens R. Br.</i>	climbing	2	jl.au Pk N. Holl. 1803. S s.p Bot. mag. 2249
13008 <i>tenuifolium R. Br.</i>	fine-leaved	1	jl.au Pk N. Holl. 1818. S s.p Bot. mag. 2249
	<i>laricifolium Rich.</i>		
13009 <i>adnatum R. Br.</i>	adnate	½	jl.au Pk N. Holl. 1824. S s.p Bot. reg. 914
1933. GUNNERA. <i>W.</i> GUNNERA.		<i>Urticeae. Sp. 1-2.</i>	
13010 <i>perpensa W.</i>	Marsh-marygold-lv.	2	jl.au Y C. G. H. 1688. R p.l Bot. mag. 2376

HEXANDRIA.

1934. ARISTOLOCHIA. <i>W.</i> BIRTHWORT.		<i>Aristolochiae. Sp. 21-69.</i>	
13011 <i>trilobata W.</i>	three-lobed	6	jn.jl Pu S. Amer. 1775. C p.l Jac. amer. t. 146
13012 <i>maxima W.</i>	greatest	20	jl Pu New Spain 1759. C l.p Bot. mag. 534
13013 <i>Sipho W.</i>	broad-leaved	30	jn.jl Y.Br N. Amer. 1763. L s.p Bot. mag. 1369
13014 <i>tomentosa B. M.</i>	downy-leaved	20	jn.jl Pu N. Amer. 1799. L s.p Slo. ja. 1. t. 104. f. 1
13015 <i>odoratissima W.</i>	sweet-scented	10	jl Pu Jamaica 1737. C p.l Jac. ic. 3. t. 608
13016 <i>barbata W.</i>	bearded	10	... Pu Caraccas 1796. R s.l Rhee. mal. 8. t. 25
13017 <i>indica W.</i>	Indian	10	jn.jl Pu E. Indies 1780. C s.p Mor. s. 12. t. 17. f. 6
13018 <i>boetica W.</i>	Spanish	6	my.jn Pu Spain 1596. R l.p Bot. mag. 1116
13019 <i>glauca W.</i>	glaucous-leav.	6	jl Pu Barbary 1785. C p.l Mor. s. 12. t. 18. f. 2
13020 <i>sempervirens W.</i>	evergreen	4	my.jn Pu Candia 1737. C p.l Mill. ic. t. 51. f. 2
13021 <i>longa W.</i>	long-rooted	1½	jn.o Pu S. Europe 1548. R co Jac. scl. ec. 3. t. 385
13022 <i>Serpentaria W.</i>	Snake-root	1	jn.jl D. Pu N. Amer. 1632. R s.p
13023 <i>bracteata W.</i>	bracteated	3	jl Pu E. Indies 1793. R s.l
13024 <i>Pistolochia W.</i>	small	2	jn.jl Pu S. Europe 1597. R s.l
13025 <i>rotunda W.</i>	round-rooted	2	mr.o D. Pu S. Europe 1596. R co
13026 <i>pallida W.</i>	pale-flowered	2	my.au W. pu Italy 1640. R s.l
13027 <i>hirta W.</i>	hairy	2	my.jn Pu Chio 1759. R s.l Tourn. it. 1. t. 147
13028 <i>Clematitis W.</i>	common	2	my.au Y England woods. R co Eng. bot. 398
13029 <i>arborescens W.</i>	tree	20	jn.jl Y. Pu America 1737. C l.p
13030 <i>labiosa B. Reg.</i>	speckled	20	jl.au Gr Brazil 1821. C l.p Bot. reg. 689
13031 <i>acuminata W.</i>	long-pointed	10	... Pu Mauritius 1822. C l.p



History, Use, Propagation, Culture.

1931. *Cypripedium*. From *Κυπρις*, Venus, and *πιδιον*, a slipper, in allusion to the elegant slipper-like form of the labellum. Handsome plants "which will only thrive in a shady border in peat soil. The American species should be covered with some dry straw in very severe frosts, or if there should be too much wet; they are not easily increased, but will sometimes perfect seeds in favorable situations, particularly if pains be taken to apply the pollen to the stigma." (*Bot. Cult.* 358.)

1932. *Stylidium*. From *στυλος*, a column, in reference to the manner in which the stamen and style are united into one columnar mass. Beautiful little New Holland plants with pink flowers, remarkable for the singular elasticity of their column, which, being touched with a pin, starts with violence from the side to which it was turned when stimulated. The species grow in sandy loam and peat, and are increased by seeds, or dividing at the root; some of them by cuttings.

1933. *Gunnera*. So called after Ernest Gunner, bishop of Norway, who published a Flora of his country from 1766 to 1772. An uninteresting plant with orbicular leaves. May be planted in a pot of loam and peat, and plunged in water; it is increased by dividing at the root.

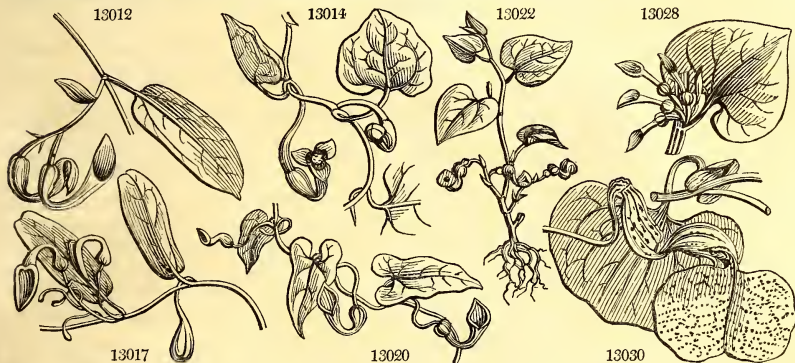
1934. *Aristolochia*. From *αριστος*, excellent, and *λοχος*, a female in child-birth; the plant was considered formerly to possess considerable powers in aiding the expulsion of the placenta, and in exciting the lochial

DIANDRIA.

- 12997 Stem leafy, Lobe of column elliptical blunt, Lip shorter than sepals compressed
 12998 Stem leafy, Lobe of column triangular acute, Lip shorter than sepals compressed
 12999 Stem leafy, Lobe of column triangular oblong blunt, Lip shorter than sepals compressed
 13000 Stem leafy, Lobe of column elliptical cordate blunt, Lip longer than blunt sepals, Spike in front
 13001 Stem leafless 1-flowered, Leaves 2 radical oblong blunt, Scape scarcely longer than leaves
 13002 Flowers with 5 sepals, Lip saccate spurred, Stem leafy
 13003 Leaves distichous fleshy nerveless spotted, Scape little longer than leaves
 13004 Leaves cartilaginous ligulate not spotted twice as short as the hairy scape
 13005 Leaves linear toothletted at edge, Raceme spiked simple and scape glandular
 13006 Leaves narrow linear decurrent smooth, Throat $\frac{1}{2}$ -crowned, Lip with an appendage
 13007 Stem scandent, Leaves linear cirrhose, Throat crowned, Lip with an appendage, Column downy upwards
 13008 Leaves setaceous linear sessile somewhat hairy, Orifice naked, Lip with an appendage
 13009 Leaves linear, Spike subsessile divided: partial few-fl. Capsules adnate at base linear 1-celled
 13010 Leaves reniform toothed shorter than the scape in fruit

HEXANDRIA.

- 13011 Leaves 3-lobed, Stem twining, Corollas cylindrical broken saccate at base, Lip cordate cuspidate
 13012 Lvs. obl. acum. 3-nerved, Stem twining, Peduncles many-flowered, Cor. incurv. Lip ovate mucronate
 13013 Lvs. cord. acute, Stem twining, Pedunc. 1-flowered with an ovate bract. Cor. ascend.: limb trifid equal
 13014 Stem twining, Lvs. stalked cord. downy beneath, Pedunc. sol. without bractes, Tube of cor. twisted back
 13015 Lvs. cordate ovate, Stem twining, Pedunc. 1-fl. longer than leaf, Lip cordate lanceolate longer than cor
 13016 Lvs. flexu cordate obl. Stem twining, Cor. straight: limb spreading, Lip spatulate bearded at end
 13017 Leaves elliptical blunt somewhat emarginate slightly cordate, Pedunc. many-fl. Cor. erect
 13018 Leaves roundish cordate acute, Stem twining, Peduncles about 3, Cor. incurved, Lip ovate
 13019 Leaves cordate ovate blunt glaucous beneath, Stem twining, Cor. incurved, Lip ovate retuse
 13020 Leaves cordate oblong acuminate, Stem prostrate flexuose somewhat climbing, Cor. incurved
 13021 Leaves cordate ovate retuse, Stem prostrate flexuose somewhat climbing, Cor. erect, Lip lanc. acute
 13022 Leaves cordate oblong acuminate, Stem flexuose ascending, Pedunc. radical, Lip of cor. lanceolate
 13023 Lvs. flexu cordate blunt, Stem weak, Flowers solitary, Bractes cordate stalked
 13024 Lvs. cordate ovate crenate scabrous netted beneath, Stem branched at base flexuose prostrate, Cor. erect
 13025 Lvs. cordate ovate blunt subsess. Stem nearly erect and simple, Pedunc. sol. 1-fl. Cor. erect
 13026 Lvs. cordate ovate blunt emarginate stalked, Stem flexuose nearly erect, Pedunc. sol. 1-fl. Cor. erect
 13027 Lvs. cordate ovate blunt downy stalked, Stem erect hairy, Pedunc. sol. 1-fl. Cor. recurved
 13028 Lvs. roundish cordate bluntish stalked, Stem erect, Pedunc. 1-fl. heaped, Cor. erect
 13029 Leaves cordate lanceolate, Stem erect shrubby
 13030 Leaves reniform roundish cordate amplexicaul. Corolla incurved at base saccate: 2-lipped in the middle
 13031 Leaves cordate acuminate, Flowers in racemes, Capsules acutely hexangular



and Miscellaneous Particulars.

discharge. The root of *A. serpentaria* is said to be the substance which the Egyptian snake-jugglers chew, for the purpose of stupefying the snakes by the introduction of their saliva into the reptiles' mouths. *A. clematitis* (from *κλίμα*, a young shoot of the vine, in allusion to its appearance) is a species which furnishes one of the roots employed in European medicine. It is stimulant, stomachic, and emmenagogue; use has been made of it for various purposes, as for paleness of the countenance, fistula, sarcoma, &c. *A. pistolochia* is also employed for the same purposes. It grows upon the dry stony places of Languedoc and Provence. It is used in cases of obstructed perspiration, and in disorders of the lungs. The roots should be chosen of a plump texture, and a yellowish color. They should be newly dried, and possess an aromatic flavor and a bitter taste.

Aristolochia trilobata and *odoratissima* have strong smelling roots, which are looked upon in Jamaica as powerful medicines, and used as stomachics by the slaves. The first species is called *Contryerva* of the north side, from its growing in that part of the island; and the other *Contryerva* of the south side, for a corresponding reason. The root of *A. serpentaria* retains a place in the *Materia Medica*. The dried root is imported into this country from North America; it has an aromatic odor, not unlike that of Valerian; and a sharp, warm, bitter, pungent taste, resembling in some degree that of camphor. Medicinally, it is stimulating, diaphoretic, and tonic.



CLASS XXI. — MONECIA.

Male and female organs in distinct flowers, but upon the same plant.

THIS class consists of a variety of plants of all kinds, natures, and affinities, combined by the character of having their flowers unisexual, but upon the same plant, in which respect Monecia is distinguished from the next class, Dicæcia. It contains nearly all the most important timber-trees of the temperate countries of the world, such as the oak, the pine, the birch, the beech, the walnut, the plane, the cypress, and many others. The bread-fruit, so important an article of food in some parts of the world, is placed in Monandria. Various palms occupy a station in other parts of the class. The dangerous Manchinee-tree, and many poisonous or medicinal plants, are also placed here. To Monecia Polyandria belongs the famous Upas-tree of Java, to which so many fables are attached. It is described in Rumphius's Herbarium Amboinense (2. 87.), under the name of Ipo, and is now ascertained to be a species of Antiaris. From Siphonia elastica, a plant of Monocæcia Monadelphica, and native of Brazil, one of the kinds of Caoutchouc or gum elastic of commerce is obtained.

Sprengel, and others, refer most of the genera of Monocæcia to other classes, considering those only to be truly referable to it, of which the male and female flowers have some differences of structure.

Order 1. MONANDRIA.



Stamen 1.

1935. *Artocarpus*. Male. A cylindrical catkin. Cal. O. Petals 2. Filament the length of cor. Female. Cal. O. Cor. O. Ovaries numerous, collected in a globe. Style filiform. Drupe compound.

1936. *Casuarina*. Male. Catkin filiform. Calyx 2-valved. Cor. O. Female. Catkin globose. Calyx an ovate scale. Cor. O. Caps. 2-valved, 1-seeded. Seed winged at end.

1937. *Ceratocarpus*. Male. Cal. 2-parted. Cor. O. Filament long. Female. Calyx 1-leaved, 2-horned, attached to the superior ovary. Cor. O. Style 2. Seed 1, tightly enclosed in the calyx.

1938. *Zannichellia*. Barren fl. Perianth. none. Fertile fl. Perianth. single of 1 leaf. Germens 4 or more. Style 1. Stigma peltate. Capsules sessile.

Order 2. DIANDRIA.



Stamens 2

1939. *Lemna*. Male. Cal. 1-leaved. Cor. O. Female. Calyx 1-leaved. Cor. O. Style 1. Capsule 1-celled, 2-seeded.

1940. *Anguria*. Male. Calyx 5-fid. Petals 5. Female. Cal. 5-fid. Petals 5. Fruit inferior, 2-celled, many-seeded.

Order 3. TRIANDRIA.



Stamens 3.

1941. *Comptonia*. Male. A catkin. Calyx a scale. Petals 2. Filaments 2-forked. Female. A catkin. Calyx a scale. Petals 6. Styles 2. Nut ovate.

1942. *Hernandia*. Male. Calyx 3-parted. Petals 3. Female. Calyx truncate, entire. Petals 6. Drupe hollow, open at orifice, with a moveable kernel.

1943. *Azyris*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-leaved. Cor. O. Styles 2. Seed 1.

1944. *Tragia*. Male. Calyx 3-parted. Cor. O. Female. Calyx 5-parted. Cor. O. Style 3-fid. Caps. of 3 pieces, and 3 cells. Seed solitary.

1945. *Typha*. Flowers collected into cylindrical dense spikes or catkins. Barren fl. Perianth. O. Stam. 3. together, upon a chaffy or hairy receptacle, united below into 1 filament. Fertile fl. Perianth. O. Pericarp pedicellate, surrounded at the base with hairs resembling a pappus.

1946. *Sparganium*. Flowers in spherical dense heads. Barren fl. Perianth single, of 3 leaves. Fertile fl. single, of 3 leaves. Drupe dry, with 1 seed.

1947. *Carex*. Flowers collected into an imbricated catkin. Barren fl. Calyx of 1 scale, glumaceous. Cor. O. Fertile fl. Calyx of 1 leaf, glumaceous. Cor. of 1 leaf, urceolate, ventricose. Stigm. 2-3. Nut triquetrous, included within the persistent cor.

1948. *Cobresia*. Flowers in an imbricated catkin. Male. Calyx a solitary scale. Cor. O. Female. Cal. generally a double scale; one flat, the other involving the ovary. Cor. O. Stigmas 3. Nut somewhat three-cornered, naked.

1949. *Uncinia*. Flowers in an imbricated catkin, androgynous. Male. Cal. a solitary beardless scale. Female. Cal. bearded; beard hooked from the base of the inside of scale. Stigmas 3.

1950. *Zea*. Male in distinct spikes. Cal. a two-flowered blunt glume. Cor. a blunt glume. Female. Cal. a 2-valved glume. Cor. a 2-valved glume. Style 1, filiform, pendulous. Seeds solitary, immersed in an oblong receptacle.

1951. *Coix*. Male in remote spikes. Cal. a 2-flowered blunt glume. Cor. a blunt glume. Female. Calyx a 2-flowered glume. Cor. a blunt glume. Style 2-parted. Seed covered by the ossified calyx.

1952. *Tripsacum*. Male. Glume 2-flowered: outer male; inner neuter. Cor. a membranous glume. Female. Calyx a 1-fl. glume, surrounded by a 1-leaved involucre, perforated at the recesses. Cor. a 2-valved glume. Styles 2. Seed 1.

1953. *Heteropogon*. Spike simple, monocæous. Flowers male on one side, female on the other. Male. Cal. 2-valved. Cor. 2-valved, beardless: the inner valve setaceous. Nectary 2-lobed, turgid. Female. Cal. 2-valved. Cor. 2-valved, one thickish and bearded. Beard very long and hairy.

1954. *Olyra*. Male. Calyx a 1-flowered somewhat awned glume. Cor. O. Female. Cal. a 1-fl. spreading, ovate, awned glume. Cor. a 2-valved blunt glume. Style bifid. Seed cartilaginous.

Order 4. TETRANDRIA.



Stamens 4.

1955. *Anus*. Flowers collected into imbricated catkins. Barren fl. Scale of the catkin 3-lobed, with three flowers. Perianth. single, 4-partite. Fertile fl. Scale of the catkin subtrifid, with 2 flowers. Perianth. O. Styles 2. Fruit compressed.

1956. *Betula*. Barren flower in a cylindrical catkin, its scales 3-fl. Perianth. O. Stam. 10-12. Fertile fl. Scale of the catkin imperfectly 3-lobed, 3-flowered. Perianth. O. Styles 2. Germens compressed, 2-celled, one abortive. Nuts compressed, with a membranaceous margin, 1-seeded.

1957. *Buxus*. Male. Calyx 3-leaved. Petals 2. Rudiment of an ovary. Female. Calyx 4-leaved. Petals 3. Styles 3. Caps. with 3 beaks and 3 cells. Seeds 2.
1958. *Cicca*. Male. Calyx 4-leaved. Cor. O. Female. Cal. 4-leaved. Cor. O. Styles 4. Capsule 4-coccos, not splitting, somewhat fleshy.
1959. *Morus*. Male. Cal. 4-parted. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 2. Calyx berried. Seed 1.
1960. *Bachmevia*. Male. Cal. 4-parted. Cor. O. Nut O. Female. Cal. O. Cor. O. Style 1. Seed 1.
1961. *Pilea*. Male. Cal. 4-parted membranous. Stamens 4 elastic. Female. Calyx 3-leaved, with one sepal fleshy and gibbous. Stigma sessile fringed.
1962. *Urtica*. Barren fl. Perianth, single, of 4 leaves, containing the cup-shaped rudiment of a germen. Fertile fl. Perianth, single, of 2 leaves. Pericarp 1-seeded, shining.
1963. *Pachysandra*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 4-leaved. Cor. O. Styles 3. Caps. 3-horned, 3-celled. Seeds 2.
1964. *Diatis*. Male. Calyx 4-leaved. Cor. O. Female. Calyx 1-leaved, 2-horned. Style 2-parted. Seed 1, villous at base, covered with the 2-horned calyx.
1965. *Empyllum*. Male. Calyx 4-fid. Cor. O. Female. Cal. 4-fid, inferior. Cor. O. Stigma cylindrical, seated on a lateral tooth of the ovary. Caps. splitting at side. Seed 1, with an arillus.
1966. *Aucuba*. Male. Cal. 4-toothed. Petals 4. Recept. with a square hole. Female. Cal. 4-toothed. Petals 4. Ovary inferior. Style 1, short. Nut ovate, 1-celled.
1967. *Littorella*. Barren fl. Calyx of 4 leaves. Cor. 4-fid. Stam. very long. Fertile fl. Calyx O. Cor. unequally 3-cleft. Style very long. Nut 1.
1968. *Serpicula*. Male. Cal. 4-toothed. Petals 4. Female. Cal. 4-parted. Pericarp a downy nut.
1969. *Maclura*. Male. A catkin. Female. Cal. O. Corolla O. Style 1, filiform, villous. Ovaries numerous, coalescing into a compound globose berry of many cells; cells 1-seeded. Seed obovate, compressed.

Order 5. PENTANDRIA.



Stamens 5.

1970. *Erocarpus*. Male. Cal. 5-leaved. Cor. O. Stamens inserted in calyx. Female. Style simple, short. Stigma naked. Drupe 1-seeded, placed on a fleshy receptacle.
1971. *Nephetium*. Male. Cal. 5-toothed. Cor. O. Female. Cal. 4-fid. Cor. O. Ovaries 2. Styles two to each. Drupes 2, dry, muricated, 1-seeded.
1972. *Schizandra*. Male. Cal. 9-leaved in a triple row. Cor. O. Anthers subsessile, cohering at end. Female. Cal. of male. Cor. O. Ovaries numerous, capitate. Berries 1-seeded, inserted on a long filiform receptacle.
1973. *Franzeria*. Male. Cal. common, 1-leaved, many-toothed. Cor. 1-petalous, tubular, 5-toothed. Recept. naked. Female. Calyx many-leaved. Cor. O. Styles 4. Drupe dry, 4-celled, setose.
1974. *Xanthium*. Male. Common calyx imbricated. Cor. monopetalous, 5-fid, funnel-shaped. Female. Cal. a 2-leaved, 1-flowered involucre. Cor. O. Drupe dry, muricated, 2-fid. Nut 2-celled.
1975. *Amaranthus*. Male. Cal. 3-5-leaved. Cor. O. Stamens 3-5. Female. Cal. of the male. Cor. O. Styles 3. Caps. 1-celled, cut round about.
1976. *Luffa*. Male. Cal. 5-parted. Cor. 5-parted, attached to calyx. Female. Cal. and cor. of male. Filaments 5, sterile. Ovary inferior. Stigma clavate. Gourd with a lid, 3-celled, furrowed.
1977. *Ambrosia*. Male. Common cal 1-leaved. Cor. 1-petalous, 5-fid, funnel-shaped. Recept. naked. Female. Cal. 1-leaved, entire, 5-toothed beneath, 1-flowered. Cor. O. Nut formed by the indurated calyx, 1-seeded.
1978. *Securinega*. Male. Cal. 5-parted. Cor. O. Stamens 5, inserted under a rudiment of a pistillum. Female. Capsule 3-celled.

Order 6. HEXANDRIA.



Stamens 6.

1979. *Zizania*. Male. Cal. O. Cor. a 2-valved blunt glume, mixed with the females. Female. Cal. O. Cor. a 2-valved glume, cucullate, and awned. Style 2-parted. Seed 1, enveloped in the plaited corolla.
1980. *Pharus*. Male. Cal. a 2-valved 1-fl. glume. Cor. a 2-valved glume. Female. The cal. of the male. Cor. a long involute 2-valved glume. Seed 1.
1981. *Guettarida*. Male. Cal. cylindrical. Cor. 4-7-fid, funnel-shaped. Female. Cal. cylindrical. Cor. 4-7-fid. Ovary 1. Drupe dry.
1982. *Sagus*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. O. Filam. dilated. Female. Cal. 3-leaved, with two of the leaves bifid. Cor. O. Style very short. Stigma simple. Nut tessellated-imbriicated, 1-seeded.
1983. *Cocos*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-leaved. Cor. 3 petals. Female. Cal. 2-leaved. Cor. 6 petals. Style O. Stigma a depression. Drupe fibrous.
1984. *Elate*. Common spatha 2-valved. Spadix branched. Male. Cal. 3-toothed. Petals 3. Anthers sessile. Female. Cal. 3-toothed. Petals 3. Stigmas 3. A drupe.
1985. *Bactris*. Common spatha 1-valved. Spadix branched. Male. Cal. 3-parted. Cor. 3-fid. Female. Cal. 3-toothed. Cor. 3-toothed. Style very short. Stigma capitate. Drupe fibrous, succulent.

Order 7. POLYANDRIA.



Stamens more than 6.

1986. *Ceratophyllum*. Barren fl. Cal. multipartite. Cor. O. Stam. 16-20. Fertile fl. Cal. multipartite. Cor. O. Stigma nearly sessile, oblique. Nut 1-seeded.
1987. *Myriophyllum*. Barren fl. Cal. of 4 leaves. Petals 4. Stamens 8. Fertile fl. Cal. of 4 leaves. Petals 4. Stigmas 4, sessile. Nuts 4, subglobose, 1-seeded.
1988. *Sagittaria*. Male. Cal. 3-leaved. Petals 3. Stamens about 24. Female. Cal. 3-leaved. Petals 3. Ovaries many. Seeds many, naked.
1989. *Begonia*. Male. Cal. O. Petals 4: the two opposite the largest. Stamens numerous. Female. Cal. O. Petals 4 or 6, like the male. Styles 3, bifid. Caps. inferior, 3-angular, winged, 3-celled, many-seeded.
1990. *Potcirmum*. Barren fl. Cal. of 4 leaves. Cor. 4-partite. Stamens 30-40. Fertile fl. Cal. of 4 leaves. Cor. 4-partite. Germens 2. Fruit 2-celled, invested with the cal.
1991. *Amirola*. Male. Calyx 5-fid: lower segm. cut down to the base. Cor. O. Stamens 8, declinate. Female as in the male. Style incurved. Caps. 3-coccos, inflated, 3-valved. Seeds globose.
1992. *Acidoton*. Male. Cal. 5-leaved. Cor. O. Stamens 35-40. Female. Cal. 6-leaved. Cor. O. Style 3-fid. Caps. 3-coccos.
1993. *Thelygonum*. Male. Cal. 2-fid. Cor. O. Stamens about 12. Female. Cal. 2-fid. Cor. O. Ovary 1. Caps. coriaceous, 1-celled, 1-seeded.
1994. *Castanea*. Barren fl. in a very long cylindrical catkin. Perianth, single, of 1-leaf, 6-cleft. Stamen 5-20. Fertile fl. 3, within a 4-lobed, thickly muricated involucre. Perianth, single, urcelolate, 5-6-lobed, having the rudiments of 12 stamens. Germen incorp. with the perianth, 6-celled, with the cells 2-seeded, 5 of them mostly abortive. Styles 6. Nut 1-2-seeded, invested with the enlarged involucre.

1995. *Ostrya*. Male, an imbricated catkin. Cal. a scale. Cor. O. Filaments branched, Female, a naked catkin. Cal. O. Cor. O. Caps. inflated, imbricated, 1-seeded at base.
1996. *Carpinus*. Barren fl. in a cylindrical catkin, its scales roundish ciliated at the base. Stamens 8-20. Fertile fl. in a lax catkin, its scales large, foliaceous, 3-lobed, 1-flowered. Invol. O. Perianth. of 1 leaf, urceolate, 6-dentate, incorporated with the 2-celled germen, of which 1 cell is abortive. Styles 2. Nut ovate, striated, 1-seeded.
1997. *Fagus*. Barren fl. in a globose catkin. Perianth. single, of 1 eaf, campanulate, 6-cleft. Stamens 5-12. Fertile fl. $\frac{2}{2}$ within a 4-lobed prickly involucre. Perianth. single, urceolate, with 4-5 minute lobes. Germen incorporated with the perianth., 3-celled, two of them becoming abortive. Styles 3. Nuts 1-seeded, invested with the enlarged involucre.
1998. *Corylus*. Barren fl. in a cylindrical catkin, its scales 3-cleft. Perianth. O. Stamens 8. Anthers 1-celled. Fertile fl. Perianth. obsolete. Germens several, surrounded by a scaly involucre. Stigmas 2. Nut 1-seeded, surrounded at the base with the enlarged united coriaceous scales of the involucre.
1999. *Juglans*. Male, an imbricated catkin. Cal. a scale. Cor. 6-parted. Filaments 4-18. Female. Cal. 4-fid, superior. Cor. 4-fid. Styles 2. Drupe coriaceous, with a furrowed nut.
2000. *Quercus*. Barren fl. in a lax catkin. Perianth. single, somewhat 5-cleft. Stamens 5-10. Fertile fl. Invol. cup-shaped, scaly. Perianth. single, incorporated with the germen, 6-lobed. Germen 3-celled, 2 of them abortive. Style 1. Stigmas 3. Nut (acorn) 1-celled, 1-seeded, surrounded at the base by the enlarged cup-shaped involucre.
2001. *Liquidambar*. Male, a conical catkin, surrounded by a 4-leaved involucre. Cal. O. Cor. O. Filaments numerous. Female, a globose catkin, surrounded by a 4-leaved involucre. Cal. 1-leaved, urceolate, 2-flowered. Cor. O. Styles 2. Capsules 2, surrounded at base by calyx, 1-celled, many-seeded.
2002. *Platanus*. Male, a globose catkin. Cal. O. Cor. scarcely any. Anthers growing about the filament. Female, a globose catkin. Cal. many-leaved. Cor. O. Styles with a recurved stigma. Seeds roundish, mucronate with the style, papoose at base.
2003. *Salisburia*. Male, a naked catkin. Cal. O. Cor. O. Anthers imbricated. Female. Cal. 4-fid. Drupe with a 3-cornered nut.
2004. *Cartudovica*. Common spatha 4-leaved. Spadix cylindrical. Male. Common calyx a cubical 4-flowered receptacle: proper calyx many-toothed. Female. Cal. an edge. Styles 4, very long. Stigmas anther-like. Berry cubical, many-seeded.
2005. *Caladium*. Male. Cal. and cor. O. Anthers peltate, many-celled, disposed in a spike at the end of the spadix. Female. Cal. and cor. O. Ovaries inserted at base of spadix. Style O. Berry 1-celled, many-seeded.
2006. *Arum*. Spatha of 1 leaf, convolute at the base. Perianth. O. Spadix with germens at the base. Stem (sessile) near the middle of the spadix, which is naked above. Berry 1-celled, 1-seeded.
2007. *Sayota*. Common spatha compound. Male. Cal. 3-leaved. Petals 3. Female. Cal. 3-leaved. Cor. 3-parted. Style 1. Berry 1-celled, 2-seeded.

Order 8. MONADELPHIA.



Stamens united into a single body.

2008. *Nipa*. Palm. Male. Cal. O. Petals 6. Filament 1, 12-fid. Female. Stigma a lateral furrow. Drupe angular, 1-seeded.
2009. *Areca*. Common spatha 2-valved. Male. Cal. 3-parted. Petals 3. Stamens 6, cohering at base, Female. Cal. 3-leaved. Petals 3. Nect. 6-toothed. Styles 3, very short. Drupe 1-seeded.
2010. *Belis*. Male. Anthers 2-celled. Female. Scales imbricated in a lupuliform cone, very short, crested, bracteate at back, trigynous. Lateral pericarps auricled, middle cuneate, deciduous with the cone.
2011. *Agathis*. Male. Anthers many-celled. Female. Scales imbricated in a round cone, naked at back, persistent monogynous. Pericarps winged, united to the inside of scale. Cotyledons 2.
2012. *Pinus*. Male. Anthers 2-celled. Female. Scales in a conical cone, bracteate at base, digynous. Pericarps attached to the inside of scale, more or less winged, deciduous. Stigmas 2-3-fid. Cotyledons 4-8.
2013. *Abies*. The same as Larix, excepting its habit and stigma, which is that of Pinus. Cotyledons 3-9.
2014. *Larix*. Male. Anthers 2-celled. Female. Scales imbricated in a round cone, bracteate at base, digynous. Pericarps attached to inside of scale, winged, deciduous. Stigma hemispherical, cupped, glandular. Cotyledons 5-9.

MONANDRIA.

1955. ARTOCARPUS. <i>W.</i> BREAD FRUIT.	<i>Urticae</i> . Sp. 2—
13032 incisa <i>W.</i> true	$\frac{1}{2}$ clt 30 ... W.G. S. Sea Isl. 1793. Sk r.m Rum.amb.1.t.33
13033 integrifolia <i>W.</i> Jaca Tree	$\frac{1}{2}$ clt 30 in W.G. E. Indies 1778. C. r.m Rh.mal.3.t.26.28



13032

History, Use, Propagation, Culture,

1935. *Artocarpus*. From *αερος*, bread, and *καρπος*, fruit, in allusion to the well-known name and uses of the bread-fruit. *Rime* or *Fruit-à-pain*, Fr., *Brotbaum*, Ger., and *Albero di pane*, Ital. *A. incisa* grows in the South Sea Islands to the size of a moderate sized oak, with alternate leaves, deeply gashed, glaucous, and two feet long. The whole tree and the fruit before it is ripe, abound in a very tenacious milky juice. The fruit is about the

2015. *Schubertia*.

2016. *Podocarpus*. Male. Cal.-leaflets of the bud imbricated. Anthers many, adnate, bilocular, rostrate, fixed to the lengthened column of the filament. Female. An ovate 1-celled nut, half immersed in a firm receptacle.

2017. *Cupressus*. Male, an imbricated catkin. Cal. a scale. Cor. O. Anthers 4, sessile, without filaments. Female, a cone-like catkin. Cal. a 1-fl. scale. Cor. O. Stigma 2 concave dots. Nut angular.

2018. *Thuja*. Male, an imbricated catkin. Cal. a scale. Pet. 4. Anthers 4. Female, a cone-like catkin. Cal. a 2-fl. scale. Cor. O. Nut 1, surrounded by an edged wing.

2019. *Trichosanthes*. Male. Cal. 5-toothed. Cor. 5-parted, ciliated. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted, ciliated. Style 3-fid. Gourd oblong.

2020. *Momordica*. Male. Cal. 5-fid. Cor. 5-parted. Filaments 3. Female. Cal. 5-fid. Cor. 5-parted. Styles 3-fid. Gourd dropping off with elasticity.

2021. *Cucurbita*. Male. Cal. 5-toothed. Cor. 5-fid. Filaments 3. Female. Cal. 5-toothed. Cor. 5-fid. Ovary 3-fid. Seeds of gourd with a tumid edge.

2022. *Cucumis*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Ovary 3-fid. Seeds of gourd with a sharp edge.

2023. *Sicyos*. Male. Cal. 5-toothed. Cor. 5-parted. Filaments 3. Female. Cal. 5-toothed. Cor. 5-parted. Style 3-fid. Gourd 1-seeded.

2024. *Bryonia*. Barren fl. Cal. 5, dentate. Cor. 5-cleft. Filaments 3. Anthers 5. Fertile fl. Calyx 5-dentate. Cor. 5-cleft. Style trifid. Berry inferior, globose, many-seeded.

2025. *Andrachne*. Male. Cal. 5-leaved. Petals 5. Stamens 5, inserted into the rudiment of a style. Female. Cal. 5-leaved. Cor. O. Styles 3. Caps. 3-celled. Seeds 2.

2026. *Stillingia*. Male. Cal. hemispherical, many-fl. Cor. tubular, eroded. Female. Cal. 1-flowered, inferior. Cor. superior. Style 3-fid. Caps. 3-coccous.

2027. *Phyllanthus*. Male. Cal. 6-parted. Cor. O. Filament columnar. Anthers 3. Female. Cal. 6-parted. Cor. O. Disk with 12 angles. Styles 3. Capsule 3-coccous.

2028. *Aleurites*. Male. Cal. 3-fid. Petals 5. Scales 5. Filament columnar. Anthers numerous. Female. Cal. 3-fid. Petals 5. Scales 5. Style O. Stigmas 2. Berry dicoccous.

2029. *Omphalea*. Male. Cal. 4-parted. Cor. O. Disk a fleshy ring. Filament columnar. Anthers 2-5. Female. Cal. 4-parted. Cor. O. Style very short. Stigma trifid. Caps. 3-coccous, 3-celled: cells with a solitary nut.

2030. *Hippomane*. Male. Cal. campanulate, emarginate. Cor. O. Filament columnar. Female. Cal. 3-leaved. Cor. O. Style very short. Stigma 7-fid. Drupe with a 7-celled nut.

2031. *Sapium*. Male. Cal. 2-fid. Cor. O. Filament 2-fid. Female. Cal. 3-toothed. Cor. O. Style very short. Stigma 3-fid. Caps. 3-coccous.

2032. *Croton*. Male. Cal. cylindrical, 5-toothed. Petals 5. Stamens 10-15. Female. Cal. many-leaved. Cor. O. Styles 3, bifid. Caps. 3-celled. Seed 1.

2033. *Jatropha*. Male. Cal. O, or 5-leaved. Cor. monopetalous, funnel-shaped. Stamens 10, alternately shorter. Female. Cal. O. Cor. 5-petalous, spreading. Styles 3, bifid. Caps. 3-celled. Seed 1.

2034. *Ricinus*. Male. Cal. 5-parted. Cor. O. Stamens numerous. Female. Cal. 3-parted. Cor. O. Styles 3, bifid. Capsule 3-celled. Seed 1.

2035. *Hura*. Male. An imbricated catkin. Perianth truncate, 2-leaved. Cor. O. Filament cylindrical, peltate at end, surrounded by many double anthers. Female. Cal. cylindrical. Cor. O. Style funnel-shaped. Stigma 12-fid. Caps. 12-celled. Seed 1.

2036. *Sterculia*. Male. Cal. 5-parted. Cor. O. Filament columnar, surmounted by numerous anthers. Female. Cal. 5-parted. Cor. O. Anthers sterile, surrounding the base of the stalked ovaries. Follicles 5, many-seeded.

2037. *Heritiera*. Male. Cal. 5-toothed. Cor. O. Filament columnar, surmounted below the end with anthers. Female. Cal. 5-toothed. Cor. O. Sterile anthers at base of ovaries. Drupes 5, dry, 1-seeded.

2038. *Acalypha*. Male. Cal. 3-4-leaved. Cor. O. Stamens 8-16. Female. Cal. 3-leaved. Cor. O. Styles 3. Caps. 3-coccous, 3-celled. Seed 1.

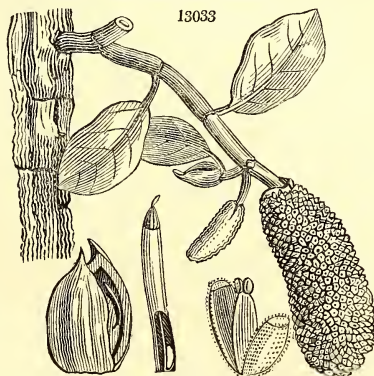
2039. *Dalechampia*. Common involucre outside, with 4 leaflets: inside with 2, trifid. Male. Umbel 10-fl.; with a 2-leaved involucre and numerous paleæ. Cal. 5-leaved. Cor. O. Filaments many, connate. Female. Florets 3, with a 3-leaved involucre. Cal. 11-leaved. Cor. O. Style filiform. Caps. 3-coccous.

2040. *Pukenetia*. Male. Cal. 4-parted. Cor. O. Stamens 20. Female. Cal. 4-parted. Cor. O. Style very long, with a peltate 4-lobed stigma. Caps. 4-coccous.

MONANDRIA.

13032 Leaves pinnatifid sinuated scabrous downy beneath

13033 Leaves oblong undivided narrowed at base scabrous beneath



and Miscellaneous Particulars.

size and shape of a child's head, and the surface is reticulated, not much unlike a truffle; it is covered with a thin skin, and has a core about as big as the handle of a small knife; the eatable part lies between the skin and the core; it is as white as snow, and somewhat of the consistence of new bread. It must be roasted before it is eaten, being first divided into three or four parts; its taste is insipid, with a slight sweetness, somewhat

1936. CASUARINA. <i>W.</i> CASUARINA.		♂		Casuarineae.		Sp. 7—10.	
13034 equisetifolia <i>W.</i>	Horse-tail	♂	or 15	o.n	Ap	S. Sea Isl.	1776. S s.p Bot. cab. 607
13035 stricta <i>W.</i>	upright	♂	or 15	f.n	Ap	N. S. W.	1775. S s.p Bot. rep. 346
13036 distyla <i>W.</i>	two-styled	♂	or 15	...	Ap	N. Holl.	1812. S s.p Ve.des.pl. n. t.62
13037 torulosa <i>W.</i>	Cork-barked	♂	or 15	...	Ap	N. S. W.	1772. S s.p
13038 quadrivalvis <i>P. S.</i>	four-valved	♂	or 18	...	Ap	N. S. W.	1812. S s.p La.no.ho.2.t.218
13039 muricata <i>Roeb.</i>	muricated	♂	or 15	...	Ap	E. Indies	1822. S s.p
13040 nodiflora <i>W.</i>	knot-flowered	♂	or 15	...	Ap	N. Caled.	1823. S s.p
1937. CERATOCARPUS. <i>W.</i> CERATOCARPUS.		♂		Chenopodeae.		Sp. 1.	
13041 arenarius <i>W.</i>	sand	♂	un	½ jn.jl	G	Tartary	1757. S s Bu.in.ac.pe.1.t.9
1938. ZANNICHELLIA. <i>W.</i> POND WEED.		♂		Naiades.		Sp. 1—3.	
13042 palustris <i>W.</i>	marsh	♂	o	2 jl	Ap	Britain	dit. S aq Eng. bot. 1844

DIANDRIA.

1939. LEMNA. <i>W.</i> DUCK WEED.		♂		Aroidae.		Sp. 4—11.	
13043 trisulca <i>W.</i>	Ivy-leaved	♂	o	W ...	my.jn	Ap	Britain sta.wa. S lp Eng. bot. 926
13044 minor <i>W.</i>	lesser	♂	o	W ...	jn.jl	Ap	Britain sta.wa. S lp Eng. bot. 1095
13045 gibba <i>W.</i>	gibbous	♂	o	W ...	jn.jl	Ap	Britain sta.wa. S lp Eng. bot. 1233
13046 polyrhiza <i>W.</i>	greater	♂	o	W ...	my.s	Ap	Britain dit. S lp Eng. bot. 2452
1940. ANGU'RIA. <i>W.</i> ANGURIA.		♂		Cucurbitaceae.		Sp. 1.	
13047 trilobata <i>W.</i>	three-lobed	♂	o	Δ	or 20	jn.jl	Pk Carthag. 1793. R lp Jac. amer. t. 156

TRIANDRIA.

1941. COMPTONIA. <i>W.</i> COMPTONIA.		♂		Myricae.		Sp. 1.	
13048 asplenifolia <i>W.</i>	Fern-leaved	♂	or 4	mr.my	Br	N. Amer.	1714. Sk s.p Dend. brit. 166
1942. HERNAN'DIA. <i>W.</i> JACK IN A BOX.		♂		Laurineae.		Sp. 2—3.	
13049 sonora <i>W.</i>	pettate-leaved	♂	o	or 20	...	E. Indies	1693. C p.l Rum.amb.2.t.85
13050 ovigera <i>W.</i>	egg-fruited	♂	o	or 20	...	E. Indies	... C p.l Rum.am.3.t.123
1943. AXYSRIS. <i>W.</i> AXYSRIS.		♂		Chenopodeae.		Sp. 2—5.	
13051 amaranthoides <i>W.</i>	simple-spiked	♂	o	un 1½	jn.jl	G	Siberia 1758. S co Gmel.sib.t.2.f.2
13052 hýbrida <i>W.</i>	bastard	♂	o	un 1½	jn.au	G	Siberia 1780. S co Gmel.sib.t.4.f.1
13053 prostrata <i>W.</i>	trailing	♂	o	un ½	jl.au	G	Siberia 1798. S co Gmel.sib.t.5.f.2



History, Use, Propagation, Culture.

resembling that of the crumb of wheat bread mixed with Jerusalem Artichoke. The plant was first brought to England by the unfortunate Captain Bligh. A fresh supply has been more than once received, and there are now a number of plants in the nurseries about London. The bread-fruit, according to Sweet, is generally supposed to be difficult of cultivation in this country. He considers that the plants have been, in general, treated too tenderly, and not allowed sufficient air. "They appear," he says, "to be of the same nature as the Fig, to which they are nearly allied. Large cuttings root freely in a pot of sand, plunged under a hand-glass, in a moist heat, with all their leaves entire: if the leaves are shortened, it is a great chance if they succeed." (*Bot. Cult.* 19.)

There are several varieties of the bread-fruit, as of all plants that have been long in cultivation. The principal of these varieties are without seeds; the natives of Otaheite reckon at least eight, differing in the form of the leaf and fruit. *A. integrifolia* is also by many considered a variety of the other; for the leaves are sometimes lobed, and the situation of the fruit varies with the age of the tree, being first borne on the branches, then on the trunk, and finally on the roots.

The bread-fruit is ripe in December, and is used boiled, or fried in Palm oil. Besides the use of the fruit, the economical purposes to which the other parts of the tree are applied are various. The wood is used in building boats and houses; a cloth is made of the inner bark; the male catkins serve for tinder; the leaves for wrapping up food, and for wiping the hands instead of towels; and the juice for making bird-lime, and a cement for filling up the cracks of vessels for holding water. According to Forster, three trees are supposed to yield sufficient nourishment for one person.

The bread-fruit tree is distributed very extensively over the East Indian continent and islands, as well as the innumerable islands of the South Seas. In 1793 it was introduced to the West Indies, and subsequently to different parts of South America. Much has been said in praise of it by Europeans, and certainly, to the inhabitants of the South Sea Islands, it may be a valuable food, as the acorn was to the inhabitants of Britain, when they were in a certain state of civilization. But whether a civilized and refined people would esteem this fruit for their own use as highly as they do for the use of the semi-barbarians of the South Seas, is a point which may reasonably be doubted.

1936. *Casuarina*. The name under which the tree is described by Rumphius, who probably called it so from the resemblance its foliage bears to the plumage of the *casoar* or *casowary* of the same country. By the Malays it is called *filao*, and by the South Sea Islanders *club-wood*, on account of the use of it for warlike weapons. *Casuarina equisetifolia* is a large spreading and lofty tree, with leaves, or rather branchlets, hanging down in bunches from twelve to eighteen inches in length, like a long head of hair, or a horse's tail, all jointed from top to bottom. The appearance of the whole tree is very remarkable. It was introduced by the first Lord Byron.

- 13034 Branchlets flaccid round, Scales of cones unarmed villous
 13035 Dioecious, Branchlets erect furrowed, Scales of cones unarmed smoothish
 13036 Dioecious, Branchlets ovate round, Scales of cones unarmed ciliated
 13037 Dioecious, Branchlets flaccid, Scales of cones villous and rough with tubercles
 13038 Dioecious, Young branches somewhat flaccid, Scales of cones villous, Male sheaths submultifid ciliated
 13039 Branches erect, Scales of cones mucronate pubescent, in which it chiefly differs from *C. stricta*
 13040 Monoecious, Branchlets erect square, Scales of cones unarmed smooth

13041 Stem much branched diffuse making globose tufts

13042 Anthers 4-celled, Stigmas entire, Pericarps toothed on the back

DIANDRIA.

- 13043 Fronds thin elliptical-lanceolate caudate at one extremity, at the other serrate, Roots solitary
 13044 Fronds nearly ovate compressed, Roots solitary
 13045 Fronds obovate nearly plane above hemispherical beneath, Roots solitary
 13046 Fronds obovate rotundate compressed, Roots numerous clustered

13047 Fruit small, Leaves 3-lobed

TRIANDRIA.

13048 Leaves oblong alternately sinuated

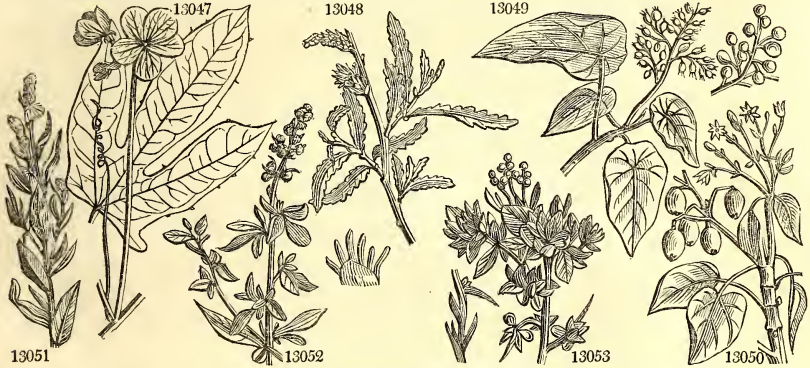
13049 Leaves peltate

13050 Leaves cordate ovate acuminate flat stalked at base

13051 Leaves ovate, Stem erect, Spikes simple

13052 Leaves ovate, Stem erect, Spikes paniced

13053 Leaves obovate, Stem somewhat divided, Flowers capitata



and Miscellaneous Particulars.

1397. *Ceratocarpus*. Named from *κερας*, a horn, and *καρπος*, fruit, because the seeds have two horns. Useless weeds.

1398. *Zannichellia*. So called in honor of John Jerome Zannichella, a Venetian apothecary, who died in 1729. He left behind him a few works of little consequence. A plant found abundantly in the marshes of some parts of England.

1399. *Lemna*. Said to have been so called from *λεπτε*, a scale, in allusion to the form of the plants. Theophrastus describes under the same name an aquatic plant. Annual weeds, which float on stagnant water, their flowers are very obscure, and not produced freely in northern climates. *L. trisulca* has dichotomous, filiform, divaricated stems, having a lanceolate leaf at the angle of the branches, but proliferous ones terminating the branches; where these leaves are conjoined, there shoots out a pendant radicle, with a conical papilla at its base. Linnaeus observes, that the stems are flattened and proliferous, crossing each other, and thus resembling in the mode of growth the opuntia or Indian fig. The leaves of *L. minor* are very small, of a roundish ovate form, collected into heaps by twos or threes, and forming extensive green mats on stagnant waters; each leaf drops a single radicle. This plant affords nourishment not only to ducks, but to the fresh water polype, to *Phalana Lemnata*, &c. Its quick and extensive propagation makes it troublesome in some cases, but at the same time it is considered valuable as converting hydrogen gas into air adapted to respiration. *L. polyrhiza* is distinguished by its dropping bundles of thick black fibres from the lower surface of the leaves. The plants sink in the water in the winter season, and either these or new ones appear again in the spring.

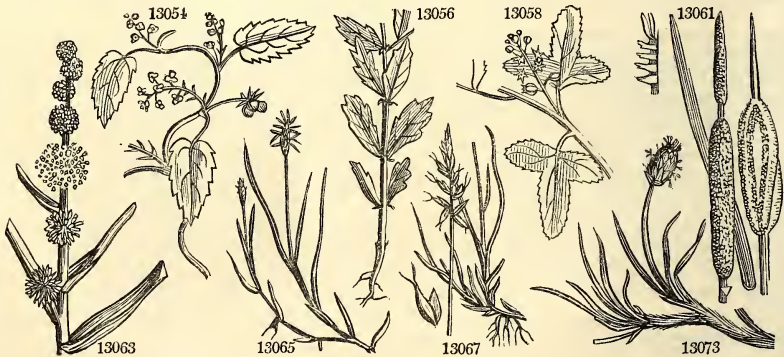
1390. *Anguria*. One of the Greek names for the Cucumber. The plant now so called is also a kind of gourd. The species grow freely on light soil, and are propagated by seeds or roots.

1341. *Comptonia*. Named in honor of Henry Compton, Lord Bishop of London, by whom the fine collection of plants attached to the episcopal palace at Fulham was formed. A handsome shrub, which thrives in peat soil, or sandy loam, and is increased by suckers or layers.

1342. *Hernandia*. So called in honor of Francisco Hernandez, a Spanish botanist, and first physician to Philip the second of Spain, by whom he was sent to Mexico for the sake of investigating the natural history of that country. Linnaeus is said to have named it in allusion to the large leaves and little flowers of the plant, which may be supposed to represent the great means and small advantages which attended the expedition of Hernandez. This is an upright lofty tree, with an elegant head. The fruit is a nut, sustained and partly enveloped by a yellow persisting calyx. The nuts are very large, and as they move in the wind, produce sound enough to alarm unwary travellers. In our stoves the plants grow freely in loamy soil, and ripened cuttings, with their leaves on, root in sand under a hand-glass.

1343. *Azyris*. A word of unknown meaning. Plants of little beauty and the easiest culture.

1944. TRAGIA. <i>W.</i>	TRAGIA.																		
13054 <i>volvūlis W.</i>	twinning	☐	un	6	jn.jl	G	W. Indies	1739.	S	co									Tre.pl.rar.2. t.15
13055 <i>involutāta W.</i>	involved	⊖	un	3	jn.jl	G	E. Indies	1759.	S	co									Jac. ic. 1. t. 190
13056 <i>ūrens W.</i>	stinging	⊖	un	3	au	G	Virginia	1639.	S	co									Pluk.al. t.107.f.5
13057 <i>Chamaēia W.</i>	lance-leaved	⊖	un	2	jn.jl	G	E. Indies	1793.	D	lp									Rhee.mal.2. t.34
13058 <i>cannabinā W.</i>	Hemp-leaved	⊖	un	2	jn.jl	G	E. Indies	1699.	S	lp									Bur.ind. t.63. f.4
1945. TY'PHA. <i>W.</i>	CAT'S-TAIL.																		
13059 <i>latifolia W.</i>	great	Δ	ec	6	jl	Br	Britain	dit.	S	lp									Eng. bot. 1455
13060 <i>minor W.</i>	dwarf	Δ	ec	2	jl	Br	England	mar.	S	lp									Eng. bot. 1457
13061 <i>angustifolia W.</i>	lesser	Δ	ec	3	jn.jl	Br	Britain	pools.	S	lp									Eng. bot. 1456
1946. SPARGA'NIUM. <i>W.</i>	BUR REED.																		
13062 <i>ramōsum W.</i>	branched	≡	un	2	jl.au	Ap	Britain	dit.	S	lp									Eng. bot. 744
13063 <i>simplex W.</i>	unbranched	≡	un	1½	jl.au	Ap	Britain	sta.wa.	S	lp									Eng. bot. 745
13064 <i>nātans W.</i>	floating	≡	Δ				England	fens.	S	lp									Eng. bot. 272
1947. CA'REX. <i>W.</i>	CAREX.																		
13065 <i>dioica W.</i>	dioecious	Δ	cu	½	my.jn	Ap	Britain	sp.bo.	Sk	s.p									Eng. bot. 543
13066 <i>Davalliāna W.</i>	Davall's	Δ	cu	¾	my.jn	Ap	Britain	mar.	Sk	s.p									Eng. bot. 2123
13067 <i>pulicāris W.</i>	Flea	Δ	cu	1½	jn.jl	Ap	Britain	mar.	Sk	co									Eng. bot. 1051
13068 <i>pyrenāica W.</i>	Pyrenean	Δ	cu	1½	jn.jl	Ap	Pyrenees	1820.	Sk	co									S.ca.n.5. t.D.f.15
13069 <i>pauciflōra W.</i>	few-flowered	Δ	cu	1½	jn	Ap	Britain	bg.s.m.	Sk	s.p									Eng. bot. 2041
13070 <i>cyperiflōra W.</i>	Bohemian	Δ	un	2	jn.jl	Ap	Bohemia	1801.	Sk	co									Schk.car.t. A.f.5
13071 <i>stenophylla W.</i>	narrow-leaved	Δ	un	2	jn.jl	Ap	Austria	1822.	Sk	co									Sc.ca. t.G. II.f.32
13072 <i>chordorhiza W.</i>	chord-rooted	Δ	un	1	jn.jl	Ap	Sweden	1823.	Sk	co									Sc.ca. t.G. II.f.31
13073 <i>incurva W.</i>	curved	Δ	un	¾	jl.au	Ap	Scotland	san.sh.	Sk	co									Sc.ca. t.G. II.f.31
13074 <i>foe'tida W.</i>	stinking	Δ	un	¾	jl.au	Ap	Switzerl.	1791.	Sk	co									Sch.ca.t. Hh.f.96
13075 <i>arenāria W.</i>	sand	Δ	ec	1	jn.jl	Ap	Britain	san.sh.	Sk	co									Eng. bot. 928
13076 <i>intermēdia W.</i>	soft-brown	Δ	un	1½	my.jl	Ap	Britain	mar.	Sk	co									Eng. bot. 2042
13077 <i>schenoides W.</i>	rush-like	Δ	un	1	my.jl	Ap	Germany	1823.	Sk	co									
13078 <i>Schreberī W.</i>	Schreber's	Δ	un	1½	jn.jl	Ap	Germany	1800.	Sk	co									Host. gra. 1. t.46
13079 <i>brizoides W.</i>	Briza-like	Δ	un	2	my.jl	Ap	Germany	1815.	Sk	co									Host.gra.36.t.47
13080 <i>ovālis W.</i>	oval-spiked	Δ	un	2	jn.jl	Ap	Britain	mar.	Sk	co									Eng. bot. 306
13081 <i>lagopodioides W.</i>	Hare's Foot	Δ	un	2	jn.jl	Ap	N. Amer.	1805.	Sk	co									Sc. c. t. Yyy.f.177
13082 <i>scopāria W.</i>	Broom	Δ	un	2½	jn.jl	Ap	N. Amer.	1812.	Sk	co									Sc.c. t. Xxx.f.175
13083 <i>memorōsa W.</i>	wood	Δ	un	3	jn.jl	Ap	Germany	1824.	Sk	co									
13084 <i>vulpīna W.</i>	great-spiked	Δ	un	3	my.au	Ap	Britain	mar.	Sk	co									Eng. bot. 307
13085 <i>stipāta W.</i>	propped	Δ	un	3	my.au	Ap	N. Amer.	1825.	Sk	co									Sc.c.t. Hhh.f.132
13086 <i>divīsa W.</i>	bracteated	Δ	un	2	my.jl	Ap	Britain	sal.m.	Sk	co									Eng. bot. 1096
13087 <i>muricāta W.</i>	greater-prickly	Δ	un	2	my.jn	Ap	Britain	moi.p.	Sk	co									Eng. bot. 1097
13088 <i>norvėgia W.</i>	Norway	Δ	un	1½	my.jn	Ap	Norway	1822.	Sk	co									Schk.car.t.8.f.66
13089 <i>divīsa W.</i>	gray	Δ	un	2	my	Ap	Britain	m.s.pl.	Sk	co									Eng. bot. 629
13090 <i>stellulāta W.</i>	little-prickly	Δ	un	½	my.jn	Ap	Britain	mar.	Sk	co									Eng. bot. 806
13091 <i>rōsea W.</i>	Rose	Δ	un	2	my.jn	Ap	N. Amer.	1812.	Sk	co									Sc.ca.t. Zzz.f.179
13092 <i>axillāris W.</i>	axillary	Δ	un	2½	my.jn	Ap	England	bogs.	Sk	co									Eng. bot. 993
13093 <i>remōta W.</i>	remote	Δ	un	2	my.jn	Ap	Britain	groves.	Sk	co									Eng. bot. 832



History, Use, Propagation, Culture,

1944. *Tragia*. In honor of a German botanist named Jerome Bock, born in 1498, and died in 1554; *Tragus*, which was the name he bore in science, being a Greek translation of his real name, both signifying a goat. He published a history of plants, or *Kräuterbuch*, and several other works. Twinning plants of no interest.

1945. *Typha*. From *τυφος*, a marsh, in which all the species naturally grow. *T. latifolia* is one of the handsomest aquatics of the reed kind; its leaves are of a bluish color, an inch in width, and three feet long; the pollen of the flower is very abundant, and a light being applied to it, a flash of fire is produced. Haller says, that the roots are eaten in salads, that cattle eat the leaves, and that the downy seeds serve for stuffing pillows. The leaves are sometimes used by coopers, and introduced between the staves of their casks; they are frequently used for making mats, baskets, chair bottoms, and sometimes for thatch. Rubens, and other

- 13054 Leaves cordate ovate acuminate serrated smoothish, Petioles ciliated, Female sepals hairy entire
- 13055 Leaves hispid ovate-acuminate serrated, Female sepals pinnatifid setose hispid
- 13056 Leaves lanceolate sessile blunt somewhat toothed at end; and stem, which is erect and branched, downy
- 13057 Leaves linear lanceolate stalked blunt mucronate, Stem branched diffuse
- 13058 Leaves deeply 3-lobed toothed, Middle lobe long

- 13059 Leaves linear nearly plane, Sterile and fertile catkins close together
- 13060 Leaves linear plane twice as short as culm, Male and female catkins remote
- 13061 Leaves linear convex below, Sterile and fertile catkins a little distant from each other

- 13062 Leaves triangular at the base their sides concave, Common flower-stalk branched, Stigma linear
- 13063 Leaves triangular at the base their sides plane, Common flower-stalk simple, Stigma linear
- 13064 Lvs. floating plane, Common fl.-stalk simple, Stigma ovate very short, Head of sterile fls. mostly solitary

§ Spikes dioecious.

- 13065 Spike simple dioecious, Fruit ascending ovate shortly acuminate striated rough at the margin upwards
- 13066 Spike simple dioecious, Fruit ovate much acuminate recurvate-deflexed smoothish at the margin

§ 2. Spikes androgynous.

* 1. Spike simple.

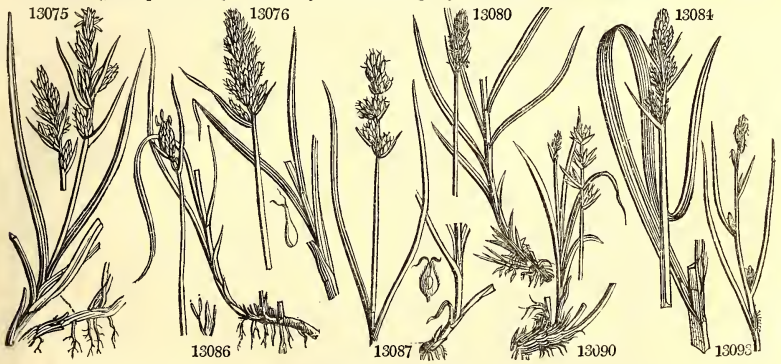
- 13067 Spike simple androgynous, Flowers few, Fruit distant oblongo-lanceolate acuminate reflexed, Stigmas 2
- 13068 Spike simple androgynous male at top, Stigmas 3, Fruit oblong with a short beak horizontal
- 13069 Spike simple androgynous of very few fls. Fruit distant lanceolate subulate patenti-reflexed, Stigmas

* 2. Spikelets capitate.

- 13070 Spikes androgynous male below collected in globose involucreted heads, Stigm. 2, Fr. lanc. with 2 points
- 13071 Spikes androgynous male above collected in an oblong head, Stigm. 2, Fr. ovate comp. nerved with 2 teeth
- 13072 Spikes androgynous male above collected in an ovate form, Stigm. 2, Fr. ov. acumin. Culm branched at base
- 13073 Spikl. ster. at extrem. collected into a roundish head, Fruit broad. round. ov. short acum. swell. on both sides nearly entire at the point, Culm obt. angular, Leaves channelled
- 13074 Spikes androgynous male above collected into an oval head, Stigm. 2, Fruit ellipt. roundish acuminate bifid

* 3. Spikelets spiked, many-flowered.

- 13075 Lower spikel. fert. : upp. ones ster. all crowd. Fr. with membr. marg. Bract. membranc. : low. ones subfoli.
- 13076 Inferior and term. spikelets fertile: intermediate ones sterile, Fruit acutely margined, Culms triangular
- 13077 Spike androgynous comp. Spikelets obl. altern. clust. male above, Stigmas 2, Fr. round. ov. edged 2-toothed
- 13078 Spike androgynous comp. Spikelets ovate alternate clustered male below, Stigmas 2, Fr. ovate 2-toothed
- 13079 Spike androg. comp. somew. distich. Spikel. about 5 altern. con. obl. lanc. male bel. Stigm. 2, Fr. ov. edg. bifid
- 13080 Spikel. ster. at the base oval about 5 approxim. Fruit as long as the cal. ovato-acumin. convex on one side, concave on the other, with a membranaceous margin bifid at the point
- 13081 Spike androg. comp. Spikel. 12 altern. ellipt. blunt approxim. male below, Stigmas 2, Fr. ov. lanc. edg. bicusp.
- 13082 Spike androgynous comp. Spikel. about 5 altern. ellipt. blunt somewhat approxim. male below, Stigmas 2, Fruit ovate lanceolate edged bicuspidate
- 13083 Spike androgynous comp. Spikel. numer. collected in 3s or 5s ovate clustered male above, Stigmas 2, Fruit spreading ovate acuminate 2-toothed edged compressed
- 13084 Spikel. ster. at their extremities thrice comp. collected into a cylind. crowded spike, Fruit ovate acuminat. convexo-plane acutang.-diverg. Stem very acute triang. Leaves rather broad
- 13085 Spike androg. comp. Spikel. about 5 obl. male above clust. Stigm. 2, Fr. spread. ov. acum. with 2 points nerv.
- 13086 Spikel. ster. at their extremities crowded into a somewhat ovate head: lower ones with a leafy erect bractea at their base, Fruit roundish ovate convex on one side slightly concave on the other
- 13087 Spikel. ster. at their extremities subcomp. collected into a rather long more or less interrupted spike, Fruit convexo-plano ovato-acuminate acutangular divergent rough at the margin upward
- 13088 Spike androg. comp. Spikel. 4 altern. obl. male below somewhat approxim. Stigmas 2, Fr. obl. acutish compr.
- 13089 Spike long somew. decompound branched at the base: lower spikelets remote, Fruit erect smooth at edge
- 13090 Spikel. ster. at base 3 or 4 dist. Fr. ov. much attenuat. convexo-plane acutangul. divaricat. rough at margins
- 13091 Spike androg. comp. Spikel. about 4 remote male above, Stigm. 2, Fr. ov. acum. 2-tooth. horiz. ciliat. at base
- 13092 Spikes subternate remote sessile, Bractes long, Fruit bifid at end
- 13093 Spikel. ster. at base dist. Fruit longer than cal. obl. ovate acuminate convexo-plane subacutang. obtuse at the marg. the point bifid, Bract. very narr. reaching beyond the culm



and Miscellaneous Particulars.

Italian painters after him, have put it into the hand of Christ as a sceptre, when he was saluted as a king in mockery by Herod's soldiers. The plant appears to be a native of every part of the world, in ponds, ditches, and by the sides of rivers and brooks.

1946. *Sparganium*. From *σπαργάνον*, a band, in reference to the long ribbon-like leaves of the plants. *Sparganium ramosum* is the commonest species: it has a strong creeping root, and soon fills up a ditch or pond, if suffered to remain unmolested. It is common not only in Europe, but in Barbary, Siberia, and North America.

1947. *Carex*. From the Latin *carere*, to want. The upper spikes of these plants are constantly without seeds, consisting only of male flowers. This numerous family of plants grow mostly in wet swampy grounds,

13094 elongata W.	elongated	un	1	my.jn	Ap	England	mar.	Sk	co	Eng. bot. 1920
13095 curta W.	white	un	1	jn	Ap	Britain	pools.	Sk	co	Eng. bot. 1386
13096 fœnea W.	fodder	un	2	jn	Ap	N. Amer.	1818.	Sk	co	
13097 lolicea W.	ray-grass-like	un	2	jn	Ap	Austria	1823.	Sk	co	Sc.ca.t.P.p.f.104
13098 straminea W.	slender-stalked	un	2	jn.jl	Ap	N. Amer.	1803.	Sk	co	Sc.ca.t.Xxx.f.174
13099 multiflora W.	many-flowered	un	1	my.jn	Ap	N. Amer.	1812.	Sk	co	Sc.ca.t.Lll.f.144
13100 teretifolia W.	lesser panicle	un	2	my.jn	Ap	Britain	bogs.	Sk	co	Eng. bot. 1065
13101 paradoxica W.	paradoxical	un	1½	my.jn	Ap	Austria	1823.	Sk	co	Host. gra. l. t. 57
13102 paniculata W.	greater panicle	un	3	jn.jl	Ap	England	bogs.	Sk	co	Eng. bot. 1064
13103 appressa R. Br.	close-spiked	un	2	my.au	Ap	N. S. W.	1802.	Sk	co	
13104 bicolor W.	two-colored	un	1½	my.jn	Ap	M. Cenis	1810.	Sk	co	S.c. t. Aaaa. f. 181
13105 atrata W.	black	un	1½	jn.jl	Ap	Britain	al.me.	Sk	co	Eng. bot. 2044
13106 thuringiaca W.	Thuringian	un	1½	my.jn	Ap	Germany	1810.	Sk	co	Sc.ca.t.P.pp.f.155
13107 Buxbaumii W.	Buxbaum's	un	1	my.jn	Ap	Sweden	1821.	Sk	co	Sc.ca. t. X. Gg. f. 76
13108 glareosa W.	sandy	un	1	my.jn	Ap	Norway	1816.	Sk	co	
13109 alba W.	white	un	1	my.jn	Ap	Austria	1818.	Sk	co	Sch. car. t. O. f. 55
13110 clandestina W.	dwarf silvery	cu	½	ap.my	Ap	England	sun.ro.	Sk	co	Eng. bot. 2124
13111 digitata W.	fingered	un	½	my.jn	Ap	England	woods.	Sk	co	Eng. bot. 615
13112 plantaginea W.	broad-leaved	un	½	my.jn	Ap	N. Amer.	1805.	Sk	co	Sch. car. t. U. f. 70
13113 Fraseriana H. K.	Fraser's	or	½	ap.jn	Ap	N. Amer.	1809.	Sk	s.p	Bot. mag. 1391
13114 pilulifera W.	round-headed	un	1	ap.jn	Ap	Britain	hea.	Sk	co	Eng. bot. 885
13115 lucifera W. en.	grove	un	1½	ap.jn	Ap	N. Amer.	1825.	Sk	co	
13116 collina W.	hill	un	1	ap.jn	Ap	Germany	1824.	Sk	co	Sch. car. t. F. f. 29
13117 ciliata W.	ciliated	un	1½	ap.jn	Ap	Germany	1812.	Sk	co	Sch. car. t. I. f. 42
13118 præcox W.	vernal	un	1	ap	Ap	Britain	dr.pa.	Sk	co	Eng. bot. 1099
13119 tomentosa W.	downy-fruited	un	1	jn	Ap	England	mea.	Sk	co	Eng. bot. 2046
13120 extensa W.	long-bracted	un	½	jn	Ap	Britain	sea.co.	Sk	co	Eng. bot. 833
13121 flavæ W.	yellow	un	1	my.jn	Ap	Britain	bogs.	Sk	co	Eng. bot. 1294
13122 Cederi E. B.	Ceder's	un	½	jn.jl	Ap	England	m.me.	Sk	co	Eng. bot. 1773
13123 falva W.	tawny	un	¾	jn.jl	Ap	Britain	mar.	Sk	co	Eng. bot. 1295
13124 distans W.	loose	un	1½	jn	Ap	Britain	mar.	Sk	co	Eng. bot. 1234
13125 binervis W.	green ribbed	un	2	jn	Ap	Britain	dr.be.	Sk	co	Eng. bot. 1235
13126 saxatilis W.	rock	un	½	jn	Ap	Greenland	1812.	Sk	co	Sc.ca. t. I. & T. f. 40
13127 pulla W.	russet	un	1	jl	Ap	Scotland	sc.mo.	Sk	co	Eng. bot. 2045
13128 ferruginea W.	rusty	un	1	jl	Ap	Austria	1822.	Sk	co	Sch. car. t. M. f. 48
13129 Mielichhoferi W.	loose-spiked	un	1	jl.au	Ap	Scotland	al.roc.	Sk	co	Eng. bot. 2293
13130 umbrosa W.	shady	un	1½	my.jn	Ap	Austria	1810.	Sk	co	Sc.ca. t. Uuu. f. 165
13131 pilosa W.	hairy	un	1	my.jn	Ap	Europe	1820.	Sk	co	Sch. car. t. M. f. 49
13132 granulatis W.	grain-seeded	un	1½	jn.jl	Ap	N. Amer.	1807.	Sk	co	Sc.ca. t. Vvv. f. 169
13133 panicea W.	Pink-leaved	un	½	my.jl	Ap	Britain	moi.p.	Sk	co	Eng. bot. 1505
13134 conglobata W.	clustered	un	1	my.jl	Ap	Hungary	1812.	Sk	co	



History, Use, Propagation, Culture.

in bogs, fens, marshes, or in moist woods, where they yield a very coarse grass scarcely touched by cattle. With the exception of two or three species, they are of little use or beauty. Some unfortunately situated husbandmen have recourse to them as cattle fodder, or as thatch or fuel. In Kent, the leaves of the larger

- 13094 Spikes numerous obl. remotish naked, Fruit acuminate bifid recurved many-nerved longer than glumes
 13095 Spikel. ster. at base about 5 rather dist. ellipt. Bractes very minute, Caps. broadly ov. acum. conv. on one side and nearly plane on the other subobtusang. with 2 teeth at the extremity
 13096 Spike androg. comp. Spikelets about 4 male below and close together, Fruit ovate acum. edged 2-tooth.
 13097 Spike androg. comp. Spikel. about 4 male below and close together, Stigmas 2, Fruit elliptical blunt nerved
 13098 Spike androg. comp. Spikel. about 5 roundish male below somew. approximated, Stigm. 2, Fr. round. ovate beaked 2-toothed ciliated at edge

* 4. *Spikelets panicled.*

- 13099 Spikes androg. narrow. panic. male above obl. blunt, Stig. 2, Fr. ov. acum. with 2 points, Scales ov. mucron.
 13100 Spike supradecomposed contracted acutish, Spikelets clustered, Fruit spreading gibbous, Culm roundish
 13101 Spikes androg. narr. panic. male above, Low. branch. remote, Stig. 2 round. ov. beak. 2-tooth. cil. ser. at base
 13102 Spikel. ster. at extrem. thrice comp. and collect. into a panic. spike, Fr. broad. ov. acum. gib. on both sides
 13103 Spike decomp. longish, Scales acute, Fruit ovate plano-convex nerved on each side

* 5. *Spikelets racemose.*

- 13104 Spikes androg. in threes stalked terminal male below erect, Stigmas 2, Fr. obov. blunt, Scales ov. obtuse
 13105 Fertile spikes pedunculated ovate pendulous: the terminal one with sterile flowers at the base, Fruit roundish ovate depressed with a short beak bifid at the point

§ 3. *Terminal spikes male: the others androgynous.*

- 13106 Male spike solitary stalked: androg. male above about 5 ellipt. remote sessile with a leafy bract, Stigm. 3, Fruit roundish 3-cornered downy

§ 4. *Terminal spike androgynous: the others female.*

- 13107 Spike androg. pedunc. obov. male below: female about 3 remote somewhat stalked, Stigm. 3. Fr. ellipt. 3-cornered blunt slightly 2-toothed

- 13108 Spike androg. pedunc. obl. male below: female 2 sessile close obl. Stigm. 2, Fr. oblong narrowed with an undivided mouth as long as ovate scale

§ 5. *Spikes of distinct sexes.*

* 1. *Male solitary: female sessile and subsessile.*

† 1. *Scape sheathed, with membranous bractes.*

- 13109 Male spike solit. stalk.: fem. twin stalk. about 5-fl. Stigm. 3, Fr. obov.-glob. furrow. beak. obliq. truncate
 13110 Bractes membran. nearly leafless sheath. Fem. spikes remote few-fl. included in sheath, Lvs. channelled
 13111 Bractes membranous nearly leafless sheathing, Spikes linear lax erect: male shorter, Leaves flat
 13112 Male spike sol. stalk.: fem. 4 dist. stalk. Stig. 3. Fr. ellipt. 3-corner. stalk.smth. short. than obov. cusp. scale
 13113 Leaves oblong lanceolate with a white scarious margin, Heads oblong, Scape not longer than leaves

† 2. *Culm leafy.*

- 13114 Fertile spikes sess. roundish approxim. Scales mucron. Fr. obov.-glob. acute pubesc. Culms weak scabrous
 13115 Female spikes 2-3 ellipt. sess. supported by a foliaceous bract, Fruit somewhat downy with a long beak
 13116 Male spike solit.: fem. about 2 close ellipt. sess. Stig. 3, Fr. obl. with a short beak downy as long as ov. scale
 13117 Male spike solit.: fem. about 2 close obl. sess. Stig. 3. Fr. roundish-obov. downy larg. than obl. blunt scale
 13118 Sheaths short scarcely any equal to the flower-stalks, Fertile spikes oblong approximate, Scales elliptico-oblong, Fruit obovate subtriquetrous acute pubescent

- 13119 Sheaths very short, Female spikes subsessile cylindrical blunt, Glumes elliptical acute, Fruit downy
 13120 Fertile spikes subsess. obl. Fr. ov. scarcely beaked striated bifid at point, Lvs. very narrow, Culm glabrous
 13121 Bractes long foliaceous, Fert. spikes roundish oval, Fr. obov. with a long recurved beak bifid at the point
 13122 Sheaths and peduncles very short, Female spikes roundish, Fruit spreading on each side globose, Beak straight, Culm smooth

- 13123 Bractes foliaceous, Spikes oblongo-ov. distant rotundo-ov. inflated rostrate bifid at point, Culm scabrous

* 2. *Male spike solitary: upper female sessile and subsessile; lower stalked.*

- 13124 Fertile spikes oblong erect, Scales mucronate, Fruit ovate somewhat inflated subtriquetrous depressed with rather a short beak bifid at the point

- 13125 Sheaths long shorter than peduncle, Spikes cylindrical remote somewhat compound, Fruit 2-nerved
 13126 Male spike solit.: female twin; lower stalked obl. Stigmas 2, Fruit ellipt. blunt as long as blunt scale
 13127 Fertile spikes ov.: the lower one pedunculated, Scales obl. Fruit subglob. apiculate with a short bifid beak
 13128 Male spike solitary: female 3 distant; 2 lower stalked, Stigmas 3, Fr. oblong compressed 3-cornered hispid at edge, Mouth membranous 2-lobed

- 13129 Fertile spikes 1-3 somewhat drooping, Fruit scarcely longer than the scale lax especially the lower ones ovate with a short beak bifid at the point

- 13130 Male spike sol. obov.: female about 3 close; 2 lower on long stalks, Stigmas 3, Fruit compress. obov. downy beaked 2-toothed at end

- 13131 Male spike sol.: female about 3 distant; 2 lower remote, Stig. 3, Fr. ov. beaked with a membran. mouth

- 13132 Male spike sol.: fem. 3 rem.: 2 lower stalked, Stigmas 3, Fr. glob. ovate nerved ventric. shortly beaked

- 13133 Fert. spikes subcylind. with dist. fls. Bract. foliaceous, Fr. subglob. somew. inflated obt. glab. entire at point

- 13134 Male spike sol.: female about 4 remote; lower on a long stalk. the stalks of the others enclosed, Stigm. 3, Fr. globose shining with a short beak 2-toothed at end



and Miscellaneous Particulars.

species are used for tying the vines of hops to the poles; in Italy they are put between the staves of wine casks to make them tight, wove over Florence flasks, or in chair bottoms. The Laplander combs and dresses some species of sedge, as we do flax, and in winter stuffs his shoes and gloves with it, as a defence against the

13135 rostráta <i>W.</i>	beaked	☞ Δ un	1	my.jl	Ap	N. Amer.	1816.	Sk co	S.ca.t.Hhh.f.134
13136 nítda <i>W.</i>	glossy	☞ Δ un	1	my.jn	Ap	Austria	1805.	Sk co	Host. gra. 1. t.71
13137 ánceps <i>W.</i>	two-edged	☞ Δ un	1	jl.au	Ap	N. Amer.	1805.	Sk co	Sc.ca. t.F.f. f.128
13138 alpéstris <i>W.</i>	Alpine	☞ Δ un	1	my.jn	Ap	Europe	1804.	Sk co	Sch.car. t.G. f.35
13139 cæspitósa <i>W.</i>	tufted bog	☞ Δ un	1½	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1507
13140 strícta <i>W.</i>	straight-leaved	☞ Δ un	1	ap.my	Ap	Britain	mar.	Sk co	Eng. bot. 914
13141 péndula <i>W.</i>	great-pendulous	☞ Δ un	4	my.jn	Ap	Britain	woods.	Sk co	Eng. bot. 2315
13142 rígida <i>W.</i>	rigid	☞ Δ un	½	jn.jl	Ap	Britain	moun.	Sk co	Eng. bot. 2047
13143 capilláris <i>W.</i>	capillary	☞ Δ un	½	jl.au	Ap	Britain	sc.mo.	Sk co	Eng. bot. 2069
13144 palléscens <i>W.</i>	pale	☞ Δ un	1	ap.jn	Ap	Britain	moi.p.	Sk co	Eng. bot. 2185
13145 ustuláta <i>W.</i>	scorch. Alpine	☞ Δ un	½	jn.jl	Ap	Scotland	al.riv.	Sk co	Eng. bot. 2404
13146 rariflóra <i>E. B.</i>	loose-flowered	☞ Δ un	½	jn	Ap	Scotland	sc.al.	Sk co	Eng. bot. 2516
13147 limósa <i>W.</i>	green and gold	☞ Δ un	1½	jn	Ap	Britain	sp.bo.	Sk co	Eng. bot. 2043
13148 Pseudo-Cypérus <i>W.</i>	Bastard Cyperus	☞ Δ un	3	jn.jl	Ap	Britain	mar.	Sk co	Eng. bot. 242
13149 flexuósa <i>W.</i>	bending	☞ Δ un	2	jn.jl	Ap	N. Amer.	1807.	Sk co	S.ca.t.Ddd.f.124
13150 sylvática <i>E. B.</i>	w.ood	☞ Δ un	3	my.jn	Ap	Britain	woods.	Sk co	Eng. bot. 995
13151 júncea <i>W. en.</i>	rushy	☞ Δ un	2	my.jn	Ap	N. Amer.	1820.	Sk co	Eng. bot. 2404
13152 strígosa <i>W.</i>	loose pendulous	☞ Δ un	2	ap.my	Ap	England	woods.	Sk co	Eng. bot. 994
13153 recúrva <i>W.</i>	glaucous Heath	☞ Δ un	1	my.jn	Ap	England	hea.	Sk co	Eng. bot. 1506
13154 nútans <i>W.</i>	nodding	☞ Δ un	2	jn.jl	Ap	Austria	1815.	Sk co	Host. gra. 1. t. 83
13155 acumináta <i>W.</i>	acuminated	☞ Δ un	1½	jn.jl	Ap	Istria	1818.	Sk co	Host. gra. 1. t.97
13156 filifórmis <i>W.</i>	slender-leaved	☞ Δ un	2	jn.jl	Ap	Britain	bogs.	Sk co	Eng. bot. 904
13157 aquatilis <i>W.</i>	water	☞ Δ un	1½	jn.jl	Ap	Lapland	1813.	Sk co	Eng. bot. 904
13158 acíta <i>W.</i>	slender-spiked	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 580
13159 paludósa <i>W.</i>	lesser common	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 807
13160 ripária <i>W.</i>	great common	☞ Δ un	2	ap.jn	Ap	Britain	riv.ba.	Sk co	Eng. bot. 579
13161 vesicária <i>W.</i>	short-spiked	☞ Δ un	2	my.jn	Ap	Britain	mar.	Sk co	Eng. bot. 779
13162 ampullácea <i>W.</i>	slender-beaked	☞ Δ un	2	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 780
13163 secalina <i>W.</i>	rye-like	☞ Δ un	2	my.jn	Ap	Austria	1824.	Sk co	Sch. car. t.5. f.65
13164 hordeifórmis <i>W.</i>	Barley-formed	☞ Δ un	2	jn.jl	Ap	France	1805.	Sk co	S.ca. t.Ddd.f.121
13165 hirta <i>W.</i>	hairy	☞ Δ un	2	my.jn	Ap	Britain	wat.pl.	Sk co	Eng. bot. 685
13166 levigáta <i>W.</i>	smooth-stalked	☞ Δ un	3	my.jn	Ap	Britain	bogs.	Sk co	Eng. bot. 1387
13167 crinita <i>W.</i>	haired	☞ Δ un	1½	jn.jl	Ap	N. Amer.	1807.	Sk co	Sc.ca.t.Eee.f.125
13168 salina <i>W.</i>	salt-marsh	☞ Δ un	1	jn	Ap	Norway	...	Sk co	Eng. bot. 685
13169 ambleocárpa <i>W.</i>	short-fruited	☞ Δ un	1½	jn.jl	Ap	Britain	...	Sk co	Mi.g.62. t.32. f.12
13170 bulláta <i>W.</i>	blistered	☞ Δ un	1½	jn	Ap	N. Amer.	1811.	Sk co	S.ca.t.Uuu.f.166
1948. COBRE'SIA. <i>W.</i>	COBRESIA.			Cyperaceæ.	Sp. 1.				
13171 caricina <i>W.</i>	sedge-like	☞ Δ un	1	jl	Ap	Switzerl.	1820.	Sk co	Sc.ca.t.Rrr.f.161
1949. UNCI'NIA. <i>Rich.</i>	UNCINIA.			Cyperaceæ.	Sp. 1-4.				
13172 phleoides <i>Rich.</i>	Cat's-tail-like	☞ Δ un	1	jl	Ap	S. Amer.	1821.	Sk co	Cav. ic. t.46. f.1
1950. ZE'A. <i>W.</i>	INDIAN CORN.			Gramineæ.	Sp. 2.				
13173 Maýs <i>W.</i>	common	☞ ○ ag	2	jn.jl	Ap	America	1562.	S r m	Lam. ill. t. 749
13174 Curagúá <i>Mol.</i>	Valparaiso Cross-corn	☞ ○ ag	1	jn.jl	Ap	Chili	1824.	S r m	
1951. CO'IX. <i>W.</i>	JOB'S TEARS.			Gramineæ.	Sp. 2-4.				
13175 Láchryma <i>W.</i>	common	☞ ☒ cu	2	jn.jl	Ap	E. Indies	1596.	S l p	Bot. mag. 2479
13176 agréstis <i>W.</i>	round-fruited	☞ ☒ cu	2	jn.jl	Ap	E. Indies	1812.	S l p	Ru. am.6. t.9. f.1



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extreme rigour of his climate. *C. remota* is a very elegant plant. *C. paniculata* grows in bogs in immense tufts, making a firm support for the heaviest bodies. *C. Fraseri* is the handsomest species of the genus, resembling at a short distance when in flower, one of the Liliaceæ. *C. riparia* has leaves half an inch wide, and from one to three feet long; in Italy the leaves are used by the glass-makers to bind their wine flasks; by the chair-makers to bottom chairs; and by the coopers to place in the junctures in the heads of casks, in the same manner as the leaves of the *Typha* are used in the same country, and the stalks of *Scirpus lacustris* in England. *C. arenaria* increases rapidly in loose sand, and is sometimes planted with a view of fixing soils of this description, along with *Elymus* and *Aruno*.

1948. *Cobresia*. Named by Willdenow, after a German nobleman of the name of De Kobres, who is said to have been a great promoter of natural history. The plants resemble *Carex*.

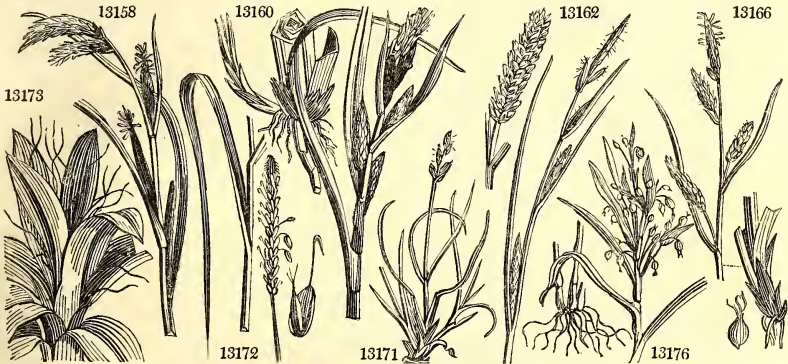
- 13135 Male spike sol. Scales obl. with very long beaks : female cylind. 2 ; stalk of the lower exerted, Stigm. 3, Fr. ovate inflated 5-nerved beaked
- 13136 Male spike sol. : fem. 2 obl. close ; low stalk. Stigm. 3, Fr. ellipt. glob. shin. bifid at end larg. than ov. scale
- 13137 Male spike sol. : fem. 3-rem. ; lower stalk. Stigm. 3, Fr. ov. nerv. memb. at mouth long. than mucron. scale
- 13138 Male spike sol. : fem. 3 few-fl. 2 close sessile ; lower rad. on a very long stalk, Stigm. 3, Fr. obov. obl. 3-cornered with a very short beak
- 13139 Sheaths none, Bracteas foliaceous auric. at base, Spikes sess. obl. or subcylind. obt. Fruit broadly elliptical
- 13140 Fertile spikes nearly sessile cylindric. filif. acumin. Fr. ovate somewhat acute plane above on each side, Culm acutely angular straight
- 13141 Fert. spikes cylind. very long droop. Fr. ov. short. acum. bif. at extremity closely imbricated, Leaves broad
- 13142 Dignynous, Sheaths none, Spikes ovate : upper sessile, Leaves somewhat recurved rigid, Fruit compressed
- * 3. Male spike solitary, female all stalked.
- 13143 Fert. spikes few-fl. lax drooping, Fr. as long as ovate membratuc. decid. scales oblongo-ovate acuminate
- 13144 Fert. spikes pedunculated oblongo-cylind. subpendul. Bract. subfoliac. Fruit ov.-ellipt. tumid obt. glabrous
- 13145 Sheaths elongated shorter than the flower-stalk, Fruit elliptical ovate beaked (black) bifid at the point
- 13146 Fert. spikes narrow obl. very few-fl. lax pendul. Bract. subsetaceous, Scales acute longer and broader than the fruit, Fruit ovate somewhat acumin. striated
- 13147 Fert. spikes oblongo-ovate pendulous, Bracteas subsetaceous, Scales acute as long as the fruit, Fruit ellipt. rotundate striated shortly mucronate
- 13148 Fertile spikes upon long footstalks cylind. pendul. Bract. very leafy, Scales setaceous, Fruit oblong very much acuminate cloven at the tips striated
- 13149 Male spike sol. : fem. about 4 remote filiform stalked cernuous, Stigm. 3, Fr. dist. altern. obl. beaked bifid
- 13150 Fert. spikes filif. rather slender slightly drooping, Fr. broadly ov. much acumin. cleft at point, Lvs. narrow
- 13151 Male spike solit. : fem. usually twin stalk. filif. Stigm. 3, Fr. lanc. hisp. scabr. 2-toothed long. than obl. scale
- 13152 Fert. spikes slend. filif. nearly erect, Fruit ov.-lanc. nerved slightly recurv. loose. imbric. Lvs. rather broad
- * 4. Male spikes more than one.
- 13153 Fertile spikes subcylindrical drooping, Fruit obovato-globose obtuse rather downy large at the point
- 13154 Male spikes twin : fem. twin obl. sess. rem. Stigm. 3, Fr. ov. nerved forked ventric. larg. than ov. lanc. scale
- 13155 Male spikes 3 : fem. twin on short stalks nodd. cylind. Stigmas 3, Fr. ellipt. ventricose with a short ent. beak
- 13156 Fert. spikes short. peduncul. oblongo-cylind. their cal. subcusp. Fr. ov. short. beak. bif. at point very pubes.
- 13157 Lvs. subsessile sublin. thickened, Stigmas 2, Fr. ellipt. with short beak ent. at end as long as rounded scales
- 13158 Fert. spikes long cylind. acum. slender erect when in fruit, Fr. oval swelling subacum. entire at point, Culm acutely angular scabrous
- 13159 Scal. of sterile spike obtuse, Fertile spikes cylind. obtuse, Fruit oblongo-ovate acute bifid at point striated
- 13160 Foliaceous, Scal. of sterile spike acum. Fertile spikes scarcely peduncul. broadly cylindrical acute, Fruit ovate subacum. bifid at the point
- 13161 Fert. spikes cylind. slightly droop. Scal. lanc. Fr. broadly ovate inflat. subulato-rostrate deeply bifid at point
- 13162 Fert. spikes cylind. long near. erect, Scal. lanc. Fr. crowd. subglob. inflat. setaceo-rostr. slightly bif. at point
- 13163 Male spikes 2 : female 3 obl. remote subsessile, Stigmas 3, Fr. obl. compr. rostr. bifid ciliate serrat. at edge
- 13164 Male spikes 2 : female 3 obl. remote subsessile ; lower subrad. Stigmas 3, Fr. ovate comp. 2-toothed hairy
- 13165 Bracteas long foliac. Fertile spikes short cylind. distant their scal. cuspidate, Fr. ov. with long beak hairy
- 13166 Fert. spikes droop. cylind. all the scal. acum. or mucr. Fr. ov. triang. with rather long acum. beak bif. at point
- 13167 Male spikes twin : fem. 4 dist. stalk. pendul. cylind. Stigm. 2, Fr. round. ellipt. ventric. with very short beak
- 13168 Male spikes 2 : fem. 2 rem. on very long stalks erect obl. Stigm. 2, Fruit ellipt. with short beaks ent. at end
- 13169 Male spikes about 4 : female 2 erect stalked cylind. Stigmas 3, Fr. obov. obt. shorter than obl. blunt scale
- 13170 Male spikes 3 : female 2 cylind. stalked erect, Stigm. 3, Fr. ov. glob. beaked with 2 forks, Beaks hispid

13171 Spikes 3 or 4 alternate male above

13172 Fruit oblong 3-cornered smooth at edge

13173 Leaves entire
13174 Leaves serrated

13175 Culm half round at top and obtuse, Flowers naked, Fruit ovate
13176 Culm round, Flowers naked, Fruit nearly round



and Miscellaneous Particulars.

1949. *Uncinia*. So called from *ουκος*, a hook, in allusion to the hooked awn, which in the fruit becomes hardened. Plants with the habit of *Carex*.

1950. *Zea*. The Greek name of corn of some kind. It is derived from *ζωω*, to live, and applied to this nutritive plant with propriety. The word *Maize* is the denomination of the vegetable among the South Americans. *Zea* Curugoa is the curious Valparaiso corn, to which a sort of religious reputation is attached, on account of the grains, when roasted, splitting regularly into the form of a cross. Of the well known Indian corn, *Z. Mays*, there are numerous varieties, some of which are sufficiently hardy to thrive in this climate.

1951. *Coix*. A name used by Theophrastus to designate a kind of grass. *C. Lachryma*, commonly called Job's tears, derives its name from the appearance of its shining pearly fruit, which, when suspended on its slender pedicels, resembles in no inconsiderable degree a falling tear. Tropical grasses, which flower and seed plentifully in rich light soil.

1952. TRIP'SACUM. <i>W.</i>	TRIPSACUM.					<i>Gramineæ.</i>	<i>Sp. 3-4.</i>					
13177 dactyloides <i>W.</i>	rough-seeded	业	△	un	4	au	Ap	Virginia	1640.	D	p.l	Lam. ill. t. 750
13178 monostachyon <i>W.</i>	single-spiked	业	△	un	2	au	Ap	N. Amer.	1815.	D	p.l	W. hort. ber. t.1
13179 hermaphroditum <i>W.</i>	hermaphrodite	业	□	un	2	au.s	Ap	Jamaica	1776.	D	p.l	
1953. HETEROPO'GON. <i>Rich.</i>	HETEROPOGON.							<i>Gramineæ.</i>	<i>Sp. 1-2.</i>			
13180 glâber <i>Rich.</i>	smooth	业	△	un	2	au	Ap	Switzerl.	1800.	D	co	All. ped. t.91. f.4
1954. OLY'RA. <i>W.</i>	OLYRA.							<i>Gramineæ.</i>	<i>Sp. 1-4.</i>			
13181 paniculâta <i>W.</i>	broad-leaved	业	▽	un	3	jl	Ap	W. Indies	1783.	Sk	s.p	Sl. jam. 1.t.64.f.2

TETRANDRIA.

1955. AL'NUS. <i>W.</i>	ALDER.							<i>Amentaceæ.</i>	<i>Sp. 6-9.</i>				
13182 glutinosa <i>W.</i>	common	光			ec	25	mr.ap	Ap	Britain	wat.pl	L	m.s	Eng. bot. 1508
β laciniata <i>W.</i>	cut-leaved	光			or	25	mr.ap	Ap	Britain	...	L	m.s	Willd. arb. 44
13183 oblongata <i>W.</i>	oblong-leaved	光			or	20	jl	Ap	S. Europe	1730.	L	m.s	
β elliptica <i>W.</i>	elliptic-leaved	光			or	20	jl	Ap	.....	...	L	m.s	
13184 incana <i>W.</i>	hoary-leaved	光			or	20	jn	Ap	Europe	1780.	L	l.p	
β angulata <i>W.</i>	elm-leaved	光			or	20	jn	Ap	.....	...	L	l.p	
13185 undulata <i>W.</i>	curl-leaved	光			or	20	my.jn	Ap	N. Amer.	1782.	L	l.p	
13186 serrulata <i>W.</i>	notch-leaved	光			or	20	mr	Ap	N. Amer.	1769.	L	l.p	Abb. ins. 2. t. 92
13187 cordifolia <i>Ten.</i>	heart-leaved	光			or	20	my.jn	Ap	Naples	1818.	L	co	
1956. BE'TULA. <i>W.</i>	BIRCH.							<i>Amentaceæ.</i>	<i>Sp. 15-19.</i>				
13188 alba <i>W.</i>	common	光			tm	40	ap.jn	Ap	Britain	moi.w.	S	co	Eng. bot. 2198
13189 pen'dula <i>Roth.</i>	weeping	光			or	40	ap.jn	Ap	Britain	woods.	S	co	
13190 populifolia <i>W.</i>	Poplar-leaved	光			or	30	jl	Ap	N. Amer.	1750.	L	co	Mich. arb. 2. t. 2
13191 excelsa <i>W.</i>	tall	光			tm	60	my	Ap	N. Amer.	1767.	S	co	Dend. brit. 95
13192 daurica <i>W.</i>	Daurian	光			tm	30	jl	Ap	Siberia	1786.	L	co	Pall. ross. 1. t.39
13193 nigra <i>W.</i>	red	光			tm	60	jl.au	Ap	N. Amer.	1736.	L	co	Dend. brit. 153
13194 lanulosa <i>Mich.</i>	woolly	光			tm	70	jl.au	Ap	N. Amer.	1787.	L	co	
13195 papyracea <i>W.</i>	paper	光			tm	50	jn	Ap	N. Amer.	1750.	L	co	Willd. arb.t.2.f.1
13196 lenta <i>W.</i>	soft	光			tm	50	jl	Ap	N. Amer.	1759.	L	co	Dend. brit. 144
carpinifolia <i>Ehr.</i>													
13197 nana <i>W.</i>	smooth-dwarf	光			cu	8	my	Ap	Scotland	moi.h.	L	co	Eng. bot. 2326
13198 pumila <i>W.</i>	hairy-dwarf	光			or	6	ap.my	Ap	N. Amer.	1762.	L	s.p	Jac. vind.2.t.122
13199 pontica <i>Hort.</i>	Pontic	光			or	12	ap.my	Ap	Turkey	...	L	s.p	Dend. brit. 94
13200 ovata <i>W.</i>	ovate	光			or	15	ap.my	Ap	Hungary	1820.	L	co	Dend. brit. 96
13201 fruticosa <i>W.</i>	shrubby	光			or	6	ap.my	Ap	Siberia	1818.	L	co	Dend. brit. 97
13202 pubescens <i>Ehr.</i>	pubescent	光			or	30	ap.my	Ap	Germany	1812.	L	co	
1957. BUX'US. <i>W.</i>	BOX TREE.							<i>Euphorbiacæ.</i>	<i>Sp. 3.</i>				
13203 baleàrica <i>W.</i>	Minorca	光			or	8	jl	Y.g.	Minorca	1780.	C	co	
13204 sempervirens <i>W.</i>	common	光			or	8	ap	Y.g.	England	ch.ill.	C	co	Eng. bot. 1341
β angustifolia	narrow-leaved	光			or	8	ap	Y.g.	.....	...	C	co	
γ suffruticosa	dwarf	光			or	1	...	Y.g.	.....	...	S	co	
13205 chinensis <i>Link.</i>	Chinese	光			or	3	n	Y.g.	China	1802.	C	co	



History, Use, Propagation, Culture,

1952. *Tripsacum*. So called by Linnæus, from *τριψακω*, to bruise or crush, in allusion to the purpose to which its grain may be applied. Forage grasses of the West Indies.

1953. *Heteropogon*. From *heteros*, various, and *πωγων*, a beard; in allusion to the various kinds of awns with which the flowers are furnished.

1954. *Olyra*. A name under which Homer speaks of a grain which was used as the food of horses, and which has been thought analogous to Barley. The plant now so called is a native of America, and has no resemblance to that of the ancients.

1955. *Alnus*. From the Celtic word *al*, near, and *lan*, the edge of a river, in reference to the places where the species grow. *A. glutinosa*, *Aulne*, Fr., *Eller*, Ger., and *Alno*, Ital., is a well known timber tree, which will grow in marshy situations. The timber is applied to a variety of purposes, and in general for all works intended to be constantly under water, for turnery and furniture. The bark is used by dyers and tanners; the sap being of a yellow color and very astringent. There is a variety with cut leaves sold by the nurserymen as an ornamental tree, though it is more curious than showy.

1956. *Betula*. *Betu* is the Celtic word for the Birch. *Bouleau*, Fr., *Birchenbaum*, Ger., and *Betulla*, Ital. *B. pendula* is the most graceful tree of the genus; it grows both in mountainous situations and bogs, from Lapland to the subalpine parts of Italy and Asia. *B. lenta*, the mahogany birch, mountain mahogany, or cherry birch of Canada, abounds in the middle states of Pennsylvania, New York, and the Jerseys; but disappears altogether in the higher latitudes of the northern states. It is thought a very fit tree for planting in the valleys of the mountainous districts of Britain. Its growth is rapid, and the timber is close grained, beautifully variegated, and well adapted for cabinet work. The leaves, which appear early in spring, possess

- 13177 Spikes 3 clustered : male above ; female below
 13178 Spike solitary : male above ; female below
 13179 Spike solitary hermaphrodite flexuose, Spikelets somewhat distant
- 13180 Culm nearly simple, Sheath of leaves bearded at edge, Spike smooth
- 13181 Culm branched, Panicle terminal

TETRANDRIA.

- 13182 Lvs. roundish cuneiform obt. lobed at margin and serrat. somew. glutin. downy in axils of veins beneath
 β Leaves oblong pinnatifid, Segments cut
 13183 Leaves oblong bluntish glutinous, Axils of the veins naked
 β Leaves elliptical
 13184 Leaves oblong acute downy beneath, Axils of the veins naked, Stipules lanceolate
 β Leaves green beneath, Petioles green
 13185 Lvs. obl. acute rounded at base, Petioles and veins hairy beneath, Axils of veins naked, Stipules ov.-obl.
 13186 Leaves obovate acuminate, Veins and axils of veins beneath hairy, Stipules elliptical blunt
 13187 Leaves cordate acuminate entire lucid above
- 13188 Leaves ovato-deltoid acute doubly serrated glabrous
 13189 Leaves ovate acuminate cut serrate smooth, Branches scabrous pendulous [smooth
 13190 Lvs. delt. with long points unequal serrat. quite smooth, Scales of cones with lat. lobes roundish, Petioles
 13191 Leaves ovate acute serrated, Scales of cones with lat. lobes rounded, Petioles downy shorter than pedunc.
 13192 Leaves ovate narr. at base ent. unequally toothed smooth, Scales of cones ciliated : lateral lobes rounded
 13193 Lvs. rhomb. ov. doubly serr. acute downy beneath entire at base, Scales of cones vill. with lin. uneq. lobes
 13194 Leaves deltoid ovate small, Scales of female catkin densely woolly on the outside
 13195 Leaves ovate acuminate doubly serrate, Veins hairy beneath
 13196 Leaves cordate-ovate finely serrated acuminate, Scales of cones with blunt equal lobes and elevated veins
- 13197 Leaves orbicular crenate
 13198 Leaves orbicular obovate serrated beneath with the branches downy, Female catkins cylindrical
 13199 Petiole downy, Leaves rhomboid cut-toothed obtuse nearly smooth with tufts of hair in the axillæ beneath
 13200 Lvs. ovate doubly serr. smooth, Fem. peduncles branched, Scales of cones with equal trunc. nerved lobes
 13201 Leaves roundish ovate nearly equally serrate smooth, Female catkins oblong
 13202 Lvs. deltoid acute subcord. doubly serr. beneath with branches pubesc. Scales of cones with lateral lobes [rounded
- 13203 Leaves oblong, Petioles smooth, Anthers sagittate linear
 13204 Leaves ovate, Petioles hairy at edge, Anthers ovate sagittate

- 13205 Leaves opposite oblong: younger downy ; old ones smooth, Fl. axillary solitary



and Miscellaneous Particulars.

a peculiar fragrance, which they retain after being dried in a stove, affording by infusion an agreeable diluent, superior to some of the common teas of commerce.

B. populifolia and *papyracea* are elegant rapid growing trees, well deserving culture for their timber. All the species are ornamental, and more or less fragrant; and *B. pumila* and *nana* are pretty little shrubs. Of the *Betula papyracea* the North American Indians construct their large portable canoes, from which circumstance that species is known by the name of canoe birch. *Betula lenta* is the most interesting of the genus, on account of the excellence of its wood. It is known by the names of mountain mahogany, black birch, cherry birch, and sweet birch. This last appellation it has from the sweet scent the branchlets give when bruised.

1957. *Burus*. An alteration of *βύρος*, its Greek name. *B. sempervirens*, *Buis*, Fr., *Buchsbaum*, Ger., and *Bosso*, Ital. is one of the most useful of evergreen shrubs; edgings of the dwarf variety are of universal use in the walled gardens of Europe; and what is called the tree box is not less valuable as an evergreen shrub, which will grow under the shade and drip of trees. The box is a native of most parts of Europe, from Britain southwards, and is very abundant in different parts of France and Switzerland. It abounds in many countries of Asia, as about Mount Caucasus, in Persia, China, Cochin China, and America. It was formerly very common in England, but has gradually disappeared as agriculture extended. Box-Hill in Surrey, Boxley in Kent, and Boxwell in Gloucestershire, are named from their abounding in this tree. The timber of the box tree is of considerable value. It is sold by weight, and being very hard and smooth, and not apt to warp, is very well adapted to a variety of nicer works. It is as extensively employed now as it appears to have been in the days of Evelyn, "for the turner, engraver, carver, mathematical instrument maker, comb and pipe or

1958. CIC/CA. W.	CICCA.	.	Euphorbiaceæ. Sp. 1.						
13206 disticha W.	long-leaved	♂ □ fr	10 ... G	E. Indies	1796.	C	p.1	Jac.schœ.2.t.194	
1959. MO'RUS. IV.	MULBERRY.		Urticeæ. Sp. 5-7.						
13207 alba W.	white	♀	clt 30	jn Ap	China	1596.	L	co	Schk.han.3.t.290
13208 tatarica W.	Tartarian	♀	or 20	jn Ap	Tartary	1784.	L	co	Pall. ros. 2. t. 52
13209 nigra W.	common	♀	fr 30	jn Ap	Italy	1548.	L	co	Dend. brit. 159
13210 róbra W.	red	♀	or 10	jn, jl	N. Amer.	1659.	L	r.m	
13211 tinctória W.	Fustick-wood	♀ □	or 20	...	Ap	W. Indies	1730.	C	r.m
									Plum. ic. t. 204
1960. BEHME'RIA. W.	BEHMERIA.		Urticeæ. Sp. 4-13.						
13212 cylindrica W.	cylindrical	♀ △ un	4	jn.au	G	Virginia	1759.	Sk	s.p
13213 rubescens W.	tree	♀ △ or	10	fmy	G	Canaries	1779.	C	s.p
13214 ramiflóra W.	branch-flower.	♀ □ un	8	fmy	G	Jamaica	1823.	C	co
13215 lateriflóra W.	side-flowering	♀ △ un	1½	fmy	G	N. Amer.	1820.	Sk	co
1961. PILEA. Lindl.	PILEA.		Urticeæ. Sp. 1-3.						
13216 muscosa Lindl.	small-leaved	♀ □ pr	½	ap.my	G	W. Indies	1793.	C	co
									Lind. coll. 4.
1962. URTICA. W.	NETTLE.		Urticeæ. Sp. 32-67.						
13217 pilulifera W.	Roman	○ w	1½	jn.au	G	England	rub.	S	co
13218 baleárica W.	Baleaic	○ w	1½	jn, jl	G	Baleaic	1733.	S	co
13219 convexa Hort.	convex	○ w	1½	jn, jl	G	.....	1824.	S	co
13220 Dodártii W.	Dodart's	○ w	1½	jl.au	G	S. Europe	1683.	S	co
13221 pómila W.	dwarf	○ w	1	jl.au	G	N. Amer.	...	S	co
13222 involucreta B. M.	involucred	♀ □ un	1	jl.au	G	W. Indies	1821.	C	co
13223 grandiflóia W.	great-leaved	♀ □ un	3	jl.au	G	Jamaica	1793.	C	co



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flute maker ; and the roots for the inlayer, and cabinet maker. Of box are made wheels and shivers, pins, pegs for musical instruments, nut-crackers, button-moulds, weavers' shuttles, hollow-sticks, bump-sticks, and dressers for the shoemaker, rulers, rolling-pins, pestles, mall-balls, beetles, tops, tables, chessmen, screws, bobbins for bone-lace, spoons, knife-handles, but especially combs."

The English wood is esteemed inferior to that which comes from the Levant, and the American box is said to be preferable to ours, for most purposes ; but the English is superior for the purpose of the engraver.

The ancients made combs of box, and musical instruments to be played upon by the mouth. The Romans likewise clipped it into form, for which nothing, says Pliny, is more fit. And Martial mentions clipped box trees in the gardens at Bassus's country-house.

The tree box was second to the yew with us in former times for the purpose of being clipped into the shape of animals, &c. ; but the dwarf box stood unrivalled " for bordering up a knot, and was esteemed a marvellous fine ornament to the flower garden."

The branches were in request among our ancestors for decking up houses ; they are still seen among other evergreens in churches at Christmas, and in some countries they are borne by attendants at funerals.

Box has been much celebrated as a medicine in the venereal disease, colicks, intermitent fevers, and even madness. According to Dr. Blaine, it is the principal ingredient in Well's Watford Drink, which is given as a preventive to canine madness.

Pliny affirms, that no animal will touch the seed of box. Gmelin relates, that the branches are fatal to the camels that eat them. None of our animals seem to touch this tree. Corsican honey was supposed by the ancients to owe its infamy to the bees feeding on the box.

1958. Cicca. A word of unknown meaning. Cicca disticha thrives in light loamy soil, and 'is increased by cuttings with their leaves on, planted in sand, and covered with a hand-glass.

1959. Morus. Mœza was the Greek name of the Mulberry ; it is derived from the Celtic mor, which signifies black. Murier, Fr., Mauberbaum, Ger., and Moro, Ital. M. alba is commonly cultivated in France and other countries for its leaves, to feed silk-worms ; though in some parts of Spain and in Persia they are said to prefer the black mulberry. In China, it appears that both sorts are grown for the same purpose. The most valuable variety of M. alba is one grown in Italy, and especially in Lombardy, with vigorous shoots, and much larger leaves than the other. A number of plants of this variety have been lately imported for the purpose of making a plantation in the south of Ireland, with a view to try the growth of silk in that country. In France the white mulberry is grown as pollard elms are in England ; in Lombardy it is grown exactly in the same way as we grow willows for baskets, and in similar soil ; in China it is also grown in moist loamy soil, and both there and in the East Indies as low bushes, and the plantation rooted up and renewed every three or four years. In many parts of the continent, when the leaves are wanted for the worms, they are stripped off the young shoots, which are left naked on the tree ; in other places the shoots are cut off, which is not so injurious to the tree, while the points of the shoots, as well as the leaves, are eaten by the worms. The plants are sometimes raised by seed, but more commonly by layers ; the Italian variety is frequently grafted on seedling stocks of the common sort, in order to preserve it from degenerating. In the East Indies, the plants are raised from cuttings, three or four of which are placed together where they are finally to remain. (Encyc. of Agr. 884.)

The fruit of the white mulberry is white, and less acid than that of the black species. M. nigra is naturally a stronger tree than the other ; the fruit is of a dark blackish red, and of an agreeable aromatic and acid flavor. It has a place in the Materia Medica, as cooling and laxative, allaying thirst, and being grateful in febrile diseases. Young trees, like most others of the Monœcious class, often produce

13206 Leaflets oblong, Racemes lateral

13207 Leaves deeply cordate unequal at the base ovate lobed unequally serrated smoothish

13208 Leaves slightly cordate equal at base ovate or lobed equally serrated smooth

13209 Leaves cordate ovate or lobed unequally toothed scabrous

13210 Leaves cordate ovate acuminate or 3-lobed equally serrate scabrous soft beneath, Fem. spikes cylindrical

13211 Leaves oblong unequal at base, Spines axillary solitary

13212 Leaves opp. ovate-obl. acum. toothed smooth, Fl. diceious, Male spikes clust. interrupt. : fem. cylindrical

13213 Lvs. altern. obl. narrow, at each end entire, Spikes axill. clustered interruptedly branched, Branches hairy

13214 Lvs. altern. broadly lanc. acum. serrated rugose, Fl. cluster. axill. and lateral monœcious, Males 3-androus

13215 Lvs. altern. ovate-lanceolate acuminate serrated scabrous, Fl. clustered lateral, Stem herbaceous

13216 Leaves ovate acute entire, Stem simple ascending

13217 Leaves opposite ovate or somewhat heart-shaped deeply serrated, Heads of fruit globose

13218 Leaves opposite cordate serrate, Fruit-bearing catkins globose

13219 Leaves opposite entire convex oblong, Fruit-bearing catkins globose

13220 Leaves opposite ovate nearly entire, Heads of fruit globose

13221 Leaves opp. ovate blunt-pointed 3-ribbed serrated, Fl.-stalks somewhat corymbose shorter than footstalks

13222 Leaves opposite ovate rugose obtuse, Flower-stalks in the axillæ of the upper leaves

13223 Leaves opposite ovate pointed copiously serrated, Stipulas elliptical entire glauc. Corymbs much branched axillary longer than the footstalks



and Miscellaneous Particulars.

only male blossoms for many years after they are planted, and yet afterwards become fruitful. As the tree increases in age, it increases in fruitfulness; and in full grown trees the fruit is much larger and better flavored than in young ones. In some of the old gardens near London, there are mulberry trees of a great age, which are very healthy and fruitful. Bradley says, that most of these were planted in the times of James I., who attempted unsuccessfully to set up a silk manufacture in England. The fruit of the mulberry, like that of the strawberry and raspberry, is said not to undergo the acetous fermentation in the stomach, and therefore it may be safely eaten by gouty and rheumatic persons. It is a mistake, however, to suppose that these fruits are lighter than others which have not the same antifermentative qualities.

The mulberry is generally propagated by layers, but it may also be increased by seeds, cuttings, or grafting. It is generally grown as a standard in orchards; but will produce fruit sooner as an espalier or wall tree.

M. rubra has black shoots, rougher leaves than the black mulberry, and a dark reddish fruit, longer than the common sort, and of a very pleasant taste. The tree is cultivated in China for feeding silk-worms, but not so generally as the white mulberry. *M. indica* is also cultivated for the same purpose. *M. tatarica* bears pale red berries of an insipid taste, but eaten in Russia fresh, conserved, or dried; a wine and a spirit are also made from them, and the leaves are used for feeding silk-worms.

M. tinctoria is a tall branching tree, with a fine head, smooth leaves, and awl-shaped solitary spines. The whole plant abounds in a slightly glutinous milk of a sulphureous color. The timber is yellow, and a good deal used in dyeing that color, for which it is chiefly imported into Europe, under the name of Fustick-wood. The berries are sweet and wholesome, but not much eaten, excepting by birds.

All the species of *Morus* are remarkable for putting out their leaves late; so that when they appear, gardeners may safely set out their greenhouse plants, taking it for granted, that all danger from frost is over.

1960. *Behmeria*. Named after George Rudolph Böhmer, a German botanist, and a member of the academy of Wittemberg. He published several works, besides an academical dissertation upon the cellular tissue of vegetables. Plants of little beauty, and easy cultivation and propagation.

1961. *Pilea*. So called by Mr. Lindley, from *pileos*, a cap; in allusion to the nature of one of the divisions of the perianthium. A neat little creeping plant, which makes a good cover to hide the earth of large pots of tropical plants.

1962. *Urtica*. A word formed from *uro*, to burn, in allusion to the stinging properties of most of the species. The English term *Nettle* seems to be the Anglo-Saxon *Netel*, which is itself an alteration of *naedl*, a needle, in the same language. *U. dioica* grows all over Europe, in Barbary, Siberia, and Japan, in hedges, neglected fields, gardens, and pastures. This species, *U. urens*, and *pilulifera*, with one or two others, are furnished with stings. The small projecting bristles or prickles with which they are covered are tubular, and stand on a bag filled with a poisonous juice; they are perforated at the point, and when they are gently pressed vertically, the pressure at once forces the poison to ascend the tube, and enables the point to lodge it in the skin. The tops of the tender shoots of *U. dioica* are sometimes used as a pot herb early in spring, and they have even been forced for that purpose. A strong decoction of the plant salted, will coagulate milk very readily and without any disagreeable flavor. The stalk is found to have a texture somewhat like that of hemp, and to be capable of being manufactured into cloth, ropes, and paper. The leaves are the only food of the caterpillars of three of our most beautiful butterflies, *Atalanta*, *Paphia*, and *Urticæ*, the principal food of the lo, and the occasional food of the Comma album; the caterpillars also of the urticata and verticalis moths feed on it: a great number of other indiscriminate feeders devour its foliage; and the bases of the leaves in autumn are frequently disfigured by tubercles, which contain small maggots, probably producing *Musca Urticæ*. As a remedy for the

13224 reticuláta W.	net-leaved	☐ un	2	jn.au	G	Jamaica	1793.	C	co	Bot. mag. 2567
13225 rúfa W.	rusty	☐ un	1	jn.s	G	Jamaica	1793.	C	co	
13226 úrens W.	small common	○ w	1	jn.s	Ap	Britain	clt.gr.	C	co	Eng bot. 1236
13227 dioíca W.	common	△ w	1½	jl.s	Ap	Britain	wa.gr.	C	co	Eng. bot. 1750
13228 membranácea W.	membranous	☐ un	1½	jl.s	Ap	Spain	1820.	C	co	
13229 crassifólia	thick-leaved	☐ un	2	jl.s	Ap	S. Amer.	1822.	C	co	
13230 árdens Link.	burning	○ un	1	jl.s	Ap	Nepal	1821.	S	co	
13231 cannabína W.	Hemp-leaved	○ un	3	jl.s	Ap	Siberia	1749.	S	co	Am.rut. 249.t.25
13232 rugósa W.	rough-stalked	☐ un	2	my.jl	Ap	Jamaica	1793.	C	co	
13233 nudicaúlis W.	naked-stalked	☐ un	3	my.jl	Ap	Jamaica	1793.	C	co	
13234 grácilis W.	slender-stalked	☐ un	3	jn.au	Ap	Huds. B.	1782.	C	co	
13235 Parietária W.	Pellitory-leav'd	☐ un	1	jl.s	Ap	Jamaica	1793.	C	co	Slo.jam.1.t.93.f.1
13236 ciliáta W.	ciliated	☐ un	1	jl.s	Ap	Jamaica	1815.	C	cc	
13237 pulchélla Link.	pretty	☐ un	1½	jl.s	Ap	E. Indies	1820.	C	co	
13238 scabrélla Rox.	rough	☐ un	1	...	Ap	E. Indies	1815.	C	co	
13239 æ'stuans W.	Surinam	☐ un	1	jn.jl	Ap	Surinam	1803.	C	co	Jac.schœ.3.t.388
13240 canadénsis W.	Canada	☐ un	3	au.o	Ap	Canada	1656.	C	co	Pl. alm. t. 237.f.2
13241 nivea W.	white-leaved	☐ un	2	aus.	Ap	China	1739.	C	p.l	Jac. vind. 2.t.166
13242 baccífera W.	berry-bearing	☐ un	4	jl.au	Ap	S. Amer.	1793.	Sk	s.p	Bot. rep. 454
13243 caracásana W.	Caraccas	☐ un	8	jl.au	Ap	Caraccas	1824.	C	co	Jacq. schœ.f.386
13244 caravellána Schrk.	long-stalked	○ un	4	jl.au	Ap	S. Amer.	1825.	S	co	
13245 elongáta Link.	lengthened	○ un	3	jl.au	Ap	Philipp.is.	1823.	S	co	
13246 diversifólia Link.	various-leaved	○ un	3	aus.	Ap	E. Indies	1823.	S	co	
13247 horrída Link.	horrid	○ un	3	aus.	Ap	Nepal	1821.	S	co	
13248 arboréscens Link.	arborescent	☐ un	8	aus.	Ap	Manilla	1822.	C	co	
1963. PACHYSAN'DRA. Mi.	PACHYSANDRA.					<i>Euphorbiaceæ.</i>	<i>Sp. 2.</i>			
13249 procúbens W.	trailing	☐ pr	½	mr.ap	W	N. Amer.	1800.	D	s.p	Bot. reg. 33
13250 coriáceá Hooker.	coriaceous	☐ pr	4	jn.jl	W	Nepal	1822.	C	co	Hook. ex. fl. 148
1964. DIO'TIS. W.	DIOTIS.					<i>Chenopodææ.</i>	<i>Sp. 1.</i>			
13251 ceratóides W.	shrubby	☐ or	2	mr	Ap	Siberia	1780.	L	s.p	Jac. ic. 1. t. 189
1965. EMPLEU'RUM. W.	EMPLEURUM.					<i>Diosmeæ.</i>	<i>Sp. 1.</i>			
13252 serrulátum W.	Cape	☐ or	3	jn.jl	Pk	C. G. H	1774.	C	p.l	Exot. bot. 2. t.63
1966. AU'CUBA. W.	AUCUBA.					<i>Rhamnææ?</i>	<i>Sp. 1.</i>			
13253 japónica W.	blotch-leaved	☐ or	6	my.jl	Ap	Japan	1783.	C	co	Bot. mag. 1197
1967. LITTORE'L/LA. W.	SHORE WEED.					<i>Plantaginææ.</i>	<i>Sp. 1.</i>			
13254 lacústris W.	Plantain-leav'd	△ pr	½	jn.au	W	Britain	w.s.ap.	S	p.l	Eng. bot. 468
1968. SERPI'acula. W.	SERPICULA.					<i>Onagrariææ.</i>	<i>Sp. 1-3.</i>			
13255 répens W.	creeping	☐ pr	½	jl.au	W	C. G. H.	1789.	D	p.l	Lam. ill. t. 758
1969. MACLU'ra. Nutt.	OSAGE ORANGE.					<i>Urticææ.</i>	<i>Sp. 1.</i>			
13256 aurantiáca Nutt.	common	☐ fr	20	...	Ap	N. Amer.	1818.	C	p.l	Lamb.pin. supp.



History, Use, Propagation, Culture,

sting of the nettle, its own juice, or that of the dock, may be applied. The exotic species are of easy culture.

1963. *Pachysandra*. From *παχυς*, thick, and *ωνησ ανδρως*, signifying, in botanical language, a stamen; the stamens are very stout. A plant of easy culture in common light soil, and freely increased by suckers from the roots.

1964. *Diotis*. From *dis*, double, and *ωσ αυρος*, an ear, on account of the two appendages which exist at the base of the florets. A shrub of no great beauty, which thrives in light soil, and is easily increased by layers or cuttings under a hand-glass.

1965. *Empleurum*. From *εψ*, in, and *πλευρον*, the pleura, or membrane which envelops the lungs. The seeds of this plant are attached to a sort of coriaceous membrane.

1966. *Aucuba*. The Japanese name of the plant. It is a well known laurel-like evergreen shrub, with leaves mottled with yellow. Male flowers only have been produced in the gardens; but according to Kœmpfer,

- 13224 Leaves opposite elliptic-oblong acute serrated towards the point reticulated beneath, Stipulas ovate-entire, Clusters paniced about the length of the footstalks
- 13225 Leaves opposite elliptical acute serrated triple-ribbed their veins hairy, Stipulas roundish permanent, Clusters slightly branched, Stem shrubby shaggy with rusty hairs
- 13226 Leaves opposite elliptical with about 5 ribs, Clusters of flowers nearly simple
- 13227 Leaves ovate acuminate cordate at the base, Clusters of flowers much branched in pairs mostly diœcious
- 13228 Leaves opposite broadly ovate somewhat heart-shaped coarsely serrated, Fls. monoœcious: male in twin upright unbranched stalked spikes with winged recept.: fem. in nearly sess. spikes shorter than footst.
- 13229 Leaves opposite ovate obl. acute 3-ribbed serrated thickish reticulated and pale beneath, Corymbs stalked forked longer than the leaves, Flowers tufted
- 13230 Stem petioles and lvs. covered with rigid dense stimuli, Lvs. ov. acum. doubly serrat. Spikes comp. whorled
- 13231 Leaves opposite in three deep pinnatifid segments, Clusters cylindrical in pairs erect
- 13232 Leaves opposite elliptical serrated 3-ribbed rugged, Clusters short dense terminal, Stem simple erect
- 13233 Lvs. chiefly term. opposite ellipt.-lanc. pointed 3-ribbed entire nearly smth. Stem angul. leaf. below, Cluster lateral diœcious
- 13234 Leaves opposite ovato-lanc. serr. heart-shaped at the base, Stem and footstalks hispid, Flowers diœcious, Clusters in pairs somewhat branched about as long as the footstalks
- 13235 Leaves opposite ovato-lanc. entire, Stem much branched, Flowers diœcious
- 13236 Leaves opposite ellipt. 3-ribbed crenate fringed acute at each end entire at the base, Stem divaricated, Flowers aggregate on axillary stalks about the length of the footstalks
- 13237 Leaves long lanc. very rugose: glabrous above; beneath having a fine white down
- 13238 Stem downy roughish, Lvs. on long stalks ov. acute crenat. downy roughish 3-nerv. Stip. lanc. acute scar.
- 13239 Lvs. alternate ov. serrat. minutely heart-shap. at the base, Clusters axill. forked, Fruit in orbicular corymbs
- 13240 Lvs. alternate ovate somewhat hairy serrated, Stipulas obtuse, Clusters axill. compound spreading shorter than the leaves: the lower ones male sessile; upper female stalked
- 13241 Leaves alternate roundish-ovate pointed toothed 3-ribbed snow white and downy beneath, Clusters axill. repeatedly compound, Fl. fasciculate
- 13242 Leaves alternate heart-shaped toothed prickly as well as the shrubby stem, Calyx of the fruit pulpy
- 13243 Leaves altern. heart-shaped acutely crenate rough above soft and downy beneath, Panicles lateral leafless forked divaricated, Flowers capitate diœcious, Stem arboreous
- 13244 Leaves on long stalks cordate acuminate acutely serrated stinging, Spikes paniced
- 13245 Leaves stalked cordate acuminate serrated stinging, Racemes axillary
- 13246 Leaves cordate entire and 3-lobed coarsely tooth-serrated, Petioles and stem with long strigose prickles
- 13247 Stem with very long stimuli, Leaves pinnatifid with finely toothed segments, Spikes axillary compound
- 13248 Stem downy, Leaves on long stalks ovate-lanceolate acuminate subcrenate rough above soft beneath
- 13249 Stem procumbent, Leaves short oval crenate toothed above, Calyx minutely ciliated
- 13250 Leaves ovate lanceolate acuminate nerved

13251 Leaves lanceolate downy, Female flowers woolly

13252 Leaves lanceolate ensate crenate smooth, Capsules 1-celled

13253 The only species

13254 The only species

13255 Flowers tetrandrous, Leaves alternate linear lanceolate entire rough

13256 A small lactescent tree with alternate entire leaves and spiny branches



and Miscellaneous Particulars.

the fruit is a red oblong drupe, like a laurel berry, with a white sweetish pulp, and a kernel with a bitter taste.

1367. *Littorella*. From *littus*, the shore, in allusion to the places where it grows. A pretty little delicate plant, with long tremulous white stamens.

1368. *Scarpicula*. From *serpo*, to creep, on account of the habits of the species.

1369. *Maclura*. Dedicated by Nuttall, to William Maclure, Esq. of the United States, a philosopher, whose devotion to natural history, and particularly to the geology of North America, has scarcely been exceeded by Ramond or Saussure in Europe. A spreading deciduous tree, about twenty or thirty feet high, with a yellow axillary berry the size of an orange, nearly as succulent, and said to be as agreeable when fully ripe. It was originally found by Hunter and Dumber, on the banks of the Little Missouri or Washita river, also near Natchitoches, and upon the banks of the Arkansas.

PENTANDRIA.

1970. EXOCARPUS. <i>Lab.</i> EXOCARPUS. <i>Coniferæ.</i> Sp. 1.	♂	tm	40	...	Ap	V. Di. L	1824.	C p.l	Lab.voyage.t.14	
13257 cupressifórmis <i>Lab.</i> Cypress-like.	♂	tm	40	...	Ap	V. Di. L	1824.	C p.l	Lab.voyage.t.14	
1971. NEPHELIUM. <i>W.</i> RAMBUTAN. <i>Sapindaceæ.</i> Sp. 1.	♀	fr	20	...	G	E. Indies	1809.	C s.p	Lam. ill.t. 764	
13258 lappáceum <i>W.</i> Bur-seeded.	♀	fr	20	...	G	E. Indies	1809.	C s.p	Lam. ill.t. 764	
1972. SCHIZANDRA. <i>W.</i> SCHIZANDRA. <i>Menispermææ.</i> Sp. 1.	♂	or		jn.jl	Sc	N. Amer.	1806.	L s.p	Bot. mag. 1413
13259 coccinea <i>W.</i> scarlet-flower'd	♂	or		jn.jl	Sc	N. Amer.	1806.	L s.p	Bot. mag. 1413
1973. FRANZERIA. <i>Cav.</i> FRANZERIA. <i>.....</i> Sp. 2-4.	.....	un	6	jls	G	Peru	1759.	C p.l	W. hort. ber. 2
13260 artemisioides <i>W.</i> Mugwort-leav.	.....	un	6	jls	G	Peru	1759.	C p.l	W. hort. ber. 2
13261 ambrosioides <i>W.</i> Ambrosia-leav.	.....	un	4	jls	G	Mexico	1796.	C p.l	Cav. ic. 2 t. 200
1974. XANTHIUM. <i>W.</i> XANTHIUM. <i>.....</i> Sp. 4-5.	.....	un	3	jls	G	England	dungh.	S co	Eng. bot. 2544
13262 Strumárium <i>W.</i> Small Burdock	○	un	3	jls	G	England	dungh.	S co	Eng. bot. 2544	
13263 orientále <i>W.</i> oriental	○	un	4	jls	G	China	1685.	S co	Sch.hand.3.t.291	
13264 spinósum <i>W.</i> spiny	○	un	3	jls	G	S. Europe	1713.	S co	Herm.parad.246	
13265 echinátum <i>W.</i> hedgehog	○	un	3	jls	G	.....	.....	S co	Co.got.1784 c.ic.
1975. AMARANTUS. <i>W.</i> AMARANTH. <i>Amarantaceæ.</i> Sp. 37-45.	.....	un	1	jls	G	E. Indies	1801.	S co	
13266 tenuifólius <i>W.</i> fine-leaved	○	un	1	jls	G	E. Indies	1801.	S co		
13267 angustifólius <i>W.</i> narrow-leaved	○	un	1½	jls	G	Levant	1723.	S co		
13268 álbus <i>W.</i> white	○	un	1½	jls	G	N. Amer.	1778.	S co	W. ama.9.t.1.f.2	
13269 græciçans <i>W.</i> Pellitory-leaved	○	un	1½	jls	G	N. Amer.	1759.	S co	W. ama.8.t.4.f.7	
13270 melanchólicus <i>W.</i> melancholy	○	or	1½	jn.s	Pu	E. Indies	1731.	S co	W. am.15.t.9.f.18	
13271 tricolor <i>W.</i> three-colored	○	or	2	jn.s	R.Y	E. Indies	1548.	S r.m	Kn. th. 2.t.A.3.6	
13272 bicolor <i>W.</i> two-colored	○	or	1½	jls	R.Y	E. Indies	1802.	S r.m		
13273 polygámus <i>W.</i> hermaphrodite	○	un	2	jls	G	E. Indies	1780.	S co	Rum.amb.5.t.82	
13274 gangéticus <i>W.</i> oval-spiked	○	un	2	jls	G	E. Indies	1778.	S co	W. am.16.t.6.f.11	
13275 mangostánuš <i>W.</i> rhomb-leaved	○	un	2	jls	G	E. Indies	1801.	S co	W. amar.13.t.12	
13276 polystáchyus <i>W.</i> many-spiked	○	un	¾	jls	G	E. Indies	1816.	S co		
13277 tristis <i>W.</i> round-headed	○	un	2	jn.au	Pu	China	1759.	S co	W. am.21.t.5.f.10	
13278 inamé'nus <i>W.</i> unpleasant	○	un	2	jn.au	G	Japan,	1820.	S co	Hout. pfl.t.72.f.1	
13279 incom'tus <i>W. cn. s.</i> shabby	○	un	2	jn.au	G	.....	1823.	S co	
13280 lividus <i>W.</i> livid	○	un	5	jls	R	N. Amer.	1759.	S co	W. am. 20.t.1.f.1	
13281 oleríceus <i>W.</i> eatable	○	clt	6	jl.au	Pa.R	E. Indies	1764.	S co	W. am. 17.t.5.f.9	
13282 bullátus <i>Besser.</i> blistered	○	un	4	jl.au	G	.....	1822.	S co	
13283 Blitum <i>W.</i> wild	○	un	2	jn.au	G	England	dungh.	S co	Eng. bot. 2212	
13284 prostrátus <i>W.</i> trailing	kk	○	2	jls	G	France	1739.	S co		
13285 spicátus <i>P. S.</i> spiked	○	un	3	jls	G	Europe	.....	S co	
13286 viridis <i>W.</i> green	○	un	3	au.s	G	Brazil	1768.	S co	W. am.18.t.8.f.16	
13287 polygono'idés <i>W.</i> spotted-leaved	kk	un	1½	jl.au	G	Jamaica	1778.	S co	W. am.11.t.6.f.12	
13288 scandens <i>W.</i> climbing	kk	un	2	jl.au	G	America	1796.	S co		
13289 deflexus <i>W.</i> bending	kk	un	1	jl.au	G	.....	1805.	S co	W. a.10.t.10.f.20
13290 caulifórus <i>Link.</i> stem-flowering	○	un	4	jn.s	G	Nepal	1821.	S co		
13291 híbridus <i>W.</i> clustered	○	un	4	jn.s	G	N. Amer.	1656.	S co	W. am.26.t.9.f.17	
13292 strictus <i>W.</i> upright	○	un	2	jls	G	.....	1793.	S co	W. am.27.t.3.f.5
13293 paniculátus <i>W.</i> panicked	○	or	6	jls	G	N. Amer.	1798.	S co	W. am.32.t.2.f.4	
13294 sanguineus <i>W.</i> spreading	○	or	3	jls	R	BahamaI.	1775.	S co	W. am.31.t.2.f.3	
13295 retrofólexus <i>W.</i> hairy	○	un	2	jls	G	Pensylva.	1759.	S co	W. a. 33.t.11.f.21	
13296 læ'tus <i>W.</i> blunt-leaved	○	un	2	jls	R	.....	1799.	S co	W. am.28.t.8.f.15
13297 flávus <i>W.</i> pale	○	or	4	jls	L.Y	India	1759.	S co	W. am. 35.t.3.f.6	
13298 chlorostáchyš <i>W.</i> nodding	○	or	3	jls	G	.....	1796.	S co	W. a. 34.t.10.f.19
13299 hypochondriacus <i>W.</i> Prince's Feather	○	or	5	jls	D.R	Virginia	1684.	S co		
13300 crúentus <i>W.</i> various-leaved	○	or	3	jn.au	D.R	China	1728.	S r.m		
13301 hécticus <i>W.</i> oval-leaved	○	or	3	au	Pk	.....	1796.	S co	W. am.25.t.7.f.13
13302 caudátus <i>W.</i> Love lies bleeding	○	or	4	au.s	R	E. Indies	1596.	S co		
β máximus <i>tree</i>	○	or	6	au.s	R	1820.	S co		



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1970. *Exocarpus*. So called from έξω, outside, and καρπος, fruit, because the nut appears to be seated on the outside of the pericarp, on account of the great receptacle on which it is placed.

1971. *Nephelium*. According to Dodoens, *Nephelium* was a name anciently given to the Burdock. The modern plant bears bristly fruit like the involucrem of the Burdock. It is an excellent fruit, known in the islands of the Indian Archipelago by the name of Rambutan; grows in rich light loam, and is struck in pots of sand under a glass.

1972. *Schizandra*. From σχιζω, to cut, and ανης, a stamen; its stamens are split. A handsome plant, which grows in light loam and peat, and ripened cuttings root in sand under a hand-glass.

PENTANDRIA.

13257 The only species

13258 Leaves alternate pinnate, Racemes erect shorter than leaves

13259 Leaves lanceolate oval acute at each end end, rarely somewhat toothed

13260 Leaves bipinnatifid toothed, Petioles winged

13261 Leaves ovate-lanceolate cordate toothed, Petioles with an appendage

13262 Stem unarmed, Leaves cordate 3-nerved

13263 Stem unarmed, Leaves cuneiform ovate somewhat 3-lobed

13264 Spines ternate, Leaves 3-lobed

13265 Stem unarmed, Fruit oval aculeate, Prickles hooked echinate at base

1. *Triandrous.*

13266 Clusters axillary, Leaves linear-lanceolate cuneate retuse, Stem branched diffuse

13267 Clusters axillary, Leaves linear-lanceolate acute mucronate, Stem branched erect

13268 Clusters axillary, Leaves obovate retuse, Stem square simple

13269 Clusters axillary, Flowers trifid, Leaves obovate emarginate, Stem roundish branched

13270 Clusters axillary stalked roundish, Leaves ovate-lanceolate colored

13271 Clusters sessile, Leaves oblong lanceolate colored

13272 Clusters sessile capitate, Leaves ovate acuminate blunt colored

13273 Clusters in short spikes, Cal. and bract. with hooked bristles, Leaves oblong lanceolate emarginate

13274 Clusters shortly spiked ovate, Leaves ovate lanceolate emarginate

13275 Clusters somewhat spiked axillary solitary, Leaves rhomboid roundish

13276 Clusters spiked, Spikes axillary and terminal, Leaves ovate-lanceolate emarginate

13277 Clusters spiked loosely, Leaves subcordate ovate emarginate shorter than petiole

13278 Clusters somewhat spiked and 3-leaved: axillary in pairs, Leaves rhomboid lanceolate

13279 Clusters spiked, Leaves rhomboid-ovate acute

13280 Clusters somewhat spiked rounded, Leaves elliptical retuse, Stem erect

13281 Clusters axillary branched, Leaves rugose oblong very blunt emarginate

13282 Leaves subrhomboid acute repand bellate, Spikes terminal, Sepals mucronate pungent

13283 Clusters somewhat spiked, Flowers 3-leaved, Leaves ovate retuse, Stem diffuse

13284 Clusters spiked, Flowers 3-leaved, Leaves rhomb.-ov. bluntish retuse, Stem prostrate branched

13285 Clusters spiked terminal, Leaves ovate-oblong, Stem erect somewhat branched

13286 Clusters axillary twin triandrous, Male flowers 3-leaved, Leaves elliptical emarginate wavy at edge

13287 Clusters 3-leaved, Female flowers funnel-shaped, Leaves rhomboid ovate emarginate

13288 Leaves ovate, Spikes interrupted compound, Spikelets inflexed, Stem weak

13289 Spike very short few-fl. Leaves rhomboid lanceolate, Capsules not dehiscent

2. *Pentandrous.*

13290 Leaves oval acute somewhat wavy toothed, Clusters axillary cymose

13291 Raceme decompound clustered erect, Leaves ovate-lanceolate

13292 Raceme compound erect straight, Leaves ovate concave

13293 Racemes supradecomound, Branches spreading pubescent, Leaves ovate-lanceolate

13294 Racemes supradecomound erect, Branches spreading smooth, Leaves oblong acute

13295 Racemes supradecomound erect clustered, Branches downy, Leaves ovate wavy

13296 Racemes compound erect, Leaves ovate blunt mucronate

13297 Racemes compound nodding, Leaves ovate lanceolate

13298 Racemes compound nodding, Leaves lanceolate

13299 Racemes compound erect clustered, Leaves oblong lanceolate mucronate

13300 Racemes decompound naked spreading, Leaves lanceolate ovate

13301 Racemes simply spiked, Flowers axillary clustered, Leaves ovate acute

13302 Racemes decompound pendulous, Leaves lanceolate ovate, Stem nodding



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1973. *Franzeria*. A genus dedicated by Cavanilles to Antony Franzer, a botanical physician, whose merits are forgotten. Cuttings root in loam and peat under a hand-glass.

1974. *Xanthium*. From *ξανθός*, yellow, a color which it is asserted by Dioscorides, *lib. 4. cap. 133*, that an infusion of this plant communicates to the hair. Weeds of little beauty and easy culture.

1975. *Amarantus*. From *α.*, privative, and *μαρμαίνομαι*, to wither, because the flowers of most of the species retain their bright colors when dead. Some of the species are very ornamental, and most of them might probably be used as spinage, as some sorts are in the East. *A. polygamus* is used in this way in Guiana and China, and *A. oleraceus*, *tristis*, and *viridis*, in India. *A. melancholicus* and *tricolor* are popular tender

13303 spinósus <i>W.</i>	prickly	○ un	2	jl.s	G	India	1683.	S	co	W.am.38. t.4. f.8
13304 speciósus <i>B. M.</i>	shewy	○ or	6	jl.au	R	Nepal	1819.	S	co	Bot. mag. 2227
1976. <i>LUFFA</i> . <i>Cav.</i>	<i>LUFFA</i> .					<i>Cucurbitaceæ.</i>	<i>Sp.</i> 1—2.			
13305 foetida <i>Cav.</i>	stinking	✱ ○ |	or	12	jn.o	India	1812.	S	co	Bot. mag. 1638
1977. <i>AMBROSIA</i> . <i>W.</i>	<i>AMBROSIA</i>.					.....	<i>Sp.</i> 6—10.			
13306 integrifolia <i>W.</i>	entire-leaved	○ un	3	jl.s	G	N. Amer.	1816.	S	co	
13307 trifida <i>W.</i>	trifid-leaved	○ un	6	jl.s	G	N. Amer.	1699.	S	co	Moris. s.6. t.1. f.4
13308 elatior <i>W.</i>	tall	○ un	8	jl.au	G	N. Amer.	1696.	S	co	Herm. lugd. t.35
13309 artemisifolia <i>W.</i>	Mugwort-leav.	○ un	5	jl.au	G	N. Amer.	1759.	S	co	
13310 paniculata <i>W.</i>	paniced	○ un	3	jl.s	G	N. Amer.	1811.	S	co	Flu.alm. t.10. f.5
13311 maritima <i>W.</i>	sea	○ un	3	jl.au	G	Italy	1570.	S	co	Sch. hand.3. t.292
1978. <i>SECURINEGA</i> . <i>W.</i>	<i>OTAHEITE MYRTLE.</i>					<i>Euphorbiaceæ.</i>	<i>Sp.</i> 1—2.			
13312 nitida <i>W.</i>	shining-leaved	♀ |	tm	40	jn.jl	W	Mauritius	1793.	C	Lindl. coll. 9

HEXANDRIA.

1979. <i>ZIZANIA</i> . <i>W.</i>	<i>ZIZANIA</i> .					<i>Gramineæ.</i>	<i>Sp.</i> 1—5.					
13313 aquatica <i>H. K.</i>	Canada Rice	♂ |	ec	6	jl.s	G	N. Amer.	1790.	S	co	Lin. trans.7. t.13	
1980. <i>PHARUS</i> . <i>W.</i>	<i>PHARUS</i> .					<i>Gramineæ.</i>	<i>Sp.</i> 1—3.					
13314 latifolius <i>W.</i>	broad-leaved	♂ |	△	or	6	jl.au	G	Jamaica	1793.	S	r.m	Br. jam. t.38. f.3
1981. <i>GUETTARDA</i> . <i>W.</i>	<i>GUETTARDA</i> .					<i>Rubiaceæ.</i>	<i>Sp.</i> 2—17.					
13315 speciosa <i>W.</i>	great-flowered	♂ |	spl	30	...	Sc	E. Indies	1771.	S	p1		
13316 rugosa <i>W.</i>	rough-leaved	♂ |	...	or	20	...	W. Indies	1793.	S	r.m		
1982. <i>SA'GUS</i> . <i>W.</i>	<i>SAGO PALM.</i>					<i>Palmeæ.</i>	<i>Sp.</i> 3—4.					
13317 Rumphii <i>W.</i>	Rumphius's	♂ |	...	clt	50	...	G	E. Indies	1800.	Sk	r.m	Ru.am.1. t.17, 18
13318 Ruffia <i>W.</i>	turbinate	♂ |	...	or	00	...	G	Madagasc.	1820.	S	r.m	
13319 vinifera <i>Hort.</i>	prickly	♂ |	...	or	50	...	G	Guinea	1820.	S	r.m	Bea. fl. d'Oware
1983. <i>COCOS</i> . <i>W.</i>	<i>COCO-NUT-TREE.</i>					<i>Palmeæ.</i>	<i>Sp.</i> 3—11.					
13320 nucifera <i>W.</i>	common	♂ |	...	clt	50	...	Pa.G	E. Indies	1690.	S	r.m	Roxb. cor. 1. t.73
13321 aculeata <i>W.</i>	prickly	♂	...	clt	50	...	Pa.G	W. Indies	1796.	S	r.m	Jac. am.278. t.169
13322 fusiformis <i>W.</i>	Great Macaw-tree	♂	...	clt	30	...	Pa.G	Jamaica	1731.	S	r.m	



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annuals, and *A. sanguineus* and *caudatus* common border flowers; like all the species, they are of easy culture in light rich soil. Most of the species are very prolific in seeds, which preserve their germinating quality several years.

1976. *Luffa*. Its name in Arabic is *loaff*, according to Forskahl. A curious kind of gourd, not often seen on account of its offensive odor. It is cultivated in Arabia and China. It climbs up the Palm trees, covering and elegantly adorning their trunks. The fruit when young is pickled, like the Mango; but Europeans think it has a disagreeable taste, and is not very wholesome. *L. Charantia* has a fruit with a yellowish skin, but very red flesh, and when ripe, it bursts elastically. Culture as in *Cucumis*.

1977. *Ambrosia*. A poetical name. *Ambrosia* is the name of the food of the heathen divinities, as nectar was their beverage; of the former, the odor was delightful, whence its name has been applied to an herb, the leaves of which, when bruised, emit a grateful scent. Weedy plants of no beauty.

1978. *Securinega*. From *securis*, a hatchet. The name was given by Commerson, because the wood was so hard as to be capable of being manufactured into cutting instruments. It grows and flowers freely in loam and peat, and cuttings strike in sand under a hand-glass.

1979. *Zizania*. One of the Greek names of the rye-grass was $\zeta\iota\zeta\alpha\iota\upsilon\omicron\nu\varsigma$; according to Golius, the same plant was called by the Arabs *Zoûdn*. The modern plant has no relation to the ancient, being a native of America, where it is called Canada rice. This plant has been acclimated in Middlesex and Ross-shire; it grows on the margins of ponds, and is exceedingly prolific of bland farinaceous seeds, which afford a very good meal. It abounds in all the shallow streams of North West America, where its seeds contribute essentially to the support of the wandering tribes of Indians, and feed immense flocks of wild swans, geese, and other water fowl. Pinkerton says, this plant seems intended by nature to become the bread corn of the north.

1980. *Pharus*. From $\varphi\alpha\epsilon\upsilon\omicron\varsigma$, a covering. Brown gave this name to the plants, because their long broad leaves are employed as wrappers for various purposes by the natives of Jamaica. Fine stove grasses.

1981. *Guettarda*. Etienne Guettard was a French botanist, who published in 1747, a catalogue of the plants growing in the vicinity of Estampes. Splendid plants, which grow in loam, peat, and sand; and are increased by cuttings in sand in a moist heat and covered.

1982. *Sagus*. So named in allusion to the nutritive properties of the substance obtained from it. From this palm is produced the Sago of the shops. The wood is full of white pith, like that of elder; the pith is taken out, bruised in a mortar, and then put into a cloth or strainer, held over a trough, and water being poured in, the pith is washed through the cloth into the trough; the water being then drawn off, the sago is taken out and dried for use or transportation. The fruit is eaten by the Japanese, but the tree is chiefly esteemed for its highly nutritive pith.

1983. *Cocos*. Linnæus regards this name as of Greek origin. In that language, $\kappa\omicron\kappa\omicron\varsigma$ means a kind of fruit, but it does not appear that there was any relation between that and the modern cocoa nut. D'Herbelot

- 13303 Racemes pentandrous terminal compound, Axillæ spiny
 13304 Clusters densely spiked somewhat whorled, Spikes decomposed erect colored, Lvs. obl. ellipt. red beneath
 13305 Leaves cordate 5-lobed, Flowers large, Gourd a span long
 13306 Leaves ovate sessile acuminate serrate ciliated at base
 13307 Leaves 3-lobed serrated
 13308 Leaves bipinnatifid smoothish, Petioles with long cilix, Racemes terminal paniced
 13309 Leaves bipinnatifid hoary beneath : upper pinnatifid, Racemes 3 terminal
 13310 Leaves smooth bipinnatifid : upper pinnatifid, Racemes terminal solitary, Branches fastigiate
 13311 Leaves bipinnatifid blunt hoary beneath, Racemes terminal solitary, Branches villous
 13312 Leaves alternate ovate, Flowers axillary clustered

HEXANDRIA.

- 13313 Panicle effuse, Glumes aristate : male and female mixed
 13314 Panicle branched, Glumes awnless smooth, Leaves ovate-lanceolate
 13315 Leaves obovate acute downy beneath, Flowers 7-androus 7-fid
 13316 Leaves subcordate ovate acute scabrous downy beneath, Flowers hexandrous
 13317 Branchlets of the spadix smooth
 13318 Branchlets of the spadix annular
 13319 Pinnæ spinulose, Fruit oblong furrowed

- 13320 Unarmed, Fronds pinnated, Leaflets replicate ensiform
 13321 Caudex cylindrical prickly upwards, Fronds pinnated prickly
 13322 Aculeate spiny, Caudex fusiform, Fronds pinnated, Stems and spathes spiny



and Miscellaneous Particulars.

says, (*Bibl. Or.* 278.) that in India the fruit is called *coxi*, whence the Turkish name *coz*, for a nut ; but this requires confirmation. In Malabar it is called *tenga*, in the Moluccas *calappa*, and by the Brahmins *medo*. *C. nucifera* is a native of, and cultivated in, most places within the tropics. The trees grow to a great height, with a straight trunk, and, like almost every species of the Palm tribe, without branches. The leaves are from twelve to fifteen feet long ; the flowers come out round the top of the trunk in large clusters, inclosed in a sheath, and the nuts succeed them, commonly ten or twelve together.

There are few trees more extensively or variously useful. The leaves are employed as thatch to cover houses, and to make mats either for sitting or lying upon. The leaf, when reduced to fine fibres, is the material of which a beautiful and costly carpeting is fabricated for those in the higher ranks ; the coarse fibres are made into brooms. After these useful materials are taken from this leaf, the stem still remains, which is about the thickness of the ankle, and furnishes firewood.

The wood of this palm, when fresh cut, is spongy ; but becomes hard after being seasoned, and assumes a dark brown color. On the top of the tree a large shoot is produced, which, when boiled, resembles brocoli, but is said to be of a more delicate taste ; and though much liked, is seldom used by the natives, because on cutting it off, the pith is exposed, and the tree dies. Between this cabbage-like shoot and the leaves, there spring several buds, from which, on making an incision, there distils a juice differing little from water, either in the color or consistence. It is the employment of a certain class of men to climb to the top of the trees in the evening, with earthen pots tied to their waists, which they fix there to receive the juice, which is regularly carried away before the sun has had any influence upon it. This liquor is sold at the bazaars by the natives under the name of toddy. It is used for yeast, and forms an excellent substitute. In this state it is drank with avidity, both by the low Europeans and the natives, and is reckoned a cooling and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a sharp taste, and a slight intoxicating quality. By boiling it, a coarse kind of sugar is obtained ; and by distillation, it yields a strong ardent spirit, which being every where sold, and at a low price, constitutes one of the most destructive annoyances to our soldiers. The name given to this pernicious drink by Europeans, is Pariah arrack, from the supposition that it is only drank by the Pariahs, or out-casts, that have no rank.

The trees from which the toddy is drawn do not bear any fruit, on account of the destruction of the buds ; but if the buds be left entire, they produce clusters of the cocoa nut. This nut in the husk is as large as a man's head, and when ripe falls with the least wind. If gathered fresh, it is green on the outside ; the husk and the shell are tender. The shell, when divested of the husk, may be about the size of an ostrich's egg, and is lined with a white pulpy substance, which contains about a pint and a half of a liquor like water ; and though the taste be sweet and agreeable, it is different to that of the toddy.

In proportion as the fruit grows old, the shell hardens, and the liquor diminishes, till it is at last entirely absorbed by the white milky substance, which gradually acquires the hardness of the kernel of the almond,

1984. E'LATE. <i>W.</i>	ELATE.				<i>Palmae.</i>	<i>Sp. 1.</i>						
13326 sylvéstris <i>W.</i>	prickly-leaved	♣	□	or	14	ap.jn	G	E. Indies	1763.	S	r.m	Rh.mal.3.t.22.25
1985. BAC'TRIS. <i>W.</i>	BACTRIS.					<i>Palmae.</i>	<i>Sp. 2.</i>					
13324 minor <i>W.</i>	lesser	♣	□	or	12	...	G	S. Amer.	1691.	S	r.m	Jac.am.t.171.f.1
13325 major <i>W.</i>	greater	♣	□	or	25	...	G	Carthag.	1800.	S	r.m	Jac.am.t.171.f.2

POLYANDRIA.

1986. CERATOPHYLLUM. <i>W.</i>	HORNWORT.					<i>Fluviales.</i>	<i>Sp. 2—</i>					
13326 demérsum <i>W.</i>	common	♣	△	un	1	jl.s	G	Britain	dit.	D	lp	Eng. bot. 947
13327 submérsum <i>W.</i>	unarmed	♣	△	un	1	jl.s	G	Britain	dit.	D	lp	Eng. bot. 679
1987. MYRIOPHYLLUM. <i>W.</i>	WATER MILFOIL.					<i>Onagrariæ.</i>	<i>Sp. 2—5.</i>					
13328 spicatum <i>W.</i>	spiked	♣	△	pr	1	jn.au	R	Britain	dit.	D	lp	Eng. bot. 83
13329 verticillatum <i>W.</i>	verticillate	♣	△	pr	1	jl	G	England	ponds.	D	lp	Eng. bot. 218
1988. SAGITTA'RIA. <i>W.</i>	ARROW-HEAD.					<i>Aismaceæ.</i>	<i>Sp. 6—16.</i>					
13330 sagittifolia <i>W.</i>	common	♣	△	or	2	jn.au	W	England	rivers.	D	lp	Eng. bot. 84
13331 sinénsis <i>B. M.</i>	Chinese	♣	△	or	2	s.n	W	China	1812.	D	lp	Bot. mag. 1631
13332 obtusifolia <i>W.</i>	blunt-leaved	♣	△	or	2	jl.au	W	China	1804.	D	lp	Rhe.mal.11.t.43
13333 lancifolia <i>W.</i>	lance-leaved	♣	△	or	1½	jn.jl	W	W. Indies	1787.	D	lp	Bot. mag. 1792
13334 rigida <i>B. M.</i>	brittle-leaved	♣	△	or	1½	jn.jl	W	N. Amer.	1806.	D	lp	Bot. mag. 1632
13335 graminca <i>W.</i>	Grass-leaved	♣	△	or	1½	jl.au	W	Carolina	1812.	D	lp	
1989. BEGO'NIA. <i>W.</i>	BEGONIA.					.....	<i>Sp. 16—38.</i>					
13336 nitida <i>W.</i>	shining-leaved	♣	□	or	1½	my.d	W	Jamaica	1777.	C	sp	Par. lond. 72
13337 dichotoma <i>W.</i>	forked	♣	□	or	2	jl.au	W	Caracas	1800.	C	sp	Jac. ic. 3. t. 619
13338 discolor <i>H. K.</i>	two-colored	♣	□	or	3	my.s	W	China	1804.	R	sp	Bot. mag. 1473
<i>Evansiana</i> <i>B. R.</i>												
13339 macrophylla <i>W.</i>	large-leaved	♣	□	or	3	my.s	W	Jamaica	1793.	C	sp	Plu.ic.34.t.45.f.1
13340 tuberosa <i>W.</i>	tuberous	♣	□	or	½	jl.s	W	Amboyna	1810.	C	lp	R.am.5. t.169.f.2
13341 acuminata <i>W.</i>	pointed-leaved	♣	□	or	1	my.d	W	Jamaica	1790.	C	sp	Bot. reg. 364
13342 humilis <i>W.</i>	small	♣	□	or	½	o	W	W. Indies	1788.	C	lp	Lin. trans.1. t.15
13343 hirsuta <i>W.</i>	shaggy-leaved	♣	□	or	1	my.jn	W	W. Indies	1789.	C	lp	Aub. gui.2. t.348
13344 ulmifolia <i>W.</i>	elm-leaved	♣	□	or	2	my.jn	W	S. Amer.	1822.	C	lp	Bot. cab. 638
13345 argyrostigma <i>Fisch.</i>	silver-spotted	♣	□	or	3	jl.o	W	Brazils	1319.	C	lp	Bot. reg. 656
<i>maculata</i> <i>Raddi</i>												
13346 spatulata <i>W.</i>	spatulate	♣	△	or	1½	jl.o	W	W. Indies	1819.	C	lp	Bot. cab. 107
13347 picta <i>Lodd.</i>	painted	♣	△	or	½	s	Pk	Nepal	1818.	C	lp	Bot. cab. 571
13348 pauciflora <i>Lindley</i>	few-flowered	♣	△	or	1½	jl.o	W	.....	1816.	C	lp	Bot. reg. 471
13349 odorata <i>W.</i>	sweet-scented	♣	△	or	1½	jl.o	W	.....	1824.	C	lp	
13350 hirtella <i>Link.</i>	hairy	♣	△	or	1	jl.o	W	.....	1824.	C	lp	
13351 disticha <i>Link.</i>	distichous	♣	△	or	1	jl.o	W	.....	1824.	C	lp	
1990. POTERIUM. <i>W.</i>	BURNET.					<i>Rosaceæ.</i>	<i>Sp. 6—7.</i>					
13352 agrimonifolium <i>Cav.</i>	Agrimony-ld.	♣	△	pr	3	jl	G	Spain	1822.	S	co	
13353 Sanguisorba <i>W.</i>	common	♣	△	ag	2	jl	G	England	ch.hil.	D	co	Eng. bot. 860
13354 polygamum <i>W.</i>	Hungarian	♣	△	or	3	jl.au	Br	Hungary	1803.	D	co	Pl.rar.hu 2.t.198



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and is almost as easily detached from the shell. The natives use this nut as their victuals; and from it they also express a considerable quantity of the purest and best lamp oil. The substance which remains after this operation, supplies an excellent food for poultry and hogs. Cups and a variety of excellent utensils are made of the shell.

The husk of the cocoa nut is nearly an inch thick, and is, perhaps, the most valuable part of the tree; for it consists of a number of strong fibres, easily separable, which furnish the material for the greatest part of the Indian cordage; but is by no means the only substitute which the country affords for hemp. This the natives work up with much skill.

Plants of the cocoa nut tree are frequent in our stoves, being easily raised from the nuts sold in the shops, planted in rich earth, and on a moist heat; but the plants are seldom allowed room enough to come into flower; though it has been observed, that this is almost the only palm that could be cultivated in this country for perfecting its fruit; all the others being dioecious plants. Sweet observes, that they seldom succeed well in our collections; perhaps from being too much exposed to the sun: he is "informed they thrive best in the shade in the West Indies, where cultivators of them plant tall trees near them for that purpose." (*Bot. Cult.* p. 42.)

C. aculeata has a trunk the thickness of the human body; the pinnæ of the fronds are longer than in the cocoa, and prickly like the bark of the trunk. The fruit is as large as a crab, and of the same shape; under a green skin it has a thin sweetish astringent pulp; and within that, a nut full of a white sweet eatable kernel. The nut is said to yield the true palm oil. The outside of the trunk is made into laths, bows, and darts.

1984. *Elate.* This was one of the names given by the Greeks to the membrane which envelops the female flowers of the date; that is to say, of its spatula. Modern authors have applied the word to a kind of Indian palm. The fruit of *E. sylvestris* resembles a wild plumb. The poorer sort of people chew it in the same manner with the *Areca* nut, with the leaf of the betel pepper and quick-lime. The elephants are fond of the fruit-stalks, which are very sweet. In our stoves the plants require a sandy loam, and a strong heat.

13323 Fronds pinnated, Leaflets opposite

13324 Fruit roundish

13325 Fruit ovate

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13326 Fruit armed with three spines

13327 Fruit unarmed

13328 Sterile flowers in interrupted leafless spiked whorls

13329 Leaves pinnated capillary: upper pectinate-pinnatifid, Flowers axillary whorled

13330 Leaves lanceolate acuminate sagittate: lobes lanceolate straight, Scape simple

13331 Leaves 3-fid and 3-parted: lobes nearly equal nerved, Scape branched angular, Male fl. solitary terminal

13332 Leaves ovate rounded blunt sagittate: lobes ovate acuminate spreading, Scape paniced

13333 Leaves ovate narrowed at each end, Scape branched below

13334 Leaves lanceolata keeled, Petioles 3-cornered, Scapes simple, Female flowers sessile

13335 Leaves lanceolate linear, Female heads small

13336 Shrubby erect, Lvs. very smooth unequally cordate obsolete toothed, Wing of caps. very large roundish

13337 Shrubby erect, Lvs. unequally cord. subangul. toothletted smooth hairy ben. at the veins, Pan. dichotom.

13338 Leaves angular serrulate crimson beneath, Stem nodose, Wings of caps. unequal rounded

13339 Caulescent, Lvs. unequally cord. cren-tooth.: lower angular, Wings of caps. with obt. ang. one very large

13340 Creeping, Leaves unequally cordate angular toothed, Wings of capsule parallel

13341 Caulescent, Leaves hispid $\frac{1}{2}$ cordate acuminate unequally toothed, Largest wing of caps. obtusangular

13342 Caulescent erect, Leaves hispid $\frac{1}{2}$ cordate doubly serrate, Wings of caps. rounded nearly equal

13343 Caulescent, Leaves hispid $\frac{1}{2}$ cordate doubly serrate, Largest wing of caps. very large obtusangular

13344 Caulescent erect, Lvs. hisp. on each side unequally oblong doubly tooth. Largest wing of caps. obtusangul.

13345 Leaves long acuminate repand spotted with white above red beneath

13346 Leaves blunt obsolete toothletted smoothish, Stipules spatulate unequal ciliated, Wings of caps. blunt

13347 Stemless, Leaves ovate cordate hirsute finely serrulated mottled, Capsules hairy

13348 Leaves nearly equally cordate very blunt crenate downy: upper cucullate, Stipules lanceolate scariose

13349 Leaves acuminate somewhat angular unequally obsolete toothletted smooth on each side, Stip. scariose

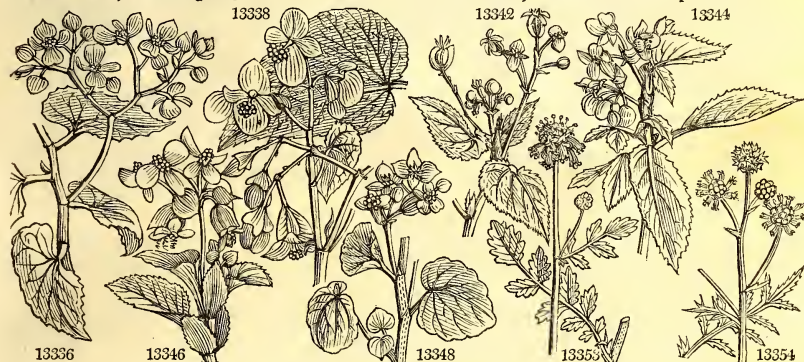
13350 Leaves angular unequally serrulate-ciliated hairy beneath at the veins, Stipules scariose lanceol. fringed

13351 Leaves acute crenulate smooth strigose beneath, Cyme distichous, One wing of capsule very large acute

13352 Hirsute, Leaflets lanceolate, Spikes oblong ovate

13353 Thorns none, Stem somewhat angular, Stamens much longer than the calyx

13354 Unarmed, Stems angular, Terminal flowers female: lower male; intermediate hermaphrodite



and Miscellaneous Particulars.

1385. *Bactris*. So called by Jacquin, from $\beta\alpha\kappa\tau\rho\varsigma$, a cane, because the small stem is made into walking-sticks, which are much valued. B. minor produces a fruit of a dark purple color, the size of a common cherry, containing an acid juice, of which the Americans make a sort of wine. It is also eaten raw, but is not pleasant. Canes are made of the stem; they are dark-colored, shining, jointed, and very light; the French call them *Cannes de Tobago*. B. major has a large nut with a solid kernel, which is eaten in Carthage. In our stoves they form handsome plants, and grow freely in sandy loam; like other palms, they are only to be increased by seed.

1386. *Ceratophyllum*. So called from $\kappa\epsilon\rho\alpha\varsigma$, a horn, and $\phi\upsilon\lambda\lambda\omicron\nu$, a leaf, on account of the numerous horned divisions of the leaves. Aquatic weeds of no beauty.

1387. *Myriophyllum*. From $\mu\upsilon\epsilon\upsilon\iota\omicron\varsigma$, a myriad, and $\phi\upsilon\lambda\lambda\omicron\nu$, a leaf, on account of the infinite number of divisions of its leaves. Aquatics of some beauty, and the easiest culture.

1388. *Sagittaria*. So called from *sagitta*, an arrow, in reference to the arrow-headed form of the leaves. S. sagittifolia is one of the handsomest of British aquatics, and is common in Siberia, China, Japan, and Virginia. The bull, which fixes itself in the solid earth below the mud, constitutes an article of food among the Chinese, and upon that account they cultivate it extensively. The roots are larger in those countries than with us. All the species are of common culture.

1389. *Begonia*. Named in honor of Michael Begon, a Frenchman, born in 1638; he was an intendant of Marine, and a promoter of botany. These are universally plants remarkable for the neatness of their foliage, and their succulent habit. B. argyrostigma and discolor are the two most beautiful species. They are all cultivated without difficulty either from seeds or cuttings.

1390. *Poterium*. Literally, this word signifies a drinking vessel, and in the same sense, a kind of beverage. A drink was made of it, which was reckoned useful in many complaints; it is also an ingredient in cool tankards. P. sanguisorba is sometimes sown along with clover as an herbage plant; it is now, however, out of

13355 hýbridum <i>W.</i>	sweet	♂ △ or	2	jnJl	G	France	1683.	D	co	Barr. ic. t. 632
13356 caudátum <i>W.</i>	smooth shrubby	♂ □ or	3	ja.ap	G	Canaries	1779.	S	p.l	
13357 spinósum <i>W.</i>	prickly shrubby	♂ □ or	2	ap.au	G	Levant	1535.	S	p.l	Moris.s.8.t.18.f.5
1991. AMIRO'LA. <i>Pers.</i>	AMIROLA.					<i>Terebintaceæ.</i>	Sp. 1.			
13358 nitida <i>Pers.</i>	shining-leaved	♂ □ or	24	...	...	Peru	1824.	C	p.l	
1992. ACIDO'TON. <i>W.</i>	ACIDOTON.						Sp. 1.			
13359 árens <i>W.</i>	stinging	♂ □ un	8	.....	G	Jamaica	1793.	C	lp	Slo.jam.1.t.83.f.1
1993. THELY'GONUM. <i>W.</i>	THELYGONUM.						Sp. 1.			
13360 Cynocrámbe <i>W.</i>	Dog's-cabbage	♂ ○ un	...	...	...	S. Europe	1710.	S	co	Lam. ill. t. 777
1994. CASTA'NEA. <i>W.</i>	CHESNUT.					<i>Amentaceæ.</i>	Sp. 2.			
13361 véscá <i>W.</i>	common	♂ tm	50	my.jn	G	England	woods.	S	s.l	Eng. bot. 886
13362 púmíla <i>W.</i>	dwarf	♂ or	12	jl	G.v	N. Amer.	1699.	S	p.l	Mich. arb. 2. t. 7
1995. O'STRYA. <i>W.</i>	HOP-HORNBEAM.					<i>Amentaceæ.</i>	Sp. 2-4.			
13363 vulgáris <i>W.</i>	common	♂ or	20	my	Ap	Italy	1724.	L	s.l	Dend. brit. 143
13364 virginica <i>W.</i>	American	♂ or	20	my.jn	Ap	N. Amer.	1692.	L	s.l	Abb. ins. 2. t. 75
1996. CARPI'NUS. <i>W.</i>	HORNBEAM.					<i>Amentaceæ.</i>	Sp. 3-5.			
13365 Bétulus <i>W.</i>	common	♂ tm	30	mr.my	Ap	Britain	woods.	S	co	Eng. bot. 2032
♂ incisa	cut-leaved	♂ or	15	mr.my	Ap	.....	...	L	co	
13366 americana <i>W.</i>	American	♂ or	20	...	Ap	N. Amer.	1812.	S	co	Dend. brit. 157
13367 orientális <i>W.</i>	eastern	♂ or	12	...	Ap	Levant	1739.	L	co	Dend. brit. 98
1997. FA'GUS. <i>W.</i>	BEECH.					<i>Amentaceæ.</i>	Sp. 2.			
13368 sylvática <i>W.</i>	common	♂ tm	70	ap.my	Ap	Britain	woods.	S	co	Eng. bot. 1846
♂ atro-rúbens Duroi	purple-leaved	♂ or	30	ap.my	Ap	.....	...	L	co	
♂ S. incisa <i>W.</i>	Fern-leaved	♂ or	10	ap.my	Ap	.....	...	G	s.l	
13369 ferruginea <i>W.</i>	American	♂ or	30	my.jn	Ap	N. Amer.	1766.	L	s.l	Mich. arb. 2. t. 9
1998. CO'RYLUS. <i>W.</i>	NUT-TREE.					<i>Amentaceæ.</i>	Sp. 5-7.			
13370 Avellána <i>W.</i>	Common Hazel	♂ fr	10	f.ap	Ap	Britain	woods.	S	co	Eng. bot. 723
♂ álba	White Filbert	♂ fr	10	f.ap	Ap	.....	...	L	co	
♂ rúbra	Red Filbert	♂ fr	10	f.ap	Ap	.....	...	L	co	
♂ grándis	Cob	♂ fr	8	f.ap	Ap	.....	...	L	co	
♂ glomeráta	clustered	♂ fr	8	f.ap	Ap	.....	...	L	co	
♂ cris'pa	frizzled	♂ fr	8	f.ap	Ap	L	co	
13371 tubulósa <i>W.</i>	Lambert's	♂ fr	10	mr.ap	Ap	S. Europe	1759.	L	co	Lam. ill. t. 780



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repute. The leaves when bruised smell like cucumbers, and taste something like the parings of that fruit; they are sometimes put into salads. All the species are of the easiest culture.

1991. *Amirola*. A word with an unknown meaning. The Peruvians form the shining black seeds of *Amirola nitida* into rosaries.

1992. *Acidoton*. From *ακιδωτος*, pointed; in allusion to the stinging pointed hairs of the leaves.

1993. *Thelygonum*. A name under which Pliny described a plant which appears to have been *Mercurialis*. It was derived from *θηλος*, a woman, and *γονυ*, a knee, because of its joints, which were thought to resemble a woman's knee. *Cyno-crambe*, literally interpreted dog-cabbage, was the Greek name of *Mercurialis perennis*.

1994. *Castanea*. A native of the territory of *Castanea*, a town of Thessaly, near the borders of the river *Peneus*, where magnificent chesnut trees still are found. The chesnut, *Châtaignier*, Fr., *Castanienbaum*, Ger., *Castagno*, Ital., is, like the walnut, both a timber and a fruit tree; some of the oldest trees in the world are of this species; as that mentioned by *Brydono* on *Etna*, and the chesnut at *Tortworth*, in *Gloucestershire*. The fruit is generally eaten roasted; abroad, it is not only boiled and roasted, but ground into meal, and puddings, cakes, and bread are made from it. The timber is thought to have been formerly in very general use for house carpentry, though some consider what is generally called chesnut in our old buildings as oak. It is one of the best trees for hop poles, and scarcely any other is now planted in Kent and other hop districts for that purpose. Some excellent fruit-bearing varieties have been lately imported from France; these are increased by grafting or budding in the usual methods, but the plants for coppice woods or timber are best raised from nuts. There is a variety with striped leaves which is very ornamental. The most esteemed of the French kinds are called *Marron*, a word which in old French literally signifies a substance, which it must be confessed the fruit is not unlike.

The American chesnut differs so little from the European, that no specific distinction can be drawn. It is one of the largest and most useful trees of the forests, the wood being extremely durable, and in high esteem for posts and rails to construct fences. The nuts are very delicious. The *Castanea pumila* or *Chinquapin* nut, is a small tree, or rather shrub, growing to the height of thirty feet in the southern states, but scarcely exceeding seven or eight in cold latitudes. The fruit is very sweet and agreeable to eat.

1995. *Ostrya*. So called from *αστρηον*, a scale, in allusion to the scaly catkins of the fruit, which resemble those of the hop, whence the plants are called *Hop-Hornbeam*. The wood of *Ostrya virginica* is exceedingly hard and heavy, whence it is generally known in America under the name of *Iron-wood*. In some parts it is called *Lever-wood*.

1996. *Carpinus*. From the Celtic words *car*, wood, and *pin*, the head; that is to say, wood fit for the yokes of cattle. The wood is white, and of a fine close texture, which makes it peculiarly fit to be wrought into the

- 13355 Unarmed, Stems round striated
 13356 Unarmed shrubby, Branches round villous, Spikes long loose
 13357 Spiny shrubby, Spines branched, Branches villous somewhat angular, Spikes oblong loose
- 13358 Leaves simple and ternate ovate serrated, Petioles thickened on each side
- 13359 Leaves alternate lanceolate ovate, Flowers in racemes
- 13360 Leaves ovate, Stem diffuse
- 13361 Leaves oblongo-lanceolate acuminate mucronate serrate glabrous on each side
 13362 Leaves oblong acute mucronate serrate white with down beneath
- 13363 Cones ovate pendulous, Leaves ovate acute, Buds blunt
 13364 Cones oblong ovate erect, Leaves oblong ovate acuminate, Buds acute
- 13365 Scales or bractees of the fruit oblong serrated with two smaller lateral lobes
- 13366 Scales of cones 3-parted: middle segment oblique ovate lanceolate 1-toothed on one side
 13367 Scales of cones ovate unequal at base undivided somewhat angular unequally serrated
- 13368 Leaves ovate glabrous obsoletely dentate, their margins ciliated
- 13369 Leaves ovate acuminate downy beneath coarsely toothed ciliated at edge
- 13370 Stip. obl. obt. Lvs. roundish-cordate pointed, Invol. of fruit campanulate rather spreading torn at margin
- 13371 Stip. obl. blunt, Cal. of fruit tubul. cylind. contracted at end cut toothed, Leaves roundish cord. acuminate



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various forms with which the country people of all nations have delighted to ornament their yokes. Our English word Horn-beam has evidently the same meaning. *C. Betulus* is a tree of little merit or beauty, having persistent leaves like the beech; it is well adapted for hedges or separation, where the object is shelter.

1957. *Fagus*. From the Greek *φάγος*, which also signifies eatable. We all know that mast was the original food of man. The *Fagus* of Virgil, was the *Quercus Æsculus*. *Hêtre*, Fr., *Büche*, Ger., *Faggio*, Ital. *F. sylvatica* is a handsome tree in every stage of its growth. It seems to thrive best in a chalky clay or loam, rather sheltered. It is one of the handsomest single trees for parks, and is well adapted to form lofty hedges. The timber is brittle, and not of long duration; but it is much used by turners, joiners, and mill-wrights. The bark is remarkably thin, and has been used for making baskets and band-boxes. The leaves are used in France by the country people, on account of their elastic quality, instead of straw for the pailleasse to lay under their mattresses. The mast is readily eaten by swine and deer.

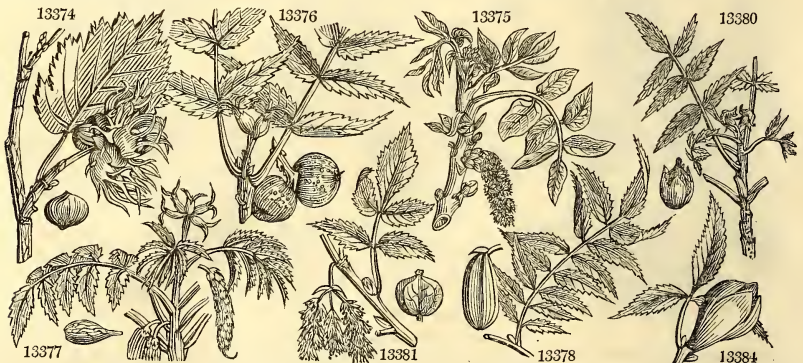
F. cuprea, the copper colored, and *F. purpurea*, the purple beech, are two of the most striking of timber trees, from the color of their foliage. They are propagated by grafting, and grow as freely as the common beech.

Fagus ferruginea is distinguished by the Americans from the common kind by the name of Red Beech, the wood being of a darker color.

1968. *Corylus*. From *κορυς*, a bonnet; to which the enwrapping calyx may be very well compared. Our word Hazel is in like manner derived from the Anglo-Saxon *Hæsel*, which signifies a head-dress. *Noisetie*, Fr., *Nussbaum*, Ger., and *Avellano*, Ital. *C. avellana* has the specific name from Avellino, a city of the kingdom of Naples, near which, in a valley, it grows to a great extent, and in Swinburn's time, brought in an annual profit of near 12,000, sterling. It is said they were originally imported into Italy from Pontus, and known among the Romans by the appellation of *nux Pontica*, which in process of time, was changed into that of *nux Avellana*, from the place where they had been propagated with the greatest success. The common Hazel-nut is wild in many woods and coppices in Britain, whence the fruit is gathered in plenty and sent to the neighbouring markets. As underwood, the plant is of some value for hoops, fishing-rods, walking-sticks, wifes for fagoting, crate-making, hurdles, wattling-fences, and springles to fasten down thatch. Formerly the roots were used by the cabinet-makers; and where yeast was scarce, they twisted the twigs, steeped them in ale during its fermentation, hung them up to dry, and when they brewed put them into the wort.

There are several varieties of the cultivated filbert. What is called the frizzled filbert is esteemed the best. The plants do not require a rich soil, but one with a dry bottom. They are generally propagated by suckers, and grown as dwarf standards, each plant with a single clean stem, from six feet high down to twelve inches. When allowed to throw up suckers from the root and form a thick bush, they cease to bear fruit in any quantity. The filbert bears principally upon the sides of the upper young branches, and from small shoots which proceed from the bases of side branches cut off the preceding year. Hence the spurring-in method of

13372 americana W.	Dwarf Cuckold	♂	fr	6	mr.ap	Ap	N. Amer.	1798.	L	co	Wa. am.t.29.f.63
13373 rostrata W.	Com. Cuckold	♂	fr	5	mr.ap	Ap	N. Amer.	1745.	L	co	Willd. arb.t.1.f.2
13374 Colurna W.	Constantinople	♂	fr	10	mr.ap	Ap	Constant.	1865.	L	co	Dend. brit. 99
1999. JUGLANS W.	WALNUT.										
13375 regia W.	common	♀	tm	60	ap.my	Ap	Persia	1562.	S	co	Lam. ill. 781
13376 nigra W.	black	♀	tm	30	ap.my	Ap	N. Amer.	1629.	S	co	Dend. brit. 156
13377 cinerea W.	Butter Nut	♀	tm	30	ap.my	Ap	N. Amer.	1656.	S	co	Jac. ic. 1. t. 192
13378 olivæformis W.	Pekan Nut	♀	tm	30	ap.my	Ap	N. Amer.	...	S	co	Mich. arb. 1.t. 3
angustifolia H. K.											
13379 sulcata W.	thick shell-bark Hickory	♀	tm	30	ap.my	Ap	N. Amer.	1804.	S	co	Mich. arb. 1. t. 8
13380 alba W.	shell-bark Hickory	♀	tm	30	ap.my	Ap	N. Amer.	1629.	S	co	Dend. brit. 148
13381 compræssa W.	flat-fruited	♀	tm	30	ap.my	Ap	N. Amer.	1730.	S	co	Mich. arb. 1. t. 7
13382 amara Mich.	bitter Nut	♀	tm	30	my	Ap	N. Amer.	1800.	S	co	
13383 obcordata W.	obcordate	♀	tm	30	my	Ap	N. Amer.	1812.	S	co	M. arb.1.t.9.f.3,4
13384 glabra W.	Hog-nut	♀	tm	30	my	Ap	N. Amer.	1799.	S	co	M. arb.1.t.9.f.1,2
porcina Mich.											
2000. QUERCUS W.	OAK.										
13385 Phœlos Ph.	Willow	♀	tm	60	my.jn	Ap	N. Amer.	1723.	S	s.l	Mich. arb. 1.t.12
13386 maritima Ph.	sea	♀	or	6	my.jn	Ap	N. Amer.	1811.	S	co	Mi. quer. t.13.f.1
13387 sericea Ph.	running	♀	or	2	my.jn	Ap	N. Amer.	1724.	S	co	Mich. arb. 2.t.15
13388 virens Ph.	live	♀	tm	40	my	Ap	N. Amer.	1739.	S	s.l	Mich. arb. 2. t.11
13389 cinerea Ph.	ash-colored	♀	or	10	my.jn	Ap	N. Amer.	1789.	S	co	Mich. arb. 2.t.14
13390 imbricaria Ph.	shingle	♀	tm	40	my.jn	Ap	N. Amer.	1786.	S	co	Mich. arb. 2. t.13
13391 laurifolia W.	Laurel	♀	tm	50	my	Ap	N. Amer.	1786.	S	co	Mich. querc.t.17
β obtusa Mich.	blunt-leaved	♀	tm	my	Ap	N. Amer.	1786.	S	co	Mich. querc.t.18	
13392 lœtea W.	yellow	♀	tm	20	my	Ap	Mexico	1825.	S	co	
13393 Ballota W.	Barbary	♀	tm	60	my.jn	Ap	Barbary	...	S	s.l	
13394 Plex W.	evergreen	♀	tm	60	my.jn	Ap	S. France	1581.	S	s.l	Dend. brit. 90
α integrifolia	common	♀	tm	60	my.jn	Ap	S. France	1581.	S	s.l	
β serrata	notched-leaved	♀	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb.1.t.123
γ oblonga	long-leaved	♀	or	60	my.jn	Ap	S. France	1581.	G	s.l	Duh. arb. 1. t. 124
13395 Süber W.	Cork-tree	♀	clt	20	jn	Ap	S. France	1699.	S	s.l	Dend. brit. 89
13396 coccifera W.	Kermec	♀	clt	10	my	Ap	S. France	1683.	G	s.l	Dend. brit. 91
13397 gramuntia W.	Holly-leaved	♀	or	30	jn	Ap	France	1730.	G	s.l	



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pruning is the most successful in the production of fruit. C. Colurna may be treated in the same manner as the other, but the plants kept at a somewhat greater distance apart.

The nuts of the American Hazel-nut, *Corylus americana*, are very excellent.

1999. *Juglans*. That is to say, *Jovis glans*, the nut of Jove, on account of its excellence, which must have been great indeed, when gods had nothing but oak or beech-mast to eat. *J. regia*, walnut, from *gaut*-nut, the tree being introduced from France, *Noyer*, Fr., *Walnussbaum*, Ger., and *Noci*, Ital., is cultivated both as a fruit and timber-tree. The fruit in a green state, before the stone hardens, is much used for pickling, and also as an adulteration of soy sauce. An oil, which supplies the place of that of almonds, is expressed from the kernel in France. In Spain they strew the gratings of old and hard nuts, first peeled, into their tarts and other meats. The leaves strewed on the ground, and left there, annoy worms; or macerated in warm water, afford a liquor, which from its bitterness may effect their death. The unripe fruit is used in medicine for the same purpose. Pliny says, "the more walnuts one eats, with the more ease will he drive worms out of the stomach." The timber is used in this country for gun-stocks, being lighter in proportion to its strength and elasticity than any other. It is used in cabinet-work in most parts of the continent: the young timber is held to make the finest colored work, but the old to be finer variegated for ornament. When propagated for timber, the nut is sown; but when fruit is the object, inarching from the branches of fruit-bearing trees is preferable. Budding has also been successfully adopted by Mr. Knight; the buds succeed best when taken from the base of the annual shoots; ordinary-sized buds from the upper parts of such shoots generally fail. Walnut trees that have not been grafted or budded, may be induced to produce blossoms by ringing the bark.

Juglans nigra, the black walnut, is a tree of large size, and its nuts are eaten by men and several species of animals. The wood is put to various mechanical and economical uses. *J. cathartica* is known under the name of butter-nut, oil-nut, and white walnut; the nuts are used by the American Indians medicinally. The fruit of *J. olivæformis*, or the Pekan-nut, is delicious; sometimes it is exposed in the fruiterers' shops for sale. The nuts of *J. sulcata*, which is called thick shell-bark hickory, and Springfield and Gloucester nut, are large and well-tasted. The shell-bark hickory, shag-bark, or scaly-bark hickory, *J. alba*, is so called on account of its bark, which is torn lengthwise in long loose strips, as in *J. sulcata*. The wood of *J. tomentosa*, the Mocker-nut, white-heart hickory, or common hickory, is excellent for mechanical purposes, and particularly esteemed as fire-wood; but the nuts are hard, with but little kernel in them. The Americans make very good and durable brooms by slitting into narrow slips the very tough wood of *J. glabra*, which is called pig or hog-nut, also broom hickory.

- 13372 Cal. of fruit roundish campan. larger than nut, Limb dilated tooth serrated, Lvs. roundish cord. acumin.
 13373 Stip. lin. lanc. Cal. of fruit camp. tubul. larger than nut 2-parted : seg. cut toothed, Lvs. obl. ovate acumin.
 13374 Stip. lanc. acum. Cal. of fruit double : outer many-parted ; inn. 3-part. Seg. palm. Lvs. roundish ov. cordate

- 13375 Leaflets about nine oval smooth subserrated nearly equal, Fruit globose
 13376 Leaflets numerous lanceolate serrated beneath with the petioles downy, Fruit globose dotted rough
 13377 Leaflets numerous oblong lanceolate serrated soft with down beneath, Petioles viscid, Fruit oblong ovate
 13378 Leaflets numerous lanceolate serrated, the odd one with a long stalk, Fruit oblong 4-cornered

- 13379 Leaf. about 9 lanceolate acuminate serrate downy beneath : the odd one sess. Fruit roundish with 4 keels
 13380 Leaflets 7'obl. lanc. acuminate serrated rough and downy beneath : the odd one sess. Fruit squarish smooth
 13381 Leaf. 7 obl. lanc. acum. serr. downy beneath and soft : the odd one sess. Fruit ov. Nuts oblique compressed
 13382 Leaflets about 9 ovate-oblong acum. finely serrated smooth on each side ; the odd one with a short stalk
 13383 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Nuts orbicord. smooth
 13384 Leaflets 7 ovate acuminate serrated smooth on each side with resinous dots beneath, Fruit and nuts oblong

A. *Leaves entire, or little toothed.*

- 13385 Leaves membranaceous linear lanc. tapering at each end entire smooth with a small point, Nut roundish
 13386 Leaves coriaceous elliptical-lanceolate entire smooth with a small point, Nut roundish
 13387 Lvs. lanc.-obl. somewhat wavy obt. at the base rather dilated upwards silky beneath, Nut almost globular
 13388 Lvs. coriac. ellipt.-obl. revol. ent. pointless obt. at base clothed with starry down ben. Fr. stalk. Nut oblong
 13389 Lvs. coriac. ellipt.-lanc. revol. ent. blunt. with a small point clothed with starry down beneath, Fruit sessile,
 Nut nearly globose
 13390 Leaves elliptical oblong acute at each end entire almost sessile downy beneath, Nut nearly globose
 13391 Leaves obovate entire smooth nearly sessile tapering at the base, Nut roundish even

- 13392 Leaves obovate entire shining somewhat heart-shaped at the base downy and yellow beneath

B. *Leaves toothed spiny.*

- 13393 Leaves elliptical coriaceous entire or serrated very downy beneath, Bark even, Nut cylindrical elongated
 13394 Leaves ovate-oblong acute coriaceous entire or serrated hoary beneath, Bark even, Nut ovate

- 13395 Leaves ovate-oblong bluish coriaceous entire or sharply serrated downy beneath, Bark cracked fungous
 13396 Lvs. ellipt.-obl. rigid blunt on both sides with spread, brist. spin. teeth, Nut ov. Cal. with spread point sc.
 13397 Leaves roundish ellipt. nearly sess. undulated with deep spin. divaricat. teeth densely downy beneath
 somewhat heart-shaped at the base



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2000. *Quercus*. This name is derived from the Celtic *quer*, fine, and *cuez*, a tree; it was so called, in distinction to other trees, because the holy mistletoe grew upon it: otherwise the common name of the oak in Celtic was *deru*, whence *druids*, and the Greek *δρυς*. *Phellos* was the Greek name of the cork, *Q. suber*. *Gramuntia* has derived its name from growing in the wood of Grammont, near Montpellier. *Suber* is generally thought to have been formed from the Latin *sub*, under, because the bark was used by the Roman women as sandals, both for keeping their feet dry, and increasing their stature; but *Vossius* is of opinion, that it comes from *σφραξ*, the Greek name of bark of any kind. *Coccifera* has been so called because the little insect, *coccus*, which affords the well-known kermes dye, is found upon it. *Kermes* itself is an alteration of *germes*, which signifies in Arabic, a little worm; the same people called the red dye *germesy*, whence our Norman-English word *cramoisie*. *Robur* is an alteration of *rove*, a Celtic synonym of the oak. *Egilops*, literally goat's-beard, was so called on account of the long truss or beard-like lichens which were frequently found hanging suspended from it.

The oak is a genus of trees familiar to man in the temperate zones of both hemispheres. *Q. Robur*, now valued for its timber and bark, and formerly for its acorns, is familiar to every Briton. There are two distinct varieties or subspecies; *Q. sessiflora* and *pedunculata*, and another *Q. pubescens*. *Q. pedunculata* is thought to be the common oak of England, being much more frequent in natural woods than the others. The timber of this variety is said to be whitish and hard, while that of the sessile-fruited is reddish and brittle. The bark of this and all the hardy species of oak is or may be used by the tanner. Oak saw-dust is the principal indigenous vegetable used in dyeing fustian; and different shades of drab and brown are also made from it. Oak-apples are used in dyeing as a substitute for galls; the black got from them by the addition of copperas is more beautiful than that from galls, but not so durable. These galls are occasioned by an insect of the *Cynips* kind, which deposits its eggs in the substance of the leaf. When the bark of the oak has performed its office to the tanner, it is employed by the gardener to produce heat by its fermentation. Oak leaves are also used for the same purpose. When a great proportion of the island was in forest, acorns were of importance for feeding swine; they are still valued for this purpose in districts where the oak abounds, as in Hampshire and Northamptonshire. *Q. cerris* is a very handsome tree, and the timber is considered nearly as valuable as that of the common oak. The *Lucombe* (from the name of the nurseryman who raised it) and *Fulham* (from the name of the nursery where it was first originated) varieties are nearly evergreens; they retain their verdure till Christmas, and remain on the tree in a brown or withered state till April or May following.

Q. coccinea is one of the handsomest of the American oaks; the leaves, which are six inches long, change in

13398 lusitânica W.	Portugal	半	tm	40	ju	Ap	Portugal	1824	G s.l	Cav. ic. 2. t. 129
13399 Prinoïdes W.	Dwarf Chesnut	莖	or	3	ju	Ap	N. Amer.	1823.	G s.l	Mi. querc. t. 9. f. 1
	Chin'quapin Ph.									
13400 infectória W.	Dyer's	半	tm	40	my. ju	Ap	Levant	1822.	G co	
13401 Turnéri W.	Turner's	半	tm	40	my. ju	Ap	.....	...	G co	
13402 Prinus Ph.	Chesnut	半	tm	60	my. ju	Ap	N. Amer.	1730.	S s.l	Mich. arb. 2. t. 7
13403 bicolor Ph.	white swamp	半	tm	60	my	Ap	N. Amer.	1811.	S s.l	Mich. arb. 2. t. 6
13404 montána Ph.	Rock Chesnut	半	tm	50	my	Ap	N. Amer.	1800.	S s.l	Mich. arb. 2. t. 8
13405 áquática Ph.	water	半	tm	40	my	Ap	N. Amer.	1723.	S s.l	Mich. arb. 2. t. 17
13406 nána Ph.	dwarf	半	or	12	my	Ap	N. Amer.	1738.	S s.l	Abb. ins. 2. t. 59
13407 Castânea Ph.	Yellow	半	tm	60	my	Ap	N. Amer.	1822.	S s.l	
13408 nígra Ph.	black	半	or	20	my	Ap	N. Amer.	1739.	S s.l	Mich. arb. 2. t. 18
13409 tríloba Ph.	downy-black	半	tm	80	my	Ap	N. Amer.	1800.	S s.l	Mich. querc. t. 26
13410 stelláta W.	Iron	半	tm	60	my	Ap	N. Amer.	1819.	S s.l	Mich. querc. t. 1
	obtusiloba Mich.									
13411 hemisphaérica Ph.	hemispherical	莖	or	10	my	Ap	N. Amer.	...	S s.l	
13412 elongáta W.	Spanish	莖	tm	50	my	Ap	N. Amer.	...	S s.l	
	falcata Mich.									
13413 tinctória Ph.	Quercitron	半	tm	70	my	Ap	N. Amer.	1800.	S s.l	Mich. querc. t. 24
13414 discolor Ph.	two-colored	半	tm	60	my	Ap	N. Amer.	1763.	S s.l	Mich. querc. t. 25
13415 rúbra Ph.	champion	半	tm	40	my	Ap	N. Amer.	1739.	S s.l	Mich. arb. 2. t. 26
13416 heterophýlla Ph.	various-leaved	半	tm	40	my	Ap	N. Amer.	...	S s.l	Mich. arb. 2. t. 16
13417 coccinea Ph.	scarlet	半	tm	50	my	Ap	N. Amer.	1691.	S s.l	Mich. arb. 2. t. 23
13418 Catesbæi W.	barren scrub	半	or	15	my	Ap	N. Amer.	1823.	S s.l	Mich. querc. t. 29
13419 palústris Ph.	marsh	半	tm	60	my	Ap	N. Amer.	1800.	S s.l	Mich. arb. 2. t. 25
13420 macrocar'pa Ph.	over-cup white	半	tm	40	my	Ap	N. Amer.	1800.	S s.l	Mich. arb. 2. t. 3
13421 Banistéri Mich.	Banister's	莖	or	6	my	Ap	N. Amer.	1800.	S s.l	Mich. arb. 2. t. 19
13422 E'gilops W.	Velonia	半	tm	20	...	Ap	Levant	1731.	S s.l	Mil. dic. n. 7. t. 215
13423 álba Ph.	white	半	tm	60	my	Ap	N. Amer.	1724.	S s.l	Mich. arb. 2. t. 1
	repand-leaved	半	tm	60	my	Ap	N. Amer.	...	S co	
13424 E'sculus W.	Italian	半	tm	40	my	Ap	S. Europe	1739.	S s.l	
13425 Róbur W.	sessile-fruited	半	tm	60	ap. my	Ap	Britain	woods.	S h.l	Eng. bot. 1845
	Q. sessiliflora Sm.									
13426 pedunculáta W.	common	半	tm	60	ap. my	Ap	Britain	...	S h.l	Eng. bot. 1342
13427 pubéscens W.	durmast	半	tm	40	ap. my	Ap	Britain	...	S h.l	
13428 fastigiáta Lam.	Cypress-oak	半	tm	40	ap. my	Ap	S. Europe	1820.	G co	
13429 Taúzin Lam.	hoary	半	tm	40	ap. my	Ap	S. Europe	1822.	G co	
13430 Cérris W.	Turkey	半	tm	50	my	Ap	S. Europe	1735.	S co	Dend. brit. 92
	rough-leaved	半	tm	50	my	Ap	S. Europe	...	G co	
	narrow-leaved	半	tm	50	my	Ap	S. Europe	...	G co	
	Lumbe	半	tm	50	my	Ap	.....	...	G co	
	Fulham	半	tm	50	my	Ap	.....	...	G co	
	toothed	半	tm	50	my	Ap	.....	...	G co	
13431 austriaca W.	Austrian	半	tm	40	my	Ap	Austria	1824.	G co	Dend. brit. 93 Clus. hist. 1. p. 20



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autumn to a beautiful scarlet color, and unless hard frost comes on early, they do not fall off the tree till near Christmas. *Q. rubra* bears a near resemblance to the last species. *Q. tinctoria*, *Quercitron*, Fr., has been recommended to be cultivated on account of its bark, which affords a valuable yellow dye. (*Caled. Hort. Mem.* iii. 378.)

Q. suber is cultivated in Spain, Portugal, and the south of France, for its cork-bark. The exterior bark is the cork, which is taken from the tree every eight or ten years; but there is an interior bark which is left on to protect the tree, so that stripping off the outer bark is so far from injuring the trees, that it is necessary to their continuation. Trees that are never barked are said to die at the age of fifty or sixty years. The bark is taken off for the first time when the tree is about fifteen years old; it soon grows again, and may be rebarked three times, the bark improving every time till the tree attains the age of thirty years. It is taken off in sheets or tables, much in the same way as oak or larch bark is taken from the standing trees in this country. After being detached, it is flattened by presenting the convex side to heat, or by pressure. In either case it is charred on both surfaces to close the transverse pores, previously to its being sold. The carbonized surface produced by this charring, may be seen in bungs and taps; but not in corks, which being cut in the lengthway of the wood, the charring is taken off in the rounding.

13398 Leaves elliptic, with deep point, serratures downy beneath, Fruit racemose, Cal. hemispherical, Nut obl.
 13399 Lvs. on short stalks obov. acutely and coarsely toothed at base glaucous ben. Cup hemispheric. Acorn ov.

C. *Leaves sinuated.*

- 13400 Leaves oblong mucronate-toothed smooth on each side
 13401 Leaves oblong coarsely mucronate-toothed smooth on each side cuneate at base, Branchlets hairy
 13402 Lvs. on long stalks obov. ac. somew. downy ben. with near. eq. serrat. Cal. of fr. contract. at base, Nut ov.
 13403 Lvs. nearly sess. obovate downy and white beneath with very broad unequal teeth, Fruit in pairs on long bristle-pointed stalks, Calyx hemispherical, Nut oblong ovate
 13404 Lvs. on shortish stalks obovate acute downy and white beneath with nearly equal dilated short blunt serr. Cal. hemispherical with rugged scales, Nut oblong ovate
 13405 Lvs. wedge-shaped smooth tapering at the base dilated and obscurely 3-lobed at the end : the middle lobe largest, Calyx nearly hemispherical, Nut roundish
 13406 Lvs. obl. wedge-shaped smooth somew. sinuated 3-lobed at extrem. Lobes divaricated pointed : the middle one largest, Forks of the vein downy beneath
 13407 Lvs. on long footst. obl. lanc. pointed somewhat downy ben. with numerous nearly equal dilated serratures, Cal. hemispherical, Nut round ovate
 13408 Lvs. wedge-shaped somew. cord. dilated very slightly 3-lobed at the end, smooth above rusty beneath, Cal. hemispherical with membranous scales, Nut round ovate
 13409 Lvs. wedge-shaped with 3 terminal bristly-pointed lobes : the midd. one longest downy beneath, Cal. of the fruit flattish, Nut nearly round
 13410 Leaves oblong sinuated downy beneath : lobes blunt ; upper dilated 2-lobed, Cups hemispherical
 13411 Leaves evergreen oblong-lanceolate undivided 3-lobed or sinuated smooth on both sides, Lobes pointed
 13412 Lvs. downy ben. sinuat. with 3 or more somew. falc. brist.-point. lobes : term. one elong. jagg. Cal. hemisph. [undern. Nut globose
 13413 Lvs. downy ben. obov. obl. dilat. wide. sinuat. Lobes short obt. slight. toothed bristle-point. Cal. of fruit flat
 13414 Leaves downy beneath oblong pinnatifid toothed bristle-pointed, Calyx turbinate, Nut ovate
 13415 Lvs. smooth obl. sinuat. on long stalks, Lobes ac. sharply tooth. bristle-point. Cal. of fr. flat undern. Nut ov.
 13416 Lvs. on long stalks ovate lanc. or obl. entire or unequally lobed, Cup hemispherical, Acorn nearly globose
 13417 Lvs. smooth obl. deeply and widely sinuated on long stalks, Cal. of the fruit turbinate $\frac{1}{2}$ as long as the nut
 13418 Lvs. smth. obl. wedge-shap. at base deeply and widely sinuat. on short stalks, Cal. of fr. turbin. $\frac{1}{2}$ as long as nut
 13419 Lvs. smooth obl. deeply and widely sinuated on long stalks, Forks of the veins densely woolly beneath, Cal. of the fruit flattened, Nut nearly globose
 13420 Lvs. obl. lyr. downy ben. : term. lobe very large 3-cleft sinuat. Cal. of fr. hemisph. scaly fring. with bristles
 13421 Leaves obovate cuneiform 3-5-lobed, Lobes setaceous mucronate downy beneath [elong. spread. scales
 13422 Lvs. ov. obl. with bristle-pointed tooth-like lobes hoary ben. Cal. of fr. very large hemispherical with lanc.
 13423 Lvs. obl. deeply pinnatif. glaucous ben. Lobes lin. obl. obt. ent. dilated upw. Fr. stalked, Cal. depress. warty [hemispherical
 13424 Lvs. ov. obl. sinuat. smooth paler ben. : segm. bluntish somew. angular at base, Fruit nearly sess. Cal. scaly
 13425 Lvs. decidu. oblong smooth dilated upwards stalked, Lobes obtuse, Stalks of fruit elongated, Nut oblong
 13426 Leaves oblong subsessile smooth sinuated : lobes round, Fruit oblong stalked [Fruit nearly sessile
 13427 Lvs. obl. obov. stalked sinuat. downy ben. : lobes obt. angul. wavy somew. heart-shap. and unequal at base,
 13428 Leaves subsessile smooth oblong ovate pinnatifid sinuated blunt, Branches ascending
 13429 Leaves softly villous deeply pinnatifid : segm. oblong blunt sinuated, Cups warty [hemisph. bristly
 13430 Lvs. on very short stalks obl. deeply and uneq. pinnatif. hairy ben. Stip. longer than footst. Cal. of the fruit

13431 Lvs. on longish stalks ovate obl. slightly but copiously sinuated downy and hoary ben. : lobes short ovate acute entire, Stipules shorter than the footstalks, Cal. of the fruit hemispherical bristly



and Miscellaneous Particulars.

The uses of cork in Britain are well known. It was used as sandals by the Greeks, whence our cork soles, and probably the Venetian chopings (*cioppini*, Ital.), or shoes so high heeled, as to raise the women above the men. The poor people in Spain lay broad planks of it by their bed-side to tread on, as great persons use Turkey and Persian carpets to defend them from the floor; and sometimes they line the walls and insides of their houses built of stone with this bark, which renders them very warm, and corrects the moisture of the air. Both in Spain and Barbary bee-hives are made of cork; for this purpose, they roll the bark into a cylinder of five or six feet long, and six inches in diameter, boring holes for the entrance and exit of the bees, as in the Polish hive. (*Encyc. of Gard.* 1738.)

Q. *coccifera*, *Cusaja*, Span., has prickly leaves like those of the holly, or Q. *ilex*, from this species is collected the kermes or scarlet grain, a little red gall, occasioned by the puncture of the *Coccus ilicis*. With these galls scarlet color was dyed, till the discovery of America, when another species of *Coccus*, the cochinillifer, was found in the Mexican woods upon the Cactus.

Q. *phellos* is remarkable for the form of the leaves, which differ in character from those of the rest of the species. Q. *ilex*, the holly, or holm oak, *Chêne verd*, Fr., *Elice*, Ital., and *Enzina*, Span., is a handsome evergreen tree, and the timber is supposed equal to that of the common oak. Q. *gramuntia* is thought by some

13432	<i>Pseudo súber Desf.</i>	false Cork	♀	tm	40	my	Ap	S. Europe	1824.	G	co	Sant.itin.156. t.4
13433	<i>olivæformis Ph.</i>	mossy-cup	♀	tm	50	my	Ap	N. Amer.	1811.	S	h.l	Mich. arb. 2. t. 2
13434	<i>lyrata Ph.</i>	Swamp-post	♀	or	15	my	Ap	N. Amer.	1786.	S	h.l	Mich. arb. 2. t. 5
2001.	LIQUIDAMBAR. W.	LIQUIDAMBAR.						<i>Amentacea.</i>	<i>Sp. 2.</i>			
13435	<i>Styraciflua W.</i>	Sweet-gum	♀	tm	60	nr.ap	Ap	N. Amer.	1683.	S	s.l	Mi.ar.3.p.194.t.4
13436	<i>inbérbe W.</i>	oriental	♀	or	6	...	Ap	Levant	1759.	L	s.l	
2002.	PLATANUS. W.	PLANE-TREE						<i>Amentacea.</i>	<i>Sp. 4-5.</i>			
13437	<i>orientális W.</i>	oriental	♀	tm	50	ap.my	Ap	Levant	1548.	C	co	Dend. brit. 101
13438	<i>cuneata W.</i>	wave-leaved	♀	or	6	ap.my	Ap	Levant	1739.	C	co	
13439	<i>acerifolia W.</i>	Maple-leaved	♀	tm	70	ap.my	Ap	Levant	1724.	C	co	
13440	<i>occidentális W.</i>	American	♀	tm	70	ap.my	Ap	N. Amer.	1640.	C	co	Dend. brit. 100
2003.	SALISBURIA. L. T.	SALISBURIA.						<i>Amentacea.</i>	<i>Sp. 1.</i>			
13441	<i>adiantifolia L. T.</i>	Maiden-hair-lv.	♀	or	20	ap.my	Ap	Japan	1754.	C	s.l	Dend. brit. 163
2004.	CARLUDOVICA. Fl. per.	CARLUDOVICA.						<i>Pandaneæ.</i>	<i>Sp. 3-5.</i>			
13442	<i>angustifolia Fl. per.</i>	narrow-leaved	♀	or	3	...	W	Peru	1818.	Sk	p.l	
13443	<i>latifolia Fl. per.</i>	broad-leaved	♀	or	3	jl.au	W	Peru	1818.	Sk	p.l	
13444	<i>palmaia Fl. per.</i>	palmate	♀	or	3	jl.au	W	Peru	1818.	Sk	p.l	
2005.	CALA'DIUM. W.	CALADIUM.						<i>Aroidæ.</i>	<i>Sp. 16-37.</i>			
13445	<i>helleborifolium W.</i>	Hellebore-lvd.	♀	or	2	jn.jl	W	Caraccas	1796.	R	s.p	Jac. ic. 3. t. 613
13446	<i>bicolor W.</i>	two-colored	♀	or	1	jn.jl	W	Madeira	1773.	R	s.p	Bot. mag. 820
13447	<i>nymphæifolium W.</i>	Water-lily-lvd.	♀	or	4	...	W	E. Indies	1800.	R	s.p	Rhe.mal.11. t. 22
13448	<i>esculentum W.</i>	esulent	♀	clt	2	...	W	America	1739.	R	s.p	Sl.jam.1.t.106.F.1
13449	<i>sagittifolium W.</i>	arrow-leaved	♀	or	2	...	W	W. Indies	1710.	R	s.p	Jac.vind. 2. t.157
13450	<i>pinnatifidum W.</i>	pinnatifid	♀	or	2	...	W	Caraccas	1817.	R	s.p	Jac.schæ.2.t.187
13451	<i>seguinum W.</i>	Dumb-Cane	♀	or	6	my	W	America	1759.	R	s.p	Hook. ex. fl. 1
13452	<i>grandifolium W.</i>	great-leaved	♀	or	6	my.jl	W	Caraccas	1803.	R	s.p	Jac.schæ.2.t.189
13453	<i>arboræscens W.</i>	tree	♀	or	8	jn.jl	W	W. Indies	1759.	R	s.p	Plu. ame. 44. t.60
13454	<i>tripartitum W.</i>	ternate-leaved	♀	or	3	...	W	Caraccas	1816.	R	s.p	Jac.schæ.2.t.190
13455	<i>auritum W.</i>	ear-leaved	♀	or	3	...	W	America	1739.	R	s.p	Jac.schæ.2.t.191
13456	<i>lâcerum W.</i>	torn	♀	or	4	...	W	Caraccas	1822.	R	s.p	
13457	<i>odoratum Rozb.</i>	fragrant	♀	or	2	mr	W	Pegu	1818.	R	s.p	Bot. reg. 641
13458	<i>maculatum Lodd.</i>	spotted	♀	or	6	mr	G	S. Amer.	1820.	C	s.p	Bot. cab. 608
13459	<i>scândens W.</i>	climbing	♀	or	2	...	W	Guinea	1822.	R	s.p	Fl. d'Oware, t. 3
13460	<i>xanthorhizum Jacq.</i>	yellow-rooted	♀	or	4	...	W	1822.	R	s.p	Jac.schæ.2.t.188



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to be only a variety of this species. The acorns of *Q. esculus* are sweet, and, it is said, are frequently eaten by the poor in the south of France: the tree very much resembles the common English oak.

The willow oak grows to the height of about fifty or sixty feet. The *Q. virens*, or live oak, grows to the height of forty or fifty feet, spreading its branches, when in open places, extremely wide; it yields the finest and most durable ship-timber of any species known; for which reason it is considered one of the most valuable trees in America. The laurel-oak, or, as it is sometimes called, swamp willow oak, is about fifty or sixty feet high; its wood, according to the elder Michaux, is very valuable, and almost preferable to that of *Q. virens*. The water oak, *Q. aquatica*, is about forty feet high when full grown: its wood is but little valued. Its leaves vary according to the soil and age, *ad infinitum*. There is scarcely one tree found having leaves like the other; and the same tree is almost as variable in its different branches. The downy black oak, *Q. triloba*, is from twenty to forty feet high, according to Michaux, of very rapid growth, and extremely well calculated for inclosing land. The barren oak, or black jack of the Virginians, *Q. nigra*, is of low growth, especially in the more northern states; it bears very abundantly, and furnishes a fine mast for hogs; the wood is small, but excellent for fuel. The black oak, or Quercitron, *Q. tinctoria*, is one of the largest trees of the American forest, and highly valuable on account of its timber as well as bark, which is very superior for tanning to any other oak. *Q. falcata* is a very large tree, commonly called Spanish oak. The wood of the upland white oak, or iron oak, is of great value in ship-building. The fruit of the *Q. Prinus*, known by the name of the chestnut white oak, swamp chestnut oak, and, in the southern states of North America, white oak, is large, and of a sweet taste. The bark of the rock chestnut oak, *Q. montana*, is excellent for tanning. The yellow oak, *Q. castanea*, is a large and beautiful tree with eatable acorns.

2001. *Liquidambar*. From this tree flows a strong balsamic substance, which has been compared to ambergris, and named from *Ambar*, amber, and *liquidum*, fluid. *L. styraciflua*, in its general form and leaves, bears a considerable resemblance to the lesser Maple, (*Acer campestre*) as the wood is good timber and beautifully variegated. Between the wood and the bark issues a fragrant gum, which trickles from the wounded trees, and by the heat of the sun congeals into transparent drops, which the Indians chew as a preservative to their teeth. It smells like the balsam of Tolu. The species are propagated by layers, or from seeds.

The sweet gum-tree, or *Liquidambar styraciflua*, is sometimes found of an immense size, particularly in the southern states; its wood is of an exquisite hard texture and fine grain, and furniture made of it has a handsome appearance.

2002. *Platanus*. From *πλατυς*, ample, broad, in allusion to the shadow afforded by the foliage. The species are trees of peculiar grace and elegance, and from that circumstance, and the classical associations attached to them, they are eminently adapted for pleasure grounds. The chenar, or eastern plane, is very much employed

- 13432 Leaves oblong sinuate serrated downy beneath, Bark fungous
 13433 Lvs. obl. smooth glaucous ben. deeply and unequally pinnatif. Fruit ellipt.-ovate, Cal. cup-shaped fringed
 13434 Lvs. obl. deeply sinuated smooth much contracted in the middle: lobes acute; the upper ones dilated angular and abrupt, Calyx of the fruit globose mucronated nearly covering the nut
 13435 Leaves palmate-lobed, Recesses at the base of the veins villous
 13436 Leaves palmate-lobed, Recesses at the base of the veins smooth

- 13437 Leaves 5-lobed palmate cuneate at base, Segm. lanceolate sinuated, Stipules nearly entire
 13438 Leaves 3-5-lobed toothed cuneate at the base smoothish
 13439 Leaves cordate 5-lobed remotely toothed truncate at base
 13440 Leaves 5 angular obsoletely lobed toothed cuneate at base downy beneath

13441 The only species

- 13442 Fronds forked: segments ensiform narrow, Stems round
 13443 Fronds forked: segments lanceolate, Stems channelled
 13444 Fronds flabelliform 3-5-parted

- 13445 Stemless, Leaves pedate entire, Spadix as long as spathe [contracted in the middle
 13446 Stemless, Lvs. pelt.-cordate sagittate colored in the disk, Spadix shorter than the hooded spathe, which is
 13447 Stemless, Lvs. peltate-cordate sagittate, Spadix longer than the cylindrical spathe sagittate at end
 13448 Stemless, Leaves peltate-cordate, Spadix shorter than ovate-lanceolate spathe
 13449 Stemless, Leaves sagittate acuminate, Spadix shorter than ovate-cucullate spathe
 13450 Stemless, Leaves pinnatifid
 13451 Caulicent suberect, Leaves oblong cuspidate, Spadix shorter than oblong spathe
 13452 Caulicent rooting, Leaves cordate sagittate, Spadix as long as the cucullate ovate spathe
 13453 Caulicent erect, Leaves sagittate, Spadix shorter than the cucullate ovate spathe
 13454 Caulicent rooting, Leaves ternate, Petioles naked, Spadix as long as the cucullate ovate spathe
 13455 Caulicent root. Lvs. tern.: lat. leaflets eared at base on outside, Petiol. winged bel. Spad. shorter than spathe
 13456 Caulicent rooting, Leaves cordate sinuate
 13457 Caulicent, Leaves cordate with rounded lobes, Spadix as long as cymbiform spathe
 13458 Caulicent suberect, Leaves oblong acuminate cuspidate cordate at base finely spotted with clear white
 13459 Caulicent scandent, Leaves ovate oblong acuminate, Spadix longer than cucullate spathe
 13460 Caulicent erect, Lvs. cord. sagittate, Spadix shorter than spathe, which is cucullate and contracted in middle



and Miscellaneous Particulars.

in the gardens of Persia and India; it was highly esteemed by the Greeks and Romans, and was planted near their houses in the form of avenues and groves. Groves of these trees are still equally revered in India, and are commonly found near the native temples and burial places of the princes. The timber is considered of similar quality to that of sycamore. All the species are of easy culture by layers, and they will also grow by cuttings.

The *Platanus occidentalis* is known in America by the name of the button-wood, water beech, sycamore, and plane-tree; in Canada it is called cotton-tree. It is, perhaps, the largest tree in North America; on the fertile banks of the Ohio and Mississippi there are trees measuring from ten to sixteen feet in diameter.

2003. *Salisburia*. So called in honor of Richard Anthony Salisbury, F. R. S., a modern distinguished botanist. A large tree remarkable for its fan-shaped leaves, cloven like some of the *Adiantum* species. The fruit is a pale brown drupe of a globular form; it has never been produced in this country, though there are trees of a considerable size. The fruit is yellow when ripe, with a fleshy, juicy, white pulp, adhering closely to the drupe, which is like that of an apricot. The kernel is white, rather firm, sweet, with a mixture of austerity or bitterness when raw, but agreeable when roasted. Dr. Abel says, he saw the fruit exposed in the markets in China, but could not find out to what purpose it was applied.

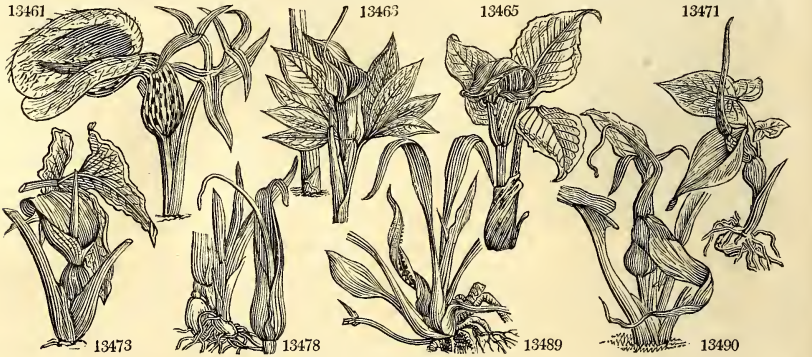
2004. *Carludovica*. Named by the authors of the *Flora Peruviana*, in honor of Charles IV., king of Spain, and Luiza, his queen; both of whom were noble patrons of botany, and deserving of a finer genus to commemorate their virtues. The species are low palm-like herbs, of little beauty, but of great botanical interest.

2005. *Caladium*. A name originally employed by Rumphius, to designate some species of *Arum*, and revived by Ventenat. Its meaning is unknown. The species have the appearance of *Arca*, and are only cultivated for their singularly spotted stems, or neat green leaves, which are rarely disfigured by any of the accidents to which other stove plants are liable. The species are plants of the same general appearance as *Arum*. *C. sagittifolium*, *Chou-de-Bresil*, Fr., and *Essbare Arum*, Ger., bears a near resemblance to *Arum Colocasia*, and is carefully cultivated in the West Indies for the leaves, which are boiled and eaten as coleworts, being extremely pleasing to the taste. The roots are also eaten there, but they are in less esteem than the leaves. This is generally supposed to be the species of the *Arum* family the most universally cultivated. It is found in the East and West Indies, China, Japan, New Zealand, and the South Sea Islands. The root is extremely acrid, and when eaten raw, will excoriate the mouth; but baked in hot ashes, it loses its acrimonious quality, and becomes mild and well tasted; it is, however, heavy on a weak stomach, and is apt to occasion costiveness. The leaves, which are very soft, glaucous, and covered with a very fine silky nap, are used in many places instead of plates and dishes.

2006. A'RUM. W.	ARUM.				<i>Aroidæ.</i>	Sp. 30—45.				
13461 crinitum W.	hairy-sheathed	△	cu	1	mr.ap	Br	Minorca	1777.	R a.l	Bot. reg. 831
13462 Dracunculus W.	Comm. Dragon	△	or	3	jn.jl	Br	S. Europe	1548.	R s.l	Mor. s.13.t.5.f.46
13463 Dracontium W.	Green Dragon	△	or	2	ju	G	N. Amer.	1759.	R s.l	Bot. rog. 668
13464 venosum W.	purple-flower'd	△	cu	1½	mr	Pu	.....	1774.	R s.l	
13465 triphylum W.	three-leaved	△	cu	2	my.jn	Br	N. Amer.	1664.	R s.l	Bot. mag. 960
13466 atrorubens W.	purple-stalked	△	cu	1	jn.jl	Br	N. Amer.	1758.	R s.l	Pluk.al. t.148.f.6
13467 ternaum W.	Japan	△	cu	2	my.jl	Pu	Japan	1774.	R s.l	
13468 Colocasia W.	Egyptian	△	cul	2	...	G	Levant	1551.	R s.p	
13469 macrorrhizon W.	long-rooted	△	cu	2	...	G	E. Indies	1803.	R s.p	Herm. parad. 73
13470 divaricatum W.	divaricated	△	cu	2	jn.jl	G	E. Indies	1759.	R s.p	Rhe.mal.11. t.20
13471 trilobatum W.	three-lobed	△	cu	1	my.jn	Pu	Ceylon	1714.	R s.p	Bot. mag. 339
13472 maculatum W.	common	△	w	1	my.jl	W	Britain	sh.p.l.	R co	Eng. bot. 1298
13473 orixense R. Br.	Orixian	△	or	1	au.o	Pu	E. Indies	1802.	R s.p	Bot. reg. 450
13474 italicum W.	Italian	△	or	1½	my.jn	L.Y	Italy	1633.	R co	Bot. mag. 2432
13475 minutum W.	small	△	cu	1	my.jl	Pu	E. Indies	1812.	R s.p	Rhe.mal.11. t.17
13476 virginicum W.	Virginian	△	cu	1	jn.jl	R	N. Amer.	1759.	R co	
13477 Arisarum W.	Friar's Cowl	△	cu	1½	ap.jn	L.Y	S. Europe	1596.	R s.l	Jac.schœ.2.t.192
13478 tenuifolium W.	Grass-leaved	△	cu	1	ap.jn	W	S. Europe	1570.	R s.p	Bot. reg. 512
13479 cucullatum Lour.	hooded	△	cu	2	...	G	China	1824.	R s.p	
13480 indicum Lour.	Indian	△	cu	5	...	Br	China	1824.	R s.p	
13481 obtusifolium Link.	blunt-lobed	△	or	2	...	...	.....	1824.	R l.p	
13482 sagittifolium Link.	arrow-headed	△	or	2	...	...	.....	1824.	R l.p	
13483 viviparum Lodd.	viviparous	△	or	1½	my	G	.....	1817.	R l.p	Bot. cab. 281
13484 integrifolium Link.	entire-leaved	△	or	3	my.jn	G	.....	1825.	R l.p	
13485 ramosum Link.	branched	△	or	3	my.jn	...	.....	1810.	R l.p	
13486 hederaceum W.	Ivy-leaved	△	cu	6	my.jn	Pu	W. Indies	1793.	R l.p	Jac. amer. t. 152
13487 lingulatum W.	tongue-leaved	△	cu	6	...	...	W. Indies	1793.	R l.p	Plum. ic. 26. t. 37
13488 bulbiferum R. M.	bulb-bearing	△	or	3	my	Pa	Bengal	1813.	R l.p	Bot. mag. 2072
13489 spirale W.	spiral	△	cu	1	my	Br	China	1816.	R l.p	Bot. mag. 2207
13490 flagelliforme Lodd.	whip-lash	△	cu	1	my	Br	Bengal	1819.	R l.p	Bot. cab. 396
2007. CARYOTA. W.	CARYOTA.						<i>Palmæ.</i>	Sp. 2—3.		
13491 oreus W.	torn-leaved	△	or	20	...	W	E. Indies	1788.	S r.m	Rhee.mal.1. t.11
13492 mitis Lour.	unarmed	△	or	...	...	...	China	1820.	S r.m	

MONADELPHIA.

2008. NYPA. Thunb.	NIPA.						<i>Palmæ.</i>	Sp. 1.		
13493 fruticans Thunb.	shrubby	△	or	10	...	W	E. Indies	1822.	S r.m	Rumph. 1. t. 16
2009. ARE'CA. W.	CABBAGE-TREE.						<i>Palmæ.</i>	Sp. 5—9.		
13494 Catechu W.	medicinal	△	clt	30	...	W	E. Indies	1690.	S r.m	Rox. cor. 1. t. 75
13495 humilis W.	dwarf	△	clt	6	...	W	E. Indies	1814.	S r.m	Rump.amb.1.t.7
13496 oleracea W.	esculent	△	clt	40	...	W	W. Indies	1656.	S r.m	Jac. amer. t. 170



History, Use, Propagation, Culture,

2006. *Arum*. Formerly *aron*; supposed to be an ancient Egyptian word by which the *A. colocasia* was known. The last mentioned name is an alteration of its Arabic denomination *qoiqas*, according to Forskahl. Perennial herbaceous plants, mostly natives of hot climates. The roots are fleshy, hot, and acrid, but in many species eatable; they are generally without stems, and altogether, with the *Caladiums*, form a very singular family. *A. Dracunculus*, *Serpentaire*, Fr., *Drachenwarz*, Ger., and *Dracunculo*, Ital., is a very remarkable plant; the stalks of the leaves being spotted with brown and purple, like the belly of a snake. The flower, which, like others of the genus, has a very singular appearance, smells so strongly of carrion, that few persons can endure it. It might be used in medicine and domestic economy for the same purposes as *A. maculatum*. *A. Colocasia* has a tuberous thick large oblong root, and leaves resembling those of the water-lily. In Egypt and the Levant, this plant is esteemed a wholesome food, though not very delicate. The roots and petioles are boiled, and the leaves when young are sometimes eaten raw. *A. trilobatum*, and various others, are similarly used in the West Indies. There and in Europe the culture of all the species is of the simplest kind.

A. maculatum, *Gouet*, Fr., *Aronswartzel*, Ger., and *Aro*, Ital., has a tuberous whitish root about the size of a large nutmeg, which is used both as food and medicine. On tasting them, they seem to be merely mucilaginous and insipid, but they soon affect the tongue with a pungency as if pricked by needles; this uneasy sensation may be alleviated by milk, butter, or oil. The acrimony is lost in drying, and the roots become farinaceous, insipid, and fit for boiling or baking. In the Isle of Portland, where the plant is very abundant, the roots are generally eaten by the country people; they are macerated, steeped, and the powder so obtained is dried and sent to London, and sold under the name of Portland sago. Medicinally, the root in its recent state is stimulant, diaphoretic, and expectorant. Though retained in the *Materia Medica*, it is seldom used. The berries which succeed the flower are devoured by birds; and Mr. Curtis thinks, that even the roots are eaten by them, particularly pheasants. Dried and powdered, they are used by the French as a wash for the skin, under the name of cypress powder.

2007. *Caryota*. The Greeks gave this name to a kind of cultivated date. Pliny says, it was so called,

- 13461 Leaves pedate entire, Spadix cylindrical shorter than ovate flat spathe, which is hairy inside
 13462 Leaves pedate entire, Spadix lanceolate shorter than the ovate flat smooth spathe
 13463 Leaves pedate entire, Spadix subulate longer than the oblong convolute spathe
 13464 Leaves pedate entire, Spadix shorter than lanceolate spathe
 13465 Stemless, Leaves ternate entire, Spadix clavate shorter than ovate acuminate flat stalked spathe
 13466 Stemless, Leaves ternate ovate twice as short as spadix
 13467 Stemless, Leaves ternate, Spadix longer than spathe
 13468 Stemless, Leaves peltate ovate repand emarginate at base
 13469 Stemless, Leaves peltate cordate repand 2-parted at base
 13470 Stemless, Leaves cordate hastate, Spadix subulate longer than the reflexed ovate-lanceolate spathe
 13471 Stemless, Leaves sagittate 3-lobed, Flowers sessile
 13472 Leaves all radical hastato-sagittate : lobes deflexed, Spadix club-shaped obtuse shorter than the spathe
 13473 Leaves hastate 3-parted, Spathe stalked 2-colored longer than spadix : the end lanceolate and deflexed
 13474 Stemless, Lvs. veiny with white hastate sagit. : lobes auricled diyaricating, Spad. clav. shorter than spathe
 13475 Stemless, Lvs. hastate sagittate mucronate : lobes deflex. Petioles dotted, Spad. cylind. shorter than spathe
 13476 Stemless, Leaves hastate cordate acute : angles obtuse [cucullate spathe
 13477 Stemless, Lvs. hast. sagittate mucron. : lobes deflexed oblong obtuse, Spadix cylind. incurved shorter than
 13478 Stemless, Leaves linear-lanceolate, Spadix subulate longer than lanceolate spathe
 13479 Caulесcent erect, Leaves peltate cordate : auricles cucullate
 13480 Caulесcent suberect, Leaves ovate bifid at base rounded, Spadices axillary
 13481 Caulесcent, Leaves peltate cordate acute cut out at the base with a wide recess
 13482 Leaves sagittate acute rounded at base
 13483 Leaves peltate cordate sagittate, Spathe roundish oblong acute, Spadix oblong much shorter than spathe
 13484 Leaves lanceolate acute entire, Edge of petiole sheathing, Spathe cucullate
 13485 Leaves peltate cordate
 13486 Caulесcent rooting, Leaves cordate oblong acuminate, Petioles round
 13487 Caulесcent creeping, Leaves cordate lanceolate, Petioles with a membranous edge
 13488 Stemless, Leaves decomposed bulbiferous, Spadix oblong ovate shorter than the obtuse veiny spathe
 13489 Stemless, Leaves linear lanceolate, Spadix lanceolate shorter than the oblong lanc. spirally twisted spathe
 13490 Stempl. Lvs. ov. ent. or 3-lob. Spathe urceol. at base : reflex. and taper-point. at end, Spadix length of spathe
- 13491 Unarmed fronds bipinnate, Leaflets cuneiform obliquely bitten off
 13492 Fronds bipinnate, Petioles nodding, Fruit 1-seeded

MONADELPHIA.

- 13493 Frond pinnate, Female flowers terminal capitate : male lateral with dichotomous peduncles

- 13494 Fronds pinnate, Leaflets plaited terminal bitten off, Stems and spadices smooth
 13495 Fronds pinnate, Leaflets cuneiform truncate, Fruit globose ovate acute
 13496 Fronds pinnate, Leaflets linear acute, Fruit oblong incurved



and Miscellaneous Particulars.

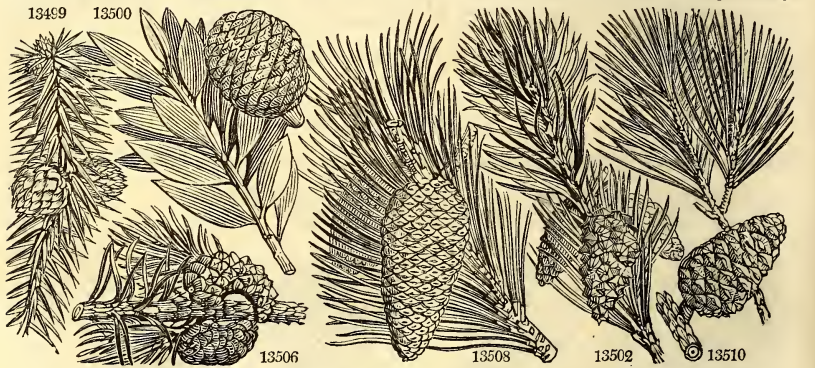
because a wine was prepared from it which soon got into the head, *uaca*, head. *C. urens*, a fine specie of palm, produces flowers in long pendulous spikes, which are succeeded by strings of succulent globular berries, dark red when ripe, with a thin skin, soft pulp, and very sharp and acrid to the taste. In Ceylon, it yields a sort of liquor, sweet, wholesome, and no stronger than water. It is taken from the tree twice or thrice a day, and an ordinary tree will yield three or four gallons. They boil this liquor, and thus make a kind of brown sugar of it, called Jaggery. The fruit is not eatable. When the tree has come to maturity, there comes out a bud from the top; this bud they cut and prepare by putting salt, pepper, lemons, garlic, leaves, &c. over it, which keep it from ripening. They daily cut off a thin slice from the end, and the liquor drops into a vessel, which they set to catch it. The buds, like those of the Cocoa and Betel-nut, are excellent in taste, resembling walnuts or almonds. *C. mitis* is a very beautiful palm, with fronds four feet long and a branched spike of flowers, succeeded by berries, round, coriaceous, smooth, black, the size of a musket bullet, but not eatable. Both species grow freely in sandy loam.

2008. *Nipa*. The name given to this fine palm in the Moluccas.

2009. *Areca*. The name which this palm bears in Malabar is, when it is an old tree, *Areec*; when young it is called *Paynga*. A. Catechu produces the nut which is cut in slices, wrapped in the aromatic leaves of the betel-pepper, and chewed as we do tobacco. These leaves are previously covered with a thin layer of shell-lime (Ehunam), to preserve the flavor longer in the mouth. In most parts of the East Indies the natives are continually chewing it, swallowing their saliva tinctured with the juice, and spitting out the rest. The inside of their mouths appears as red as blood, and it gives their teeth a dark color : but it preserves the teeth, sweetens the breath, and is a stomachic and diuretic. This palm is very generally cultivated in the East Indies.

A. oleracea is the highest of the American palms, and is very distinct from the East Indian *Areca*. The sheaths of the leaves are very close, and form the green top of the trunk a foot and a half in length. The

13497	<i>crinita</i> W.	hairy-coated	♂	□	or	20	...	W	I. France	1824.	S	r. m
13498	<i>lutescens</i> W.	yellow	♀	□	or	20	...	W	I. France	1824.	S	r. m
2010.	BE'LIS. <i>Salisb.</i>	BELIS.							<i>Coniferae.</i>	<i>Sp. 1.</i>		
13499	<i>jaculifolia</i> <i>Salisb.</i>	lance-leaved	♂	□	or	20	...	Ap	China	1804.	C	p. l Lam. pin. 52. t. 34
	<i>Pinus lanceolata</i>											
2011.	A'GATHIS. <i>Salisb.</i>	DAMMAR PINE.							<i>Coniferae.</i>	<i>Sp. 2-3.</i>		
13500	<i>loranthifolia</i> <i>Salisb.</i>	common	♂	□	or	30	...	Ap	Amboyna	1804.	C	p. l Rumph. 2. t. 57
	<i>Pinus Dam'mara</i>											
13501	<i>australis</i> Hort.	Kawrie Pine	♂	□	tm	100	...	Ap	N. Zeal.	1821.	C	p. l
2012.	PINUS. W.	PINE.							<i>Coniferae.</i>	<i>Sp. 22-27.</i>		
13502	<i>sylvestris</i> W.	Scotch dwarf	♂	tm	80	my	Ap	Scotland	sc. alp.	S	s. l	Lamb. pin. 1. t. 1
13503	<i>Pumilio</i> W.	dwarf	♂	or	20	ap. my	Ap	Caroliola	1779.	S	s. l	Lamb. pin. 5. t. 2
13504	<i>Laricio</i> P. S.	Corsican	♂	tm	80	...	Ap	Corsica	1814.	S	s. l	
13505	<i>pungens</i> Ph	pungent	♂	tm	40	...	Ap	N. Amer.	1804.	L	s. l	Mi. arb. 1. p. 61. t. 5
13506	<i>Banksiana</i> Ph.	Scrub Pine	♂	or	12	my. jn	Ap	Huds. Bay	1785.	L	s. l	Lamb. pin. 7. t. 3
13507	<i>Moghus</i> W.	Mugho	♂	or	10	my. jn	Ap	Switzerl.	...	S	co	Jac. ic. ra. 1. t. 193
13508	<i>Pinaster</i> W.	cluster	♂	tm	60	ap. my	Ap	S. Europe	1593.	L	s. l	Lam. pin. 9. t. 4, 5
13509	<i>Pinea</i> W.	stone	♂	tm	40	my	Ap	S. Europe	1548.	L	s. l	La. pin. 11. t. 6, 7, 8
13510	<i>maritima</i> W.	maritime	♂	tm	40	my. jn	Ap	S. Europe	1759.	L	s. l	La. pin. 13. t. 9, 10
13511	<i>halpensis</i> W.	Aleppo	♂	tm	40	my	Ap	Levant	1683.	L	s. l	Lam. pin. 15. t. 11
13512	<i>inops</i> Ph.	Jersey	♂	tm	50	my	Ap	N. Amer.	1739.	S	s. l	Lam. pin. 18. t. 13
13513	<i>resinosa</i> Ph.	pitch	♂	tm	50	my	Ap	N. Amer.	1756.	L	s. l	Lam. pin. 20. t. 14
13514	<i>variabilis</i> Ph.	two and 3-leav.	♂	tm	40	my. jn	Ap	N. Amer.	1739.	L	s. l	Lam. pin. 22. t. 15
13515	<i>Tæda</i> Ph.	frankincense	♂	tm	30	my. jn	Ap	N. Amer.	1713.	L	s. l	La. pi. 23. t. 16, 17
13516	<i>excelsa</i> Wall.	Nepal	♂	tm	100	...	Ap	Nepal	1823.	S	s. l	
13517	<i>serotina</i> Ph.	Fox-tail	♂	or	60	my. jn	Ap	N. Amer.	1713.	S	s. l	Mi. arb. 1. p. 86. t. 7
13518	<i>rigida</i> Ph.	three-leaved	♂	or	80	my. jn	Ap	N. Amer.	1759.	L	s. l	La. pi. 25. t. 18, 19



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inhabitants cut off this top, take out the white heart of two or three inches in diameter, consisting of the leaves closely folded together, and eat it, either raw with pepper and salt, or fried with butter like the artichoke.

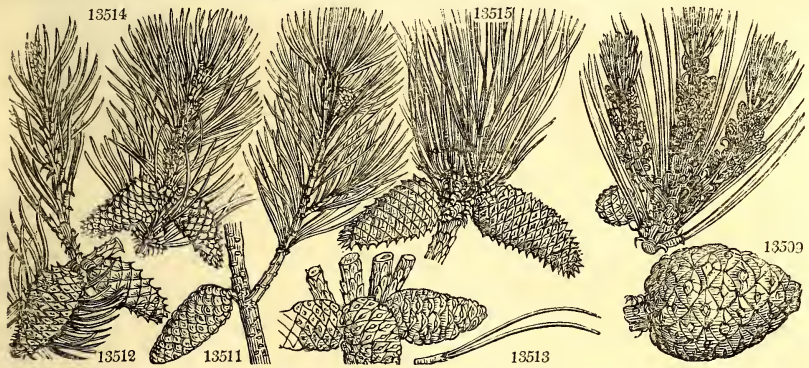
2010. *Belis*. Named by R. A. Salisbury, in the Transactions of the Linnean Society, from *βελος*, a javelin, on account of the form and texture of the leaves, which are not unlike a javelin head. *B. lanceolata* is a beautiful evergreen shrub, with distichous neat leaves, easily cultivated in any good conservatory.

2011. *Agathis*. From *αγαθης*, a cluster, because the flowers are collected in clusters. This genus is formed of the Dammar Pines, of which the *A. australis*, or New Zealand Cowdie Pine, is one of the finest trees in the world, often growing perfectly straight to the height of 100 feet or more, and yielding one of the best descriptions of wood for masts.

2012. *Pinus*. This name is of Celtic origin, and is the same in all the dialects of that tongue. *Pin* or *pen*, a rock or mountain, has given rise to *pin*, in Armorican; *peinge*, in Erse; *pinua*, in Welsh; *pinu*, in Anglo-Saxon; *pine*, in English; *pynbaum*, in German; all signifying the fir-tree: hence also the Appennines (Alpes pennines), Pennafiel, Pennafior, &c. towns of Spain embosomed in mountains. The fruit of *P. pinea* was formerly called *Nux pinea*, the pine nut. *Pinaster* is Pliny's name for the wild pine. *Cembra* is an alteration of the word *cembro* or *cirmolo*, the name given by the inhabitants of Trentin and Valteline to the plant. *Tæda* is derived from the Greek *τασ δαδως*, which signifies a torch, for which the wood of *P. tæda* is particularly adapted. *Strobis* is a name employed by Pliny for an eastern tree, which was used to perfume apartments. The moderns have applied it to a noble North American species.

The trees which compose this genus are not less remarkable for their grandeur and beauty, than for their valuable timber. They are all evergreens, and of lofty and erect growth. The trunk of the Scotch pine is more generally employed and more universally applicable as timber than any other tree in the temperate zone of the northern hemisphere. *P. sylvestris*, *Pin*, Fr., *Keifer* or *Föhre*, Ger., and *Pina*, Ital., is erroneously called a fir; and has the term Scotch applied to it, because it is the only species of the genus indigenous to Britain, and there only in the northern parts of Scotland. It is also indigenous in the Alps, in the north of Germany, Russia, and abundantly so in Sweden and Norway. The finest pine woods in Britain, are at Invercauld in Inverness-shire, and Gordon Castle in Aberdeenshire. The timber of the Scotch pine is the red or yellow deal of the north of Europe, and is the most durable and valuable of any of the genus, unless we except, in point of durability, the larch. That grown in cold elevated situations in the highlands of Scotland, is found to be not inferior in quality to any imported from Norway; but that which has been planted in the low districts, is greatly inferior in point of durability, and can seldom be used in house carpentry and joinery. The tree is of great value as a nurse plant to others less hardy. The trunk of the tree produces resin by incision, and the roots tar by distillation. Several varieties of the wild pine have been noticed by botanists. According to Sang, the variety commonly cultivated is least worth the trouble. "The *P. sylvestris*, var. *montana*," he says, "is the variety which yields the red wood; even young trees of this sort are said to become red in their wood and full of resin very soon. The late Mr. Don, of Forfar, exhibited specimens of cones of each variety to the Highland Society of Scotland, and likewise to the Caledonian Horticultural Society. The variety preferred by Don, is distinguished by the disposition of its branches, which are remarkable for their horizontal direction, and for a tendency to bend downwards close to the trunk. The leaves are broader and shorter than in the common kind, and are distinguishable at a distance by their much lighter and beautiful glaucous appearance."

- 13497 Fronds pinnated, Stems hirsute, Spadixes branched spiny, Spines incurved
 13498 Fronds pinnated, Leaflets plaited bitten off, Stems and spadixes branched smooth, Fruit roundish gibbous
 13499 Leaves solitary lanceolate flat spreading, Cones round, Scales acuminate
 13500 Leaves elliptical lanceolate striated
 13501 Leaves ovate oblong smooth not striated
 13502 Leaves in pairs rigid, Cones conico-ovate acute as long as the leaves, generally in pairs
 13503 Leaves in pairs, Trunk ascending, Cones ovate erect
 13504 Lvs. twin very long of two forms, Cones ovate, Scales narrowed at base very thickened at end not angular
 13505 Leaves twin short acute, Cones ovate conical, Prickles of scales long subulate incurved: lower reflexed
 13506 Leaves twin divaricating oblique, Cones recurved twisted, Crest of anthers dilated
 13507 Leaves double or triple rigid, Cones oblong generally in pairs rounded at base
 13508 Leaves twin roughish at edge, Cones oblong conical shorter than leaf narrowed at base, Scales echinate
 13509 Leaves twin: the first ciliated, Cones ovate blunt somewhat unarmed longer than leaf, Nuts hard
 13510 Leaves twin very fine, Cones ovate-conical very smooth solitary stalked
 13511 Leaves twin, Cones ovate-conical rounded at base somewhat shorter than leaf, Scales blunt
 13512 Leaves twin, Cones oblong-conical the length of leaves solitary rounded at base, Scales echinate
 13513 Leaves twin, Cones ovate-conical rounded at base solitary half as short as leaves, Scales unarmed
 13514 Leaves twin or ternate, Cones ovate-conical subsolitary, Prickles of scales incurved
 13515 Leaves long, Cones deflexed: spines inflexed, Sheath of leaves long
 13516 Leaves in 5s very long slender lax toothletted, Cones cylindrical smooth pendulous longer than leaves
 13517 Leaves 3 very long, Cones roundish ovate mucronate
 13518 Leaves 3, Cones ovate clustered, Spines of scales reflexed, Sheath of leaves short



and Miscellaneous Particulars.

The bark of the trunk is smoother than in the common kind. The cones are thicker, and not so much pointed. The plant is more hardy than the common sort, grows freely in almost any soil or situation, and quickly arrives at a considerable size."

P. laricio is said to be nearly allied to the Scotch pine, but a much handsomer and finer tree. Professor Thouin considered it equally hardy with *P. sylvestris*; its wood is more weighty and resinous, and consequently more compact, stronger, and flexible. It grows wild on the summits of the highest mountains in Corsica. *P. resinosa*, the red Canadian pine, is not unlike the Scotch pine, but rather redder in the bark. The timber of this tree is frequently imported as masts, and is considered valuable. Grown on a damp and fertile soil, it is much less durable than from elevated situations; it is equally hardy with *P. sylvestris*. *P. pinaster* is a grand and picturesque tree, and is a great favorite with the Roman and Florentine painters. The timber is of less value than that of any of the others that have been mentioned; in Switzerland it is cut into shingles for covering their houses. It is highly deserving of culture as an ornamental tree, but not for timber.

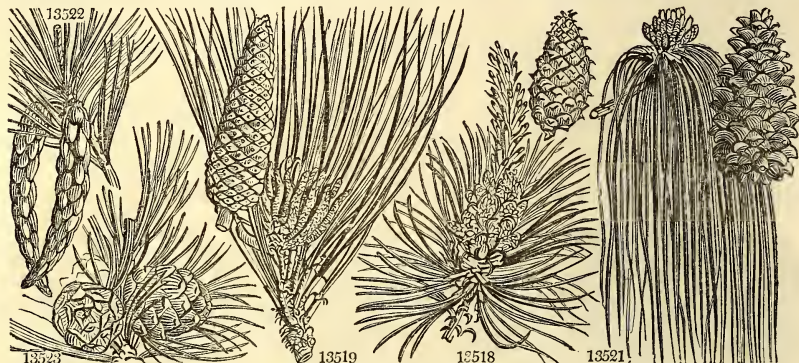
P. pinea is very common in the south of Italy; there is an immense forest of them at Ravenna, and they are much planted in the gardens of the villas of Rome and Florence. The seeds of this and the last species are eaten throughout Italy, both by the poor and rich. They are as sweet as almonds, but with a slight flavor of turpentine. The wood is not so resinous as that of most of the other sorts, and the tree can only be considered as deserving culture for its pictorial effect. *P. cembra*, the Tannenbaum of Lord Byron (Childe Harold), and the Apherousli pine of Harte (Essays), grows higher up the Alps than other pines, and is even found at elevations where the larch will not grow. The wood is very soft, and having scarcely any grain, is very fit for the carver. The peasants of the Tyrol, where this tree abounds, make various sorts of carved works with the wood, which they dispose of in Switzerland among the common people, who are fond of the resinous smell which it exhales.

P. taeda has longer leaves than the wild pine, and larger cones than *P. pinea*; the timber is like that of the Scotch pine, but has more resin. There are a number of these trees at Woburn Abbey, which grow as freely as the Scotch pine, and the timber, as far as it has been tried, is superior.

P. palustris is remarkable for the length of its leaves, which often exceed a foot, and hang down in tufts at the end of the branches, having a singular appearance. It grows in a warmer climate than most other pines; produces a valuable timber in America, but has been but little cultivated in this country. *P. strobus* forms the connecting link between the pine and the larch tribe, and is the tallest tree of the genus. The bark is smooth and elegant, and the leaves numerous, soft, and of a bluish green. The timber is imported in vast quantities under the name of white pine; it is much used in house carpentry, but is considered less durable than the red deal of Norway (*P. sylvestris*), or the pitch pine of Canada (*P. resinosa*). The tree seems to be of so delicate a habit, as to prevent our expecting it ever to become very large or valuable in Britain. It has been a good deal cultivated, having formerly been supposed the most valuable tree of the genus, next to the common pine.

The *Pinus canariensis* seems never to have been well described or understood. Some have taken it for the *Pinus Larix*, others for the *Pinus taeda*, whilst others had confounded it with the *Pinus maritima*. Von Buch, and the late Christian Smith, named it in their catalogue of the vegetation of Teneriff, *Pinus canariensis*, and they state, that it inhabits that island from the edge of the sea to an elevation of 6700 Parisian feet above the level of the sea; but that the region where it is most abundant may be reckoned at from 4680

13519 <i>palustris Ph.</i>	swamp	4	tm	30	...	Ap	N. Amer.	1730.	S	s.l	Lam.pin.27. t.90
13520 <i>canariensis Buch.</i>	Canary	4	or	40	...	Ap	Canaries	1815.	S	s.l	Pl. r. gen. c. ic.
13521 <i>longifolia W.</i>	long-leaved	4	or	49	...	Ap	E. Indies	1801.	G	p.l	Lam.pin.29. t.21
13522 <i>Strobus W.</i>	Weymouth	4	tm	50	ap	Ap	N. Amer.	1705.	L	s.l	Lam.pin.31. t.22
13523 <i>Cembra W.</i>	Siberian	4	tm	25	my	Ap	Siberia	1746.	S	s.l	Ia. p. 34. t.23, 24
2013. A'BIES. <i>Salisb.</i>	Fir.						<i>Coniferae.</i>	Sp. 10—12.			
13524 <i>Fraséri Ph.</i>	Double Balsam	4	or	30	my	Ap	Pensylv.	1811.	C	s.l	
13525 <i>Picea W.</i>	Silver	4	tm	30	my	Ap	Germany	1603.	L	s.l	Lam.pin.46. t.30
13526 <i>Balsamea W.</i>	Balm of Gilead	4	or	50	my	Ap	N. Amer.	1696.	S	s.l	Lam.pin.48. t.31
13527 <i>canadensis Ph.</i>	Hemlockspruce	4	or	30	my	Ap	N. Amer.	1736.	S	s.l	Lam.pin.50. t.32
13528 <i>orientalis W.</i>	Oriental	4	or	30	my	Ap	Levant	1825.	S	co	Lam.pin. c. ic.
13529 <i>clanbrasiliana Hort.</i>	Clanbrasil	4	or	6	my	Ap	.....	....	L	co	
13530 <i>communis</i>	Norway spruce	4	tm	100	ap	Ap	N. Europe	1548.	S	s.l	Lam.pin.37. t.25
13531 <i>alba Ph.</i>	White spruce	4	tm	50	my.jn	Ap	N. Amer.	1700.	S	s.j	Lam.pin.39. t.26



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to 5900 feet, where snow falls for about a month. The temperature of the zone M. Decandolle estimates to be similar to that of Scotland, or to the north of France, or of Germany. The wood is resinous, highly inflammable, and is excellent for constructing buildings, being known to continue sound for ages.

The *Pinus inops*, Jersey pine, pitch or scrub pine, is of middle size, straggling growth, and full of resin. Its branches are tougher than those of any other pine, and might be used for many purposes if its wood were not subject to so early a decay. The pitch pine, *P. resinosa*, is generally known in its native country by the name of Norway pine; sometimes, particularly among the Canadian French, red pine. It grows in close forests, is very tall, and its bark remarkably smooth and red; the timber is very heavy; for which reason it is rejected for masts, though its shape and size appear to recommend it for that purpose. The scrub pine, *P. Banksiana*, is a small straggling tree, which in some instances, when growing among barren rocks, does not rise above five or eight feet high, though it will grow to a considerable size when by accident or culture it is brought on good soil: trees of this species now in England exude a great quantity of resin from their branches. The yellow pine, *P. variabilis*, is most in use for building houses as well as shipping. *P. taeda*, the loblolly or Oldfield pine, is found in large tracts in the southern states of North America: all the woods seem to be filled with its seeds; for when any piece of cleared land is neglected for any space of time, it will be covered with these pines. It is difficult, and in some cases almost impracticable, to recover lands so run over, as the ground appears to have lost all fertile properties for other vegetation. The long leaved, yellow, pitch, or brown pine, *P. palustris*, is a beautiful as well as very useful tree. The white or Weymouth pine grows in the state of Vermont to an enormous size; it is the best timber in America for masts.

2013. *Abies*. According to Bulet, this name is derived from one of the dialects of the Celtic, *abetoa*, whence *abete*, Italian, *abeto*, Spanish, &c. Hesychius, the Greek grammarian, calls it *abiv*.

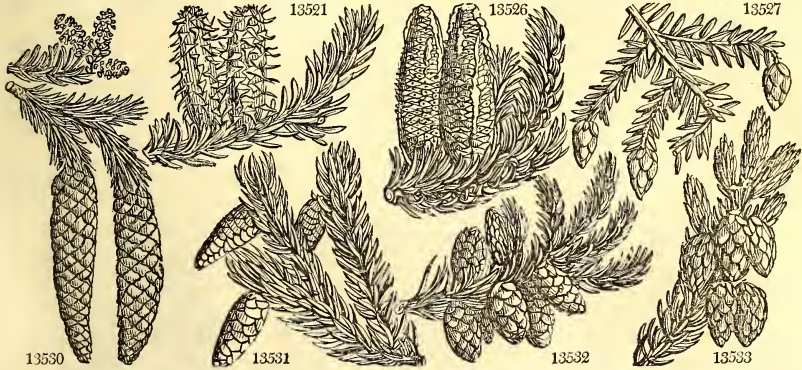
Abies communis, *Sapin*, Fr., *Fichtenbaum*, Ger., and *Abiete*, Ital., is one of the tallest of European firs, with a very straight but not thick trunk. It is a native of the north of Germany and Russia, and particularly abundant in Norway; its timber being the white deal, and, at an earlier age, the long spars imported from that country and the Baltic. The timber is inferior to that of the common pine in durability and bulk; and being often knotty, is not proportionally strong for horizontal bearings with that timber. White Norway deal, however, is used for a great variety of purposes in building; and the entire trees are more prized than any other for masts for small craft, for spars both for marine purposes and on land. What constitutes the value of this fir is, that its timber is equally durable at any age, like that of the larch; and what renders it peculiarly adapted for masts, spars, scaffolding, poles, &c. is its habit, almost in every case, whether standing single or detached, of growing perfectly erect and straight. The tree may be cut for rods, stakes, and scythes, or other implement handles, when the trunk at the base is not more than two inches in diameter, and the bark being kept on it, it will prove almost as durable as the larch. Pontey says, that poles of spruce are so far inferior to those of larch, that they are more apt to crack when exposed whole to the influence of the sun and air: but in all other respects they are nearly equal to it, and in straightness surpass it. The tree is peculiarly valuable as a nurse, from being evergreen and closely covered with branches, by which radiated heat is retained; from its conical shape and rigid stem, by which it does not suffocate or whip the adjoining trees; from its being valuable at whatever age it is thinned out; and from its being an excellent shelter for the most valuable game. It will not, however, grow in elevated situations, where the common pine and larch will flourish. It is also an excellent hedge plant for shelter, but is deficient in point of defence and durability. By incision, it yields a resin, from which, by various preparations, turpentine and Burgundy pitch are formed. The tops or sprouts give the flavor to what is called spruce beer.

A. alba, *rubra*, and *nigra*, are American firs of the spruce kind, resembling in their general properties those of Europe. The black spruce is reckoned the most durable: in America it is used for knees for ship-building, where neither oak nor larch can be easily obtained. These knees are not prepared from two diverging branches, as in the oak, but from a portion of the base of the trunk connected with one of the largest diverging roots. The timber of the red spruce is universally preferred throughout the United States for sail yards, and, indeed, imported for this purpose into Liverpool from Nova Scotia, where it is also used for constructing casks for salted fish. It is chiefly from the decoction in water of young shoots of the black spruce, and not exclusively from those of the white species, as supposed by Lambert, that the celebrated beer is prepared by fermentation, with a due proportion of sugar and molasses. The essence of spruce of the dealers is prepared by evaporating this decoction to the consistence of honey.

A. picea displays a more stable and majestic form than any of the firs. The upper surface of the leaves is of a fine vivid green, and their under surface has two white lines running lengthwise on each side of the

- 13519 Leaves 3 very long, Cones subcylindrical muricated, Stipules pinnatifid ragged persistent
 13520 Lvs. very fine and slender of a bright glaucous green, Cones oblong pendulous, Scales obtuse spreading
 13521 Leaves 3 very fine very long, Sheath long, Stipules entire deciduous, Crest of anthers convex entire
 13522 Leaves quinate, Cones cylindrical longer than leaf lax
 13523 Leaves quinate, Cones ovate obtuse, Scales appressed, Nuts hard

- 13524 Leaves solitary glaucous beneath emarginate, Cones ovate obl. erect, Bractes oblong reflexed emarginate
 13525 Leaves solitary flat emarginate pectinate, Scales of cone very blunt appressed
 13526 Leaves solitary flat emarginate subpectinate suberect above, Scales of the cone in fl. acuminate reflexed
 13527 Leaves solitary flat toothletted somewhat distichous, Cones ovate terminal scarcely longer than leaf
 13528 Leaves solitary 4-cornered, Cones ovate cylindrical, Scales rhomboid
 13529 This is a stunted variety of *Abies communis*
 13530 Leaves solitary 4-cornered, Cones cylindrical, Scales rhomboid flattened repand at end eroded
 13531 Leaves solitary 4-cornered incurved, Cones subcylindrical lax, Scales obovate entire



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midrib, giving the leaves that silvery look which has given rise to the name. The timber is reckoned much inferior in value to that of the common pine, or of the white spruce. It should not be cut till after forty or fifty years growth; at this age, if it has grown in a sheltered rocky steep or dell, it will be found to have produced a great bulk of timber. It is more prolific in resinous matter than any other tree of the fir kind.

A. balsamea is a tree of more delicate habits than the silver fir: its timber is of little value, and the balm or resin procured from it possesses no medicinal properties superior to those of common turpentine. During summer, the tree sends out a pleasing terbinthinate odor.

A. canadensis is a drooping low evergreen tree, elegant in appearance, and valuable as growing under the shade or drip of other trees.

All the species of the pine, fir, and larch families, with the exception of one or two, as yet rare in this country, are raised from seeds. The cones are gathered in the winter season, and exposed to the sun, or to a gentle heat on a kiln, in order to facilitate the separation of the seeds. The cones of the cedar should be kept for a year at least after they are taken from the tree, before the seed be attempted to be taken out. This is necessary on account of the soft nature of the seeds, and the great quantity of resinous matter which the cones contain when growing, and which is discharged by keeping. Cedar cones are generally imported from the Levant, and the seeds retain their vegetative powers for many years. The cones of the Scotch pine, spruce, and larch, are the principal kinds which are opened by kiln heat. The cones of the Weymouth pine, silver fir, and balm of Gilead fir, give out their seeds with very little trouble. April is the best season for sowing all the species. The soil should be soft and rich, well mellowed by the preceding winter's frost and snow, carefully dug and raked with a long toothed rake as finely as possible. The rarer sorts are generally sown in pots, but the more common in beds. The manner of sowing is by first drawing off the surface of the bed to the depth of half an inch; then drawing a light roller along it to render the surface perfectly even; next depositing the seed; and afterwards replacing the earth drawn off with a spade as evenly as possible. This is what is technically called bedding in, and is one of the nicest operations of nursery culture. The seed of the Scotch pine and Pinaster require a covering of half an inch in depth; those of the Weymouth pine, three quarters of an inch; and those of the stone pine, an inch and a quarter. The Cedar is generally sown in broad pots, or boxes of light sandy loam, and covered half an inch. The seeds of the larch require a covering of only a quarter of an inch; those of the spruce fir, an inch; those of the silver fir and balm of Gilead fir, from half to three quarters of an inch. The seeds of the American spruce fir are smaller than those of any of the preceding kinds, and therefore require a lighter covering than any of them; one-fifth of an inch is quite sufficient. The strictest attention is required, both in regard to quality of soil, and thickness of covering the seed; for though resinous trees are extremely hardy when grown up, yet they are all very tender in infancy. In sowing the seed, a considerable loss will be sustained by the suffocation of young plants if it is deposited too thick, and by the want of plants if too thin. The judicious gardener will be regulated by the goodness of the seed, and the size of the foliage of the different species. The raising regular crops of the pine family is reckoned a master piece of nursery culture in the open ground; and as it has been most extensively practised in the Scotch nurseries, it is generally considered as best understood there. (See *Sang. Plant. Kal.*)

The pine, fir, and larch families benefit less by transplanting in the nursery than the non-resinous trees. And in general, where circumstances admit, the better plan is to remove them at once from the seed-bed at two years old, to where they are finally to remain. The more delicate species, including the cedar and most of the pines, are best transplanted into pots, unless they can be placed at once where they are to remain. The more common pines and firs are transplanted at two years of age into nursery lines, about the middle of April for all the tribe, excepting the larch, which, being deciduous, should be transplanted in February. No description of tree-plants receive so much injury as this tribe from the loss of roots, from the roots being exposed to the air by being kept long out of the soil, or from compression and exclusion of air and moisture by being kept in close bundles, or thick layers. They should, therefore, be finally planted as soon as possible after removal from the nursery; and, indeed, whenever it is practicable, no more should be taken up in one day than can be planted that day or the next. Nor are any plants more easily deprived of the vital principle, by packing and carriage either by sea or land; though, being all evergreens, excepting the larch, they do not readily show it. This has been stated to us by experienced planters in Wales and different parts of England, as the reason why so few trees are finally produced from the immense numbers of Scotch pine and larch fir annually sent to the south by the Scotch nurserymen.

Abies balsamea forms an elegant tree forty or fifty feet high. It grows in high and cold situations in the northern states of North America, where it is called balsam of Gilead fir, fir balsam, and American silver fir.

13552 rúbra Ph.	Red spruce	♀	tm	50	my	Ap	N. Amer.	1755.	S	s.l	Lamp.pin.43. t.23
13553 nigra Ph.	Black spruce	♀	tm	50	my	Ap	N. Amer.	1700.	S	s.l	Lamp.pin.41. t.27
2014. LA'RIX. <i>Salisb.</i>	LARCH.										
13531 communis	common white	♀	tm	50	mr.sp	Ap	Germany	1623.	S	s.l	Lamp.pin.53. t.35
13535 péndula W.	Black	♀	tm	30	my	Ap	N. Amer.	1739.	S	s.l	Lamp.pin.56. t.36
13533 microcarpa W.	Red	♀	tm	80	my	Ap	N. Amer.	1760.	S	s.l	Lamp.pin.58. t.37
13537 Cédrus W.	Cedar of Lebanon	♀	or	60	ly	Ap	Levant	1683.	S	s.l	Lamp.pin.59. t.57
2015. SCHUBERTIA. <i>Mirb.</i>	SCHUBERTIA.										
13538 disticha <i>Mirb.</i>	deciduous Cypress	♀	or	30	my	Ap	N. Amer.	1640	S	s.p	Mic.arb.3.p.4.t.1
	<i>Cupressus disticha</i> L.										
2016. PODOCARPUS. <i>L'Her.</i>	PODOCARPUS.										
13539 macrophyllus <i>Hort.</i>	long-leaved	♀	or	10	jl.au	Ap	China	1804.	C	l.p	Bank.ic.Kæ.t.24
13540 verticillatus <i>Hort.</i>	whorl-leaved	♀	or	10	...	Ap	Japan	...	C	l.p	...
13541 elongátus P. S.	African	♀	or	10	jl	Ap	C. G. H.	1774.	C	l.p	...
13542 náccifer P. S.	nut-bearing	♀	or	20	...	Ap	Japan	1822.	C	l.p	Kæ.amen. t.815
2017. CUPRES'SUS. <i>W.</i>	CYPRESS.										
13543 sempervirens <i>W.</i>	common	♀	or	20	my	Ap	Candia	1548.	S	co	Dend. brit. 155
	<i>a stricta</i>	upright	or	20	my	Ap	Mediterr.	...	S	co	...
	<i>β horizontális</i>	spreading	or	20	my	Ap	Mediterr.	...	S	co	...
13544 lusitánica <i>W.</i>	Cedar of Goa	♀	or	12	ap.my	Ap	Goa	1683.	C	p.l	Lamp.pin.95. t.42
13545 thyoideis <i>W.</i>	White Cedar	♀	or	20	ap.my	Ap	N. Amer.	1736.	L	co	Dend. brit. 156
13546 juniperoides <i>W.</i>	African	♀	or	6	ap.my	Ap	C. G. H.	1756.	C	p.l	...
13547 austrális P. S.	slender-branch.	♀	or	10	ap.my	Ap	N. Holl.	...	S	p.l	...
2018. THU'JA. <i>W.</i>	ARBOR VITÆ.										
13548 occidentális <i>W.</i>	American	♀	or	25	my	Ap	N. Amer.	1596.	L	co	Mi.arb.3.p.29.t.3
13549 orientális <i>W.</i>	Chinese	♀	or	25	my	Ap	China	1752.	S	co	Dend. brit. 149



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The hemlock spruce is a very elegant tree, and grows in some situations to an enormous size: its bark is a fine substitute for oak-bark in tanning.

2014. *Larix*. This has also for its root the Celtic word *lar*, which signifies fat, in allusion to the abundance of resin afforded by the plant. Even Dioscorides remarks, that *Larix* is the Gallic name for resin. The authors of the Dictionary of Trevona make the word *Cedrus* come from *καωδης*, sweet-scented, on account of the balsamic odor exhaled by the wood when burned.

L. Cedrus, *Cédre*, Fr., *Cedrebaum*, Ger., and *Cedro*, Ital., is unquestionably the most celebrated tree of the genus, and not less remarkable for the irregular grandeur of its form. The general character of its shoot, even when the tree is young, is singularly bold and picturesque, and quite different from that of every other species of the tribe. It is a native of the coldest parts of the mountains of Libanus, Amanus, and Taurus; but it is not now to be found in those places in great numbers. Maundrell, in his journey from Aleppo to Jerusalem, in 1696, could reckon only sixteen large trees, though many small ones; one of the largest was twelve yards six inches in the spread of its boughs. The forest of Libanus never seems to have recovered the havoc made by Solomon's forty score thousand hewers: so that we have now, as Professor Martyn observes, probably more cedars in England than there are in Palestine.

From the branchy head of this tree, and its aversion to pruning, it is not likely ever to become valuable as timber in this country. When planted for that purpose, it should, as Sang recommends, be sown in groves, and thus by proximity drawn up with few branches. Much has been said of cedar timber, which borders on the miraculous; as far as experience has gone, it is greatly inferior to that of the common larch, or the wild pine. The great use of the cedar is to plant singly on lawns, or in the margin of plantations, where one or two specimens will give force and character to the dullest front of round-headed trees.

L. Communis, *Méleze*, Fr., *Lerchenbaum*, Ger., and *Laricio*, Ital., is a deciduous tree, and there are two or three species or varieties not yet distinctly ascertained. There is a variety with red and another with white flowers; one with cinerous bark, called the Russian larch, and one with pendulous branches. *L. pendula* and *L. microcarpa* are considered species or subspecies; the timber of both is said to be harder than that of the common white larch; but these trees have never yet had a fair trial in this country. As there are a few large specimens at Dunkeld and Athol, seeds will probably soon be obtained, and from their progeny a practical estimate may be formed of their merits in this country. The red larch trees on the Athol estates do not contain one-third as many cubic feet of timber as the white larch of the same age. The wood is so ponderous that it will scarcely swim on water. (*Hort. Trans.* iv. 416.) The timber of the white larch has been as much extolled as that of the cedar, and with much more reason. The rapidity of its growth is not less remarkable than the durability of the timber. Both have been experimentally proved in the Highlands of Scotland. It is stated by the Duke of Athol, that on mountainous tracts there, at an elevation of 1500 or 1600 feet, the larch, at eighty years of age, has arrived at a size to produce six loads (300 cubic feet) of timber; appearing in durability and every other quality to be likely to answer every purpose both of civil and naval architecture. (*Hort. Trans.* iv. 416.) The tree will arrive at a timber size in almost any situation or soil. Sang, a forest manager of extensive practice, has paid great attention to this tree. "It bears," he says, "the ascendancy over the Scotch pine in the following important circumstances: that it brings double the price, at east, per measureable foot; that it will arrive at a useful timber size in one-half, or a third part of the time, in general, which the pine requires; and, above all, that the timber of the larch, at thirty or forty years old,

13532 Leaves solitary subulate, Cones oblong blunt, Scales rounded somewhat 2-lobed entire at edge
 13533 Leaves solitary 4-cornered erect straight, Cones ovate, Scales elliptical wavy at edge erect

13534 Leaves fascicled deciduous, Cones ovate-oblong, Edges of scales reflexed lacerated, Bractes panduriform
 13535 Leaves fascicled deciduous, Cones oblong, Edges of scales inflexed, Bractes panduriform sharply acumin.
 13536 Leaves fascicled deciduous, Cones roundish few-fl. Scales reflexed, Bractes panduriform bluntly acuminate
 13537 Leaves fascicled rigid evergreen acute, Cones roundish, Scales truncate appressed

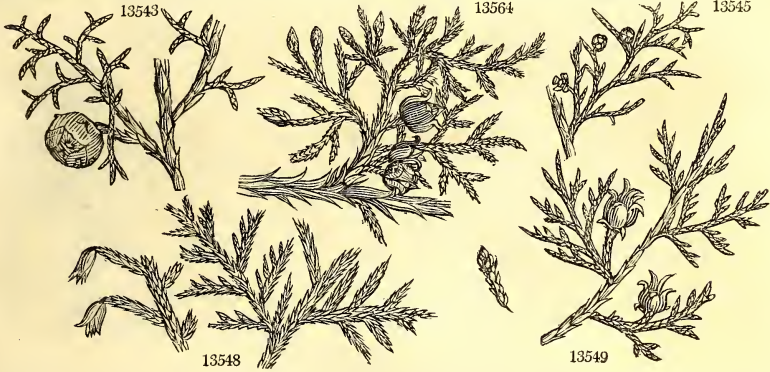
13538 Leaves distichous spreading

13539 Leaves solitary lanceolate remote
 13540 Leaves whorled linear falcate
 13541 Leaves lanceolate, Branches whorled
 13542 Leaves solitary linear cuspidate remote

13543 Branches quadrang. Lvs. imbric. in 4 rows blunt appr. convex, Cones glob. Scales unarm. Branches straight

13544 Branches quadrang. Lvs. imbric. in 4 rows appr. glauc. keel. Cones subglob. Sc. macron. Branches pendulous
 13545 Branches compressed, Leaves imbricated 4 ways ovate warted at base
 13546 Leaves linear much spreading decussate
 13547 Leaves linear crossing appressed, Branches very slender

13548 Branches 2-edged, Leaves imbricated in 4 rows ovate rhomboid appressed naked warted, Cones obovate
 13549 Branches 2-edged, Lvs. imbricat. in 4 rows ovate rhomboid appressed furrowed in middle, Cones elliptical



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when it has been planted in a soil and climate adapted to the production of perfect timber, is in every respect superior in quality to that of the pine at 100 years old. In short, it is probable, that the larch will supersede the Scotch pine in most situations in this island, at no very distant period."

The chief objections to the timber of the larch are its liability to warp and twist; but this Monteath and others have proved may be effectually prevented by barking the trees in spring while growing, and not cutting them down till the following autumn, or even for a year afterwards. This is also said to prevent the timber from being attacked by the dry rot. The bark of the larch is more than half as valuable as that of the oak in tanning; turpentine is extracted from it in the Tyrol by incision; but that being always injurious to the timber, can never be recommended for adoption in this country. (See *Encyc. of Gard.* 7053. *Monteath's Forester's Guide*, 2d edit. p. 234.)

Like all other trees, and especially the resinous tribe, the timber of the larch is much affected by climate and soil. A certain elevation of surface, coldness of climate, and inferiority of soil, is absolutely necessary to produce the timber in perfection. Sang has known it in many places make the most rapid progress for thirty or thirty-five years, and though there was no external signs of disorder, yet when it was felled, the wood had begun to rot in the hearts of the trees, and some were quite hollow a good way upwards. (*Plant. Kal.* 59.)

Larix pendula, black larch, *Tamarack* or *Hackmatack* of the Americans, is a beautiful tree, resembling the European larch in appearance, as well as in the excellent qualities of its wood and bark.

2015. *Schubertia*. Named in honor of M. Schubert, a Polish botanist. The deciduous cypress grows in extensive swamps, and on the banks of large rivers, from Indian river, Delaware, to Florida, and on the Mississippi; it is one of the largest trees of the new continent, and one of the most valuable timbers that country produces; it grows to a considerable height in this country, though the extremities of the young shoots are almost every autumn destroyed by frost. The finest specimens are at Sion-house and Blenheim.

2016. *Podocarpus*. From *πυρ τῶος*, a foot, and *καρπός*, fruit; in allusion to the stalk of the fruit. The species are increased by ripened cuttings in sand under a hand-glass.

2017. *Cupressus*. In Greek *κυπαρισσός*, from the isle of Cyprus, where this tree is very abundant. *Cupressus sempervirens* is a common timber tree in some parts of the Levant. It was employed by the Moors round their palaces, and both by the ancient and modern Romans in their villas and gardens. The timber of this tree is said to resist the worm, and to be of great durability. The doors of St. Peter's church at Rome were formed of this material, and have lasted eleven hundred years. The Greeks made their coffins of it; and the mummy chests of Egypt are many of them of this wood. In Crete, Malta, and other places, it is used for the common purposes of building, and when imported into this country it is employed by the cabinet-maker and turner. Near buildings, where the prevailing architectural lines are horizontal, it forms very suitable combinations; it is also considered an appropriate tree for burial places. *C. Thyoides* is an abundant tree in the swamps of New Jersey and Pennsylvania. It is used for fencing and house-building, and is in the highest esteem for shingles and pipe staves. *C. lusitanica* is a native both of Goa and Japan, and the handsomest tree of the genus. It is easily distinguished from all the evergreens of the Coniferae by its abundance of very long dichotomous pendent branchlets. The culture of the hardy species of this genus, and also of *Thuja*, is the same as that of *Pinus*.

2018. *Thuja*. An alteration of *thya*, its real name; from *θύω*, to sacrifice. Its wood, which gives out when burnt an agreeable perfume, was used in sacrifices. *Thuja occidentalis*, *Cédre blanc*, Fr., is a well known

13550 articulata W.	jointed	♂	□	or	15	fmy	Ap	Barbary	1815.	S	co	Bot. cab. 844
13551 cupressoides W.	African	♂	□	or	10	...	Ap	C. G. H.	1799.	S	p.l	
2019. TRICHOSANTHES. W.	Snake Gourd.							<i>Cucurbitaceæ.</i>	Sp. 3-12.			
13552 Anguina W.	common	♂	○	or	4	my.jn	W	China	1755.	S	co	Bot. mag. 72?
13553 cucumerina W.	Cucumber-like	♂	○	or	4	jn.jl	Y	E. Indies	1804.	S	co	Rhee.mal.8. t.15
13554 tuberosa W.	tuberous	♂	△	or	6	jn.jl	Y	W. Indies	1810.	D	co	Plum. ic. t. 24
2020. MOMOR'DICA. W.	MOMORDICA.							<i>Cucurbitaceæ.</i>	Sp. 5-17.			
13555 Balsamina W.	Balsam Apple	♂	○	or	4	jn.jl	Y	India	1568.	S	co	
13556 Charántia W.	hairy	♂	○	or	4	jn.jl	Y	E. Indies	1710.	S	co	Bot. mag. 2455
13557 operculata W.	rough-fruited	♂	○	or	4	jn.s	Y	W. Indies	1731.	S	co	Comm. rar. t. 22
13558 Lúffa W.	Egyptian	♂	○	or	4	jl.au	L.Y	E. Indies	1739.	S	co	Rum.am.5.t.147
13559 Elatérium W.	Squirting Cucumber	♂	△	or	4	jn.jl	Y	S. Europe	1548.	D	rm	Bot. mag. 1914
2021. CUCUR'BITA. W.	GOURD.							<i>Cucurbitaceæ.</i>	Sp. 8-13.			
13560 ovifera W.	egg-shaped	♂	○	clt	3	jl.s	Y	Astracan	...	S	co	
13561 lagenaria W.	bottle	♂	○	clt	10	jl.s	W	India	1597.	S	co	Rum.am.5. t.144
13562 aurántia W.	Orange-fruited	♂	○	clt	3	jn.au	Y	.....	1802.	S	co	
13563 Pépo W.	Pumpkin	♂	○	clt	16	jn.au	Y	Levant	1570.	S	co	
13564 verrucósa W.	warted	♂	○	clt	12	ju.jl	Y	.....	1658.	S	co	
13565 verrucósa W.	pimpled	♂	○	clt	12	ju.jl	Y	.....	...	S	co	
13566 Melopépo W.	squash	♂	○	clt	3	my.s	Y	.....	1597.	S	co	Moris. s. 1.t. 8.f. 4
13567 Citrúllus W.	Water Melon	♂	○	clt	6	my.s	Y	S. Europe	1597.	S	co	Rum.am.5. t.143
2022. CU'CUMIS. W.	CUCUMBER.							<i>Cucurbitaceæ.</i>	Sp. 13-19.			
13568 Colócyntis W.	globe	♂	○	or	6	my.au	Y	C. G. H.	1551.	S	rm	Jac. vind. 1. t. 9
13569 prophétárum W.	round prickly	♂	○	or	2	jn.s	Y	Levant	1777.	S	co	Mill. ic. 1. t. 33
13570 Angúria W.	African	♂	○	or	2	jl.au	Y	Jamaica	1692.	S	co	Herm. par. t. 154
13571 atricána W.	African	♂	○	or	2	jl.au	Y	C. G. H.	...	S	co	



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popular evergreen, which, though it seldom rises above the height of a shrub here, yet in Upper Canada attains the height of a timber tree, and the wood is considered more durable than any other. The trunk is sawn up into planks and boards for houses and boat-building, and the branches used for posts and fencing. The smaller branches and spray form besoms, and the leaves, made into a salve, are used by the Indians to cure the rheumatism. In England, the timber has been chiefly employed by the turner and cabinet-maker. In its native country the *Arbor-vitæ* succeeds best in soils where the roots have abundance of moisture. It grows tallest in swamps and marshes; in very dry places it never comes to any degree of perfection. The first tree of this species sent to Europe, was planted in the royal garden of Fontainbleau, in the reign of Francis the first. *T. orientalis* is a shrub resembling the other in general appearance. Both these species are readily increased by seeds, cuttings, or layers.

2019. *Trichosanthes*. From $\beta\gamma\delta$, hair, and $\alpha, \beta, \gamma, \delta$, a flower. The limb of the flower is divided into ten parts, of which the five outer are reversed and acute, the five interior ciliated. *T. Anguina* is a popular annual, with the habit of the common cucumber. The flowers are cut into many small threads, and the fruit is taper, and nearly a foot long. *T. cucumerina* has smooth fruit of a red or orange color, the size of a pear. In the popular medicine of Malabar, the seeds are used for disorders of the stomach and bowels. Culture as for the common gourd.

2020. *Momordica*. From *mordeo*, *momordi*, to chew; its seeds have an irregular rugose surface, and the appearance of having been chewed. *M. elaterium* has a large fleshy perennial root, somewhat like that of *Bryony*. The stems are thick, rough, trailing, branching, with rough leaves on long footstalks. The fruit is an inch and a half in length, swelling like a cucumber, of a grey color like the leaves, and covered with short prickles. When fully ripe, it quits the peduncles, and casts out the seed and juice with great force and to a considerable distance through the hole in the base, where the footstalk is inserted. For medicinal use, the fruit is gathered in September, just before it is ripe; and the clear juice which runs from it and that obtained by the expression of the fruit are inspissated, and form the elaterium of the shops. This fruit is a very violent cathartic. It was much employed by the ancients, who regarded every part of the plant as purgative; but Dr. Clutterbuck has proved that this is an error. (*Thomson's Lond. Disp.* 388.)

M. balsamina has a fleshy ovate fruit, remotely tubercled in longitudinal rows, smooth in the other parts, red when ripe, bursting irregularly, and dispersing the seeds with a spring. This fruit in Syria is famous for curing wounds. They cut it open when unripe, and infuse it in sweet oil, exposed to the sun for some days, until the oil is become red. It may then be applied to a fresh wound dropped on cotton. *M. operculata* has a green fruit, the top of which falls off when it is ripe like a lid; within it has no pulp, but is dry, and filled with netted fibres, very much interwoven.

2021. *Cucurbita*. A Latin word signifying a vessel. It is said to be derived from the Celtic *cuce*, a hollow thing. *C. lagenaria* has a fruit shaped like a bottle, with a large roundish belly, and a neck very smooth; when ripe of a pale yellow color, some near six feet long and eighteen inches round; the rind becoming hard, and being dried contains water; seeds quadrangular oblong, cut off and emarginate at top, three-cornered and beaked at bottom; edge keeled with a double raised line, smoothish, of a pale bay color. The Arabians call the bottle gourd *Charak*. The poor people eat it boiled, with vinegar, or fill the shell with rice and meat, and thus make a kind of pudding of it. It grows in all parts of Egypt and in Arabia, wherever the mountains are covered with rich soil. In Jamaica, the shells are generally used for water cups, and frequently serve for bottles among the negroes and poorer sort of white people in the country. A decoction of the leaves

13550 Branches compressed, Lvs. imbricated in 4 rows lanc. acute appressed warded under end, Cones 4-cornered
 13551 Branches round, Leaves imbricated in 4 rows oblong appressed smooth, Cones 4-cornered roundish

13552 Fruit rounded oblong incurved, Leaves cordate repand mucronate toothletted

13553 Fruit ovate acute, Leaves roundish cordate angular repand

13554 Fruit oblong acute, Leaves 5-lobed palmated entire

13555 Fruit roundish ovate narrowed at each end angul. warded, Bract cordate toothed above midd. of pedunc.

13556 Fruit oblong acuminate angular warded, Bract cordate entire below the middle of the peduncle

13557 Fruit elliptical angular warded beaked, Beak deciduous forming a lid

13558 Fruit cylindrical oblong, Furrows chain-like, Bract cordate entire at the base of the peduncle

13559 Fruit elliptical hispid, Leaves cordate hispid blunt toothed, Stem without tendrils

13560 Leaves cordate angular 5-lobed toothletted downy, Fruit obovate striped with lines lengthwise

13561 Leaves cordate roundish obtuse downy toothletted with 2 glands at base beneath, Fruit woody clavate

13562 Leaves subcordate about 3-lobed cuspidate finely toothletted rough, Fruit globose smooth

13563 Leaves cordate obtuse about 5-lobed toothletted, Fruit roundish or oblong smooth

13564 Leaves cordate deeply 5-lobed: the middle lobe narrowed at base, Fruit roundish elliptical warded

13565 Leaves cordate deeply 5-lobed: middle lobe narrowed at base toothletted, Fruit clav. ellipt. somew. warded

13566 Leaves cordate obtuse about 5-lobed toothletted, Fruit depressed unbonate tumid at edge

13567 Leaves 5-lobed, Lobes sinuate pinnatifid blunt, Fruit elliptical smooth

13568 Leaves multifid, Fruit globose smooth

13569 Leaves cordate 5-lobed toothletted blunt, Fruit globose spiny mucronated

13570 Leaves palmate sinuated, Fruit round echinate

13571 Fruit oval echinate, Leaves palmate sinuated, Stem angular



and Miscellaneous Particulars.

is recommended much in purging clysters; and the pulp of the fruit is often employed in resolute poultices: it is bitter and purgative, and may be used instead of Coloquintida.

C. pepo, *Patisson*, Fr., has hispid branchy tendrils stems, which in good soil will extend forty or fifty feet in a season, and cover an eighth part of an acre. The fruit is oblong, ovate, varying in form and size; some not less than four feet in circumference. In some parts of England the pompon (corruptly pumpkin) is sometimes planted by cottagers on dunghills, and suffered to trail at length over the grass of an orchard. When the fruit is ripe, they cut a hole on one side, and having taken out the seeds, fill the void space with sliced apples, adding a little sugar and spice, and then, having baked the whole, eat it with butter, under the name of pumpkin pie. On the continent the fruit, both unripe and ripe, is used in soups, stews, and fried in oil or butter. The tender tops of the shoots boiled as greens are much more delicate than the fruit. *C. aurantia* is more tender than the common pompon. The fruit is small, round, of a bright yellow when ripe, and may be used like those of the other species. *C. verrucosa* has a small round fruit, with a woody rind. In America it is gathered when half grown, and boiled to eat as a substitute for greens; but for this purpose this and most of the species are inferior to the succade Gourd.

C. melopepo, *Potiron*, Fr., *Pfebin Kürbiss*, Ger., and *Popone*, Ital., has a large fruit, reddish yellow or yellowish-white within and without, roundish, but often flattened at top and bottom; torulose, and sometimes warded. It is cultivated in America as a culinary vegetable. *C. Citrullus*, *Pastèque*, Fr., *Wassermelone*, Ger., and *Cocomero*, Ital., is readily distinguished from all the other species by its deeply cut leaves. The fruit is roundish, large, smooth, often a foot and a half in length, with a white icy flesh, streaked with dark red and black seeds. It is much cultivated in the warm countries of Europe, and also in Asia, Africa, and America, for its cooling quality. It serves the Egyptians for meat, drink, and physic. It is eaten in abundance during the season, which is from the beginning of May until the overflowing of the Nile; that is, to the end of July or beginning of August. It is the only medicine the common people use in ardent fevers. For this purpose they have a variety that is softer and more juicy than the common sort: when this is very ripe, or almost putrid, they collect the juice, and mix it with rose-water and a little sugar. This fruit should be eaten by Europeans with great caution; when taken in the heat of the day, whilst the body is warm, colics and other bad consequences often ensue, and it is well known that persons are much troubled with worms at the time this fruit is in season.

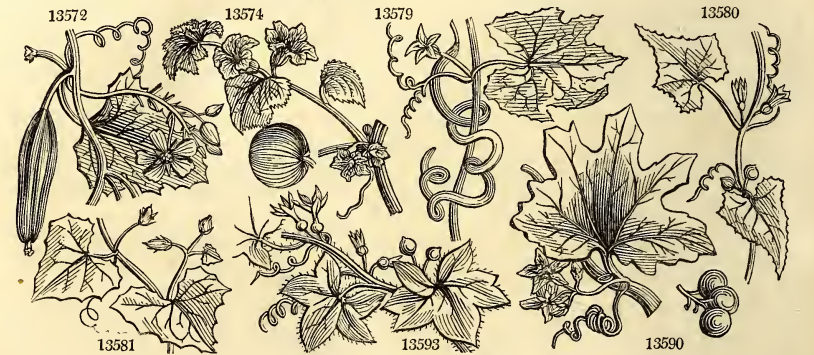
The Succade Gourd, a variety of *C. ovifera*, has an elliptic oblong pale-yellow fruit, by far the best for culinary purposes of any species of the genus. When very young, it is good fried with butter; when about half grown, it is excellent either boiled as a substitute for greens, or stewed in slices with rich sauce; when full grown, it is used for pies. Sabine, who has cultivated most species of *Cucurbita*, considers the vegetable marrow without a rival. (*Hort. Trans.* vol. ii. 255.)

All the species may be raised on a hot-bed in April, and transferred to the open garden at the end of May, under a warm aspect and in a rich soil; or they may be sown in a trench filled with hot dung, where they are finally to remain. Their after culture is of the easiest description.

It is not very generally known, that the tender tops of all the species of the *Cucurbita* and *Cucumis* families, whose fruit may be eaten, when boiled form a very tender substitute for greens.

2022. *Cucumis*. A word with the same derivation as the last. *C. Colocynthis* has fruit the size and color of orange; the pulp light, spongy, and white, and most intolerably bitter. When ripe, it is peeled and dried in a stove, and in this state it is imported from the Mediterranean under the name of coloquintida. Medicinally, it

13572 acutángulus W.	acute-angled	✱ ○	or	2	Jun.s	Y	India	1692.	S	co	Jac.vin.3.t.73,74
13573 Melo W.	Melon	○ ○	cul	4	my.s	Y	.....	1570.	S	r.m	Sabb.hort.t.65
13574 Dudáim W.	Apple-shaped	✱ ○	or	6	jl.au	Y	Levant	1705.	S	r.m	Bot.rep.548
13575 Cháte W.	hairy	✱ ○	or	3	jn	Y	Levant	1759.	S	co	Alp.ægypt.t.117
13576 pubescens W.	pubescent	✱ ○	or	3	jn.s	Y	.....	1815.	S	co	
13577 sativus W.	common	✱ ○	cul	4	jl.s	Y	E. Indies	1573.	S	r.m	Sabb.hort.t.63
13578 flexuosus W.	Snake	✱ ○	or	6	my.s	Y	E. Indies	1597.	S	r.m	Ger.herb.763.f.3
13579 anguinus W.	Serpent	✱ ○	or	6	my.s	Y	E. Indies	...	S	r.m	Rumph.5.t.148
13580 maderaspatanus W.	Madras	✱ ○	or	3	jl.au	Y	E. Indies	1805.	S	co	Pluk.al.t.170.f.2
2023. SIC'YOS W.	SINGLE-SEEDED	CUCUMBER.					<i>Cucurbitaceæ.</i>	<i>Sp. 2—6.</i>			
13581 anguláta W.	angular-leaved	✱ ○	cul	3	jl.s	Y	N. Amer.	1710.	S	co	Plu.phyt.t.26.f.4
13582 vitifólia W.	Vine-leaved	✱ ○	cul	3	jl.s	Y	.....	.....	S	co	
2024. BRYO'NIA W.	BRYONY.						<i>Cucurbitaceæ.</i>	<i>Sp. 18—42.</i>			
13583 scábra W.	globe-fruited	✱ △	un	6	s.o	W.g	C. G. H.	1774.	C	p.l	
13584 trilóba W.	three-lobed	✱ △	un	6	s.o	W.g	C. G. H.	1825.	C	p.l	
13585 verrucósa W.	rough	✱ △	un	4	...	W.g	Canaries	1779.	D	co	
13586 grándis W.	great-flowered	✱ △	un	8	my.au	W.g	E. Indies	1783.	C	p.l	R.am.5.t.166.f.1
13587 epigæ'a W.	umbel-flower'd	✱ △	un	2	...	W.g	E. Indies	1815.	D	co	
13588 scabrélla W.	bristly	✱ △	un	2	my.jl	W.g	E. Indies	1781.	D	co	
13589 latebrósa W.	hairy	✱ △	un	3	jn	W.g	Canaries	1779.	D	co	
13590 dioica W.	red-berried	✱ △	m	8	my.s	W.g	Britain	hed.	D	co	Eng. bot. 439
13591 álba W.	black-berried	✱ △	m	8	jn.jl	W.g	Europe	1807.	D	co	Lam. ill. t. 796
13592 nitida Link.	shining	✱ △	un	3	jl.s	W.g	.....	1824.	S	co	
13593 crética W.	Cretan	✱ △	un	1½	jl.s	W.g	Candia	1759.	D	co	An. mus. 12. t. 17
13594 quinquélóba Th	five-lobed	✱ △	un	3	jn.o	Br	C. G. H.	...	D	co	Bot. reg. 82
13595 ficifólia W.	Fig-leaved	✱ △	un	3	...	W.g	Bucn. Ay.	1726.	D	co	Dill. elt. t. 50. f. 53
13596 palmáta W.	palmated	✱ △	un	4	jl.au	W.g	Ceylon	1778.	D	co	
13597 laciniósa W.	laciniated	✱ △	un	4	jl.au	W.g	E. Indies	1710.	D	co	Herm. lugd. t. 97
13598 africána W.	African	✱ △	un	4	jl.au	W.g	C. G. H.	1759.	D	co	Herm. par. t. 708
13599 dissécta W.	smooth-leaved	✱ △	un	3	jl.au	W.g	C. G. H.	1779.	D	p.l	
2025. ANDRACH'NE W.	BASTARD ORPINE.						<i>Euphorbiaceæ.</i>	<i>Sp. 1—2.</i>			
13600 telephióides W.	annual	○ w		½	jl.au	W	Italy	1732.	S	co	Lam. ill. t. 797
2026. STILLIN'GIA W.	STILLINGIA.						<i>Euphorbiaceæ.</i>	<i>Sp. 3.</i>			
13601 sylvática W.	wood	✱ △	un	2	jl.au	Y	Carolina	1787.	C	s.p	
13602 ligustrina W.	Privet-leaved	✱ un	n	5	...	Y	N. Amer.	1812.	C	s.p	
13603 sebifera W.	Tallow-tree	✱ ec	10	s	Y	China	1703.	C	s.p		Plu.am.t.390.f.2
2027. PHYLLANTHUS W.	PHYLLANTHUS.						<i>Euphorbiaceæ.</i>	<i>Sp. 16—60.</i>			
13604 obovátus W.	annual	✱ un	n	½	jl.au	Ap	N. Amer.	1803.	C	s.p	
13605 maderaspaténsis W.	Madras	✱ un	n	3	jl	Ap	E. Indies	1783.	C	s.p	
13606 grandifólius W.	great-leaved	✱ un	n	5	...	Ap	America	1771.	C	s.p	
13607 virósus W.	venomous	✱ pr	2	...	G	G	E. Indies	1802.	C	s.p	
13608 turbinátus B. M.	shining-leaved	✱ pr	2	jl	G	G	China	...	C	s.p	Bot. mag. 1852
13609 reticuláta Hort.	netted	✱ pr	3	au.s	R	E	E. Indies	...	C	s.p	Bot. cab. 116
13610 fraxinifólius Hort.	Ash-leaved	✱ pr	4	au.s	G	E	E. Indies	1819.	C	s.p	Bot. cab. 839
13611 mimosoides W.	Mimosa-like	✱ pr	10	au.s	G	G	Caribbees	1817.	C	s.p	Bot. cab. 721
13612 Conámi W.	Brazilian	✱ pr	6	jl	W	W	Indies	1791.	C	l.p	Aub. gui. 2. t. 334
13613 racemósus W.	racemed	✱ pr	1½	jl.au	G	E	E. Indies	1793.	C	s.p	
13614 Nirúri W.	Indian annual	✱ pr	3	jn.s	G	E	E. Indies	1692.	S	co	Rhe. mal. 10. t. 15
13615 polyphýllus W.	many-leaved	✱ pr	3	jl.s	G	E	E. Indies	1805.	C	s.p	
13616 E'mblica W.	shrubby	✱ pr	12	...	G	E	E. Indies	1763.	C	s.p	Bot. cab. 548



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is a very powerful drastic cathartic, requiring to be employed with caution, on account of its violent effects. When given alone, even in moderate doses, it purges vehemently, producing violent gripings, bloody ejections, and not unfrequently convulsions and inflammations of the bowels. (*Thom. Lond. Disp. 271.*)

C. sativus and Melo (μελον, an apple) are too well known to require farther notice in a work of this description. C. anguria has hispid angular stems, and small flowers like those of Bryony. The fruit is of the size and shape of a pullet's egg, of a dark-green color, and prickly like a hedgehog. It is eaten green, or with other herbs in soups in the West India Islands, and is esteemed an agreeable and wholesome ingredient. C. prope-tarium has a striped fruit smaller than a melon; the odor nauseous, and the taste as bitter as Coloquintida. The fruit of C. acutangulus is very insipid, but in India is eaten boiled and pickled. C. Chate has a roundish fruit almost like that of the melon; the taste is somewhat sweet and cool, but not so cool as the water melon. In Egypt it is eaten as the most pleasant fruit they have, and that from which delicate persons have least to apprehend. The culture of all the species is similar to that of the common cucumber.

2023. *Sicyos*. Σικυος was one of the Greek names of the cucumber, from σικυος, unpleasant. The species are trailing plants like those of Cucumis, but with much smaller fruits.

2024. *Bryonia*. From βρυονα, to push or grow rapidly, in allusion to the manner of its growth. B. alba and dioica, differ in little else besides the color of the berries, and by some are considered one species. Goats are

- 13572 Leaves roundish angular, Fruit with 10 acute angles
 13573 Angles of leaves rounded, Fruit torulose
 13574 Angles of leaves rounded, Fruit spherical with a retuse nipple
 13575 Hirsute, Angles of leaves entire toothed, Fruit fusiform narrowed at each end hairy
 13576 Leaves cordate subangular acutish finely toothed scabrous, Fruit elliptical blunt doubly
 13577 Angles of leaves straight, Fruit oblong rough
 13578 Leaves angular somewhat lobed, Fruit cylindrical furrowed curved
 13579 Leaves lobed, Fruit cylindrical very long smooth doubled up
 13580 Leaves cordate entire toothletted, Fruit globose smooth

- 13581 Leaves cordate with an obtuse angle, 5-angular toothletted smooth
 13582 Leaves roundish-cordate with a recess 5-lobed toothed hairy viscid

- 13583 Leaves cordate angular toothed rough with callous dots above and hairs beneath, Fl. in umbels
 13584 Leaves 3-lobed smooth above rough beneath
 13585 Leaves cordate angular above and the veins beneath covered with callous dots, Tendrils simple
 13586 Leaves cordate angular entire smooth with callous dots above and 5 glands at the base beneath
 13587 Leaves 3-lobed rough toothed, Lateral lobes angular somewhat 2-lobed, Fl. axillary somewhat umbellate
 13588 Lvs. 3-lobed tothed hispid on each side, Lat. lobes dilated angular: middle long. Stem muricato-hispid
 13589 Leaves somewhat 3-lobed hairy narrowed at base
 13590 Leaves cordate palmate 5-lobed toothed with callous dots, Fl. racemose dioecious
 13591 Leaves cordate 5-lobed toothed rough with callous dots, Flowers racemose
 13592 Leaves cordate 5-lobed apiculate hairy, Peduncles in umbels
 13593 Leaves cordate 5-lobed entire with callous asperities on each side
 13594 Leaves 5-lobed toothletted scabrous above, Peduncles 1-flowered
 13595 Leaves 5-lobed somewhat toothletted, Lobes obtuse, Petioles and stem hispid
 13596 Leaves palmate smooth 5-parted: segments lanceolate repand serrated
 13597 Leaves 5-parted palmate, Segm. oblong lanc. acuminate serrated, Petioles muricatus, Peduncles 1-flowered
 13598 Upper leaves 5-parted palmate, Segments oblong cut-toothed: lower cordate angular toothed
 13599 Lvs. 5-parted palmate, Segm. pinnatifid linear revolute at edge rough, Flowers in umbels, Berries acute

13600 Procumbent herbaceous

- 13601 Leaves sessile oblong blunt narrowed at base serrulate, Stem herbaceous
 13602 Leaves petiolate lanceolate narrowed at each end entire, Stem shrubby
 13603 Leaves stalked rhomboid acuminate entire, Stem arborescent

- 13604 Leaves obovate bluntish, Flowers twin axillary stalked, Stem branched round erect
 13605 Leaves lanceolate cuneate blunt mucronate, Flowers solitary stalked axillary, Stem shrubby branched
 13606 Leaves ovate-oblong blunt mucronate, Flowers axillary in threes, Branches compressed 3-cornered
 13607 Leaves elliptical ovate blunt narrowed at base, Fls. axillary aggregate dioecious, Branches square compr.
 13608 Leaves simple orbicular-ovate lucid, Flowers axillary: male turbinate nodding
 13609 Leaves oblong obtuse netted with red veins beneath, Flowers racemose and fasciculate
 13610 Leaves elliptical acute at each end, Stipules ovate acute as long as petiole, Flowers fascicled
 13611 Lvs. pinn. flower-bearing: leaflets oblong attenuated at base and narrower on one side, Fls. axill. aggreg.
 13612 Lvs. ovate acute, Fls. axill. somew. umbelled, Pedunc. filiform with 2 bractes at base, Branchlets compr.
 13613 Leaves lanceolate acute, Flowers terminal about 3, Branches pinnaform 2-edged
 13614 Lvs. pinn. fl. bearing: leaf. elliptical obtuse, Pedunc. axill. lower usually twin and male; upp. solit. fem.
 13615 Lvs. pinn. fl. bearing: leaflets linear obtuse mucronate, Flowers axillary solitary; the female uppermost
 13616 Leaves pinnate fl. bearing: leaflets linear sharpish, Flowers axillary clustered, Petioles round downy



and Miscellaneous Particulars.

the only quadrupeds said to eat this plant. The root grows to a vast size. Gerarde says, "the queene's chiefe chirurgeon, Master William Goodorous, shewed me a roote hereof, that waied halfe an hundred waighte, and of the bignesse of a childe of a yeere old." To this Linnæus ascribes the quickness of its growth, though it springs late. The roots have been formerly by impostors brought into an human shape, carried about the country, and shewn for mandrakes to the common people. The method which these people practised, was to open the earth round a young thriving Bryony plant, being careful not to disturb the lower fibres of the root; to fix a mould such as is used by those who make plaster figures close to the root, fastening it with wire to keep it in its proper situation, and then to fill in the earth about the root, leaving it to grow to the shape of the mould, which is effected in one summer. This root is a famous hydragogue, and highly purgative and acrid.

2025. *Andrachne*. The Greek name of the Purslane. The modern plant bears some analogy to that of the Greeks, in its thick and fleshy leaf. Plants of little beauty, and the easiest culture.

2026. *Stillingia*. Named after Dr. Benjamin Stillingfleet, an English botanist. *S. Sebifera* is the tallow-tree of China. An oil is expressed from the kernel, which hardens by cold to the consistence of common tallow, and by boiling becomes as hard as bees' wax. *Stillingia sylvatica* is considered a specific in cases of syphilis.

2027. *Phyllanthus*. From *φυλλον*, a leaf, and *ανθος*, a flower, because the flowers grow upon the edges of the

13617	<i>latifolius</i> W. en.	Sea-side Laurel	♂	□	pr	2	au	o	R	Jamaica	1783.	C	s.p	Bot. mag. 1021
	<i>Xylophylla latifolia</i> W.													
13618	<i>angustifolius</i> W. en.	narrow-leaved	♂	□	pr	2	jl	au	R	Jamaica	1789.	C	s.p	
13619	<i>falcatus</i> W. en.	sickle-leaved	♂	□	pr	2	jl	au	R	Bahama	1.1699.	C	s.p	Bot. rep. 331
2028.	ALEURITES. W.	ALEURITES.								<i>Euphorbiaceae.</i>	Sp. 1—4.			
13620	<i>triloba</i> W.	three-lobed	♀	□	ft	10	...	Ap	Society Is.	1793.	S	r.m		
2029.	OMPHALEA. W.	OMPHALEA.								<i>Euphorbiaceae.</i>	Sp. 1—3.			
13621	<i>triandra</i> W.	long-leaved	♀	□	or	15	ju	jl	G	Jamaica	1763.	C	p.l	Bot. cab. 519
2030.	HIPPOMANE. W.	MANCHINEEL.								<i>Euphorbiaceae.</i>	Sp. 1.			
13622	<i>Mancinella</i> W.	common	♂	□	p	80	...	G	W. Indies	1690.	L	r.m	Jacq.amer. t.159	
2031.	SA'PIUM. W.	SAPIUM.								<i>Euphorbiaceae.</i>	Sp. 1—1.			
13623	<i>acuparium</i> W.	two-glanded	♂	□	or	80	...	G	W. Indies	1692.	C	p.l	Jac. amer. t. 158	
2032.	CROTON. W.	CROTON.								<i>Euphorbiaceae.</i>	Sp. 20—118.			
13624	<i>variegatum</i> W.	variegated	♂	□	or	10	...	W.G	E. Indies	1804.	C	p.l	Rhee.mal.6. t.61	
13625	<i>lineare</i> Jac.	rosemary-leav.	♂	□	pr	6	jl	...	W.G	W. Indies	1733.	C	p.l	Bot. cab. 481
13626	<i>maritimum</i> W.	sea-side	♂	□	un	4	...	W.G	Carolina	1786.	S	co		
13627	<i>palustre</i> W.	marsh	♂	□	un	3	jl	au	W.G	Vera Cruz	1731.	C	p.l	Mart. dec. 4. t.38
13628	<i>glabellum</i> W.	Laurel-leaved	♂	□	or	6	...	W.G	Jamaica	1778.	C	p.l	Slo. ja. 2. t.174.f.2	
13629	<i>finctorium</i> W.	official	♂	□	dy	3	jl	...	W.G	S. Europe	1570.	C	p.l	Act. p. 1712. t.17
13630	<i>argenteum</i> W.	silver-leaved	♂	□	un	2	jl	au	W.G	S. Amer.	1733.	S	co	
13631	<i>Tigium</i> W.	purging	♂	□	m	10	au	s.	W.G	E. Indies	1796.	S	co	Rhee.mal.2. t.33
13632	<i>Eleuteria</i> W.	Sea-side Balsam	♂	□	m	6	...	W.G	Jamaica	1748.	C	l.p		
13633	<i>micans</i> Sw.	glittering	♂	□	un	3	...	W.G	Jamaica	1815.	C	l.p	Pluk.al. t.220.f.5	
13634	<i>pungens</i> W.	pungent	♂	□	un	4	...	W.G	Caraccas	1791.	C	l.p	Jac. ic. 3. t. 622	
13635	<i>penicillatum</i> W.	pencilled	♂	□	un	4	jl	au	W.G	Cuba	1799.	C	p.l	Bot. cab. 440
13636	<i>aromaticum</i> W.	aromatic	♂	□	un	6	...	W.G	Ceylon	1793.	C	p.l	Rum.am.3. t.126	
13637	<i>humile</i> W.	humble	♂	□	un	2	...	W.G	Jamaica	1799.	C	p.l		
13638	<i>moluccanum</i> W.	Molucca	♂	□	un	10	...	W.G	Ceylon	1803.	C	p.l		
	<i>Aleurites ambinuz</i> P. S.													
13639	<i>Astroites</i> W.	woolly	♂	□	un	6	jl	au	W.G	W. Indies	1782.	C	p.l	
13640	<i>lobatum</i> W.	various-leaved	♂	□	un	2	jl	au	W.G	Vera Cruz	1730.	S	co	Mart. dec.5. t.46
13641	<i>pictum</i> Roxb.	painted	♂	□	or	4	jl	au	W.G	E. Indies	1810.	C	p.l	Bot. cab. 870
13642	<i>tomentosum</i> Link.	downy	♂	□	un	2	my	jn	W.G	.....	1824.	C	co	
2033.	JA'TROPHA. W.	PHYSIC-NUT.								<i>Euphorbiaceae.</i>	Sp. 9—21.			
13643	<i>napaeifolia</i> W.	Napaea-leaved	♂	□	un	3	jn	au	G	Antilles	1825.	S	lp	Bot. cab. 117
13644	<i>gossypifolia</i> W.	Cotton-leaved	♂	□	or	3	my	au	G	W. Indies	1690.	S	r.m	Bot. mag. 1464
13645	<i>integerrima</i> W.	spicy	♂	□	or	3	my	au	R	Cuba	1809.	S	r.m	Bot. mag. 604
13646	<i>panduræfolia</i> W.	fiddle-leaved	♂	□	or	4	my	au	S	Cuba	1800.	S	r.m	Jac. vind. 3. t. 63
13647	<i>Carcas</i> W.	angular-leaved	♂	□	or	4	...	G	S. Amer.	1731.	S	r.m	Par. lond. 91	
13648	<i>multifida</i> W.	multifid	♂	□	or	3	jn	au	G	S. Amer.	1695.	S	r.m	



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leaves. Many of the species of this genus are remarkable for the neatness of their foliage and general aspect. The abolished genus *Xylophylla*, which is now included in *Phyllanthus*, is very generally cultivated on account of the pretty and at the same time singular appearance of its leafless leaf-like branches, covered over at the edges with multitudes of pink flowers. All the species require common stove culture.

2028. *Aleurites*. From *αλευρες*, flour, all the parts of the plant seeming to be dusted with a farinaceous substance. A handsome plant of easy culture, and ripe cuttings with their leaves untouched, root in sand under a hand-glass.

2029. *Omphalea*. A curtailment of *Omphalandra*, a name under which Dr. Patrick Browne, in his History of Jamaica, first described the plant. He formed it from *ομφαλος*, a navel, and *αυγες*, a stamen; because the male organs are collected in a fleshy navel-like mass occupying the centre of the flowers. It grows freely in light loamy soil, and cuttings, with their leaves uninjured, root in sand under a hand-glass.

2030. *Hippomane*. From *ἵππος*, a horse, and *μανια*, madness; the name was given by the Greeks to a plant which grew in Arcadia, and which possessed the dangerous property of making horses furious. This *Hippomane* must not, however, be confounded with that of Virgil (third Georgic), which is an animal substance.

The *Manchineel*-tree grows to a vast size on the sea coast of the Caribbee Islands and neighbouring continent. The leaves are ovate, serrated, acute, and very shining. The fruit fall off from the tree spontaneously, and pave all the ground with their numbers. They are highly poisonous, and are said to be eaten by the sea-crabs, which collect about the trees in vast numbers. But this is supposed by Jacquin to be a vulgar error. The whole tree abounds with a white milk, which is highly poisonous, and so very caustic, that a single drop placed upon the skin instantly causes the sensation of a hot iron, and in a short space raises a blister. It is a common belief that to sleep beneath the branches is death; but Jacquin and his companions reposed under it for three hours at a time without inconvenience. The wood is a most beautiful material for furniture, being finely variegated with brown and white, and susceptible of a high polish. The workmen who fell the trees, first kindle a fire around the stem, by which means the juice becomes so much inspissated as not to follow the blows of their axes. Whole woods on the sea-coast of Martinique have been burnt, in order to clear the country of such a dangerous pest.

- 13617 Leaves pinnate lanceolate acuminate subrenate coriaceous, Flowers stalked
 13618 Leaves pinnate linear-lanceolate lined crenate, Flowers stalked hermaphrodite
 13619 Leaves scattered linear-lanceolate subfalcate crenate, Flowers subsessile
 13620 Leaves 3-lobed
 13621 Leaves oblong blunt very smooth, Flowers triandrous, Stem arborescent
 13622 Leaves ovato-serrated
 13623 Leaves oblong acuminate serrulate, Petioles with 2 glands at the end
 13624 Leaves lanceolate entire smooth variegated stalked
 13625 Leaves linear entire stalked downy beneath
 13626 Leaves elliptical entire bluntnish hoary downy beneath stalked, Spikes terminal few-flowered
 13627 Leaves ovate lanceolate plaited serrated scabrous
 13628 Leaves ovate bluntnish entire smooth, Fruit stalked
 13629 Leaves ovate rhomboid repand entire at base hoary on each side, Pedunc. terminal about 3-fl.
 13630 Leaves ovate serrated at end hoary downy beneath, Stipules ciliated, Spikes terminal subcapitate bracteate
 13631 Leaves ovate acuminate serrated smooth with 2 glands at base, Petioles shorter than leaf, Racemes term.
 13632 Leaves ovate acuminate entire smooth silvery with scales ben. Racemes comp. axillary, Stem arborescent
 13633 Leaves cordate ovate attenuate somewhat toothletted warted and green above, silvery and shining beneath
 13634 Leaves cordate acuminate serrulate rough above downy beneath with 4 glands at the base
 13635 Lvs. round-cord. acum. ent. glandular-ciliated downy beneath, A fascicle of stalked glands at base of lvs.
 13636 Leaves oblong subcordate serrulate scabrous downy beneath with 2 glands at the base, Raceme terminal
 13637 Leaves ovate acute subcordate entire scabrous above downy beneath
 13638 Leaves subcordate angular blunt repand scabrous downy beneath
 13639 Leaves obl.-lanc. subcordate scabrous downy beneath and with 2 glands at base, Branches densely downy
 13640 Leaves 3-5-lobed serrated with hairy petioles, Stem herbaceous
 13641 Leaves oblong-lanceolate obtuse at base variegated and stained with red, Spikes axillary suberect
 13642 Downy, Leaves cordate roundish blunt repand greenish above hoary beneath

- 13643 Leaves palmate 7-lobed hispid beneath stinging: lobes pinnatifid, Petiole with 1 gland at end
 13644 Lvs. cord. 5-lobed serrated fringed with glands, Branched glandular hairs in axillæ of leaves and petioles
 13645 Leaves ovate acuminate entire very smooth, Racemes subcymose
 13646 Leaves oblong subpanduriform acuminate entire angular at base with 2 teeth on each side
 13647 Leaves cordate angular
 13648 Leaves palmate 11-lobed smooth: lobes pinnatifid cuneate, Stipules setaceous multifid



and Miscellaneous Particulars.

2031. *Sapium*. A name under which Pliny indicates a sort of pine, so named from the abundance of resin which it produces; from *sap*, fat or greasy in Celtic. The Americans employ the juice of *Sapium aucuparium* as bird-lime, for catching parrots and other birds. For this purpose they cut off a limb of the tree, and the next day collect the sap which has flowed out and become inspissated. They call it *Mangle cautivo*. The juice is also burned in lamps. Cuttings root freely in sand under a hand-glass.

2032. *Croton*. The Greek name of a certain insect called *ricinus* by the Latins, which the fruit of *Croton* resembles.

Croton Tiglium affords an oil used in medicine, which is so powerfully irritating, that a small drop placed upon the tongue, has the effect of exciting an irritation along the whole intestinal canal, which does not soon subside. It is usually employed in mixture with oil of almonds, in order to weaken its too violent powers. *C. lineare* in its general appearance resembles rosemary, and is called wild rosemary in Jamaica. *C. tinctorium* is used to dye both silk and wool of an elegant blue color, and the juice is used to color wines and jellies. The substance for this purpose is called *Turnsol*, and is made of the juice which is lodged between the calyx and the seeds: this, if rubbed on cloths, appears at first of a lively green, but soon changes to a blueish purple; if these cloths are put into water, and afterwards wrung, they will dye the water of a claret color; the rags thus dyed are brought to England, and sold in the druggists' shops by the name of *Turnsol*.

C. Eleuteria furnishes the *Cascarilla* bark, which is chiefly imported from *Eleutheria*, one of the Bahama Islands. It consists of pieces of about six or eight inches long, scarcely one-tenth of an inch thick, quilled, and covered with a thin whitish epidermis. It has a pleasant spicy odor, and a bitter warm aromatic taste. It is very inflammable, and is easily distinguished from all other barks by emitting, when burnt and extinguished, a fragrant smell resembling that of musk. Medically, this bark is a valuable carminative and tonic, and is an excellent adjunct to the *Cinchona* bark in fevers. *C. lacciferum*, a plant not yet in gardens, is one among several species on which the gum lac is said to be produced. Some of the spines we are in possession of, are much admired for their variegated leaves: all of them are freely propagated by cuttings with the leaves on, planted in sand, and plunged in moist heat under a hand-glass.

2033. *Jatropha*. From *ιατρον*, a remedy, and *φαγω*, to eat. The *J. Manihot* (*Mandioka*, Brazilian) or *Cassa-*

13649 Mánihot <i>W.</i>	Cassava	卷	clt	3	jl.au	G	S. Amer.	1739.	S	r.m	Sloan,jam.1. t.85
13650 úrens <i>W.</i>	stinging	卷	or	3	iny.jl	G	Brazil	1690.	S	r.m	Bot. cab. 478
13651 herbácea <i>W.</i>	annual	卷	un	1½	jl.au	G	VeraCruz	1739.	S	r.m	Reliq.hou.6. t.15
2034. RVCINUS. <i>W.</i>	PALMA-CHRISTI.										<i>Euphorbiaceæ.</i> Sp. 9—10.
13652 communís <i>W.</i>	Castor-oil plant	卷	m	6	jl.au	G	E. Indies	1543.	S	co	Bot. mag. 2209
13653 virídís <i>W.</i>	green	卷	or	6	au	G	E. Indies	1802.	S	s.p	W. hort. ber. 49
13654 africanus <i>W.</i>	African	卷	or	15	jl.au	G	Africa	...	S	s.p	
13655 lívidus <i>W.</i>	livid-leaved	卷	or	8	jl	Pu	C. G. H.	1795.	S	s.p	Jac. ic. 1. t. 196
13656 inermis <i>W.</i>	smooth-capsul.	卷	or	6	jl.au	Pu	India	1758.	S	s.p	Jac. ic. 1. t. 195
13657 armátus <i>B. R.</i>	rough-capsul.	卷	or	6	jl.s	G	Malta	1807.	S	s.p	Bot. rep. 430
13658 Tanárius <i>W.</i>	scollop-leaved	卷	or	4	jl.s	G	E. Indies	1810.	S	s.p	Rum.am.3. t.121
2035. HU'RA. <i>W.</i>	SANDBOX-TREE.										<i>Euphorbiaceæ.</i> Sp. 2.
13659 strépens <i>W. en.</i>	unequal-tooth.	卷	or	12	...	W.Y	S. Amer.	...	C	lp	
13660 crépitans <i>W. en.</i>	equal-toothed	卷	or	12	...	W.Y	S. Amer.	1733.	S	pl	Lam. ill. t. 793
2036. STERCULIA. <i>W.</i>	STERCULIA.										<i>Sterculiaceæ.</i> Sp. 5—23.
13661 Balánghas <i>W.</i>	coronet-flower.	卷	or	20	jn.s	G	E. Indies	1757.	Sk	p.l	Bot. reg. 185
13662 crínita <i>W.</i>	hairy-capsul.	卷	or	20	...	G	W. Indies	1793.	O	p.l	Aut. gui. 2. t.279
13663 úrens <i>W.</i>	stinging	卷	or	10	...	G	E. Indies	1793.	O	p.l	Rox. cor. 1. t. 24
13664 platanifólia <i>W.</i>	Plane-tree-ld.	卷	or	30	jl	G	China	1757.	S	pl	Cav. diss. 5. t.145
13665 foetida <i>W.</i>	fetid	卷	or	8	...	G	E. Indies	1690.	S	pl	Rhec.mal.4. t.36
2037. HERITIE'RA. <i>W.</i>	LOOKING-GLASS PLANT.										Sp. 1—2.
13666 littoralís <i>W.</i>	Laurel-leaved	卷	or	20	...	...	E. Indies	1780.	C	pl	Rhec.mal.6. t.21
2038. ACA'LYPHA. <i>W.</i>	ACALYPHA.										<i>Euphorbiaceæ.</i> Sp. 14—43.
13667 virginica <i>W.</i>	Virginian	卷	un	2	jl.au	G	N. Amer.	1759.	S	co	Sch. han.3. t.311
13668 caroliniana <i>W.</i>	Carolina	卷	un	2	jl.au	G	N. Amer.	1811.	S	co	Lam.ill. t.789.f.2
13669 ciliáta <i>W.</i>	ciliated	卷	un	2	jl.au	G	E. Indies	1799.	S	co	Vah.symb.1.t.20
13670 pauciflóra <i>W. en.</i>	few-flowered	卷	un	2	jl.au	G	China	1816.	S	co	
13671 brachystáchya <i>W. en.</i>	saw-leaved	卷	un	2	jl.au	G	China	1816.	S	co	
13672 índica <i>W.</i>	Indian	卷	un	2	jl.s	G	E. Indies	1759.	S	co	Rhe.mal.10. t.81
13673 alopecuroides <i>W.</i>	Fox-tail	卷	un	2	jl.s	G	Venezuela	1804.	S	co	Jac. ic. 3. t. 620
13674 diversifólia <i>Jacq.</i>	various leaved	卷	un	2	...	G	Caraccas	1823.	C	co	
13675 integrifólia <i>W.</i>	entire-leaved	卷	un	5	jn.s	G	Mauritius	1823.	C	co	
13676 rábra <i>W.</i>	red	卷	un	1½	jl	R	.....	1820.	C	co	
13677 hispida <i>W.</i>	hispid	卷	un	3	jl.au	G	E. Indies	...	C	co	
13678 cuspidáta <i>W.</i>	cuspidate	卷	un	4	jn.jl	G	Caraccas	1819.	C	co	
13679 virgáta <i>W.</i>	virgate	卷	un	6	jn.jl	G	Jamaica	1823.	C	co	Bro. jam.t.36.f.2
13680 scabrósá <i>W.</i>	rough	卷	un	6	jn.jl	G	Jamaica	1820.	C	co	
2039. DALECHAM'PIA. <i>W.</i>	DALECHAMPIA.										<i>Euphorbiaceæ.</i> Sp. 1—17.
13681 scádens <i>W.</i>	climbing	卷	un	12	jn.jl	G	W. Indies	1739.	C	lp	Jac.am.25t.160



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root, yields an excellent nutritious article of food when the juice has been expressed, which is a strong poison. *J. gossypifolia* is considered a beneficial plant in the West Indies, on account of the seeds, which are much relished by and very nourishing to poultry. *J. Manihot*, the Cassava of the West Indies, and the Mandioca and Tapioca of Brazil, formerly supplied the greater part of the nourishment of the natives of South America, and is now very generally cultivated there and in the West Indies. It yields an agreeable wholesome food; is of rapid growth, the roots arriving to perfection in about eight months, and it will thrive in any soil or situation. The juice of the root is sweetish, and when swallowed, or when the root is eaten without preparation, it brings on convulsions, and occasions violent retching and purging. It acts only on the nervous system; it produces no inflammation on the stomach; but the stomach of a man or other animal poisoned by it, appears to be contracted one half. A little mint-water and salt of wormwood, timely administered, will prevent all bad consequences. In preparing the roots for use as food, they are washed, scraped, and grated to a pulp; this pulp is then pressed, and when dried is a powder resembling starch or flower fit for use. It is generally baked as bread, and bears a considerable resemblance to that made from wheat flour. The roots entire, or in a powdered state, form an article of considerable export from different parts of Brazil. All the species thrive well in our stoves, and are increased by cuttings, which Sweet states, succeed best when stuck in the tan in a good heat.

2034. *Ricinus*. A name with the same derivation as *Croton*. No. 2032, which see. *R. communis*, though an annual and herbaceous plant in our gardens, becomes a tree in Africa of several years' standing. In Candia it continues many years, and, according to Belon, requires a ladder to come at the seeds. The seeds furnish the well known Castor-oil of medicine. This oil is obtained both by coction and expression. The former method is performed by tying up the seeds, previously decorticated and bruised, in a bag, which is suspended in boiling water, till all the oil is extracted and rises to the surface, when it is skimmed off. Oil so obtained is apt to become rancid, and, therefore, the better mode is to subject the seeds to the press, in the same manner as is done with almonds to procure almond oil (See *Amygdalus*). The oil obtained is equal to one fourth of the weight of the seeds employed. It is often adulterated with olive oil, linseed oil, and poppy oil. The great value of castor oil as a purgative is the mildness and rapidity with which it operates. It is peculiarly adapted for infants,

- 13649 Leaves undivided 3-5-lobed palmate entire glaucous beneath
- 13650 Leaves 5-lobed cordate toothed hispid stinging
- 13651 Prickly, Leaves 3-lobed, Stem herbaceous

- 13652 Leaves peltate palmate : lobes lanceolate serrated, Stem herbaceous frosted, Capsules prickly
- 13653 Lvs. pelt. palm. : lobes oblong toothed ; middle obsolete 3-lobed, Stem herbaceous frosted, Caps. prickly
- 13654 Leaves peltate palmate : lobes oblong serrated, Stem shrubby smooth, Stigmas 6, Caps. prickly
- 13655 Leaves peltate palmate colored : lobes obl. serrate-toothed, Stem shrubby smooth colored, Caps. prickly
- 13656 Leaves peltate palmate : lobes oblong serrated, Stem shrubby frosted, Capsules unarmed
- 13657 Leaves peltate deeply palmate 9 cut serrated, Petioles glandular, Caps. with herbaceous spines
- 13658 Leaves peltate ovate acuminate repand toothed, Caps. prickly

- 13659 Leaves ovate oblong slightly cordate toothed : lower teeth long entire at end
- 13660 Leaves ovate deeply cordate equally serrate, Male catkin ovate

- 13661 Leaves ovate lanceolate, Capsules obovate
- 13662 Hermaphrodite, Leaves ovate entire, Flowers panicled decandrous, Caps. smooth
- 13663 Leaves 5-lobed : lobes acuminate, Calyxes campanulate, Caps. ovate hispid
- 13664 Leaves palmate 5-lobed, Calyxes rotate reflexed
- 13665 Leaves digitate

- 13666 Leaves ovate simply veiny

- 13667 Female flowers at base of male spike, Invol. ovate acuminate toothed, Leaves obl. lanc. remotely toothed
- 13668 Fem. fls. at base of male spike, Invol. cordate toothed, Leaves subrhomboid ovate serrated entire at base
- 13669 Spikes axill. male upwards ; female downw. Invol. cordate acuminate with imbricated serratures ciliated.
- 13670 Female flowers solitary or twin at base of the male spike, Invol. cordate serrate, Leaves rhomboid ovate
- 13671 Female flowers at base of the male spike without an involucre, Leaves roundish ovate subcordate serrated
- 13672 Spikes axill. male above female below, Invol. smoothish serrated, Leaves ovate acum. serr. cuneate at base
- 13673 Female spike cylind. solitary terminal, Invol. 3-parted awned ciliated, Leaves roundish-ovate acuminate
- 13674 Female flowers twin axillary, Involucres entire, Leaves ovate acuminate serrulate, Stem shrubby
- 13675 Flowers dioecious : male spiked ; female axillary, Invol. roundish entire, Leaves smooth lanc. subcord.
- 13676 Spikes male above ; fem. below, Invol. cuneiform toothed at edge, Styles multifid, Lvs. obl. subcord. serr.
- 13677 Spikes axillary male above ; female below, Invol. cordate hispid, Leaves ovate acute hispid
- 13678 Male spikes axillary female at base, Invol. O, Leaves ovate cordate acuminate serrated
- 13679 Spikes axillary erect, Female involcs. cordate toothed very large, Leaves ovate-lanceolate serrated smooth
- 13680 Flowers dioecious spiked, Spikes axill. Invol. of females cordate cut, Leaves obl. lanceolate serrated smooth

- 13681 Leaves 3-lobed serrated : lobes oblong serrated, Bractes 3-lobed ciliated, Petioles shorter than peduncle



and Miscellaneous Particulars.

women in childbed, and persons bed-ridden. Sown in pots on heat early in the season, and transplanted as soon as the frosts are over into a mass of light rich soil, the plant makes one of the most magnificent of border annuals, often attaining the height of ten or twelve feet.

2035. *Mura*. Its American name. *H. crepitans* is a rapid growing tree. From the quickness of its vegetation, its parts are of so loose a texture, that a loud clap of thunder, or a sudden gust of wind, frequently causes the largest boughs to snap asunder. The wood is only fit for joists and spars: the sap of the leaves and bark is corrosive, and the seeds when roasted purge both upwards and downwards. The species are propagated by large ripened cuttings, planted in sand, plunged in heat, and covered with a hand-glass. Its fruit when ripe bursts with a loud crack, whence the specific name of crepitans; they are of a very elegant form, resembling a depressed sphere with many rounded ribs, arranged with the utmost symmetry.

2036. *Sterculia*. *Sterculius* was the god of the privy, from *stercus*, excrement. It has been well observed by a French author, that the Romans, in the madness of paganism, finished by deifying the most immodest objects and the most disgusting actions. They had the gods *Sterculius*, *Crepitus*, *Priapus*; and the goddesses *Caca*, *Pertunda*, &c. &c. The flowers of one species and the leaves of the other are highly fetid. The species are lofty trees with large leaves, and some of them very showy flowers: they all thrive in light loamy soil; and ripened cuttings, with their leaves on, root in sand, plunged in moist heat, and covered with a hand-glass. The famous Cola nut of Guinea is the produce of *S. acuminata*.

2037. *Heritiera*. Named in honor of Charles Louis L'Heritier de Brutelle, a distinguished French botanist, who was unfortunately assassinated in a street of Paris in 1800. He published many works, which will always have a high reputation for the excellence of their text, and the magnificence of their illustrations. A fine tree, which may be treated like *Sterculia*.

2038. *Acaelypha*. A Greek name for the nettle, which this genus much resembles. It is compounded of α , privative, $\kappa\alpha\lambda\epsilon\varsigma$, beautiful, and $\alpha\gamma\gamma\epsilon$, touch. Plants of no beauty and the easiest culture.

2039. *Dalechampia*. So called after James Dalechamp, a French botanist, born in 1513, died in 1588. He left a General History of Plants, and some commentaries upon Pliny. May be treated as *Plukenetia*.

2040. PLUKENETIA. *W.* PLUKENETIA. *Euphorbiaceæ. Sp. 1-5.*
 13682 volūbilis *W.* twining $\frac{1}{2}$ □ un 6 j.l.au G W. Indies 1739. C p.1 Plu. ic. 220. t. 226

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2040. *Plukenetia*. Named after Leonard Plukenet, an English botanist, who published some valuable works, with an immense number of copperplates, of singular merit for their time. The names of two of these works are so singular as to deserve explanation. One was called *Amaltheum botanicum*. This word in Greek, *Ἀμαλθεῖα*, was the name of the goat which suckled Jupiter. As its milk was exquisite and abundant, the word came to signify, among the ancients, the symbol of richness and abundance. The famous library of Atticus was called *Amaltheum*, on account of the number and variety of the books which it contained. In



CLASS XXII. — DICŒCIA.

Male and female flowers upon different plants.

To this class many of the observations made upon the last are equally applicable. Like it, the genera would have been more conveniently distributed among previous classes. The genera it contains are chiefly trees, and many of them form the most valuable portion of the forests of all parts of the world.

In Monandria is found the celebrated *Pandanus* or screw pine, which, with its strange spiral branches, constitutes one of the most singular features of the vegetation of the Isle of France. Diandria contains the valuable *Salix*; Pentandria, the hop, the hemp, and the spinage. The black Bryony, and various palms have a station in Hexandria; the poplar in Octandria; the Papaw and the Bonduc tree in Decandria. Monadelphia is richly endowed with valuable trees, such as the yew, the Norfolk Island pine, the juniper, the nutmeg; and it also contains the wonderful pitcher-plant of China.

Order 1. MONANDRIA.



Stamen 1.

2041. *Pandanus*. Male. Cal. O. Cor. O. Anthers cuspidate. Female. Cal. O. Cor. O. Style bifid. Drupe compound or simple.

Order 2. DIANDRIA.



Stamens 2.

2042. *Salix*. Barren fl. Scales of the catkin single-flowered, imbricated, with a nectariferous gland at its base. Perianth. O. Stam. 1-5. Fertile fl. Scales of the catkin single-flowered. Perianth. O. Stigmas 2, often cleft. Caps. 1-celled, 2-valved, many-seeded. Seeds comose.

2043. *Cecropia*. Male. Spatha falling off. Catkin cylindrical. Cal. turbinate 4-cornered scales. Cor. O. Female, as in the male. Style 1. Stigma torn. Ovaries imbricated. Berry 1-seeded.

2044. *Borya*. Male. Cal. 4-leaved. Cor. O. Stamens 2-3. Female. Stigma capitate. Berry 1-seeded.

Order 3. TRIANDRIA.



Stamens 3.

2045. *Empetrum*. Barren fl. Cal. tripartite. Cor. of 3 petals (7 in E. B.). Stam. 3 (9 in E. B.), upon long filaments. Fertile fl. Cal. tripartite. Cor. of 3 petals. Style very short. Stigma with 6-9 rays. Berry superior, globose, with 6-9 seeds.

2046. *Willenovia*. Male. Cal. of many glumes. Petals 6. Nectary fleshy, 6-parted, surrounding the corolla. Female. Ovary superior. Style 1. Stigmas 2-3. Drupe 1-seeded.

2047. *Restio*. Spike imbricated. Cal. 6 equal glumes. Cor. O. Female. Styles 2-3. Nut stony, 1-celled, 1-seeded.

2048. *Elegia*. Cal. 6 unequal glumes. Female. Styles 3. Caps. 6-celled. Seeds solitary.

13682 Angles of capsules compressed keeled

and *Miscellaneous Particulars.*

this sense Plukenet applied it to a work in which a great variety of curious plants was assembled. The other work was called *Almagestum*. This also came originally from the Greek. Claudius Ptolomæus, an astronomer and mathematician, published about the middle of the second century a work on astronomy, called *Συναγωγὴ μαθηματικὴ*, which may be Englished "Great work." Ishac ben Honain translated it into Arabic at the beginning of the ninth century, by order of the Caliph Mahmoun; to its title he added the Arabic article *Al*, and so formed the word *Al-magesti* or *Almagesti*.

2049. *Phanix*. Cal. 3-parted. Petals 3. Ovary 1. Drupe ovate-oblong.
 2050. *Stilago*. Male. Cal. tubular, 3-4-toothed. Cor. O. Stamens 2-3. Female, an annular disk at the base of the ovary. Stigmas 2, one bifid. Drupe 1-seeded.
 2051. *Osyris*. Male. Cal. 3-fid. Cor. O. Female. Style 1. Stigma roundish. Berry 1-celled.

Order 4. TETRANDRIA.



Stamens 4.

2052. *Aulax*. Male. Flowers racemose. Cal. O. Petals 4, staminiferous. Female. Stigma oblique. Nut exserted, ventricose, bearded.
 2053. *Leucadendron*. Male. Flowers capitate. Cal. O. Petals 4, staminiferous. Female. Stigma oblique. Nut or samara 1-seeded, included in the scales of the cone.
 2054. *Viscum*. Barren fl. Cal. O. Petals 4, dilated at the base, connate, resembling a cal. Anthers sessile, adnate with the petals. Fertile fl. Cal. submarginate. Petals 4, dilated at the base. Style 1. Drupe inferior, 1-seeded.
 2055. *Myrica*. Barren fl. Scales of the catkin concave. Perianth. O. Fertile fl. Scales of the catkin concave. Perianth. O. Styles 2. Drupe 1-celled, 1-seeded.
 2056. *Nageta*. Cal. 4-leaved. Cor. O. Style bifid. Drupe 1-seeded.
 2057. *Shepherdia*. Male flowers in a catkin, 8-androus. Female racemose at the ends of the branches. Limb of calyx flat, regular, 4-parted. Disk with 8 glands. Fruit of Hippophae.
 2058. *Hippophae*. Male flowers in a catkin, tetrandrous. Female solitary in the axillæ of the leaves. Calyx tubular, bifid at end, closed. Disk O. Fruit formed of a berried calyx and akenium.
 2059. *Broussonetia*. Male. A cylindrical catkin. Cal. 4-parted. Female. A globose catkin. Cal. tubular, 3-4-toothed. Ovaries becoming fleshy, clavate, prominent. Style lateral. Seed 1, covered by the calyx.
 2060. *Schafferia*. Cal. 4-leaved. Petals 4 or O. Berry 2-celled. Seeds solitary.
 2061. *Brucea*. Male. Cal. 4-parted. Petals 4. Disk 4-lobed. Female. Pericarps 4, 1-seeded.
 2062. *Anthospermum*. Male. Cal. 4-toothed. Cor. with a short tube, and 4-parted limb. Female. Ovary inferior. Styles 2, reflexed. Fruit bipartible.
 2063. *Trophis*. Male. Cal. O. Petals 4. Female. Cal. O. Cor. O. Style 2-parted. Berry 1-seeded.
 2064. *Montinia*. Male. Cal. 4-toothed. Petals 4. Female. Style bifid. Stigmas reniform. Capsule inferior, 2-celled, many-seeded.

Order 5. PENTANDRIA.




Stamens 5.

2065. *Pistacia*. Male. Cal. 5-fid. Cor. O. Female. Cal. 3-fid. Cor. O. Styles 5. Drupe 1-seeded.
 2066. *Xanthoxylum*. Male. Cal. 5-parted. Cor. O. Stamens 3-5. Female. Ovaries 5. Caps. 3-5, one-seeded.
 2067. *Picramnia*. Male. Cal. 3-5-parted. Petals 3-5. Stamens 3-5. Female. Styles 2. Berry 2-celled, 2-seeded.
 2068. *Antidesma*. Male. Cal. 5-leaved. Cor. O. Anthers bifid. Female. Stigmas 5. Berry cylindrical, 1-seeded.
 2069. *Iresine*. Male. Cal. 2-leaved. Petals 5. Scales 5-7. Female. Stigmas 2, sessile. Caps. with downy seeds.
 2070. *Spinacia*. Male. Cal. 5-parted. Cor. O. Female. Styles 4. Seed 1, within the indurated calyx.
 2071. *Huggea*. Male. Cal. 5-leaved. Cor. O. Rudiment of an ovary. Female. Style 2-parted. Stigmas recurved, bifid. Berry 4-seeded. Seeds with an arillus.
 2072. *Acnida*. Male. Cal. 5-parted. Cor. O. Female. Cal. 3-parted. Styles O. Stigmas 3, sessile. Caps. 1-seeded.

2074. *Cannabis*. Male. Cal. 5-parted. Female. Cal. 5-leaved, entire, opening at the side. Styles 2. Nut 2-valved within the closed calyx.

2074. *Humulus*. Barren fl. Perianth, single, of 5 leaves. Anthers with 2 pores at the extremity. Fertile fl. Scales of the catkin large, persistent, concave, entire, single-flowered. Perianth. O. Styles 2. Seed 1.

2075. *Modecca*. Cal. 5-fid. Petals 5, inserted in the calyx. Scales 5-10, rarely O. Male. Stamens 5. Anthers erect. Female. Caps. stalked, 1-celled, 3-valved, many-seeded.

Order 6. HEXANDRIA.  Stamens 6.

2076. *Xerotes*. Cor. 6-parted, somewhat colored. Male. Stamens 6. Anthers peltate. Female. Stamens abortive. Ovary 3-celled, with 1-seeded cells. Caps. cartilaginous, 3-celled, 3-valved. Seeds peltate.

2077. *Elais*. Cal. 6-leaved. Cor. 6-fid. Style 1. Stigmas 3. Drupe 1-seeded, fibrous. Nut 3-valved.

2078. *Chamaedorea*. Cal. 3-parted. Cor. 3-parted. Stamens 6. Rudiment of a style. Female. Scales 3. Styles 3. Drupe succulent, 1-seeded.

2079. *Borassus*. Cal. 3-leaved. Cor. hypocrateriform, with a 3-parted limb. Female. Cal. 8-9-leaved, imbricated. Cor. O. Style O. Drupe with 3 stones.

2080. *Mauritia*. Cal. cyathiform, somewhat 3-toothed. Petals 3. Drupe 1-seeded, tessellated.

2081. *Smilax*. Cal. 5-leaved. Cor. O. Styles 3. Berry 3-celled. Seeds 2.


2082. *Tamus*. Cal. 6-parted. Cor. O. Styles 3-fid. Berry 3-celled, inferior. Seeds 2.

2083. *Testudinaria*. Perianth. 6-parted, spreading: segments linear, nearly equal. Male. Stamens 6, inserted in the base of the segments. Female. Styles 3, united. Capsule membranous. Seeds winged.


2084. *Rajania*. Cal. 6-parted. Cor. O. Styles 5. Samara 1-seeded.

2085. *Dioscorea*. Cal. 6-parted. Cor. O. Styles 3. Capsule 3-celled, compressed. Seeds 2, membranous. Leaves generally alternate.

2086. *Maba*. Cal. 3-fid. Cor. tubular, trifold. Drupe 2-celled. Cells 2-seeded.

Order 7. OCTANDRIA.  Stamens 8.


2087. *Populus*. Barren fl. Scales of the catkin lacerated. Anthers 8-30, arising from a turbinate, oblique, entire, single perianth. Fertile fl. Scales of the catkin lacerated. Perianth, turbinate, entire. Stigmas 4. Caps. superior, 2-celled, 2-valved, many-seeded. Seeds comose.

Order 8. ENNEANDRIA.  Stamens 9.

2088. *Mercurialis*. Barren fl. Perianth, single, tripartite. Stam. 9-12. Anthers globose, 2-lobed. Fertile fl. Perianth, single, tripartite. Styles 2. Caps. 2-celled. Cells 1-seeded.

2089. *Hydrocharis*. Barren fl. Cal. tripartite. Petals 3, "the three interior filaments beaked." Sm. Fertile fl. Cal. tripartite. Petals 3. Styles 6, each with 2 stigmas. Caps. inferior, coriaceous, roundish, six-celled, many-seeded.

2090. *Triparis*. Cal. 3-parted. Petals 3. Stamens 9. Styles 3. Capsule 1-seeded, 3-valved.

Order 9. DECANDRIA.  Stamens 10.


2091. *Coriaria*. Cal. 5-parted. Cor. O. Scales 5. Anthers 2-parted. Styles 5. Caps. 5, 1-seeded, covered by the enlarged scales.

2092. *Kiggelaria*. Cal. 5-parted. Petals 5; glands 5, 3-lobed. Anthers perforated. Styles 5. Capsule one-celled, 5-valved, many-seeded.

2093. *Schinus*. Cal. 5-fid. Petals 5. Berry 3-coccous.

2094. *Gymnocladus*. Cal. 5-toothed. Petals 5. Style 1. Legumen 1-celled, pulpy inside.

2095. *Carica*. Male. Cal. hardly any. Cor. 5-fid, funnel-shaped. Filam. in the tube of the cor. Female. Cal. 5-toothed. Petals 5. Stigmas 5. Berry furrowed, 1-celled, many-seeded.

Order 10. DODECANDRIA.  Stamens 12.

2096. *Stratiotes*. Male. Spatha 2-leaved. Cal. 3-parted. Petals 3. Stamens 11-13, perfect, 20 abortive. Ovary inferior, 6-angular. Styles 6, 2-parted. Berry 6-celled, many-seeded.

2097. *Hyenanche*. Cal. 5-7-leaved. Cor. O. Stamens 10-20. Style 1. Stigmas 3. Caps. 3-celled, 3-coccous. Cells 2-seeded.

2098. *Euclea*. Cal. 5-toothed. Cor. 5-parted. Stamens 15. Ovary superior. Styles 2. Caps. berried, 3-horned, 3-celled. Seeds solitary, with an arillus.

2099. *Datisca*. Male. Cal. 5-leaved. Cor. O. Anthers sessile. Female. Cal. 2-toothed. Styles 3. Capsule 3-angular, 3-horned, 1-celled, perversive, inferior.

2100. *Menispermum*. Male. Cal. 2-leaved. Petals 4 or 6 on the outside, 8 inside. Stamens 16. Female. Stamens 8, sterile. Ovaries 2-3. Berries 2, 1-seeded.

2101. *Cocculus*. Sepals and petals ternate, usually in two, rarely in three rows. Male. Stamens 6, distinct, opposite the petals. Female. Drupes berried, 1-6, generally oblique, reniform, somewhat compressed, 1-seeded. Cotyledons distinct.

Order 11. ICOSANDRIA.  Stamens numerous, inserted in the calyx.

2102. *Flacourtia*. Cal. 5-parted. Cor. O. Stigma stellate, sessile. Berry many-celled, with 2-seeded cells.

2103. *Peumus*. Male. Cal. campanulate, 5-fid. Petals 5, inserted in the calyx, reflexed. Stamens about 46, glandular. Female. Scales 5, subsagittate. Ovaries 2-9. Style O. Drupes oval, acuminate.

2104. *Gelonium*. Cal. 5-leaved. Cor. O. Stamens 12. Stigmas 3, lacerated. Caps. 3-celled, 3-valved, 3-seeded.

2105. *Rottlera*. Male. Cal. 2-parted. Cor. O. Stamens 30-40. Female. Cal. 4-toothed. Styles 3. Caps. 3-celled, tricoccous, 3-seeded.

Order 12. POLYANDRIA.



Stamens numerous, inserted under the ovarium.

2106. *Cliffortia*. Cal. 3-leaved. Cor. O. Stamens about 30. Styles 3. Caps. 3-celled. Seed 1.
 2107. *Cycas*. Male. Catkin imbricated. Cal. a spatulate scale. Cor. O. Anthers globose, sessile, on a scale. Female. Spadix compressed, 2-sided. Cal. O. Cor. O. Style 1. Drupe 1-seeded.
 2108. *Zamia*. Catkin like a cone. Male. Calyx an obovate scale. Cor. O. Anthers globose, opening by a slit, sessile on the scale. Female. Cal. peltate scales. Ovaries 2. Style O. Berries 2, 1-seeded.

Order 13. MONADELPHIA.



Stamens united into one body.

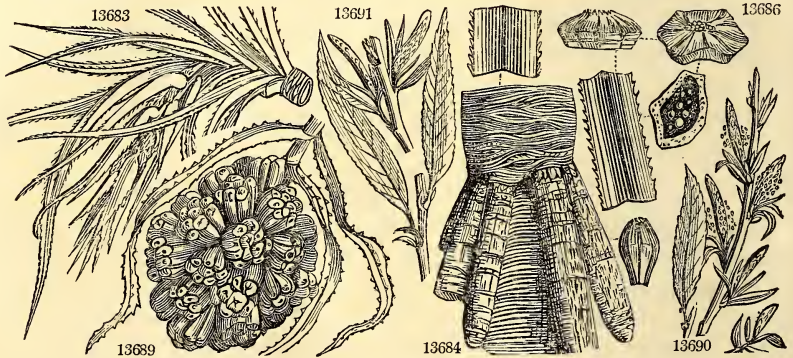
2109. *Latania*. Spadix many-leaved. Calyx 3-leaved. Petals 3. Stamens 15-16. Drupe coated, with three stones.
 2110. *Leptocarpus*. Cal. 6-leaved, glumaceous. Cor. O. Stamens 3. Ovary superior. Style 1. Stigmas 2 or 3. Utricle or nut crustaceous, crowned by the base of the style.
 2111. *Ruscus*. Cal. 6-leaved. Cor. O. Male. Rudiment of ovary ovate, perforated at end. Female. Style 1. Berry 3-celled. Seeds 2.
 2112. *Aracaria*. Male. Catkin imbricated. Cal. a woody scale. Anthers 10-12, united in a scale. Female. Catkin cone-shaped. Cal. a lanceolate 2-flowered scale. Style O. Stigma 2-valved. Nut coriaceous, cuneiform, winged at end.
 2113. *Juniperus*. Barren fl. Scales of the catkin subpeltate. Perianth. O. Stam. 4-8, 1-celled. Fertile fl. Scales of the catkin few, united at length, fleshy, and surrounding the 3-seeded berry.
 2114. *Taxus*. Barren fl. Perianth. single at the base. Stam. numerous. Anthers peltate, 6-8-celled. Cells opening beneath. Fertile fl. Perianth. single, urceolate, scaly. Style O. Drupe fleshy, perforated at the extremity.
 2115. *Ephedra*. Male. A catkin. Cal. 2-fid. Stamens 7. Anthers 4 inferior, 2 superior. Female. Cal. 2-parted, quintuple. Ovaries 2. Seeds 2, covered by the berried calyx.
 2116. *Cissampelos*. Male. Cal. 4-leaved. Cor. O. Disk rotate. Stamens 5. Filaments connate. Female. Cal. 1-leaved, ligulate, roundish. Styles 3. Berry 1-seeded.
 2117. *Excavaria*. Male. Catkin cylindrical. Cal. a scale. Filament 3-parted. Female. Calyx 3 scales. Caps. 3-coccous.
 2118. *Adelia*. Male. Cal. 3-parted. Cor. O. Stamens OO. Female. Cal. 5-parted. Styles 3, torn. Capsule 3-coccous.
 2119. *Loureira*. Male. Cal. 5-parted. Cor. tubular, campanulate, 5-fid. Stamens 8-13, cohering at base. Female. Stigmas 3-4. Capsule dicoccous, 2-celled, with 1-seeded cells.
 2120. *Myristica*. Male. Cal. O. Cor. campanulate, trifid. Filament columnar. Anthers 6-10, connate. Female. Style 1. Stigmas 2. Drupe with an arilled 1-seeded nut. Seed large, veiny, variegated in the inside.
 2121. *Nepenthes*. Cal. 4-parted, spreading, colored inside. Cor. O. Filament columnar. Anthers 15-17, connate. Stigma peltate, sessile. Caps. 4-celled, many-seeded.
 2122. *Cluytia*. Male. Cal. 5-leaved. Petals 5. Disk glandular. Stamens 5, inserted into the rudiment of an ovarium. Female. Styles 3. Capsule 3-celled. Seed 1.

MONANDRIA.

2041. PANDA'NUS. <i>W.</i> SCREW-PINE.		<i>Pandaneæ.</i>		<i>Sp. 7-25.</i>	
13683 odoratissimus <i>W.</i>	green-spined	♂	or 20	W	E. Indies 1771. S r.m Rox.cor.1. t.94-6
13684 útilis <i>W. en.</i>	red-spined	♂	or 20	W	Bourbon ... S r.m Ja.fra. t.13,14.f.1
13685 spirális <i>R. Br.</i>	spiral	♂	or 20	W	N. S. W. 1805. S r.m
13686 húmilis <i>W.</i>	dwarf	♂	or 8	W	Mauritius ... S r.m Jac.frag. t.14. f.2
13687 amaryllifólius <i>Roeb.</i>	entire-leaved	♂	or 20	W	E. Indies 1820. S r.m Fl. d'Oware, t.21
13688 candlábrum <i>Beauv.</i>	Can. Jlestick	♂	or 15	W	Guinea 1822. S r.m
13689 fasciculáris <i>W.</i>	fasciated	♂	or 20	W	E. Indies 1822. S r.m Rheede. 2. t. 6

DIANDRIA.

2042. SA'LIX. <i>W.</i>		<i>Amentaceæ.</i>		<i>Sp. 125-163.</i>	
13690 triándra <i>W.</i>	WILLOW. long-leaved	♀	tm 30	my.au Ap	Britain r.v.ba. C m.s Eng. bot. 1435
13691 lanceoláta	sharp-leaved	♀	tm 30	ap.my Ap	England mea. C m.s Eng. bot. 1436
13692 Hoppeána <i>W.</i>	Hoppe's	♀	tm 30	ap.my Ap	Austria 1820. C m.s
13693 unduláta <i>W.</i>	wave-leaved	♀	tm 30	ap.my Ap	Germany ... C m.s
13694 Villarsiana <i>W.</i>	Villars's	♂	or 6	ap.my Ap	S. France 1818. C m.s
13695 amygdalina <i>W.</i>	Almond-leaved	♂	or 6	ap.my Ap	Britain mar. C m.s Eng. bot. 1936
13696 decipiens <i>E. B.</i>	varnished	♂	or 8	my Ap	England woods. C m.s Eng. bot. 1937
13697 Russeliána <i>W.</i>	Hedford	♀	tm 40	ap.my Ap	England mar. C m.s Eng. bot. 1808
13698 Humboldtiana <i>W.</i>	Humboldt's	♂	or 10	... Ap	Peru 1823. C m.s
13699 tetraspérina <i>W.</i>	four-seeded	♀	or 20	... Ap	E. Indies 1793. C m.s Rox. cor. 1. t. 97
13700 nígra <i>W.</i>	black	♀	or 20	my Ap	N. Amer. 1811. C m.s An.bot.2. t.5. f.5
13701 pentándra <i>W.</i>	Bay-leaved	♂	or 15	mr.jn Ap	Britain riv.ba. C m.s Eng. bot. 1805
13702 nígricans <i>W.</i>	dark broad-ld.	♂	or 10	ap Ap	England os.hol. C m.s Eng. bot. 1213
13703 phylcifóha <i>W.</i>	Tea-leaved	♂	or 1½	iny Ap	Scotland sc.alp. C m.s Eng. bot. 1938
13704 Wulfeniána <i>W.</i>	Wulfen's	♂	or 6	my Ap	Carinthia 1818. C m.s
13705 silésiaea <i>W.</i>	Silesian	♂	or 6	my Ap	Silesia 1816. C m.s
13706 Pontederána <i>W.</i>	Pontedera's	♂	or 3	my Ap	Switzerl. 1821. C m.s
13707 laurina <i>W.</i>	two-colored	♂	or 8	ap.my Ap	England ... C m.s Eng. bot. 1806
13708 tenuifólia <i>W.</i>	thin-leaved	♂	or 2	my.jn Ap	Britain sto.hi. C m.s Eng. bot. 2186
13709 Ammanniana <i>W.</i>	Ammann's	♀	or 20	my.jn Ap	Austria 1821. C m.s H. sal. t.17,18,19
13710 hastáta <i>W.</i>	halberr-leaved	♀	or 15	my Ap	Lapland 1780. C m.s Fl. lapp. t. 8. f. g
13711 serruláta <i>W.</i>	serrulate	♂	or 8	my Ap	Lapland 1810. C m.s Fl. dan. t. 1238



History, Use, Propagation, Culture,

2041. *Pandanus*. The Malay name of the genus is *Pandang*, which is said to signify, being interpreted, something to be regarded, and to have been so named on account of the beauty of the tree, and its exquisite odor. *P. odoratissimus* is a large spreading branching bush, with stem-clasping imbricated leaves, bearing some resemblance to those of the pine-apple; from three to five feet long, and placed in three spiral rows round the extremities of the branches. It grows in all soils and situations in the warmer parts of Asia, and is much employed there for hedges. It grows readily from branches, whence it is rare to find the full-grown ripe fruit. The tender white leaves of the flowers, chiefly those of the male, yield that most delightful fragrance, for which they are so generally esteemed, and for which the plant is cultivated in Japan. Of all the perfumes, it is by far the richest and most powerful. The lower pulpy part of the drupe is sometimes eaten by the natives in times of scarcity and famine. The tender white base of the leaves is also eaten raw or boiled, at such melancholy times. The taste of the pulpy part of the drupe is very disagreeable. The roots are composed of tough fibres, which basket-makers use to tie their work with; they are so soft and spongy as to serve the natives for corks. The leaves are composed of longitudinal, tough, useful fibres. In the South Sea Islands, where the *Pandanus* is also a native, this or some other species or variety is used for making mats. The leaves are beautifully white and glossy. In the Sandwich islands these mats are handsomely worked in

MONANDRIA.

- 13683 Leaves at back and edges spiny-toothed, Fruit globose solitary
 13684 Leaves at back and edges spiny-toothed, Fruit globose, Branches ternate dichotomous
 13685 Stem without stolones, Clust. of drupes with from 9 to 20 cells obtuse depressed and tessellate at end
 13686 Leaves at back and edges spiny-toothed, Fruit globose aggregated
 13687 Leaves quite entire
 13688 Leaves at edge and back serrate-spiny, Branches of stem erect
 13689 Leaves and edges spiny-toothed, Spines distant, Drupe oblong solitary, Fruits fascicled

DIANDRIA.

§ 1. *Leaves smooth-serrated.*

- 13690 Leaves lin. obl. serr. smooth rather unequally sloping at base, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigma nearly sessile
 13691 Leaves lanceolate tapering toward each end serrat. smooth Footst. decurr. Catk. accompanying the leaves triandrous, Ovary stalked oblong constricted smooth
 13692 Leaves lanceolate tapering at each end serrated glaucous beneath, Catkins accompanying the leaves triandrous polygamous, Ovary stalked oblong lanceolate smooth, Stigmas sessile
 13693 Leaves lanceolate pointed obtuse at the base smooth wavy and serrated, Footstalks decurrent, Catkins accompanying the leaves triandrous, Ovary stalked elliptic oblong, Style elongated
 13694 Leaves elliptical roundish at the base serrated pointed glaucous white beneath, Catkins accompanying the leaves triandrous, Ovary stalked ovate smooth, Stigmas sessile
 13695 Leaves ovate unequal at the base serrated smooth, Catkins accompanying the leaves triandrous, Ovary stalked ovate compressed smooth, Stigmas nearly sessile, Young branches furrowed
 13696 Lvs. lanc. serrate quite smooth, Petioles somew. glandular, Ovary narrowed stalked, Branches varnished
 13697 Leaves lanceolate acuminate serrated smooth, Ovaries pedicellate subulate smooth
 13698 Lvs. lin. pointed finely serrat. smooth, Stam. about 6, Ovary stalked round-ovate smooth, Stigmas sessile
 13699 Leaves elliptic-lanceolate pointed finely serrated smooth glaucous beneath, Catkins following the leaves, Stamens about 6 deflexed, Ovary stalked ovate smooth, Style elongated
 13700 Leaves ovato-lanc. pointed serrated green on both sides smooth with a downy rib and footst. Catkins accompanying the leaves vill. Stam. about 5 bearded at base, Ovary stalked ov. lanc. smooth, Stigm. divid. Catkins following the leaves, Stam. pointed crenate glandular smooth, Footstalks glandular at the top,
 13701 Leaves ellipt. lanc. acute cren. smooth glaucous beneath, Catkins before leaves, Ovary stalked lanc. downy
 13702 Leaves ellipt. lanc. acute cren. smooth glaucous beneath, Catkins before leaves, Ovary stalked lanc. downy
 13703 Leaves elliptical lanceolate with wavy serratures smooth glaucous beneath, Stipules somewhat lunate glandular on the inside, Ovary stalked silky, Style longer than the stigma
 13704 Leaves obovate bluntish serrated smooth glaucous beneath, Catkins dense with fringed scales, Ovary stalked awl-shaped nearly smooth, Style longer than the stigmas
 13705 Leaves elliptical acute at each end smooth serrat. green on both sides: midrib footstalks as well as young foliage downy, Catkins before the leaves, Ovary ovato-lanceolate long stalked smooth
 13706 Leaves elliptical acute serrated smooth obtuse at base glaucous beneath: midrib footstalk as well as young foliage hairy, Ovary oblong downy
 13707 Leaves elliptical acute tooth-serrated smoothish glaucous beneath, Ovary lanceolate silky
 13708 Lvs. ellipt. acute serrat. smoothish glaucous ben. Stip. small or none, Catk. hairy, Caps. sess. very smooth
 13709 Leaves oblong elliptical acute serrated smooth glaucous beneath, Footstalks elongated downy, Stipules ovate toothed permanent, Catkins before the leaves, Ovary lanceolate smooth
 13710 Lvs. ovate acute serrated undulate crackling smooth heart-shaped at the base glaucous beneath, Stipules unequally heart-shaped longer than the broad footstalks, Catkins very woolly, Ovary lanc. smooth
 13711 Lvs. ovate acute serrated smooth glaucous beneath, Footstalks very short smooth, Stipules ovate serrated permanent, Catkins accompanying the leaves, Ovary lanceolate nearly sessile



and Miscellaneous Particulars.

a variety of patterns, and stained of different colors. The branches being of a soft spongy juicy nature, cattle will eat them very well when cut into small pieces. They call it Wharra tree at Otahaité. (*Hawku. Voy. ii. 217.*)

2042. *Salix*. From the Celtic *sal*, near, and *lis*, water. Our common name osier, seems to be a slight alteration of the Greek *ασια*, which means the same thing. This is a numerous and difficult genus of trees and shrubs, with one or two exceptions limited in their range to the temperate regions of Europe and America. Many of the species are distinguished by such delicate shades, that only the most acute botanists can recognize them. Soil, situation, and climate produce so considerable a change in their appearance, as to render it difficult to determine what are species and what varieties. Those species which attain a timber size, are chiefly valued for the rapidity of their growth; they produce a great bulk of trunk and lop in a short time, and the bark of most of the species has recently been used in tanning; being, at an average of sorts, about half as valuable as that of the oak. *S. alba* is considered the most valuable timber tree of the genus; it has a branching stem, and tapering flame-shaped head. It may be seen pollarded by way-sides in most parts of Europe, in which state it is very productive of poles, fence wood, crate ware, fuel, and bark for the tanner, which is considered nearly as good as that of the oak. A variety of this species, called by Pontey, the red

13712	<i>prinoides Ph.</i>	Prinos-like	♀	or 10	mr.ap	Ap	N. Amer. 1811.	C	m.s
13713	<i>dicolor W.</i>	brown-branch.	♂	or 8	ap	Ap	N. Amer. 1811.	C	m.s Ann.bot.2.t.5.f.1
13714	<i>angustata Ph.</i>	narrow-leaved	♀	or 10	mr.ap	Ap	Pensylv. 1811.	C	m.s
13715	<i>petiolaris W.</i>	dark long-leav.	♀	or 10	ap	Ap	England mar.	C	m.s Eng. bot. 1147
13716	<i>myricoides W.</i>	Gale-like	♂	or 8	ap	Ap	N. Amer. 1811.	C	m.s Ann.bot.2.t.5.f.2
13717	<i>cordata W.</i>	heart-leaved	♂	or 6	ap.my	Ap	N. Amer. 1811.	C	m.s Ann.bot.2.t.5.f.8
13718	<i>rigida W.</i>	rigid	♀	or 15	ap.my	Ap	N. Amer. 1811.	C	m.s Ann.bot.2.t.5.f.4
13719	<i>lucida W.</i>	shining	♂	or 8	my	Ap	N. Amer. 1811.	C	m.s Ann.bot.2.t.5.f.7
13720	<i>ambigua Psh.</i>	doutful	♀	or 20	ap	Ap	N. Amer. 1821.	C	m.s
13721	<i>acutifolia W.</i>	sharp-leaved	♂	or 8	ap	Ap	Casp. Sea 1823.	C	m.s
13722	<i>vitellina W.</i>	yellow-w-branch.	♀	clt 15	mr.my	Ap	England mar.	C	m.s Eng. bot. 1389
13723	<i>fragilis W.</i>	cracking	♀	or 15	ap.my	Ap	Britain mar.	C	m.s Eng. bot. 1807
13724	<i>praecox W.</i>	early	♀	or 20	ap.my	Ap	Austria 1820.	C	m.s
13725	<i>Meyeriána W.</i>	Meyer's	♀	or 20	ap.my	Ap	Germany 1822.	C	m.s
13726	<i>babylónica W.</i>	weeping	♀	el 30	my	Ap	Levant 1692.	C	m.s Rauw.it.183.t.25
13727	<i>purpurea W.</i>	bitter purple	♂	8	mr	Ap	England mar.	C	m.s Eng. bot. 1388
13728	<i>pomeránica W. en.</i>	Pomeranian	♀	or 10	my	Ap	Pomeran. 1822.	C	m.s
13729	<i>Hélix W.</i>	Rose	♀	or 10	mr.ap	Ap	Britain mar.	C	m.s Eng. bot. 1343
13730	<i>Lambertiána W.</i>	Boyton	♂	clt 10	mr.ap	Ap	England riv.ba.	C	m.s Eng. bot. 1359
13731	<i>tetra'pla Link.</i>	pretty	♂	or 4	mr.ap	Ap	..... 1825.	C	m.s
13732	<i>rubra W.</i>	Green Osier	♂	clt 8	ap.my	Ap	England os.hol.	C	m.s Eng. bot. 1145
13733	<i>Forbyána W.</i>	Basket Osier	♂	clt 8	ap	Ap	England os.hol.	C	m.s Eng. bot. 1344
13734	<i>Croweána W.</i>	Crowe's	♂	clt 8	ap.my	Ap	England mar.	C	m.s Eng. bot. 1146
13735	<i>malifolia W.</i>	Apple-leaved	♂	or 3	ap	Ap	England moun.	C	m.s Eng. bot 1617
13736	<i>Houstoniána Ph.</i>	Houston's	♂	or 4	ap.my	Ap	Virginia ...	C	m.s
13737	<i>falcata Ph.</i>	sickle-leaved	♂	or 4	ap.my	Ap	N. Amer. 1811.	C	m.s
13738	<i>Starkeána W.</i>	Starke's	♂	or 4	ap.my	Ap	Silesia 1820.	C	m.s
13739	<i>prunifolia W.</i>	Plum-leaved	♂	or 3	ap.my	Ap	Scotland sc.alp.	C	m.s Eng. bot. 1361
13740	<i>mysinities W.</i>	Whortle-leav'd	♂	or 3	ap.jn	Ap	Scotland sc.alp.	C	m.s Eng. bot. 1360
13741	<i>Waldsteiniana W.</i>	Waldstein's	♂	or 4	ap.jn	Ap	Croatia 1822.	C	m.s
13742	<i>venulosa E. B.</i>	veiny-leaved	♂	or 2	ap.my	Ap	Scotland sc.alp.	C	m.s Eng. bot. 1362
13743	<i>planifolia Ph.</i>	flat-leaved	♂	or 2	... Ap	Ap	Labrador 1811.	C	m.s
13744	<i>fuscata Ph.</i>	brown-stemm'd	♂	or 2	ap	Ap	N. Amer. 1811.	C	m.s
13745	<i>vacciniifolia E. B.</i>	Bilberry-leaved	♂	or 2	ap.my	Ap	Scotland s. of sc.	C	m.s Eng. bot. 2341
13746	<i>carinata W.</i>	folded-leaved	♂	or 3	ap.my	Ap	Scotland sc.alp.	C	m.s Eng. bot. 1363
13747	<i>coruscans W.</i>	glittering	♂	or 3	ap.my	Ap	Germany 1818.	C	m.s Jacq. aust. t. 408
13748	<i>eriantha Schleich.</i>	woolly-flower'd	♂	or 2	ap	Ap	Switzerl. 1823.	C	m.s

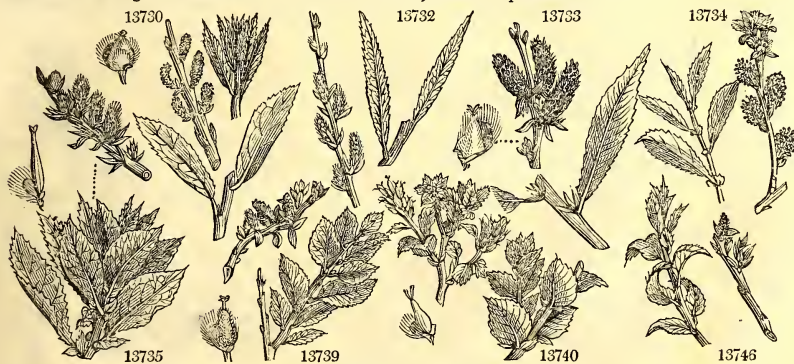


History, Use, Propagation, Culture,

twigged upland willow, and the *S. russelliana*, are considered the two next best species of the tree kind, and indeed, greatly resemble each other.

The best willows for hoops and basket work are *S. viminalis*, *stipularis*, *rubra*, *Forbyana*, *triandra*, *molissima*, and *vitellina*. *S. triandra* is the most common, and is grown both for basket work and hoops. *S. Forbyana* is the best for the finer sorts of basket work. *S. stipularis* is the species commonly cultivated in Holland for hoops and rods. *S. purpurea* is one of the toughest of willows, and the extreme bitterness of the leaves and twigs renders it valuable for the tanner, for withs and basket work, not being liable to be eaten by vermin, and for hedges which cattle will not brouse on. In bands for thatching, Linnæus says, it lasts above

- 13712 Lvs oval-obl. acute with distant wavy serratures smooth glauc. ben. Stipules $\frac{1}{2}$ heart-shaped deeply toothed, Catkins villous before the leaves, Ovary stalked ovate pointed silky, Style elongated, Stigma cloven
- 13713 Leaves ovato-lanceolate smooth bluntly serrated glaucous beneath, Catkins before the leaves, Scales short rounded hairy, Ovary awl-shaped silky on a stalk thrice the length of the scale
- 13714 Lvs. lanc. acute very long gradually tapering at base finely serrated quite smooth scarcely paler beneath, Stip. $\frac{1}{2}$ heart-shap. Catkins before lvs. erect smooth, Ovary stalk. ov. smooth, Style divid. Stigm. 2-lobed
- 13715 Leaves lanceolate serrated smooth glaucous beneath somewhat unequal at base, Stipules lunate toothed, Catkins lax, Ovary stalked ovate silky, Stigmas sessile divided
- 13716 Lvs. ovato-lanc. bluntly serr. smooth ac. glauc. ben. gland. at base, Stip. ov. with gland. serrat. Catk. wool. Ovary lanceolate smooth its stalk longer than the scale, Style the length of the divided stigmas
- 13717 Lvs. ovato-lanc. serrat. smooth paler ben. heart-shaped at the base, Stip. rounded finely toothed, Catk. accomp. lvs. mostly triand. Sca. lanc. woolly, Ovary stalked lanc. smooth, Style length of divided stigm.
- 13718 Lvs. ellipt. lanc. rigid smooth sharply serrat. two lowest serratures elongated, Footst. hairy, Stip. dilated round. with glandul. serrat. Catk. accomp. lvs. mostly triand. Sc. woolly, Ovary lanc. smth on long stalk
- 13719 Lvs. ov taper-point. smooth shining with glandul. serrat. mostly crowded at stip. tooth. Catk. accomp. lvs. mostly triand. Scales hairy at base obt. serr. and smooth at end, Ovary stalked lanc. awl-shaped smooth, Style divided, Stigma obtuse
- 13720 Leaves lanceolate pointed smooth green on both sides with gland. serr. Catkins accomp. lvs. Nect. double rather large : its lobes lanceolate smooth toothed at the summit ; the terminal flowers triandrous
- 13721 Lvs. lanc. acum. uneq. and bluntly serrated smooth somew. glauc. ben. Branches dark purple with a bloom
- 13722 Leaves lanc. acute with cartilaginous serrat. smooth above glaucous and somew. silky ben. Stip. small and deciduous smooth on their inside. Ovary sessile ovato-lanceolate smooth, Stigmas nearly sessile 2-lobed
- 13723 Leaves ovato-lanc. pointed serrated throughout very smooth, Footstalks glandular, Ovary ovate nearly sessile, Male flowers with an abortive ovary
- 13724 Leaves broadly lanc. pointed smooth with glandular serrat. glaucous beneath, Footstalks slightly hairy without glands, Catkins before the leaves, Ovary sessile ovate smooth, Style elongated
- 13725 Triandrous, Stamens reflexed, Leaves about four inches long and one broad smooth and green beneath
- 13726 Leaves lanceolate taper-pointed sharply serrated smooth glaucous beneath, Stipules $\frac{1}{2}$ ovate taper-pointed revolute, Catkins naked accompanying the leaves, Ovary ovate sessile smooth, Branches pendulous
- 13727 Decumb. Stam. 1, Leaves obovato-lanc. serrated smooth narrow at base, Stigm. very short ov. nearly sess.
- 13728 Lvs. downy serrulate acum. glaucous beneath, when old becoming smoother, Catkins before lvs. Style long
- 13729 Erect, Stamen 1, Leaves mostly opposite oblong lanc. pointed slightly serrated smooth linear at base, Style nearly as long as divided stigmas
- 13730 Erect, Stam. 1, Lvs. obov. lanc. ac. serrat. smth. round. at base, Stip. none, Stig. very short ov. notched obt.
- 13731 Branches downy, Leaves elliptical acute glaucous beneath : the young ones downy
- 13732 Stam. combined below, Leaves linear lanc. elongated acute smooth with shallow serrat. green on both sides
- 13733 Erect, Stamen 1, Leaves alternate with small stipules lanceolate acute with shallow serratures smooth rounded at base glaucous beneath, Style nearly as long as the linear divided stigmas
- 13734 Stamens combined below, Leaves elliptical slightly serrated quite smooth glaucous beneath
- 13735 Leaves elliptic-oblong toothed waved thin and crackling very smooth, Stipules heart-shaped about the length of the footstalk, Catkins very woolly, Ovary lanceolate smooth on a short stalk
- 13736 Leaves linear lanceolate acute very finely serrated smooth shining and green on both sides, Stipules none, Catkins accompanying leaves cylindrical villous, Scales ovate acute, Stam. 3 to 5 bearded half way up
- 13737 Leaves very long linear-lanc. closely serrated tapering gradually and somewhat falcate upwards acute at the base smooth on both sides : the young ones silky, Stipules crescent-shaped toothed deflexed
- 13738 Leaves elliptical nearly orbicular smooth somewhat serrated in the middle rather glauc. beneath, Catk. after the leaves, Capsules ovato-lanceolate stalked downy
- 13739 Leaves ovate serrated naked smooth and even above glaucous beneath, Branches rather downy, Capsules ovate silky, Style as long as the stigmas
- 13740 Leaves elliptical serrated smooth veiny polished on both sides, Young branches hairy, Ovary awl-shaped clothed with silky hairs, Style as long as the cloven stigmas
- 13741 Leaves obovate-elliptical smooth rather acute serrated in the middle shining above somewhat glaucous beneath, Ovary lanceolate silky, Young branches smooth
- 13742 Lvs. ov. serrat. nak. reticul. with promin. veins above rather glauc. ben. Ovary ellipt. silky, Style very short
- 13743 Somew. erect straggling, Branches polished, Lvs. obl. lanc. acute at each end serrul. in midd. very smooth
- 13744 Leaves obovate lanceolate acute smooth subserrated glaucous beneath, Stipules small, Ovaries ovate silky
- 13745 Leaves ovate serrated smooth even above glaucous and silky beneath, Ovary ovate silky, Style as long as the stigmas, Stems decumbent
- 13746 Leaves ovate finely toothed smooth minutely veined folded so as to form a keel, Ovary ovate downy
- 13747 Lvs. ov. ellipt. ac. serrat. smooth tapering at base glauc. ben. : lower serrat. glandular, Caps. ov. lanc. smth.
- 13748 Leaves oblong acute serrulate whole colored beneath, when old quite smooth



and Miscellaneous Particulars.

a century in Scania. Few of the willow species can be considered ornamental, though the male plants of *S. pentandra* and *amygdalina* produce numerous showy catkins of a bright yellow color, and very odoriferous. The leaves of *S. pentandra* are also fragrant, exuding a copious yellow resin from their serrated edges. The down of the seeds of this and other species, mixed with the third part of cotton, has been found a useful adulteration, especially for stuffing cushions and forming candle-wicks. Goldfinches and other birds line their nests with this material.

The weeping-willow is generally admired ; it grows wild on the coast of Persia, and is common in China. It is sometimes said to have been introduced by Pope, but the celebrated specimen of that tree which stood in

13749 arbúscula <i>W.</i>	little-tree	♂	or	2	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1356
13750 húmilis <i>W.</i>	humble	♂	or	1½	ap	Ap	.....	1820.	C	m.s	
13751 herbácea <i>W.</i>	least	♂	or	1	jn	Ap	Britain	sc.alp.	C	m.s	Eng. bot. 1907
13752 ulmifólia <i>Thuill.</i>	elm-leaved	♂	or	1	my	Ap	Switzerl.	1821.	C	m.s	
13753 reticuláta <i>W.</i>	Arbutus-leav'd	♂	or	1	ap.my	Ap	Switzerl.	1818.	C	m.s	
13754 Kitabeliána <i>W.</i>	Kitabel's	♂	or	½	ap.my	Ap	Carpathi.	1823.	C	m.s	
13755 retúsa <i>W.</i>	blunt-leaved	♂	or	½	my	Ap	Italy	1763.	C	m.s	
13756 serpyllifólia <i>W.</i>	Thyme-leaved	♂	or	1	jn	Ap	Switzerl.	1818.	C	m.s	
13757 reticuláta <i>W.</i>	wrinkled	♂	or	1	jn.jl	Ap	Britain	sc.alp.	C	co	Eng. bot. 1908
13758 myrtilloides <i>W.</i>	Myrtle-leaved	♂	or	2	my	Ap	Sweden	1772.	C	m.s	Vil.da.3.t.50.f.11
13759 recurváta <i>Ph.</i>	recurved-flow.	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13760 Uva-úrssi <i>Ph.</i>	Bearberry-like	♂	or	½	ap.my	Ap	Labrador	...	C	m.s	
13761 cordifólia <i>Ph.</i>	cordate-leaved	♂	or	3	...	Ap	N. Amer.	1811.	C	m.s	
13762 pedicelláris <i>Ph.</i>	pedicellated	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	
13763 gláuca <i>W.</i>	glaucous	♂	or	1	my	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1810
13764 sericea <i>W.</i>	silky	♂	or	1	my	Ap	S. Europe	1820.	C	m.s	Vil.de.3.t.51.f.27
13765 lanáta <i>W.</i>	woolly	♂	or	2	my	Ap	Lapland	1818.	C	m.s	
13766 Lappónum <i>W.</i>	Lapland	♂	or	2	my	Ap	Lapland	1812.	C	m.s	Fl.lappon.t.8.f.I
13767 arenária <i>W.</i>	downy mount.	♂	or	3	my.jn	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1809
13768 cinérea <i>W.</i>	gray	♀	or	15	my	Ap	Britain	woods.	C	m.s	Eng. bot. 1897
13769 obtúsa <i>Link.</i>	blunt	♂	or	4	my	Ap	Switzerl.	1820.	C	m.s	
13770 bicolor <i>W.</i>	two-colored	♂	or	5	my	Ap	Hercynia	1820.	C	m.s	
13771 Muhlenbergiána <i>Ph.</i>	Muhlenberg's	♂	or	3	ap	Ap	N. Amer.	1811.	C	m.s	Ann.bot.2.t.5.f.9
13772 Jacquiniána <i>W.</i>	Jacquin's	♂	or	2	ap	Ap	Austria	1818.	C	m.s	Jac. aust.1. t.409
13773 tristis <i>W.</i>	linear-leaved	♂	or	4	ap	Ap	N. Amer.	1765.	C	m.s	
13774 argénteá <i>W.</i>	silky sand	♂	or	3	my	Ap	Britain	san sh	C	m.s	Eng. bot. 1364
13775 leucophýlla <i>W.</i>	white-leaved	♂	or	4	my	Ap	Europe	1824.	C	m.s	
13776 elaeagnoides <i>Schlei.</i>	Elaeagnus-leav.	♂	or	4	my	Ap	Europe	1824.	C	m.s	
13777 repéns <i>W.</i>	creeping	♂	or	2	my	Ap	Britain	sa.heca.	C	m.s	Eng. bot. 183
13778 rúscá <i>W.</i>	brown	♂	or	2	my	Ap	Britain	m.heca.	C	m.s	Eng. bot. 1960
13779 prostráta <i>W.</i>	prostrate	♂	or	1	my	Ap	Britain	m.al.p.	C	m.s	Eng. bot. 1959
13780 Schraderiána <i>W.</i>	Schrader's	♂		2	my	Ap	Germany	1820.	C	m.s	
13781 pyrenáica <i>W.</i>	Pyrencan	♂		1	my	Ap	Pyrenees	1823.	C	m.s	
13782 hírtá <i>W.</i>	hairy-branched	♀	or	15	ap.my	Ap	England	woods.	C	m.s	Eng. bot. 1404
13783 Dicksoniána <i>W.</i>	Dickson's	♂	or	1	ap	Ap	Scotland	sc.alp.	C	m.s	Eng. bot. 1390
13784 parvifólia <i>E. B.</i>	small-leaved	♂	or	2	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1961
13785 ascéndens <i>E. B.</i>	ascending	♂	or	½	ap.my	Ap	England	moi.h.	C	m.s	Eng. bot. 1962
13786 incubácea <i>W.</i>	trailing	♂	or	3	my	Ap	Europe	1775.	C	m.s	
13787 rosmarinifólia <i>W.</i>	Rosemary-lvd.	♂	or	2	ap.my	Ap	Britain	san.pl.	C	m.s	Eng. bot. 1365



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the poet's garden at Twickenham, was a cutting from some rods employed in a package which came from Spain. Pope being present when the package was opened, observed that the pieces of stick appeared as if they had some vegetation, and added, perhaps they may produce something which we have not in England. Under this idea he planted it in his garden, and it produced the willow tree that has given birth to so many others; not as the parent tree of all the willows in the country, but as an admired and celebrated specimen. *S. herbacea* is not properly an herbaceous plant, but possesses the Linnæan character of a tree, and is the smallest yet

13749 Lvs. lanc. acut. serrul. smooth glauc. ben. Catkins appearing with lvs. Caps. ov. lanc. smooth, Styles twin
 13750 Lvs. obl. lanc. acute crenul.-serr. glaucous beneath, Stipules obsolete, Scales short round with long hairs
 13751 Lvs. orbicul. somew. retuse serrated shining on each side, Fem. catkins about 5-fl. Caps. ov. lanc. smooth
 13752 Lvs. obl. and ovate acute toothletted glaucous beneath, Stipules large toothed, Catkins short, Styles long
 13753 Leaves lanc. acute obscurely serrated smooth and shining on both sides reticulated with veins beneath,
 Ovary lanceolate hairy, Style elongated, Stigmas deeply divided

§ 2. *Leaves smooth entire.*

[lanceolate smooth ovary

13754 Leaves obovato-lanc. ent. emarg. smooth shining above, Catk. cylind. many-fl. Scales shorter than ovato-
 13755 Leaves obovate entire smooth shining above, Fem. catk. obl. of few-fl. Scales length of obl. smooth ovary
 13756 Lvs. ov. or ovato-lanc. acute ent. smooth shin. above, Catk. obl. of few-fls. Caps. ellipt. smooth, Stigm. sess.
 13757 Leaves orbicular somewhat ellipt. obt. entire coriaceous smooth with reticulated veins glaucous beneath,
 Stigmas nearly sessile, Capsule shaggy
 13758 Lvs. ovate entire bluntnish smooth glaucous beneath, Ovary ovato-lanc. smooth its stalk longer than scale
 13759 Leaves obov. lanc. acute entire glandular at edge smooth glaucous ben.: young ones silky, Stipules none
 13760 Stem depressed, Leaves spatulate obovate obtuse entire smooth shining above gland. at margin beneath,
 Stip. none, Catk. lax, Scales obl. fringed, Ovary stalked ovate smooth, Style deeply divid. Stigm. 2-lobed
 13761 Stem depressed, Leaves oval rather acute entire reticulated with veins heart-shaped at the base smooth
 above pale with a hairy rib and margin beneath, Stipules $\frac{1}{2}$ heart-shaped
 13762 Stem erect, Branches smooth, Lvs. obov. lanc. acute entire smooth, Stip. none, Catk. stalked very smooth,
 Scales oblong scarcely hairy, Ovary ovate obl. smooth its stalk twice as long as scale, Stigm. sess. divided

§ 3. *Leaves villous.*

[ovate woolly

13763 Leaves nearly entire ellipt.-lanc. even and nearly smooth above woolly ben. Footst. decurrent, Ovary sess.
 13764 Leaves oblong lanceolate entire obtuse silky on each side, Caps. ovate oblong villous sessile
 13765 Leaves roundish ovate acute entire shaggy on both sides hoary beneath, Capsules sessile smooth, Style
 four times as long as the blunt divided stigmas
 13766 Leaves lanceolate entire bluntnish clothed on both sides with long silky hairs, Ovary sessile very woolly,
 Style about the length of the deeply separated cloven blunt stigmas
 13767 Leaves nearly entire ovate acute reticulated and somew. downy above veiny and densely woolly beneath,
 Ovary sessile very woolly, Style about the length of the deeply separated linear divided stigmas
 13768 Stem erect, Lower leaves entire: upper more or less serrated obovate lanc. reticulated with veins glaucous
 and downy ben. Stip. half heart-shaped serr. Ovary lanc. stalked silky, Style as long as blunt stigmas
 13769 Leaves ovate acute serrulate smooth above hairy beneath, Stipules minute, Catkins long
 13770 Lvs. elliptical acute waved and slightly serrated nearly smooth glaucous beneath, Footstalks dilated at
 the base, Catkins before the leaves, Ovary stalked lanceolate silky
 13771 Leaves lanceolate sharpish nearly entire downy revolute veiny and rugose beneath, Stipules lanc. decid.
 Scales of the catk. oblong fringed, Ovary ovato-lanceolate silky stalked, Style short, Stigmas divided
 13772 Leaves elliptical entire tapering at each end polished: the veins beneath as well as the margin hairy, Ovary
 elliptical downy, Style elongated
 13773 Leaves entire elliptical somewhat revolute with a recurved point rather downy above silky and shining
 beneath as well as the branches, Ovary stalked ovato-lanceolate silky, Style shorter than the stigmas
 13774 Leaves elliptical entire recurved acute above downy beneath silky, Ovary ovate lanceolate villous
 13775 Leaves brown above downy with short hairs hoary beneath acute nearly entire
 13776 Leaves obtuse brown smooth and opaque above silky beneath [ovate downy, Stem depressed
 13777 Lvs. ellipt.-lanc. straight somew. point. nearly ent. almost naked above glauc. and silky ben. Ovary stalked
 13778 Lvs. elliptic-obl. acute straight flat with a few glandular teeth glaucous and silky beneath, Footstalks
 slender, Stem erect much branched, Stipules none
 13779 Leaves elliptical acute convex rarely toothed glaucous rugged and silky beneath, Stem prost. Branches
 elongated straight, Ovary stalked ovate silky, Style shorter than the stigm.
 13780 Leaves elliptical acute finely downy on both sides glaucous beneath slightly serrated towards the point,
 Stipules very small, Catkins rather before the leaves ovate hairy
 13781 Leaves elliptical entire acute at each end reticulated with veins glaucous beneath most hairy at margin,
 Ovary somewhat stalked ovato-lanceolate villous, Style the length of the deeply divided stigm.
 13782 Leaves elliptical heart-shaped pointed finely notched downy on both sides, Stipules half heart-shaped
 flat-toothed nearly smooth, Branches hairy
 13783 Leaves elliptical acute slightly-toothed smooth, Young branches very smooth, Catkins ovate short erect,
 Ovary stalked ovate silky, Stigmas ovate obtuse nearly sessile
 13784 Lvs. ellipt. nearly ent. with recurv. points glaucous and silky ben. Stem decumbent, Stipules ovate entire
 13785 Lvs. ellipt.-obl. somew. serrat. with recurv. points glauc. and silky ben. Stem ascend. Stipules ovate serrated
 13786 Leaves lanc. pointed straight somewhat elliptical entire convex smooth above glaucous and silky beneath,
 Catkins oval erect, Ovary stalked lanceolate, Style the length of the stigma
 13787 Leaves linear-lanceolate pointed straight entire silky beneath, Stem erect, Stipules upright flat, Catkins
 recurved, Ovary stalked lanceolate silky



and Miscellaneous Particulars.

known; being only from one to three inches in height. *S. retusa* is nearly as little as *S. herbacea*. *S. vitellina* with its brilliant yellow bark, planted in shrubberies, contrasts well with evergreens and the purple twigged dogwood.

Almost all the willows are of the easiest propagation and culture. Plantations for basket-work or hoops should be made on deep loamy soil on the banks of rivers, within reach of water, but by no means saturated with it. Few willows are either bog or marsh plants. The cultivated species require as much attention as

13788 ripária <i>W.</i>	bank	♂	or	6	ap.my	Ap	Germany	1821.	C	m.s
13789 angustifolia <i>W.</i>	narrow-leaved	♂	or	3	ap.my	Ap	Caspian	1825.	C	m.s
13790 grisea <i>W.</i>	grizzly	♂	or	6	ap.my	Ap	Pensylv.	1820.	C	m.s
13791 spatulata <i>W.</i>	spatulate	♂	or	5	ap.my	Ap	Germany	1818.	C	m.s
13792 aurita <i>W. en.</i>	eared	♂	clt	2	ap.my	Ap	Europe	1820.	C	m.s
13793 uliginosa <i>W. en.</i>	marsh	♂	or	2	ap.jn	Ap	Britain	woods.	C	m.s
										Eng. bot. 1487
13794 aquatica <i>W.</i>	water	♀	or	10	ap	Ap	Britain	w.thi.	C	m.s
13795 oleifolia <i>W.</i>	Olive-leaved	♀	or	4	mr	Ap	Britain	thick.	C	m.s
13796 cotinifolia <i>W.</i>	Quince-leaved	♂	or	2	ap	Ap	Britain	woods.	C	m.s
13797 sphacelata <i>W.</i>	withered-point.	♂	or	2	ap.my	Ap	Scotland	sc.alp.	C	m.s
										Eng. bot. 2333
13798 cáprea <i>W.</i>	greatround-lvd.	♀	or	30	ap.my	Ap	Britain	dr.wo.	C	m.s
										Eng. bot. 1488
13799 Stuartiana <i>E. B.</i>	Stuart's	♂	or	4	jl.au	Ap	Scotland	sc.alp.	C	m.s
										Eng. bot. 2586
13800 acuminata <i>W.</i>	acuminate	♀	or	15	ap	Ap	Britain	moi.w.	C	m.s
										Eng. bot. 1434
13801 conifera <i>Ph.</i>	Cone-bearing	♀	or	10	my	Ap	N. Amer.	1820.	C	m.s
										Wa.am.t.31.f.72
13802 viminalis <i>W.</i>	Common Osier	♂	clt	12	ap.my	Ap	Britain	os.gro.	C	m.s
										Eng. bot. 1898
13803 mollissima <i>E. B.</i>	Smith's	♀	or	20	ap.my	Ap	England	os.gro.	C	m.s
										Eng. bot. 1509
13804 stipularis <i>W.</i>	auricled	♂	clt	6	mr.ap	Ap	England	os.gro.	C	m.s
										Eng. bot. 1214
13805 cándida <i>Ph.</i>	hoary	♀	or	10	ap.my	Ap	N. Amer.	1811.	C	m.s
13806 Fluggeana <i>W.</i>	Flugge's	♀	or	10	ap.my	Ap	S. France	1820.	C	m.s
13807 álba <i>W.</i>	common white	♀	clt	40	ap.my	Ap	Britain	woods.	C	m.s
										Vi.del.3 t.51.f.28
13808 caerúlea <i>E. B.</i>	blue	♀	or	40	ap.my	Ap	England	m.me.	C	m.s
13809 rupéstris <i>E. B.</i>	silky root	♂	or	3	ap	Ap	Scotland	sc.alp.	C	m.s
										Eng. bot. 2431
13810 Andersoniana <i>E. B.</i>	Anderson's	♂	or	3	ap.my	Ap	Scotland	sc.mo.	C	m.s
										Eng. bot. 2343
13811 Forsteriana <i>E. B.</i>	Forster's	♀	or	10	ap.my	Ap	Scotland	sc.wo.	C	m.s
										Eng. bot. 2344
13812 finmar'chica <i>W.</i>	Finmarck	♀	or	10	ap.my	Ap	Sweden	1825.	C	m.s
13813 holosericea <i>W.</i>	velvety	♂	or	8	ap.my	Ap	Germany	1822.	C	m.s
2043. CECROPIA. <i>W.</i>	Snake-Wood.						<i>Urticæ. Sp. 1-3.</i>			
13814 peltata <i>W.</i>	peltated	♀	or	30	...	Ap	Jamaica	1778.	C	p.l
										Lam. ill. t. 800
2044. BO'RYA. <i>W.</i>	BORYA.						<i>Euphorbiacæ. Sp. 6.</i>			
13815 porulosa <i>W.</i>	Florida	♂	un	6	...	G	Florida	1806.	C	m.s
13816 ligustrina <i>W.</i>	Privet-leaved	♂	un	6	...	G	N. Amer.	1812.	C	m.s
13817 acuminata <i>W.</i>	pointed	♂	un	6	...	G	N. Amer.	1812.	C	m.s
13818 prinoides <i>W.</i>	Prinos-like	♂	un	6	...	G	N. Amer.	1824.	C	m.s
13819 nitida <i>W.</i>	shining	♂	un	6	...	G	N. Amer.	1824.	C	m.s
13820 retúsa <i>W.</i>	glaucous	♂	un	6	...	G	N. Amer.	1824.	C	m.s

TRIANDRIA.

2045. EMPE'TRUM. <i>W.</i>	Crow Berry.						<i>Sp. 2-3.</i>			
13821 álbum <i>W.</i>	white-berried	♂	or	1½	ap.jn	Ap	Portugal	1774.	L	s.p
13822 nígrum <i>W.</i>	black-berried	♂	or	1	ap.my	Ap	Britain	m.he.	L	s.p



History, Use, Propagation, Culture,

young trees in a nursery, otherwise they will soon become stunted and of irregular growth. Excellent directions for their culture may be found in Sang's Planter's Kalender.

2043. *Cecropia*. From *צעקעצקע*, to cry out, a sort of translation of the English word trumpet-wood. This tree has the trunk and branches hollow every where, and sloped from space to space with membranaceous septas, and answering to so many annual marks in the surface. The leaves are large, peltate, lobed like those of *Carica Papaya*, and placed at the ends of the branches. The fruits rise four, five or more, from the very top of a common peduncle, and shoot into so many oblong cylindrical berries, composed of a row of little acini, something like our raspberry, which they resemble in flavor when ripe, and are agreeable to most European palates on that account. The wood of this tree, when dry, is very apt to take fire by attrition. The native Indians have taken the hint, and always kindle their fires in the woods by rubbing a piece of it against some

- 13788 Leaves linear-lanceolate with small glandular teeth entire at the base clothed with close-pressed hairs above downy and rugged with veins beneath, Ovary ovate smooth
- 13789 Leaves linear very narrow without stipules nearly entire ovate at the base hoary above silky beneath
- 13790 Leaves lanceolate pointed serr. smooth above glauc. and silky beneath, Stipules linear deflex. deciduous, Catk. before the leaves, Scales hairy, Ovary stalked oblong silky, Stigm. nearly sessile
- 13791 Leaves lanceolate-obovate with a recurved point serrated at the end clothed with depressed hairs above rugged veiny and downy beneath, Stipules lanceolate
- 13792 Leaves obovate lanceolate obtuse mucronate with a hooked point subserrate green above hoary beneath
- 13793 Leaves obovate with a recurved point with wavy serrat. at end green and downy above hoary and shaggy with rugged veins beneath, Stip. $\frac{1}{2}$ heart-shaped toothed, Caps. lanceolate stalked, Stigm. nearly sessile
- 13794 Lvs. slightly serrat. obov.-ellipt. downy flat rather glauc. ben. Stipules rounded tooth. Stigm. nearly sess.
- 13795 Lvs. obov. lanc. flat rather rigid minute. indent. ac. undern. glauc. and hairy, Stip. small notch. Catk. ellipt.
- 13796 Lvs. ellipt. almost circular slightly tooth. downy with rectang. veins ben. Style as long as notched stigmas
- 13797 Leaves entire elliptical acute even downy on both sides somewhat withered at the point, Stipules obsol. Ovary lanceolate silky on a long hairy stalk, Stigmas nearly sessile
- 13798 Leaves ovate pointed serrated waved downy beneath, Stipules somewhat crescent-shaped, Ovary ovate downy on a long hairy stalk, Stigmas undivided nearly sessile
- 13799 Leaves nearly entire lanceolate acute shaggy above densely silky beneath, Stigmas capillary deeply divided, Style as long as the ovary
- 13800 Leaves lanc. oblong pointed waved slightly downy beneath, Stipules kidney-shaped, Ovary ovate silky, Style the length of the linear stigmas
- 13801 Leaves oblong lanceolate acute distantly serrated smooth above flat and downy beneath, Stipules lunate somewhat toothed, Ovary stalked lanceolate silky, Style elongated, Stigm. deeply cloven
- 13802 Leaves linear inclining to lanceolate very long pointed entire somewhat wavy silky beneath, Branches straight and slender, Ovary sessile, Style as long as the undivided linear stigmas
- 13803 Leaves lanceolate pointed obsolete crenate whitish and silky beneath, Stipules crescent-shaped minute, Stigmas linear deeply divided about the length of the style
- 13804 Leaves lanc. pointed obscurely crenate downy beneath, Stipules half heart-shaped very large, Nectary cylindrical, Stigmas linear undivided longer than the style
- 13805 Leaves linear lanceolate pointed revol. obscurely toothed downy above snow-white and cottony beneath, Stip. lanc. about the length of the footstalk, Scales of the catk. with hairs as long as the stamens
- 13806 Lvs. obl. lanc. ac. at each end nearly ent. without stipul. smooth. above downy ben. Ovary ovate lanc. silky
- 13807 Leaves elliptic-lanceolate acute serrated permanently silky on both sides: the lowest serratures glandular, Stamens hairy, Stigmas deeply cloven
- 13808 Lvs. lanc. taper-point. serrat.: under-side at length almost naked; lowest serrat. gland. Stigm. deeply cloven
- 13809 Leaves obovate serrated flat even silky on both sides, Stipules hairy, Branches minutely downy, Ovary stalked awl-shaped silky, Style as long as the undivided stigmas
- 13810 Leaves elliptic obl. acute finely notched slightly downy paler beneath, Stipules half-ovate nearly smooth, Branches minutely downy, Ovary stalked smooth, Style as long as the cloven stigmas
- 13811 Leaves elliptical obovate acute notched slightly downy glaucous beneath, Stipules vaulted, Branches minutely downy, Ovary stalked silky, Style longer than the thick undivided stigmas
- 13812 Lvs. obl. acute entire silky on each side hoary ben. Ovaries long-pointed lax, Scales very blunt smooth
- 13813 Lvs. lanc. acum. toothl. at end smooth above rugose and soft beneath, Caps. downy lanc. Stigmas sessile
- 13814 Leaves 9-lobed: lobes oblong bluntish hispid and rough above white and downy beneath
- 13815 Leaves oblong lanceolate obtuse sessile coriaceous revolute at edge dotted beneath
- 13816 Leaves ovate-lanceolate acute subsessile somewhat membranous
- 13817 Leaves ovate-lanceolate narrowed at each end stalked membranous serrulated
- 13818 Leaves $2\frac{1}{2}$ inches long 1 broad serrated
- 13819 Leaves acute serrulate very smooth shining opposite and alternate
- 13820 Leaves alternate tapered into a short stalk retuse emarginate mucronulate very smooth glaucous

TRIANDRIA.

- 13821 Erect, Branches downy, Leaves linear revolute at edge roughish above
- 13822 Procumbent, Leaves linear oblong



and Miscellaneous Particulars.

harder wood. The bark is strong and fibrous, and is frequently used for all sorts of cordage. The trunk is very light, and for that reason much used for bark-logs and fishing-floats. The smaller branches, when cleaned of the septums, serve for wind instruments. Both trunk and branches yield a great quantity of fixed salt, which is much used among the French, to despumate and granulate their sugars. The fruit is much fed upon by pigeons and other birds, and thus the tree is much spread and propagated. (*Brown.*) It may be increased like *Brosimum*.

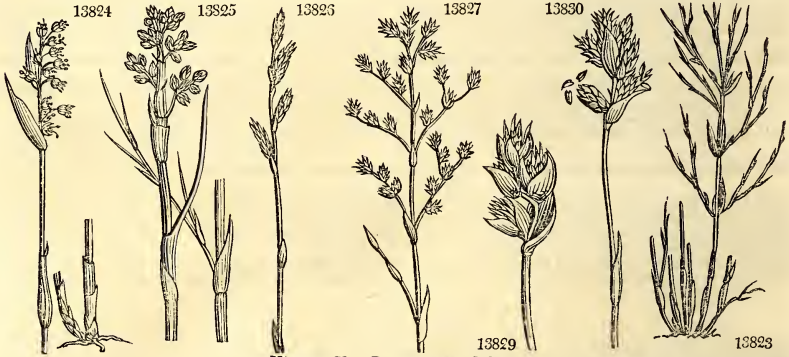
2044. *Borya*. Named in honor of M. Bory de St. Vincent, a distinguished French traveller and naturalist, known out of the scientific world by the violence of his *liberal* opinions. Small bushes of North America, of little beauty. Sir James Smith has altered the name to *Bigelovia*.

2045. *Empetrum*. So called from the places of its natural growth, ερ, in, and πέρτος, a stone. *E. nigrum* is

2046. WILLDENOVIA. Th. WILLDENOVIA.	Restiaceæ.	Sp. 1—3.						
13823 téres W.	round-stalked 業 Δ | pr	2	jn.jl	Ap	C. G. H.	1790.	R s p	Ac.h.1790.t.2.f.2
2047. RES'TIO. W.	ROPE GRASS.	Restiaceæ.	Sp. 5—47.					
13824 tectrûm W.	thatch 業 Δ | un	3	my.jn	Ap	C. G. H.	1793.	R s p	Ro.gra.10.t.3.f.2
13825 virgâtes W.	twiggy 業 Δ | un	3	my.jn	Ap	C. G. H.	1824.	R s p	Rot.gra.5.t.1.f.2
13826 dichotomus W.	dichotomous 業 Δ | un	3	my.jn	Ap	C. G. H.	1823.	R s p	Rot.gra.4.t.2.f.1
13827 paniculâtes W.	panicled 業 Δ | un	2	my.jn	Ap	C. G. H.	1824.	R s p	Rot.gra.4.t.2.f.3
13828 vaginâtes W.	sheathed 業 Δ | un	3	my.jn	Ap	C. G. H.	1820.	R s p	
2048. ELE'GIA. W.	ELEGIA.	Restiaceæ.	Sp. 2—3.					
13829 jûncea Thunb.	Rush-like 業 Δ | un	1	jl.au	Ap	C. G. H.	1789.	C l p	Rot.gra.8.t.3.f.4
13830 racemôsa Lam.	racemed 業 Δ | un	1	my.jn	Ap	C. G. H.	1804.	C l p	Lam.ill.t.804.f.4
2049. PHŒ'NIX. W.	DATE PALM.	Palmeæ.	Sp. 4.					
13831 dactylifera W.	common 業 | fr	...	W.G	Levant	1597.	S r m	K.amæ.686.t.1.2	
13832 reclîna W.	reclining 業 | or	10	...	W.G	C. G. H.	1792.	S l p	Jac.frag.27.t.24
13833 farinifera W.	small 業 | or	8	...	W.G	F. Indies	1800.	S r m	Rox.cor.1.t.74
13834 acatilis Roxb.	stemless 業 | or	6	...	W.G	E. Indies	1816.	S r m	
2050. STILAG'GO. W.	STILAGO.	.....	Sp. 2.					
13835 Bônus W.	Laurel-leaved ♀ | un	20	au	Ap	E. Indies	1757.	C p l	Rhee.mal.4.t.56
13836 diândra W.	diantrous ♀ | un	20	...	Ap	E. Indies	1800.	C p l	Rox.cor.2.t.163
2051. OSY'RIS. W.	POET'S CASSIA.	Santalaceæ.	Sp. 1—2.					
13837 álba W.	white 業 | or	3	...	W	S. Europe	1739.	C l p	Lam.ill.t.802

TETRANDRIA.

2052. AU'LAX. R. Br.	AULAX.	Proteaceæ.	Sp. 2.					
13838 pinifolia R. Br.	Pine-leaved 業 or	2	jl.s	Y	C. G. H.	1780.	C l p	Bot.rep.76
13839 umbellata R. Br.	umbelled 業 or	2	jn.au	Y	C. G. H.	1774.	C l p	Bot.rep.248



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very common in the northern parts of Europe, in elevated situations, on dry, barren, moorish, or boggy soils. It is more patient of cold than even the common heath. The Highlanders' children eat the berries, but they are no very desirable fruit; and taken in large quantities, are said to bring on a slight head-ache. The Russian peasants, however, eat them, and the Kamtschadales gather great quantities of them to boil with their fish, or to make a sort of pudding with the bulbs of their lillies. They are esteemed antiscorbatic and diuretic. Grouse and heathcocks feed upon them, and they give the excrement a tinge of purple. Boiled in alum-water they afford a dark purple dye; and boiled with fat, they are said to be used in dyeing otter and sable skins black. Cattle do not seem to browse on this shrub. The French word *Camarine*, is an alteration of *Camarinhas*, the Portuguese name of *E. album*.

2046. *Willdenovia*. A rush-like plant, with long flexible slender shoots, named in honor of Charles Louis Willdenow, a celebrated Prussian botanist, whose edition of Linnaeus's *Species Plantarum* is not only the best which has been published in modern days, but excellent in itself.

2047. *Restio*. From *restis*, cord; the supple shoots of many species are used as withs at the Cape of Good Hope. The houses of the Cape of Good Hope are commonly thatched with this plant both in town and country, and sometimes whole huts are built with it. A roof thatched with it will last twenty or thirty years, and would last much longer, if the south-east wind did not blow much dirt into it, which causes it to rot.

2048. *Elegia*. From *æyes*, lamentation, in allusion to the sad or mourning color of the whole plant. A hard rushy plant, with the habit of a *Restio*.

2049. *Phœnix*. The Greek name of the date, and probably so called from Phœnicia, whence the best dates were brought. *Dactylifera* is the Greek version of *Palma*, both signifying the hand, the fingers of which the ancients likened the bunches of dates. *P. dactylifera* is a lofty palm, with a rugged trunk, on account of the persisting vestiges of the decayed leaves. These leaves, when the tree is grown to a size for bearing fruit, are six or eight feet long, with pinnae three feet long, and a little more than an inch broad. The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spathe, which opens and withers; those of the male have six short stamina, with narrow four-cornered anthers filled with farina. The female flowers have no stamina, but have a roundish germ, which afterwards becomes an oval berry, with a thick pulp enclosing a hard oblong stone, with a deep furrow running longitudinally. The fruit of this tree makes a great part of the diet of the inhabitants of Arabia and part of Persia. In Upper Egypt many families subsist almost entirely upon it. They make a conserve of it with sugar; and even grind the hard stones in their hand-mills for their camels. In Barbary they turn handsome beads for paternosters of these stones. The date is said to strengthen the stomach and intestines, to stop looseness, and promote expectoration, for which purpose it is given in pectoral decoctions. It is also recommended in the piles, given in red wine. From the leaves of the tree they make baskets or bags in Barbary. In Egypt they make fly-flaps of them, and brushes to clean their sofas or clothes. The hard boughs are used as fences to their gardens, and cages to carry their fowls to market. The trunk is split for the same purposes, and is even used in small buildings. It serves likewise for firing. The threads of the web-like integument between the

13823 Culm and branches round smooth

13824 Culm simple leafless, Spikes racemose somewhat 1-sided roundish triquetrous cernuous with bractæ

13825 Culm dichotomous leafy, Branches compressed, Spikes panicled pendulous

13826 Culm dichotomous leafy decumbent, Branches round, Spikes solitary and alternate

13827 Culm dichotomous leafy, Branches compressed, Spikes sessile alternate erect

13828 Culm simple leafless, Spikes alternate erect, Scales acuminate

13829 Culm simple nearly naked, Spathes very large ovate nearly acute, Spikes clustered thyrsoid

13830 Culm channelled, Spathes large ovate obtuse, Spikes racemose

13831 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate straight

13832 Fronds pinnated unarmed, Leaflets folded together linear-lanceolate loosely spreading

13833 Fronds pinnated unarmed, Leaflets linear-subulate folded together, Flowers hexandrous

13834 Pinnæ linear-ensiform folded together : lower spiny

13835 Flowers triandrous

13836 Flowers diandrous

13837 The only species

TETRANDRIA.

13838 Leaves filiform channelled

13839 Leaves flat spatulate-linear



and Miscellaneous Particulars.

boughs make ropes and the rigging of smaller vessels. The juice of the date tree is procured by cutting off the head or crown of the more vigorous plant, and scooping the top of the trunk into the shape of a basin ; where the sap in ascending lodges itself, at the rate of three or four quarts a day, during the first week or fortnight ; after which, the quantity daily diminishes, and at the end of six weeks or two months the tree becomes dry, and serves for timber or firewood. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrup, but quickly becomes tart and ropy, acquiring an intoxicating quality, and giving upon distillation an agreeable spirit or araky, which is the general name in the East for all hot liquors extracted by the alembick.

P. farinifera produces black drupes of the size of a large kidney bean ; these the natives of Coromandel eat as gathered from the bush without any preparation. The leaflets are wrought into mats ; the common petioles are split into three or four, and used for making ordinary baskets of various kinds ; but they are not so proper for this purpose as the bamboo. The small trunk, when divested of its leaves, and the strong brown fibrous web that surrounds the trunk at their insertions, is generally fifteen or eighteen inches long, and six in diameter at the thickest part ; its exterior or woody part consists of white fibres matted together, which envelope a large quantity of farinaceous substance, used as food by the natives in times of scarcity ; but to separate this from the fibres, the trunk is split into six or eight pieces, then dried, beaten in wooden mortars, and afterwards sifted : the rest of the preparation consists in boiling the meal into a thick gruel, or, as it is called in India, congee. It seems to be much less nutritive than sago, and is less palatable.

2050. *Stilago*. Perhaps so called from the length of the style ; but the name is unexplained by its author. *S. diandra* produces an eatable fruit used by the natives, but not esteemed by Europeans. The species thrive in sandy loam, and cuttings root in sand under a hand-glass.

2051. *Osyris*. The Greek name of a tree with long supple branches, which were used for brushes and similar purposes. The modern shrub has also slender flexible branches, of which packing materials are formed throughout the south of Europe.

2052. *Aulax*. From *αυλαξ*, a furrow ; in allusion, we presume, to the furrows on the under-side of the leaves of the original species. Neat shrubs with narrow leaves ; nearly allied to *Protea*. This, Sweet observes, is "a pretty genus belonging to the Proteaceæ, which thrives best in a very sandy loam, with a great many potsherds broken small at the bottom of the pot, to let the water drain off freely, as they frequently get too much water, which makes the mould sodden, and stagnates their growth. Ripened cuttings, taken off at a joint, and planted in a pot of sand, will strike root, if placed under a hand-glass in the propagating house, and the glass to be occasionally left off, an hour or two at a time, to give them air, and keep them from damping ; which should be done in a morning before the sun has much power, or it will make them flag and injure them. Plants are readily raised from seeds, which should be sown in a mixture of two-thirds loam and one-third sand : as soon as they come up, they should be planted off in small pots, in the same kind of soil, as they are very apt to die, if left too long in the seed-pot." (*Bot. Cult.* 143.)

2053. LEUCADEN'DRON. <i>R. Br.</i>	LEUCADENDRON.	<i>Proteaceæ.</i>	<i>Sp.</i> 24—37.					
13840 argenteum <i>R. Br.</i>	Silver Tree	♀	or 15	au	Y	C. G. H.	1693. C l.p	Lam. ill. t.53. f.1
13841 plumosum <i>R. Br.</i>	feather-flower'd	♂	or 4	jn.au	Y	C. G. H.	1774. C l.p	
13842 imbricatam <i>R. Br.</i>	imbricated	♂	or 4	...	Y	C. G. H.	1790. C l.p	
13843 buxifolium <i>R. Br.</i>	Box-leaved	♂	or 4	...	Y	C. G. H.	1812. C l.p	
13844 Levisanus <i>R. Br.</i>	short-leaved	♂	or 4	ap.jn	Y	C. G. H.	1774. C l.p	Bur.afr. t.100.f.2
13845 linifolium <i>R. Br.</i>	Flax-leaved	♂	or 4	ap.jn	Y	C. G. H.	1775. C l.p	Jac. schæ.1. t. 26
13846 fusciflorum <i>R. Br.</i>	starred	♂	or 4	my.jn	Y	C. G. H.	...	Bot. mag. 381
<i>Prötea stellaris</i> B. M.								
13847 tortum <i>L. T.</i>	twisted-leaved	♂	or 3	mr.my	Y	C. G. H.	1790. C l.p	Bot. reg. 826
13848 cinereum <i>L. T.</i>	gray	♂	or 3	jl.au	Y	C. G. H.	1774. C l.p	
13849 corymbosum <i>L. T.</i>	corymb'd	♂	or 3	ap.jl	Y	C. G. H.	1790. C l.p	Bot. reg. 402
13850 decorum <i>L. T.</i>	decorous	♂	or 3	...	Y	C. G. H.	1790. C l.p	
13851 cöncolor <i>L. T.</i>	one-colored	♂	or 3	mr.jn	Y	C. G. H.	1774. C l.p	Bot. reg. 307
13852 grandiflorum <i>L. T.</i>	great-flowered	♂	or 3	ap.jn	Y	C. G. H.	1789. C l.p	Par. lond. 105
13853 decurrens <i>L. T.</i>	decurrent	♂	or 3	...	Y	C. G. H.	1812. C l.p	
13854 strictum <i>L. T.</i>	upright	♂	or 3	ap.jn	Y	C. G. H.	1795. C l.p	Par. lond. 75
13855 virgatum <i>L. T.</i>	slender	♂	or 3	ap.jn	Y	C. G. H.	...	
13856 adscendens <i>L. T.</i>	pale	♂	or 2	jn.au	Y	C. G. H.	1774. C l.p	Pl.man. t.229. f.6
13857 concinnum <i>L. T.</i>	neat	♂	or 3	...	Y	C. G. H.	1800. C l.p	
13858 salignum <i>L. T.</i>	Willow-leaved	♂	or 3	ap.jn	Y	C. G. H.	1774. C l.p	Boer.lug.2. t.204
13859 uliginosum <i>L. T.</i>	swamp	♂	or 3	ap.jn	Y	C. G. H.	1795. C l.p	Brey'n.cen 21.t.9
13860 floridum <i>L. T.</i>	florid	♂	or 3	ap.jn	Y	C. G. H.	1795. C l.p	Bot. rep. 572
13861 æmulum <i>L. T.</i>	incurved	♂	or 3	jn.s	Y	C. G. H.	1789. C l.p	Bot. rep. 429
13862 abietinum <i>L. T.</i>	Pine-leaved	♂	or 3	jl.s	Y	C. G. H.	1789. C l.p	Bot. rep. 461
13863 scabrum <i>L. T.</i>	rough	♂	or 3	...	Y	C. G. H.	1812. C l.p	

2054. VIS'CURM. <i>W.</i>	MISLETOE.	<i>Loranthææ.</i>	<i>Sp.</i> 1.					
13864 album <i>W.</i>	common	£	cu	2	my	G	England trees. S m.s	Eng. bot. 1470
2055. MYRICA. <i>W.</i>	CANDLEBERRY MYRTLE.	<i>Amentaceæ.</i>	<i>Sp.</i> 12—21.					
13865 Gäle <i>W.</i>	Sweet Gale	♂	or 4	my	Ap	Britain	sp.bo. L s.p	Eng. bot. 562
13866 cerifera <i>W.</i>	common	♂	or 8	my.jn	Ap	N. Amer.	1699. S s.p	Cat. car. 1. t. 69
13867 carolinensis <i>W.</i>	broad-leaved	♂	or 4	my	Ap	N. Amer.	1730. S s.p	Cat. car. 1. t. 13
13868 pensylvanica <i>Ph.</i>	Pensylvanian	♂	or 3	my	Ap	N. Amer.	...	Du.aren.2. t.55
13869 Päya <i>W.</i>	Azorian	♂	or 6	jn.jl	Ap	Azores	1777. L s.l	Du.aren.2. t.56
13870 aethiopia <i>W.</i>	African	♂	or 8	jn.jl	Ap	C. G. H.	1795. L s.l	Plu.alm. t.48. f.8
13871 serrata <i>W.</i>	saw-leaved	♂	or 3	au	Ap	C. G. H.	1793. L s.l	Plu.am. t.424.f.3
13872 laciniata <i>W. en.</i>	smooth Oak-iv.	♂	or 3	jn.jl	Ap	C. G. H.	1752. L s.l	Jac.frag.2.t.1.f.4
13873 quercifolia <i>W. en.</i>	hairy Oak-ivd.	♂	or 3	jn.jl	Ap	C. G. H.	1752. L r.m	
13874 cordifolia <i>W.</i>	heart-leaved	♂	or 4	my.jl	Ap	C. G. H.	1759. L p.l	Plu.alm.t.319.f.7
13875 mexicana <i>W.</i>	Mexican	♂	or 8	f	Ap	Mexico	1823. L p.l	
13876 segregata <i>Jacq.</i>	netted	♂	or 6	...	Ap	S. Amer.	1824. L p.l	Jacq. ic. t. 625



History, Use, Propagation, Culture,

2053. *Leucadendron*. From λευκος, white, and δένδρον, a tree, in allusion to the appearance of the most common species, No. 13,840. The species are evergreen shrubs, with handsome foliage; they grow in light soil well drained and not over watered, and are increased by ripened cuttings in sand under a hand-glass.

2054. *Viscum*. From the Latin viscus, clammy, on account of the sticky nature of the berries. *Gai, Fr., Mistl, Ger., and Viscò, Ital.* This may be considered the only true parasitical plant indigenous to Britain, as at no period of its existence does it derive any nourishment from the soil like *Orobanchæ*, or from decayed bark or wood like certain Fungi, and other epiphytes. The root of the mistletoe insinuates its fibres into the woody substance of the tree; the shoots are dichotomous, round, smooth, and even; and of a pale green, like the leaves, which are tongue-shaped and entire. The whole forms a pendant bush of from two to five feet in diameter, evergreen, and in winter covered with small white very glutinous berries. The British species of mistletoe is commonly found on fruit trees; but it will grow on various others, as the thorn, oak, maple, poplar, lime, ash, &c.; and in the neighbourhood of Magdebourg it is abundant on *Pinus sylvestris*. It is not difficult to propagate by inserting the berries in slits in the bark early in spring, and tying a shred of mat over the slit to protect them from the birds. The Druids sent round their attendant youths with branches of the mistletoe to announce the entrance of the new year; and something like the same custom is still continued in France. In England branches of it are hung up in most houses at Christmas, along with other evergreens. The berries are devoured by several birds of the thrush kind, and especially by the Mistletoe Thrush. Bird-lime is made from the berries, and also from the bark, boiled in water, beaten in a mortar and washed. It is, however, more commonly manufactured from the bark of the holly.

2055. *Myrica*. The Greek (μυρική) synonym of the Tamarix. It is said to have been derived from μυρική, to flow, because the plants are always found on the banks of rivers, and in inundated spots. *M. Gale* has leaves of a bitter taste, but fragrant like those of the myrtle. Their essential oil rises in distillation. The northern nations formerly used this plant instead of hops, and it is still in use for that purpose in some of the western isles, and a few places in the Highlands of Scotland. Unless it be boiled a long time, it is reported to occasion head-ache. The catkins or cones boiled in water throw up a scum resembling bees' wax, which gathered in sufficient quantities would make candles. It is used to tan calf-skins. Gathered in the autumn it dyes wool

- 13840 Arborescent, Leaves lanceolate silky, Branches villous, Bracts short downy, Cal. silky
 13841 Shrubby, Leaves linear lanceolate oblique smoothish, Male cal. smooth : female feathery, Fruit villous
 13842 Lvs. lanc. lin. smooth rounded at base, Branches vill. Scales of cone silky cuneate, Fruit comose mucronate
 13843 Lvs. obl. lanceolate : when old smooth, Scales of cone dilated-cuneate silky
 13844 Leaves spatulate callous at end, and branches villous, Fruit comose pointless
 13845 Leaves linear spatulate tapering at base and branches smooth, Male head sessile larger than leaves
 13846 Leaves linear lanceolate smooth : the younger straight tapering at base, Female head shorter than leaves

- 13847 Leaves linear bluntish twisted smooth, Branchlets somewhat silky, Cal. silky, Fruit comose pointless
 13848 Leaves spatulate linear silky with a callous beard at end, Cal. very shaggy, Fruit cuneate downy
 13849 Lvs. lin. acute channelled imbricated erect smooth, Scales of cone acute recurved, Fruit orbcd. ciliated
 13850 Lvs. obl. veiny callous at end recurved smoothish : floral colored $\frac{1}{2}$ scarious, Scales of cone downy outside
 13851 Leaves spatulate obl. callous at end smooth, Branches downy, Scales of cone retuse ciliated downy at base
 13852 Lvs. lanc. obl. callous at end smooth : floral colored, Branches somewhat downy, Scales ovate obt. smooth
 13853 Lvs. spatul. lanc. call. at end subrecurved concave and branches smooth, Scales of cone roundish smoothish
 13854 Lvs. lin. lanc. mucron. finally smooth, Invol. ov. ac. longer than head, Scales of cone round. dilated smooth
 13855 Lvs. lin. acute with transparent edges and branches quite smooth : floral lin. lanc. long, Fr. winged emargin.
 13856 Leaves linear lanceolate acute : floral lanceolate colored concave, Shrub low with ascending branches
 13857 Lvs. obl. lanceolate bluntish veinless and branches quite smooth : floral $\frac{1}{2}$ -colored, Fruit winged emarginate
 13858 Leaves linear lanceolate cuspidate somewhat silky : floral lanceolate colored, Fruit very narrow winged
 13859 Leaves lanc. lin. silky with down on each side with callous points at end, Branches downy, Calyx hairy
 13860 Lvs. lanc. lin. silky with down on each side with call. points at end, Branches shag. Cal. of male hairy in lines
 13861 Upp. lvs. lanc. spatul. ac. rugose, Cones ov. Scales cohering at base distinct above with recurv. beardl. edges
 13862 Lvs. all filiform chann. bluntish smooth spreading incurved, Scales cohering at base distinct above 2-lobed
 13863 Lvs. all filiform channelled acute imbric. straightish ciliated, Scales cohering at base distinct above 2-lobed

13864 Leaves lanceolate obtuse, Stem dichotomous, Heads of flowers axillary

- 13865 Leaves lanceolate broader upwards serrated, Stem shrubby
 13866 Leaves oblong narrowed at base subserrate at end, Scales of male catkins acute, Berries globose
 13867 Leaves oblong narrowed at base coarsely serrated, Scales of male catkins acute, Berries globose
 13868 Leaves oblong acute at each end entire or slightly serrated at end revolute at edge
 13869 Leaves elliptical lanceolate subserrate, Male catkins compound, Drupe with a 4 celled nucleus
 13870 Leaves elliptical toothed : the lowest quite entire
 13871 Leaves lanceolate unequally acuminate serrated, Catkins long lax
 13872 Leaves oblong deeply sinuated smooth
 13873 Leaves oblong oppositely sinuated hairy
 13874 Leaves subcordate serrate sessile
 13875 Leaves oblong lanc. cuneate tapered at base nearly entire smooth shining with the middle nerve downy
 13876 Leaves lanceolate entire netted with veins, Catkins few-flowered lax



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yellow, and is used for that purpose both in Sweden and Wales. The Swedes sometimes use a strong decoction of it to kill bugs and lice, and to cure the itch. The Welsh lay branches of it upon and under their beds to keep off fleas and moths, and give it as a vermifuge in powder and infusion, applying it also externally to the abdomen. In most of the Hebrides, as well as in the Highlands of Scotland, an infusion of the leaves is frequently given to children to destroy the worms. In Isla and Jura the inhabitants garnish their dishes with it, and lay it between their linen and other garments to give them a fine scent, and to drive away moths. When it grows within reach of a port, the sailors make besoms of it for sweeping their ships. In the isle of Ely they make faggots with it to heat their ovens. Linnæus was induced to suspect, from the smell of this shrub, that camphor might possibly be prepared from it. Horses and goats eat; sheep and cows refuse it.

M. cerifera may be used for most of the purposes of the former species. Candles are made from the berries in North America, whence it is called there the tallow shrub or candleberry tree; some also name it the bayberry-bush. It grows abundantly on a wet soil, and seems to thrive particularly well in the neighbourhood of the sea, nor does it seem ever to be found high up in the country. The berries intended for making candles are gathered late in autumn, and are thrown into a pot of boiling water; their fat melts out, floats at the top of the water, and may be skimmed off. The fat when congealed looks like tallow or wax, but has a dirty green color; it is therefore melted again and refined, by which means it acquires a fine and pretty transparent green color. It is dearer than common tallow, but cheaper than wax. They usually mix some tallow with it. Candles of this kind do not easily bend or melt in summer as common candles do; they burn better and slower, nor do they cause any smoke, but rather yield an agreeable smell when they are extinguished. At present not many candles of this kind are used, the animal tallow is readily come at, it being very troublesome to gather the berries. They are chiefly used by poor people, who live near where the bushes grow, and have not cattle enough to supply them. A soap is made from the fat which has an agreeable scent, and is excellent for shaving; and it is used by surgeons for plasters. In Carolina they likewise make sealing-wax from these berries. The root is accounted a specific in the tooth-ache.

All the species grow well in peat soil or sandy loam, in a moist situation. They are increased by seeds or layers, but not readily by cuttings.

2056. NAGE'IA <i>Gærtn.</i> NAGE'IA.	<i>Amentaceæ.</i>	<i>Sp. 1—3.</i>			
13877 <i>Putranjiva Roxb.</i> grey-barked	☉ □ un 12	... Ap	E. Indies	1822.	C r m
2057. SHEPHER'DIA. <i>Nutt.</i> SHEPHERDIA.		<i>Elæagneæ.</i>	<i>Sp. 1.</i>		
13878 <i>canadensis Nutt.</i> Canadian	☉ or 10	ap.my Ap	N. Amer.	1759.	L co
2058. HIPPO'PHAE. <i>W.</i> SEA BUCKTHORN		<i>Elæagne e.</i>	<i>Sp. 1.</i>		
13879 <i>rhamnoides W.</i> common	☉ or 12	ap.my Ap	England sea co.	L co	Eng. bot. 425
2059. BROUSSONETIA. <i>W.</i> BROUSSONETIA.		<i>Urticææ.</i>	<i>Sp. 2.</i>		
13880 <i>papyrifera W.</i> Paper Mulberry	☉ or 12	f.s Ap	Japan	1751.	C co Kæm.amcæ.t.472
13881 <i>spatulata Hort.</i> entire-leaved	☉ or 12	f.s Ap	.....	1824.	C co
2060. SCHEFF'E'RIA. <i>W.</i> SCHEFFERIA.		.....	<i>Sp. 1—2.</i>		
13882 <i>complêta W.</i> white-flowered	☉ □ or 6	au G	W. Indies	1793.	C p.l Lam. iil. t. 809
2061. BRU'CEA. <i>W.</i> BRUCEA.		<i>Terebinthaceæ.</i>	<i>Sp. 2—3.</i>		
13883 <i>ferruginea W.</i> Ash-leaved	☉ □ or 6	ap.my G	Abyssinia	1775.	C p.l Bot. cab. 129
13884 <i>sumatrâna Roxb.</i> Sumatra	☉ □ or 10	ap.my G	E. Indies	1820.	C p.l
2062. ANTHOSPER'MUM. <i>W.</i> AMBER TREE.		<i>Rubiaceæ.</i>	<i>Sp. 1—4.</i>		
13885 <i>æthiopicum W.</i> Ethiopian	☉ □ or 2	jn jl G.W	C. G. H.	1692.	C p.l Flu.almt.183.f.1
2063. TROP'HIS. <i>W.</i> RAMOON TREE.		.....	<i>Sp. 2—4.</i>		
13886 <i>americana W.</i> American	☉ □ or 20	ap.my G	W. Indies	1789.	C l.p Bro.jam. t.37. f.1
13887 <i>âspera W.</i> rough-leaved	☉ □ or 25	... G	E. Indies	1802.	C l.p
2064. MONTI'NIA. <i>W.</i> MONTINIA.		<i>Onagrarikæ.</i>	<i>Sp. 1.</i>		
13888 <i>caryophyllacea H.K.</i> Sea Pursl.-lvd.	☉ □ or 1	jl	C. G. H.	1774.	C p.l Smith spi.14.t.15

PENTANDRIA.

2065. PISTA'CIA. <i>W.</i> PISTACHIA TREE.		<i>Terebinthaceæ.</i>	<i>Sp. 5—7.</i>		
13889 <i>officinârum H. K.</i> official	☉ m 15	ap.my Ap	Levant	1570.	C l.p Rauw.it. 72. t.9
13890 <i>reticulâta L.</i> net-leaved	☉ or 15	ap Ap	Levant	1752.	C l.p
<i>navbonensis L.</i>					
13801 <i>Terebinthus W.</i> Turpent. Tree	☉ or 20	jn jl Ap	S. Europe	1655.	C r m Blackw. t. 478
13892 <i>atlântica W.</i> Atlantic	☉ □ or 12	... Ap	Barbary	1790.	L r m



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2056. *Nageia*. *Nagi* is the Japanese name of one of the species. That in the gardens is an uninteresting shrub with a loose elegant foliage, and a light grey bark. Ripened cuttings strike freely in a bark pit.

2057. *Shepherdia*. A name given by Nuttall to the *Hippophae canadensis* of our gardens, in honor of Mr. William Shepherd, the worthy curator of the Liverpool botanic garden. A small inelegant tree, with dark green deciduous leaves, covered over with brownish silvery scales on the lower side.

2058. *Hippophae*. An ancient name given to some plant now unknown, which was applied medicinally to horses; from *ἵππος*, a horse, and *φαειν*, to give light. *H. rhamnoides* is very prolific in berries, which are yellow when ripe, succulent, smooth, and gratefully acid to the taste. They are much eaten by the Tartars; and the fishermen of the Gulph of Bothnia prepare a rob from them, which imparts a grateful flavor to fresh fish. Every part of the plant will dye yellow. The species grow in common soil, and are readily increased by layers or cuttings of the roots.

2059. *Broussonetia*. Named by L'Heritier, in honor of his countryman P. N. V. Broussonet, a well known naturalist, who travelled in Barbary, and published an *Ichthyologia* in 1782. This is a vigorous growing shrub or low tree, with large lobed leaves, variously shaped; the foliage of the male and female plant differing so much from each other that they might easily be taken for distinct species. The fruit is little larger than peas, and from the bark the Chinese make paper, and the Otaheitan cloth.

B. papyrifera, though a low tree, produces vigorous shoots, furnished with large leaves. The fruit is little larger than peas, surrounded with long purple hairs, when ripe changing to a black purple color, and full of sweet juice. In China and Japan it is cultivated as we do osiers, for the sake of the young shoots, from the bark of which the inhabitants of the east countries make paper. The bark being separated from the wood is steeped in water, and the inner bark separated from the outer; the former making the whitest and best paper. The bark is next slowly boiled, then washed, and afterwards put on a wooden table and beaten into a pulp. This pulp being put in water, separates like grains of meal. An infusion of rice and the root of maniot is next added to it. From the liquor so prepared, the sheets of paper are poured out one by one, and when pressed, the operation is finished.

The juice of this tree is sufficiently tenacious to be used in China as a glue, in gilding either leather or paper. The finest and whitest cloth worn by the principal people at Otaheite and in the Sandwich Islands is made of the bark of this tree. The cloth of the Bread-fruit tree is inferior in whiteness and softness, and worn chiefly by the common people.

2060. *Schæfferia*. So called after James Christian Schæffer, a German naturalist of celebrity, who is best known by his excellent work on the Fungi of Bavaria, published in 1762. An inelegant shrub with green flowers.

13877 Leaves ovate lanceolate oblique at base finely and simply serrated smooth

13878 Leaves oblong stellate-hairy above brownish white and scaly beneath

13879 Leaves linear-lanceolate smooth above white with scales beneath

13880 Leaves 3-5-lobed acuminate serrated scabrous

13881 Leaves cucullate entire

13882 Flowers tetrapetalous axillary

13883 Leaves opposite stalked pinnated with an odd one of 5 or 6 pairs

13884 Leaflets serrated villous beneath, Racemes often compound

13885 Leaves somewhat whorled linear smooth

13886 Unarmed, Leaves oblong acum. entire smooth, Fruit 1-seeded cornute, Horns reflexed shorter than fruit

13887 Unarmed, Leaves obovate oblong acuminate unequally serrate very scabrous on each side

13888 Leaves alternate oblong oval, Fl. solitary

PENTANDRIA.

13889 Leaves pinnated with an odd one, Leaflets 5 ovate tapered at base rather acute and mucronate at end

13890 Leaves pinnate and ternate, Leaflets roundish narrowed at base netted with veins retuse mucronate

13891 Leaves pinnate with an odd one, Leaflets about 7 ovate-lanceolate rounded at base acute mucronate pairs

13892 Leaves pinnate with an odd one, Leaflets lanceolate about 9, Petiole winged between the terminal pairs



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2061. *Brucea*. Named in honor of James Bruce, a celebrated Scotch traveller in Abyssinia, who discovered the plant.

2062. *Anthospermum*. From *ανθος*, a flower, and *σπέρμα*, seed; its female flower is entirely naked, consisting of a single ovarium; whence its name. A heath-looking evergreen, the leaves of which are fragrant when bruised, and the propagation and culture of the easiest description.

2063. *Trophis*. From *τρέφω*, to nourish. *T. americana* produces berries about the size of large grapes, and of an agreeable pleasant flavor. The leaves and twigs are used as fodder for cattle when grass is scarce. Cuttings root in sand under a glass.

2064. *Montinia*. In honor of Laurence Montin, a Swede, who published a little tract upon Splachnum. The specific name seems to hint at the nature of his disposition. A little worthless weed-like Cape plant.

2065. *Pistacia*. Said by Forskahl to have been altered by the Latins from its Arabic name *foustaq*. *P. officinalis* abounds in Sicily, where it is cultivated for its nuts. The male flowers come out from the side of the branches in loose bunches, and are of an herbaceous color. The female flowers come out in the same manner in clusters. The male puts forth its flowers first, and some gardeners pluck them whilst yet shut, dry them, and afterwards sprinkle the pollen over the female tree: but the method usually followed in Sicily, when the trees are far asunder, is to wait till the female buds are open, and then to gather bunches of male blossoms ready to blow; these are stuck into a pot of moist mould, and hung upon the female tree till they are quite dry and empty. This operation is called *tuchiarare*, and never fails to produce fructification; sometimes the gardeners ingraft the male bud upon the female tree.

P. Terebinthus (from *τέρεβιν*, to cut) furnishes the Cyprus turpentine. It is procured by wounding the bark of the trunk in several places, during the month of July, leaving a space of about three inches between the wounds; from these the turpentine is received on stones, upon which it becomes so much condensed by the coldness of the night, as to admit of being scraped off with a knife, which is always done before sunrise: in order to free it from all extraneous admixture, it is again liquified by the sun's heat, and passed through a strainer; it is then fit for use. The quantity produced is very inconsiderable; four large trees, sixty years old, only yielding two pounds nine ounces and six drachms; but in the eastern part of Cyprus and Chio, the trees afford somewhat more, though still so little as to render it very costly, and on this account it is commonly adulterated, especially with other turpentines. The best Chio turpentine is generally about the consistency of thick honey, very tenacious, clear, and almost transparent, white, inclining to yellow, and of a fragrant smell, moderately warm to the taste, but free from acrimony and bitterness.

P. Lentiscus (*lentiscere*, to be sticky) produces the mastick, which is obtained most abundantly, by making transverse incisions in the bark of the tree, whence the mastick exudes in drops, which are suffered

13893 <i>Lentiscus W.</i> <i>β massiliensis</i>	Mastick Tree narrow-leaved	♂ □ ec	15	my	Ap	S. Europe	1664	L	r.m	Bot. mag. 1967
2066. <i>ZANTHOXYLUM W.</i>	TOOTH-ACH TREE.					<i>Rutaceæ. Sp. 5-43.</i>				
13894 <i>emarginatum W.</i>	notch-leaved	♂ □ or	10	...	G.w	Jamaica	1739.	C	l.p	Slo. ja. 2. t. 168. f. 4
13895 <i>Clava Hérculis W.</i>	Lentiscus-leav.	♂ □ or	10	ap.my	G.w	W. Indies	1739.	C	l.p	Cat. car. 1. t. 26
13896 <i>fraxineum W.</i>	common	♂ or	6	mr.ap	G.w	N. Amer.	1759.	L	s.l	Duh. arb. 1. t. 97
13897 <i>tricárpum H. K.</i>	three-capsuled	♂ or	6	...	G.w	N. Amer.	1806.	L	s.l	
13898 <i>nitidum Dec.</i>	shining	♂ □ or	6	ap.my	G.w	China	1823.	L	r.m	Bot. mag. 2558
2067. <i>PICRAMNIA W.</i>	PICRAMNIA.					<i>Sp. 1-2.</i>				
13899 <i>Antidesma W.</i>	Ash-leaved	♂ □ un	4	...	G	Jamaica	1793.	C	p.l	Slo. ja. 2. t. 208. f. 2
2068. <i>ANTIDESMA W.</i>	ANTIDESMA.					<i>Sp. 2-10.</i>				
13900 <i>alexitéria W.</i>	Laurel-leaved	♂ □ un	10	my.jn	Ap	E. Indies	1793.	C	p.l	Rhee. mal. 5. t. 11
13901 <i>paniculata W.</i>	panicled	♂ □ un	10	...	Ap	E. Indies	1800.	C	p.l	
2069. <i>IRE'SINE W.</i>	IRE'SINE.					<i>Amaranthaceæ. Sp. 3-8.</i>				
13902 <i>celosioides W.</i>	Florida	♀ △ pr	1½	jl.au	W	America	1733.	D	l.p	Lam. ill. t. 813
13903 <i>elongata W.</i>	long-leaved	♀ △ pr	2	jl.au	W	S. Amer.	1822.	S	l.p	Pluk. al. t. 261. f. 1
13904 <i>diffusa W.</i>	straggling	♀ △ pr	1½	jl.au	W	S. Amer.	1818.	S	l.p	
2070. <i>SPINACIA W.</i>	SPINAGE.					<i>Chenopodiæ. Sp. 1.</i>				
13905 <i>oleracea W.</i>	common	○ cul	1½	mr.o	G	....	1568.	S	co	Sch. hand. 3. t. 324
<i>α spinosa</i>	prickly	○ cul	1½	mr.o	G	....	...	S	co	
<i>β glabra Mill.</i>	round	○ cul	1½	mr.o	G	....	...	S	co	
2071. <i>FLUGGÆA W.</i>	FLUGGÆA.					<i>Euphorbiaceæ. Sp. 1.</i>				
13906 <i>leucopýrus W.</i>	white	♂ □ un	6	...	Ap	E. Indies	1825.	C	r.m	
2072. <i>ACNI'DA W.</i>	VIRGINIAN HEMP.					<i>Chenopodiæ. Sp. 1-3.</i>				
13907 <i>cannabiná W.</i>	common	○ un	2	jn.jl	G.Y	N. Amer.	1640.	S	co	
2073. <i>CAN'NABIS W.</i>	HEMP.					<i>Urticæ. Sp. 1.</i>				
13908 <i>sativa W.</i>	common	○ ag	6	jn.jl	G	India	...	S	h.l	Sch. hand. 3. t. 325
2074. <i>HU'MULUS W.</i>	HOP.					<i>Urticæ. Sp. 1.</i>				
13909 <i>Lópus W.</i>	common	♂ △ ag	15	jn.au	Y	Britain	hed.	D	r.m	Eng. bot. 427



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to run down to the ground, and after they are concreted they are collected for use. These incisions are made at the beginning of August, when the weather is very dry, and are continued till the end of September.

Turpentine and mastick are considered as astringent and diuretic; but though they retain a place in our *Materia Medica*, they are not much used by modern practitioners. Mastick is used by the Turkish and Armenian women as a masticatory for cleaning the teeth and giving an agreeable smell to the breath. It is also employed to fill the cavities of carious teeth. (*Thom. Lond. Disp.* 444.)

2066. *Xanthoxyllum.* From *ξανθοξ*, yellow, and *ξύλον*, wood. *X. Clava-Herculis* is esteemed a good timber tree in Jamaica; and an infusion of the leaves is used to cure the tooth-ach there and in Carolina. All the species may be increased by ripened cuttings, or by cuttings of the roots.

2067. *Picramnia.* From *πικρα*, bitter. A small tree with fruit the size of a gooseberry, and pinnate leaves; the whole plant abounding in the bitter principle. Large cuttings strike freely in sand under a hand-glass.

2068. *Antidesma.* So called from the use of the bark in making ropes; from *αντι*, like, and *δεισμα*, a bond. *A. alexiteria* is a middle-sized evergreen tree, with leaves resembling those of the lemon, and fruit in racemes, red and acid like the barberry. A decoction of the leaves is reputed to be an antidote against the bite of serpents, and the bark is used for making ropes. All the species require a rich loamy soil, and ripened cuttings with their leaves on root in sand in a moist heat.

2069. *Iresine.* Suppliants were accustomed among the Greeks to present themselves before the altar with a branch of olive bound with wool, which offering they called *εισεσποννη*; whence this plant, which is very like such a branch, on account of its close clusters of woolly flowers, has been named. Herbaceous plants not of great beauty.

2070. *Spinacia.* From *σπινα*, a prickle, on account of the processes of the seed. A well known annual esculent of the easiest culture in any rich soil.

2071. *Fluggæa.* Named by Willdenow, in honor of — Flügge, a German Cryptogamic botanist. A shrub with round ash-colored spiny branches. The spines are from one and a half to three inches long, very strong and numerous, whitish, and covered with leaves.

2072. *Acnida.* From *α*, privative, and *κνιδη*, a Greek name of the nettle; that is to say, a nettle-like plant, which does not sting.

2073. *Camnabis.* According to Bullet, this name is taken from the Celtic *can*, a reed, and *ab*, small. But Golius says, the plant has been known by the Arabs from time immemorial under the name of *qaneb*. The hemp is a manufacturing plant of equal antiquity with the flax. It grows to a great height on rich soils under a warm climate; in some parts of Italy it has been found eighteen feet high (*Cruds. Agr.*); the common height in Lombardy and the Bolognese territory is twelve feet; in this country it seldom exceeds six feet, and the fibre of British hemp is no finer than where it is three times the length. The culture, management, and uses of hemp are nearly the same as those of flax; but the male and female flowers being on different plants, and the male plant decaying long before the female, the former requires to be pulled up as soon as the setting of the seed in the females shews that they have effected their purpose. Hemp is sown on well prepared

13893 Leaves abruptly pinnate, Leaflets lanceolate about 8, Petiole winged

13894 Unarmed, Leaves pinnate of 2 or 3 pair, Leaflets ovate emarginate villous, Racemes terminal
13895 Prickly, Leaves pinnate of 4 pair, Leaflets ovate repand-toothed unequal at base sessile, Panicles terminal
13896 Lvs. pinn. with an odd one of 4-5 pair, Leaf. ov. obsoletely serrul. equal at base, Petiol. rounded unarmed
13897 Lvs. pinn. with odd 1 of 3-5 pair, Leaf. stalkl. obl. oval acum. serrul. obliq. at base, Petiol. and branch. prickly
13898 Branches petioles and ribs prickly, Leaves pinnate with an odd one of 2-3 pairs, Leaflets oblong shining with remote glandular crenatures

13899 Racemes filiform pendulous, Flowers triandrous, Styles 2 recurved

13900 Lvs. obl. narrowed at base acumin. at end smooth shining on each side, Racemes axillary twin or solitary
13901 Lvs. roundish ellipt. rounded at each end retuse emarginate at point downy beneath, Racem. term. panicle

13902 Leaves dotted scabrous : lower oblong acuminate ; upper ovate-lanceolate, Panicle branched compact
13903 Leaves ovate-oblong acute, Panicle erect, Branches simple, Stem furrowed
13904 Leaves ovate smooth cuspidate, Panicle diffuse branched, Stem furrowed

13905 Leaves sagittate, Fruit sessile

13906 The only species. Leaves alternate orbic ovate entire smooth, Spines 2 or 3 inches long

13907 Leaves lanceolate, Capsules smoothish acutangular

13908 The only species

13909 The only species



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loamy soil about the end of April : the male plants are generally pulled about the beginning of July, and the females four or five weeks after them, when they have ripened their seeds. The plants being tied in bundles, are watered and bleached, in the same manner as flax ; or they are dried and stacked without having gone through this process, and the fibres separated when wanted by the flax-breaking machine of recent invention, or by steeping in hot water and soft soap. The produce of hemp in fibre varies from three to six hundred weight per acre ; in seed, from eleven to twelve bushels. The fibre produces a cloth stronger than that from flax, and the best of all cordage and ropes. An oil is extracted from the seeds of hemp, which is used in cookery in Russia, and in this country by painters. The seeds themselves are reckoned a good food for poultry, and are supposed to occasion hens to lay a greater quantity of eggs. Small birds in general are very fond of them, but they should be given to caged birds with caution, and mixed with other seeds. A very singular effect is recorded, on very good authority, to have been sometimes produced by feeding bullfinches and goldfinches on hemp-seed alone, or in too great quantity ; viz. that of changing the red and yellow on these birds to a total blackness. (*Ency. of Agr. 5327.*)

2074. *Humulus*. From *humus*, fresh earth ; the hop grows only in rich soils. Our English word *hop*, seems to be the Anglo-Saxon *hoppian*, to climb. *Lupulus* is a contraction of *Lupus salictarius*, the name by which it was, according to Pliny, formerly called, because it grew among the willows, to which, by twining round and choking up, it proved as destructive as the wolf to the flock.

The hop has been cultivated in Europe an unknown length of time for its flowers, which are used for preserving beer. Its culture was introduced from Flanders in the reign of Henry VIII., though indigenous both in Scotland and Ireland : it is little cultivated in those countries, owing to the humidity of their autumnal season. Like other plants of this sort, the hop bears its flowers on different individuals ; the female plant, therefore, is alone cultivated. There are several varieties grown in Kent and Surrey under the names of Flemish, Canterbury, Goldings, &c. ; the first is the most hardy, differing little from the wild or hedge-hop ; the Goldings is a very improved and highly productive variety, but more subject to the blight than the other. The hop prefers a deep loamy soil on a dry bottom ; a sheltered situation exposed to the south or south-west, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverized and manured previously to planting. In hop districts, the ground is generally trenched either with the plough or spade. The mode of planting is generally in rows, six feet apart, and the same distance in the row. Five, six, or seven plants are generally placed together in a circular form, and at a distance of five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools ; each should have two joints or buds ; from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of beans or cabbages is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of five or six feet. The third year the hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each hill. The most durable timber for poles is that of the Spanish chesnut, which is much grown

2075. *MODEC'CA. Lam. MODECCA.*
 13910 *lobata Jacq.* lobe-leaved

Passiflorea. Sp. 1.
 G S. Leone 1812. C r.m Bot. reg. 433

HEXANDRIA.

2076. *XEROTES. R. Br. XEROTES.*
 13911 *longifolia R. Br.* long-leaved
 13912 *rigida R. Br.* rigid
 2077. *ELA'IS. W. OILY PALM.*
 13913 *melanococca Gaertn.* black-seeded
 13914 *occidentalis W.* West Indian
 13915 *guineensis W.* Guinea

Juncæa. Sp. 2-24.
 G.W N. Holl. 1796. D r.m
 G.W N. Holl. 1791. D r.m Bot. cab. 798
Palma. Sp. 3.
 G.W N. Gren. 1821. S co
 G.W Jamaica 1820. S r.m
 G.W Guinea 1730. S r.m Jac. amer. t. 172

2078. *CHAMÆDO'REA. W. CHAMÆDOREA.*
 13916 *gracilis W.* slender

Palma. Sp. 1.
 W.G Caraccas 1803. Sk r.m Jac.sch.2.t.247,8

2079. *BORAS'SUS. W. BORASSUS.*
 13917 *flabelliformis W.* fan-leaved

Palma. Sp. 1.
 W.G E. Indies 1771. S r.m Rox.co.1.t.71,72

2080. *MAURITIA. W. MAURITIA.*
 13918 *flexuosa W.* wavy-spiked

Palma. Sp. 1.
 W.G Surinam 1816. S r.m.

2081. *SMILAX. W. SMILAX.*
 13919 *aspera W.* Rough Bindw.
 β auriculata ear-leaved
 13920 *excelsa W.* tall
 13921 *zeylanica W.* Ceylon
 13922 *quadrangulatis W.* square-stalked
 13923 *Sarsaparilla W.* medicinal
 13924 *China W.* Chinese
 13925 *rotundifolia W.* round-leaved
 13926 *laurifolia W.* Laurel-leaved

Smilacæa. Sp. 22-68.
 W.G S. Europe 1648. Sk s.p Sch.hand.3.t.328
 W.G S. Europe 1648. Sk s.p Pluk.al.t.110.f.3
 W.G Syria 1739. Sk s.p Buxb.cen.1.t.27
 W.G E. Indies 1778. Sk p.l Rum.am.5.t.161
 W.G N. Amer. 1812. Sk s.p Dend.brit.109
 W.G N. Amer. 1664. Sk s.p Dend.brit.111
 W.G China 1759. Sk s.p Kæm.am.t.782
 W.G N. Amer. 1760. Sk s.p
 W.G N. Amer. 1739. Sk s.p Cat. car. 1. t. 15



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in Kent as coppice wood for that purpose. The after-culture of the hop consists in stirring the soil, and keeping it free from weeds; in guiding the shoots to the poles, and sometimes tying them for that purpose with withered rushes; in eradicating any superfluous shoots which may arise from the root, and in raising a small heap of earth over the root to prevent any more shoots from arising.

Hops are known to be ready for gathering, when the chaffy capsules acquire a brown color, and a firm consistence. Each chaffy capsule or leafed calyx contains one seed. Before these are picked, the poles with the attached stalks are pulled up, and placed horizontally on frames of wood, two or three poles at a time. The hops are then picked off by women and children. After being carefully separated from the leaves and stalks, they are dropped into a large cloth hung all round within the frame on tenter-hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, as they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in sacks in the green state in which they are pulled. In very warm weather, and when they are pulled in a moist state, they will often heat in five or six hours: for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season. The operation of drying hops is not materially different from that of drying malt, and the kilns are of the same construction. The hops are spread on a hair-cloth, from eight to twelve inches deep, according as the season is dry or wet, and the hops ripe or immature. When the ends of the hopstalks become quite shrivelled and dry, they are taken off the kiln and laid on a boarded floor till they become quite cool, when they are put into bags.

The bagging of hops is thus performed: in the floor of the room where hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop-bag. After tying a handful of hops in each of the lower corners of a large bag, which serve afterwards for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the trap, the packer goes into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard as that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, other two handles having been previously formed in the corners in the manner mentioned above. The brightest and finest colored hops are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used for brewing fine ales, and the latter by the porter brewers. But when hops are intended to be kept two or three years, they are put into bags of strong cloth, and firmly pressed so as to exclude the air.

The stripping and stacking of the poles succeeds to the operation of picking. The shoots or bind being stripped off, such poles as are not decayed are set up together in a conical pile of three or four hundred, the centre of which is formed by three stout poles bound together a few feet from their tops, and their lower ends spread out.

The produce of no crop is so liable to variation as that of the hop; in a good season an acre will produce 20 cwt.; in a bad season none, or only 2 or 3 cwt. From 10 to 12 cwt. in a season is considered a tolerable average

13910 Leaves entire 3-7-lobed without glands cordate at base

HEXANDRIA.

13911 Stemless, Lvs. long lin. coriaceous straight toothed at end rough at edge, Panicles lanceolate contracted
13912 Scapes and spikes short, Lvs. distichous cartilaginous convex beneath $\frac{1}{2}$ truncate at end, Stem very short

13913 Stem ascending, Stalks spiny serrated, Anthers and fruits ovate acute
13914 Fronds pinnated, Leaflets sheathed, Stems unarmed
13915 Fronds pinnated, Stems toothed spiny diverging: upper teeth recurved

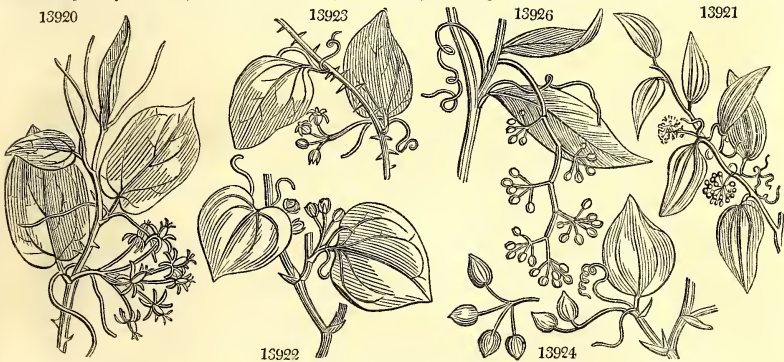
13916 Fronds pinnated 2 feet long: pinnæ alternate oblong narrowed at base pointed at end

13917 Fronds palmate plaited cucullate, Stalks serrated

13918 Fronds flabelliform, Male spadix flexuose a foot long and more

13919 Stem prickly angular, Leaves hastate cordate lanceolate 7-9-nerved prickly toothed coriaceous

13920 Stem prickly angular, Leaves unarmed ovate slightly cordate about 7-nerved
13921 Stem prickly somewhat square, Leaves unarmed 3-5-nerved ovate-oblong cordate
13922 Stem prickly square, Leaves unarmed ovate acute 5-nerved
13923 Stem prickly nearly square, Leaves unarmed ovate-lanceolate cuspidate about 5-nerved glaucous beneath
13924 Stem prickly rounded, Leaves roundish-cordate acute at each end 5-nerved
13925 Stem prickly rounded, Leaves roundish-ovate acuminate slightly cordate 5-nerved
13926 Stem prickly rounded, Branches unarmed, Leaves ellipt. or elliptical-lanc. obtuse recurved acute 3-nerved



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crop. The quality of hops is estimated by the abundance or scarcity of an unctuous clammy powder which adheres to them, and by their bright yellow color.

The expences of forming a hop plantation are very great; but once in bearing, it will continue so for ten or fifteen years before it requires to be renewed. The hop culture in England, like that of the culture of the vine in France, is only calculated for cultivators of considerable capital, who can retain the produce from years of abundance to years of scarcity. It is calculated on an average, that the hop crop fails almost entirely every fifth year, when the price will rise from two to thirty pounds per cwt. To those who can cultivate and preserve the hop with a view to such a rise, few crops will be equally profitable.

The hop is peculiarly liable to diseases; when young it is devoured by fleas of different kinds; at a more advanced stage it is attacked by the green fly, red spider, and other moth, the larvæ of which prey even upon its roots. The honey dew often materially injures the hop crop; and the mould, the fireblast, and other blights injure it at different times towards the latter periods of the growth of the plants.

The use of hop in brewing is to prevent the beer from becoming sour, and this is the grand purpose for which it is cultivated. But the young shoots both of the wild and improved hops are eaten early in the spring as asparagus, and were formerly brought to market for that purpose. The stalk and leaves will dye wool yellow. From the stalks a strong cloth is made in Sweden, the mode of preparing which is described by Linnæus in his Flora Suecica. A decoction of the roots is said to be as good a sudorific as Sarsaparilla; and the smell of the flowers is soporific. During the illness of George the third, in 1787, a pillow filled with hops was used instead of opiates.

2075. *Modecca*, is an Indian word by which two or three species of this genus appear in the Hortus Malabaricus, and has been adopted as a generic name by Lamarck. A curious plant resembling a bryony, of easy culture and propagation.

2076. *Xerotes*. From ξηρος, dry, on account of the aridity of the herbage and of the situations in which it grows.

2077. *Elais*. The natives of Guinea express oil from the fruit of this, as the Greeks from their olives, ελαιον, whence its name. This palm bears a fruit about the size of a large plum. The inhabitants of the West India Islands draw an oil from it, by the same process used in extracting oil from olives. From the sap an inebriating liquor is fermented, and the negroes weave the leaves into mats, on which they repose.

2078. *Chamedorea*. Named, we presume, from χαμαι, dwarf, and δωρεα, a gift: but we are ignorant of the sense in which the name has been applied.

2079. *Borassus*. This is one of the names which were applied to the spathe of the date; and was applied by Linnæus to the designation of this family of palms. The fruit of this palm is of the size and shape of a child's head; a wine and a sugar are made from the sap of the trunk.

2080. *Mauritia*. Named in honor of Prince Maurice of Nassau, the patron of Piso, for whom he obtained the necessary aid towards publishing his Natural History of Brazil. A fine genus of palms.

2081. *Smilar*. From σμιλα, a grater; the stems are rough with stiff prickles. *S. aspera* has roots not unlike those of the Sarsaparilla. They have the same qualities, but in an inferior degree; and may be distinguished by

13927 <i>tamnoides</i> W.	Tamus-leaved	△	un	6	jn.jl	W.G	N. Amer.	1739.	Sk s.p	Cat. car. 1. t. 52
13928 <i>austrâlis</i> R. Br.	oblong-leaved	□	un	6	...	W.G	N. S. W.	1815.	Sk s.p	
13929 <i>cadûca</i>	deciduous	△	un	6	jn.jl	W.G	N. Amer.	1759.	Sk s.p	
13930 <i>Bona nôx</i> W.	ciliated	△	un	6	jn.jl	W.G	N. Amer.	1739.	Sk s.p	Pluk.al.t.111.f.1
13931 <i>latifolia</i> B. P.	broad-leaved	△	un	8	...	G.W	N. Holl.	1791.	Sk s.p	
13932 <i>herbacea</i> W.	herbaceous	△	un	4	jl	G	N. Amer.	1699.	Sk s.p	Bot. mag. 1920
13933 <i>lanceolata</i> W.	spear-leaved	△	un	5	my.jn	G.W	N. Amer.	1785.	Sk s.p	Cat. car. 2. t. 84
13934 <i>glycyphylla</i> B. P.	Botany Bay Tea	△	un	6	...	G.W	N. S. W.	1815.	Sk s.p	
13935 <i>pûbera</i> W.	downy	△	un	5	...	G.W	N. Amer.	1806.	Sk s.p	
13936 <i>Pseudo-china</i> W.	BastardChinese	△	un	6	my.jn	G.W	America	1739.	C p.l	Slo. ja.1.t.143.f.1
13937 <i>pedunculâris</i> W.	long-peduncled	△	un	6	my.jl	G.W	N. Amer.	1812.	C p.l	
13938 <i>glabca</i> B. M.	glaucous-leav'd	△	un	2	my.jl	G.W	N. Amer.	1811.	C p.l	Bot. mag. 1846
13939 <i>rûbens</i> Wats.	pink	□	un	6	jl	G.W	N. Amer.	...	C p.l	Dend. brit. 108
13940 <i>longifolia</i> W.	long-leaved	□	un	10	my.jl	G.W	Cayenne	1820.	C p.l	
2082. T.A'MUS. W.	BLACK BRVONY.									
13941 <i>communis</i> W.	common	△	m	10	my.au	G	England	hed.	R s.p	Eng. bot. 91
13942 <i>crêtica</i> W.	Cretan	△	m	5	jl.au	G	Candia	1739.	R p.l	
2083. TESTUDINA'RIA. Burch.	ELEPHANT'S FOOT,									
13943 <i>elephan'tipes</i> Burch.	common	△	cu	8	jl.au	Y	C. G. H.	1774.	R p.l	Bot. mag. 1347
2084. RAJA'NIA. W.	RAJANIA.									
13944 <i>cordata</i> W.	Tamus-leaved	△	un	6	jl	G	W. Indies	1786.	R p.l	Plum.ic.t.155.f.1
2085. DIOSCO'REA. W.	YAM.									
13945 <i>pentaphylla</i> W.	five-leaved	□	cul	10	...	G	E. Indies	1768.	R r.m	Rhee.mal.7. t.35
13946 <i>aculeata</i> W.	prickly-stemm.	△	cul	10	...	G	E. Indies	1803.	R r.m	Rhee.mal.7. t.37
13947 <i>alata</i> W.	wing-stalked	△	cul	15	...	G	India	1739.	R r.m	Rhee.mal.7. t.38
13948 <i>bulbifera</i> W.	bulb-bearing	△	esc	12	jl.au	G	E. Indies	1692.	R r.m	Par. lond. 17
13949 <i>sativa</i> W.	common	△	clt	20	au	G	W. Indies	1733.	R r.m	Rhee.mal.8. t.51
13950 <i>triphylla</i> W.	three-leaved	□	uu	8	...	G	Malabar	1820.	R r.m	Rumph. 5. t. 128
13951 <i>brasilensis</i> W.	Brazilian	□	esc	8	...	G	Brazil	1823.	R r.m	
13952 <i>coriacea</i> W.	leathery	□	un	8	...	G	S. Amer.	1818.	R r.m	
13953 <i>altissima</i> W.	tallest	□	uu	20	...	G	Martiniq.	1821.	R r.ra	Plum. ic.117. f.1
13954 <i>angustifolia</i> W.	narrow-leaved	□	un	10	...	G	Peru	1821.	R r.m	
13955 <i>villôsa</i> W.	pubescent	□	un	3	au	R	N. Amer.	1752.	R s.p	Jac. ic. 3. t. 626
	<i>quaternata</i> Ph.									
13956 <i>oppositifolia</i> W.	opposite-leaved	□	un	6	...	G	E. Indies	1803.	R s.p	Pet. gaz. t.31. f.6

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being larger, more porous, and much less compressed. *S. Sarsaparilla* (*saxa*, furze, Spanish) has long slender roots covered with a wrinkled brown bark, white within, and having a small woody heart. It is inodorous, and has a mucilaginous very slightly bitter taste. Medicinally it is demulcent and diuretic. It was brought to Europe about the year 1530, and introduced as a medicine of great efficacy in the cure of lues venerea; but it fell into disrepute and was little used, till it was again brought into esteem by Dr. William Hunter and Sir William Fordyce, about the middle of the last century; not, however, as a remedy fitted to cure syphilis, but of much efficacy in rendering a mercurial course more certain, and after the use of mercury. Experience, however, has not verified the encomiums bestowed on it; and the extensive observations of Mr. Pearson have fixed the degree of benefit which is to be expected from this root in syphilitic complaints. The contagious matter and the mineral specific may, he observes, jointly produce, in certain habits of body, a new series of symptoms, which, strictly speaking, are not venereal, which cannot be cured by mercury, and which are sometimes more to be dreaded than the simple and natural effects of the venereal virus. Some of the most formidable of these appearances may be removed by sarsaparilla, the venereal virus still remaining in the system; and when the force of the poison has been completely subdued by mercury, the same vegetable is also capable of freeing the patient from what may be called the sequelæ of a mercurial course. Sarsaparilla is also recommended in scrophula, elephantiasis, or cutaneous affections resembling it, and in chronic rheumatism; but its efficacy is doubtful. (*Thom. Lond. Disp.* 505.)

S. China has roots as long as a child's hand, twisted, full of knots, reddish on the outside, flesh-colored in the heart, and destitute of smell. It is employed both as food and medicine in China, and to feed hogs in the West Indies. None of the species are of much beauty or worth growing, but as objects of curiosity.

2082. *Tamus*. This name was employed by Columella and others, for a plant resembling a vine, and bearing fruit not unlike grapes; a description which does not apply badly to the modern plant. *T. communis* has very large tuberous black coated masses attached to its roots. These are so acrid, that the pulp has been formerly used as a stimulating plaster. The young shoots, however, are so mild as to be good eating when dressed like asparagus. The Moors eat them boiled with oil and salt. The flowers of the female plant are succeeded by ovate smooth berries.

2083. *Testudinaria*. So called from the resemblance which the great rugged cracked root of this plant bears to the shell of a tortoise (*testudo*). The rootstock is a large fleshy mass, covered with a thick bark cracked deeply in every direction. The Hottentots in time of scarcity make use of the fleshy inside of the root as a sort of yam.

2084. *Rajania*. Named in honor of our distinguished countryman John Ray, a distinguished naturalist,

- 13927 Stem prickly rounded, Leaves ovate oblong acute subpanduriform obsolete cordate 5-nerved
- 13928 Stems prickly rounded, Leaves oblong acute unarmed 5-nerved smooth, Petioles with tendrils
- 13929 Stem prickly rounded, Leaves ovate mucronate 5-nerved
- 13930 Stem unarmed angular, Leaves cordate ovate acute ciliate prickly 7-nerved
- 13931 Stem unarmed angular, Leaves ovate 5-nerved smooth subcordate or obtuse at base, Petioles with tendrils
- 13932 Stem unarmed angular, Leaves ovate acuminate 7-nerved, Common pedunc. of umbel longer than leaf
- 13933 Stem unarmed rounded, Leaves unarmed lanceolate
- 13934 Stem unarmed rounded, Leaves obl. lanc. acute 3-nerved smooth glaucous beneath, Petioles with tendrils
- 13935 Stem unarmed rounded, Leaves oblong acute cordate about 5-nerved soft with down beneath
- 13936 Stem unarmed rounded, Leaves unarmed : cauline cordate; of the branches ovate-oblong 5-nerved
- 13937 Stem unarm. round. Lvs. roundish ov. cord. acum. 9-nerv. Peduncles of fr.-bear. umbel longer than leaves
- 13938 Stem prickly, Lvs. unarmed rounded ovate mucronulate about 7-nerv. glauc. beneath, Pedunc. about 2-fl.
- 13939 Stem angular prickly, Leaves ovate subcordate rather obtuse mucronate coriaceous 5-nerved denticulate
- 13940 Stem prickly square, Leaves unarmed hastate oblong obtuse mucronate about 7-nerved

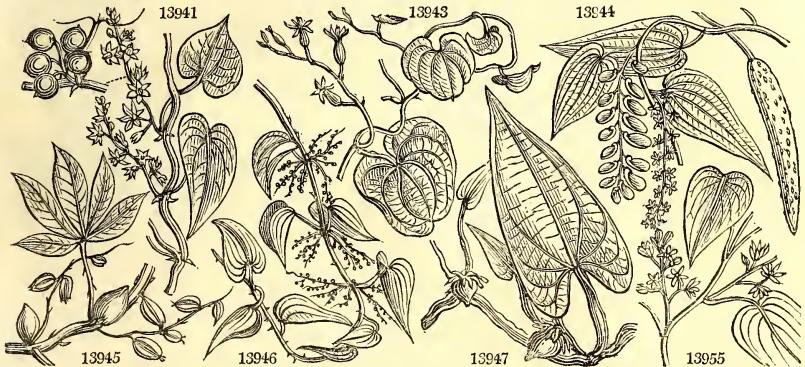
- 13941 Leaves cordate undivided
- 13942 Leaves 3-lobed

- 13943 Leaves reniform entire

- 13944 Leaves ovate lanceolate cordate 7-nerved

- 13945 Leaves alternate digitate, Leaflets 5 oblong acuminate veiny, Stem aculeate bulbiferous
- 13946 Leaves alternate roundish cordate acuminate 7-nerved, Stem aculeate bulbiferous
- 13947 Leaves opposite ovate cordate-sagittate cuspidate 7-nerved, Stem winged bulbiferous
- 13948 Leaves alternate cordate roundish ovate acuminate about 9-nerved, Stem smooth bulbiferous [round
- 13949 Lvs. altern. cord. round. ov. cuspid. about 9-nerv. : lobes of base close together, Caps. obov. Stem smooth
- 13950 Lvs. alternate ternate, Leaflets obl. acuminate nerved, Stem prickly
- 13951 Leaves alternate cordate 3-lobed : middle lobe acuminate, Stem compressed round naked
- 13952 Leaves alternate cordate oblong acuminate coriaceous 7-nerved, Stem round smooth
- 13953 Leaves opposite cordate roundish ovate acute 7-nerved, Stem round smooth
- 13954 Leaves alternate cordate lanc. narrow 3-nerved longer than petiole, Stem smooth
- 13955 Leaves opposite and whorled cordate acuminate 9-nerved downy beneath, Stem round

- 13956 Leaves opposite ovate acuminate 7-nerved, Stem round smooth



and Miscellaneous Particulars.

born in 1628, died in 1705, and author of many works of the highest reputation. His zoological arrangement is still regarded with much respect. Twining plants resembling the Yam.

2085. *Dioscorea*. In memory of Pedacius Dioscorides, a Greek physician, born at Anazarba, in Cilicia. He is generally believed to have lived under Nero, but this is very uncertain. Abulfarrage makes him to have flourished under Ptolemaus Physcon; but he is not generally credited. *D. sativa*, *Iguame*, Fr., and *Inhame*, Portug., has large thick tubers, a foot broad, and palmated like some Orchises. The stalks are slender, and with the leaves bear some resemblance to black bryony. The yam is largely cultivated for food in Africa and the East and West Indies, especially in the latter for the negroes. The roots grow to a great size, are mealy, and esteemed to be easy of digestion; they are palatable, and not inferior to any roots now in use, either for delicacy of flavor or nutriment. They are eaten instead of bread, either roasted on the embers or boiled; the flower is also made into bread and puddings. In Otaheite they make a dish, which they esteem very delicious, from the roots of the yam, with the kernel of the cocoa-nut scraped, and the pulp of the Musa or Banana. The juice of yam-roots fresh is acrid, and excites an itching on the skin. There are many varieties of these roots, some spreading out like the fingers (*Rumph. t. 121.*); others twisted like a serpent (*Rumph. t. 122.*); others again very small, scarcely weighing more than a pound, with a whitish ash-colored bark, whereas the bark is commonly black. The flesh of the yam is white or purplish, and viscid, but becomes farinaceous or mealy when dressed.

D. aculeata, by some considered only an improved variety of the *sativa*, is universally cultivated in the East and West Indies, in Africa, and in all the islands of the southern ocean within the torrid zone, and even as far as New Zealand. The tubers are frequently three feet long, and weigh thirty pounds. All the edible species and varieties are propagated in foreign countries like the common potato, but they arrive much sooner at maturity. The buds of the roots are not apparent, but still a small piece of skin is left to each set; for from this piece of bark alone the shoots proceed. Holes are made in rows two feet apart, and at eighteen inches distant in the row; into those holes two or three sets are put, first covered with earth, and then with a little haulm or rubbish to retain moisture. The only after-culture consists in hoeing up the weeds. They are commonly planted in August, and are ripe about the November or December following. When dug up, the greatest care is taken not to wound them, as that occasions them to sprout much earlier than they otherwise would do. They should be rubbed over with ashes, and piled regularly on beds or hurdles raised above the floor, that the air may come easily between them; or, if they be piled in heaps, some ashes should be strewn between the layers. None of the species are worth cultivating as ornamental plants; but some of the edible sorts have been raised in hotbeds in the Paris garden, and being transplanted early into a warm situation, have produced tubers of a considerable size.

2086. MA'BA. J. MABA. Ebenaceæ. Sp. 1—5.
 13957 buxifolia P. S. Box-leaved \square pr $\frac{1}{2}$... Y E. Indies 1810. S s.p Rox. cor. 1. t. 45

OCTANDRIA.

2087. PO'PULUS. W. POPLAR. Amentaceæ. Sp. 16.										
13958 alba W. Abele Tree	辛	tm	40	mr.ap	Ap	Britain	moi.w.	Sk	co	Eng. bot. 1618
13959 canescens W. gray	辛	tm	40	mr.ap	Ap	England	wat.pl.	Sk	co	Eng. bot. 1619
13960 trépida W. Trembling Americ.	辛	tm	30	...	Ap	N. Amer.	1812.	C	co	Mic.arb.3. t.8. f.1
13961 trémula W. Aspen	辛	tm	50	mr.ap	Ap	Britain	moi.w.	Sk	co	Eng. bot. 1909
13962 lævigata W. smooth	辛	tm	80	mr.ap	Ap	N. Amer.	1769.	G	co	Mich. arb.3. t.11
13963 græca W. Athenian	辛	tm	40	mr.ap	Ap	Archipel.	1779.	C	co	Duh. ar.184. t.54
13964 nigra W. black	辛	tm	50	mr.ap	Ap	Britain	wat.pl.	C	co	Eng. bot. 1910
13965 betulifolia Ph. black American	辛	tm	40	mr.ap	Ap	N. Amer.	...	C	co	Mi.arb.3. t.10. f.1
13966 dilatata W. hudsonica Mich.	辛	tm	70	mr.ap	Ap	Italy	1758.	C	co	
13967 monilifera W. Lombardy	辛	tm	70	my	Ap	Canada	1772.	C	co	Dend. brit. 102
13968 aciadesca Lindl. black Italian	辛	tm	70	my	Ap	N. Amer.	...	C	co	
13969 angulata W. Carolina	辛	tm	80	mr	Ap	Carolina	1738.	C	co	Mi.a.3.p.902.t.12
13970 balsamifera W. Tacamahac	辛	tm	70	ap	Ap	N. Amer.	1692.	C	co	Mic.ar.3. t.13. f.1
13971 macrophylla Lindl. Ontario	辛	tm	70	...	Ap	N. Amer.	1820.	C	co	
13972 cãndicans W. heart-leaved	辛	tm	50	mr	Ap	N. Amer.	1772.	G	co	Cat. car. 1. t. 34
13973 heterophylla W. various-leaved	辛	tm	70	ap.my	Ap	N. Amer.	1765.	G	co	Mich. arb. 3. t. 9

ENNEANDRIA.

2088. MERCURIA' LIS. W. MERCURY. Euphorbiaceæ. Sp. 5—7.										
13974 perennis W. perennial	辛	w	1	ap.my	G	Britain	woods.	D	s.1	Eng. bot. 1872
13975 ambigua W. doubtful	辛	w	1	jl.au	G	Spain	1806.	S	co	Lin.fil.dec.1. t. 8
13976 annua W. annual	辛	w	1	jl.s	G	Britain	rub. S	co	co	Eng. bot. 559



History, Use, Propagation, Culture,

2085. Maba. The name given to the plant by the natives of Tonga-Tabu, according to Forster. (Gen. 61.) This shrub or small tree produces edible berries very well tasted. The wood is dark colored, remarkably hard and durable, and where its size will admit, is employed for such uses as require the most durable, compact, and heavy timber.

2086. Populus. In ancient times the public places of Rome were decorated with rows of this tree, whence it came to be called arbor populi, as being a tree peculiarly appropriated to the people. But Bullet asserts, that the Poplar has obtained its name from the constant motion of the leaves, which are in a perpetual state of agitation like the populace. All the species are rapid-growing soft-wooded timber trees, some of which attain a very great size. P. alba is one of the most valuable of the British species. The leaves of the common gray poplar are of a blackish-green above, but having a thick white cotton underneath; they are about three inches long, on petioles a foot in length. The leaves of the Abele are about double the size, and divided into three, four, or five lobes. The leaves of the gray poplar are also larger more deeply lobed, and the under-side of the leaves and young shoots are covered with a hoary down. The Abele is said to have been introduced from Flanders, and the hoary poplar to have been originated in this country. The timber is of great value for all sorts of wooden vessels, especially butchers' trays. It is of quick growth, soft, white, and stringy, and little subject to swell or shrink. It makes beautiful floors and turners' ware. Some of the finest Abeles in England are at Hartwell near Aylesbury.

P. tremula is commonly called the asp, from the German *espe*, which is the general name for all poplars, is a rapid-growing tree in almost any soil or situation: but the numerous shoots of the roots spread so near the surface that they will not permit any thing else to grow there. The wood is extremely light, white, smooth, soft, and durable in the air. It may be used for the same purposes as that of the Abele. The bark is the favorite food of beavers. On the leaves and leafstalks may sometimes be seen red glandular substances about the size of a pea, which are the nests of Tipula juniperina. P. nigra has a naked lofty trunk covered with an ash-colored bark, and a regular handsome head. It is a tree of quick growth, and on the banks of rivers and in moist situations it grows up to a great height in a short time. The bark is light like cork, and is sometimes used by fishermen to float their nets. The timber is light and soft, fit for the turner and pattenmaker, and excellent for flooring-boards. These boards are much sower in taking fire than those of resinous trees; they smoke a long time before they burst into a flame: of course the wood is bad for fuel. Many species of insects are supported by this and the other poplars. The red substance like berries upon the leafstalks of this species are occasioned by the Aphis Bursonia. The leaves and young shoots are gathered in Sweden and other parts of Europe during the month of October and dried, to be given as fodder to the sheep in winter. The practice is as old as the time of the Romans; who, as well as the modern Italians, planted this tree for their vines to run on. In Kamchatka the inhabitants are sometimes reduced to the necessity of converting the inner bark into bread. Scheffer made paper from the cotton down of the seeds. The buds both of this and the white poplar smell very pleasant early in the spring, and being pressed between the fingers yield a balsamic resinous substance, which, extracted by spirits of wine, smells like storax. A drachm of this tincture in broth is administered in internal ulcers and excoriations.

The black Italian poplar, so much recommended by Pointey, and said by him to have been intro-

13957 Leaves obovate entire, Flowers sessile, Calyxes hairy

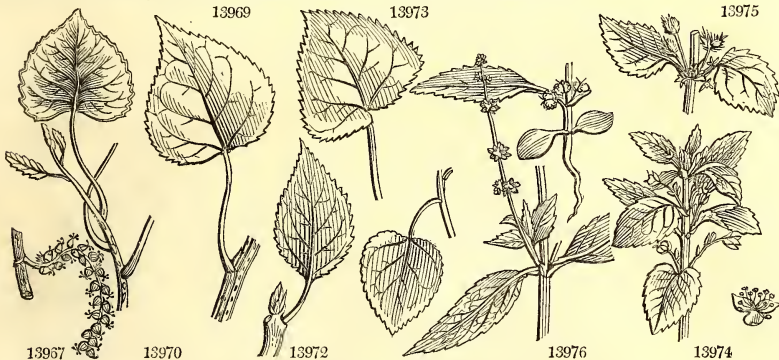
OCTANDRIA.

- 13958 Lvs. roundish cord. lobed toothed glab. above downy and very white beneath, Fert. catkins ov. Stigmas 4
 13959 Leaves roundish angular-repand toothed hoary beneath, Catkins cylindrical lax
 13960 Leaves roundish toothed with 2 glands at base acuminate smooth : younger silky
 13961 Lvs. nearly orbicul. broadly tooth. glab. on both sides, Petioles compressed, Stigmas 4 auricled at base
 13962 Lvs. roundish ov. acum. subcord. unequally serrat. smooth, Petioles compressed, Branches round smooth
 13963 Lvs. round. ov. acute slightly cord. with equal close serratures smooth a little ciliat. Branches round smooth
 13964 Leaves deltoid acute serrated glabrous on both sides, Fertile catkins cylindrical lax, Stigmas 4
 13965 Leaves rhomboid acuminate toothed smooth, Younger branches hairy

- 13966 Leaves smooth on each side acuminate serrate deltoid, broader than long
 13967 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. slightly winged towards end compound
 13968 Lvs. subcord. smooth glandul. at base, Serrat. cartil. hooked hairy, Nerves spread. Branchl. winged simple
 13969 Leaves cordate deltoid acuminate bluntly hook-toothed, Branches winged angular
 13970 Leaves ovate acuminate with close serratures white and netted beneath, Buds resinous
 13971 Leaves cordate ovate large somewhat entire pale beneath
 13972 Lvs. cordate ovate acum. bluntly and unequally serrated white beneath 3-nerved netted, Buds resinous
 13973 Leaves cordate roundish-ovate blunt hook-toothed : younger downy beneath

ENNEANDRIA.

- 13974 Stem perfectly simple, Leaves rough, Root creeping perennial
 13975 Stem herbaceous brachiate, Leaves ovate-oblong smooth ciliated, Fls. whorled : male and female mixed
 13976 Stem branched, Branches opposite, Leaves glabrous, Root fibrous annual



and Miscellaneous Particulars.

duced from America, seems intermediate between *P. nigra* and *dilatata*; and indeed, all the three sorts are by some considered as but one species. *P. dilatata* differs from the common black poplar chiefly in its close conical manner of growth, which resembles the cypress. The leaves are greater in breadth than length; whereas in the black poplar the longitudinal diameter is the greatest. Though it generally attains a great height, the increase of the trunk is by no means so rapid as in most of the other poplars. It cannot, therefore, be highly recommended as a timber tree. In Italy it is considered peculiarly adapted for packing-boxes: nails do not split it; and if cases of this wood fall or are thrown carelessly on the ground, it gives way a little, and returns to its former position without splitting, which oak and other heavy woods will not do. In Lombardy all the vessels in which the grapes are carried home in carts from the vineyards, are of poplar plank, about two inches thick, and in them the grapes are squeezed. Such vessels last thirty or forty years; and by their lightness are manageable, however large and long. A four-wheeled cart is in general covered with one of them, and it contains about fifteen hundred weight of grapes, each hundred being a hundred pounds of thirty ounces. The conic form of the Lombardy poplar, as a deciduous tree, is peculiar. Among evergreens we find the same character in the cypress; and both trees, in many situations, have a good effect. The cypress often, among the ruins of ancient (and the buildings of modern) Rome, breaks the regularity of a wall or a pediment; and the poplar has the effect among deciduous trees of the round-headed kind. One beauty the Italian poplar possesses which is almost peculiar to it; and that is the waving line it forms when agitated by the wind. Most trees, in these circumstances, are partially agitated; one side is at rest while the other is in motion; but the Italian poplar waves in one single sweep from the top to the bottom, like an ostrich-feather on a lady's head. All the branches coincide in the motion, and the least blast makes an impression upon it when other trees are at rest.

P. balsamifera is a moderate sized conical tree, a native both of Siberia and America. The buds of this tree, from autumn to the leafing season, are covered with abundance of a glutinous yellow balsam, which often collects into drops, and is pressed from the tree for medical use. This balsam is brought to Europe from Canada in shells. It is smooth, of an even texture, a yellowish color, and a fragrant scent. In Siberia a medicated wine is prepared from the buds, which is diuretic, and esteemed by the inhabitants serviceable in the scurvy. The grouse and other birds of that family feeding on these buds during winter, acquire a flavor which is much esteemed by epicures. *P. canadensis* bears a general resemblance to the preceding species; and, like it, the buds are covered with a resinous tenacious balsam. The other American species are rapid-growing bulky timber-trees, well calculated for immediate effect and utility; but all the species being short-lived when compared with oaks, elms, and other slower-growing hard-wooded trees, confer a temporary premature character on landscape; for nothing can be great and lasting but what advances by degrees. Such poplars as do not grow freely from cuttings of the shoots, are most rapidly increased by cuttings of the roots; but the largest plants are produced from layers.

2087. *Mercurialis*. Mercury is said to have discovered the virtues of this plant. Böhmer, indeed, in his *Lexicon*, says, after Ambrosinus, that the name is a corruption of *muliercularis*, as being useful to women; but the Greeks call it *βελι ποτα*, which is the same as *Mercurialis* in its mythological sense. *M. perennis* is not eaten by any quadruped, and is poisonous to men and sheep. The plant on being dried turns blue, and steeped in water it

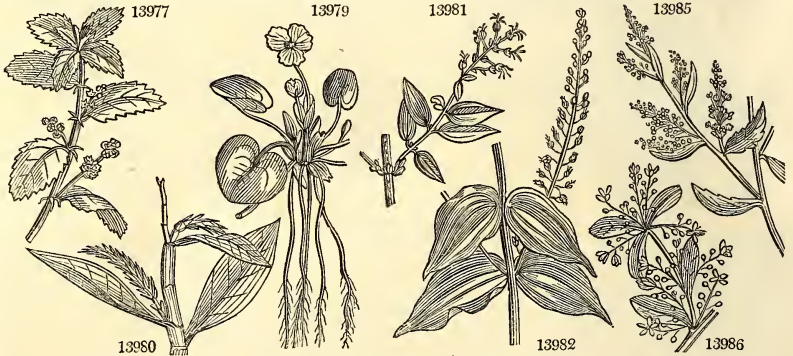
13977	ellíptica <i>W.</i>	oval-leaved	□ un	1	my.jl	G	Portugal	1802.	C co	Vent. cels. 12	
13978	tomentósa <i>W.</i>	woolly	□ un	1	jl.s	G	Spain	1640.	C co		
2089.	HYDROCHARIS. <i>W.</i>	FROG-BIT.	≡ Δ cu		½ jn.jl	W	Britain	dit.	D co	Eng. bot. 898	
13979	Mórsus-râne <i>W.</i>	common	≡ Δ cu		½ jn.jl	W	Britain	dit.	D co	Eng. bot. 898	
2090.	TRIP'LARIS. <i>W.</i>	TRIPLARIS.	♣ □ tm	40	.....	.....	.....	.....	.....	.....
13980	americana <i>W.</i>	American	♣ □ tm	40	Pa.Y	S. Amer.	1824.	C r.m	Aublet, t. 347

DECANDRIA.

2091.	CORIA'RIA. <i>W.</i>	CORIARIA.	.....	.....	.....	.....	.....	.....	.....	.....
13981	myrtifólia <i>W.</i>	Myrtle-leaved	♣ or	6	my.au	G	S. Europe	1629.	L co	Dend. brit. 103
13982	sarmentósa <i>Forst.</i>	running	♣ cu	3	my.au	G	N. Zeal.	1823.	L co	Bot. mag. 2470
2092.	KIGGELA'RIA. <i>W.</i>	KIGGELARIA.	♣ □ or	10	my.jn	W.G	C. G. H.	1683.	C s.l	Lam. ill. t. 821
13983	afriána <i>W.</i>	African	♣ □ or	10	my.jn	W.G	C. G. H.	1683.	C s.l	Lam. ill. t. 821
2093.	SCHI'NUS. <i>W.</i>	SCHINUS.	.....	.....	.....	.....	.....	.....	.....	.....
13984	Mólle <i>W.</i>	Peruvian	♣ □ or	12	jl.au	G	Peru	1597.	L r.m	Mill. ic. 2. t. 246
13985	dentáta <i>H. K.</i>	tooth-leaved	♣ □ or	6	my.jl	G	Owhyhee	1795.	L r.m	Bot. rep. 620
13986	depéndens <i>H. K.</i>	entire-leaved	♣ un	8	my.jl	G	Chili	1790.	C p.l	Cav. ic. 3. t. 239
	<i>Amýris polýgama W.</i>									
2094.	GYMNOCLA'DUS. <i>W.</i>	GYMNOCLADUS.	♣ or	20	.....	.....	.....	.....	.....	.....
13987	canadéus <i>W.</i>	Canadian	♣ or	20	.....	.....	Canada	1748.	R s.l	Mich.ame.2. t.51
2095.	CA'RICA. <i>W.</i>	PAPAW TREE.	.....	.....	.....	.....	.....	.....	.....	.....
13988	Papáya <i>W.</i>	common	♣ □ cul	20	jl	G	India	1690.	S r.m	Bot. reg. 459
13989	caulifóra <i>W.</i>	stem-flowering	♣ □ or	20	.....	G	Caraccas	1806.	S r.m	Jac.schœ.3.t.311
13990	spinósa <i>W.</i>	prickly	♣ □ or	20	.....	W.G	Guiana	1821.	S r.m	Aublet, t. 346
13991	microcárpa <i>W.</i>	small-fruited	♣ □ or	20	.....	W.G	Caraccas	1806.	S r.m	Ja.sch.3.t.309,10
	<i>β monoica Desf.</i>	monacious	♣ □ or	20	.....	W.G	.....	1818.	S r.m	

DODECANDRIA.

2096.	STRATIO'TES. <i>W.</i>	WATER SOLDIER.	.....	.....	.....	.....	.....	.....	.....	.....
13992	aloidés <i>W.</i>	Aloe-like	≡ Δ el	2	jn.jl	W	England	dit.	D lp	Eng. bot. 379
2097.	HY'ENAN'CHE. <i>H. K.</i>	HY'ENA POISON.	.....	.....	.....	.....	.....	.....	.....	.....
13993	globósa <i>H. K.</i>	Cape	♣ □ or	8	aps	W.G	C. G. H.	1783.	C lp	Lam.cinc.52.t.10
2098.	EU'CLEA. <i>W.</i>	EUICLEA.	.....	.....	.....	.....	.....	.....	.....	.....
13994	racemósa <i>W.</i>	round-leaved	♣ □ or	5	n.d	W	C. G. H.	1772.	C p.l	Jac.frag.3.t.1.f.5
13995	unduláta <i>W.</i>	wave-leaved	♣ □ or	5	n.d	W	C. G. H.	1794.	C p.l	



History, Use, Propagation, Culture,

affords a fine deep blue color, destructible, however, both by acids and alkalis. It has been observed that the male and female plants are seldom found intermixed, each sort usually growing in large patches; whence it is probable that this plant, which increases much by the root, rarely produces perfect seeds. *M. annua* was formerly accounted medicinal; its seeds taste like those of hemp.

2089. *Hydrocharis*. From *ύδωρ*, water, and *χαρις*, grace. This little plant is one of the prettiest ornaments of still waters. This plant increases by runners, which shoot out to a great length, and at the joints drop down long roots, which penetrate deep into the mud. The joints are furnished with pendulous buds, supported on long footstalks. The buds consist of two stipulaceous scales folded together, within which are curiously enveloped the embryo leaves of the future plant.

2090. *Triplaris*. All the parts of the fructification are in threes or *triple*. *T. americana* is a tree forty feet high, with a dense pyramidal head. The leaves are oblong, entire, smooth, a span long. The branches are often hollow, and are then filled with an innumerable quantity of little red ants, which are often showered down upon any incautious traveller who may stand under the shade of the tree, and whom they bite severely. (*Bredemeyer*).

2091. *Coriaria*. A tanner's plant; from *corium*, a hide. *Coriaria myrtifolia* has handsome leaves, but very little beauty in the flowers. It is considerably astringent, and is used not only in tanning leather, but in dying black colors. It produces abundance of suckers.

2092. *Kiggelaria*. Named after Francis Kiggelara, an obscure botanist, who lived at the end of the seventeenth century. An uninteresting plant. Ripened cuttings strike in heat under a hand-glass.

2093. *Schinus*. This was the Greek name of the *Pistacia Lentiscus*. It is now applied to an American genus which resembles *Pistacia* in sensible properties. The word *molle*, applied to one species, does not allude to any softness in the plant which bears the name, but is a slight alteration of the Peruvian word *mulli*. Fragrant shrubs with beautiful foliage, easily cultivated in a cold conservatory or out of doors in a warm sheltered place.

2094. *Gymnocladus*. From *γυμνος*, naked, and *κλαδος*, a shoot, on account of the naked appearance of its strange rigid shoots during the winter. This tree or shrub has pinnate leaves nearly a foot and a half long; both leaves and stalks are armed with thorns. The stalks at first grow erect, but afterwards twine about the neighbouring trees and shrubs. It is best propagated by cuttings of the roots.

13977 Stem suffruticose brachiate, Leaves elliptical acute at each end smooth glandular serrated
 13978 Stem suffruticose, Leaves oblong downy with serratures on each side at the end

13979 The only species

13980 Racemes terminal and axillary brachiate

DECANDRIA.

13981 Leaves ovate-lanceolate 3-nerved stalked

13982 Procumbent diffuse, Leaves cordate-ovate acuminate entire 5-nerved stalked, Racemes nodding

13983 Leaves oblong unequally serrated

13984 Leaves pinnated, Leaflets serrated : the odd one very long, Petioles equal

13985 Leaves simple toothed

13986 Leaves simple entire and trifid, Flowers generally octandrous

13987 Leaves bipinnate very large deciduous, Flowers equal dioecious

13988 Leaves palmate 7-lobed : middle lobe sinuated ; segments oblong acute, Male flowers corymbose

13989 Leaves palmate 5-lobed : middle lobe sinuated ; segments lanc. acum. Male fls. from excrescences of trunk

13990 Leaves digitate, Leaflets 7 oblong acuminate entire, Trunk spiny

13991 Leaves 3 or 5-lobed : middle lobe 3-lobed, Male flowers corymbose

β Lower leaves entire : cauline 3-lobed ; upper 5-lobed, Flowers monœcious subracemose erect

DODECANDRIA.

13992 Leaves linear lanceolate keeled prickly toothed

13993 Branches diffuse cinereous scarred, Leaves opposite 3 or 4-nate oblong retuse coriaceous

13994 Leaves oblong or obovate flat

13995 Leaves obovate wavy



and Miscellaneous Particulars.

2095. *Carica*. According to Linnæus, because a native of Caria ; but as the plant has no relation to that country, it would be better to adopt, with Jussieu, the specific name *Papaya* for the genus. *C. Papaya* rises with a thick soft herbaceous stem to the height of eighteen or twenty feet, naked till within two feet of the top, and having marks of the fallen leaves great part of its length. The leaves have long footstalks, are very large, and divided into many lobes. The whole plant abounds with a milky acrid juice, which is esteemed good for the ringworm. The male flowers, which are in loose clusters on long peduncles, are of a pure white, and have an agreeable odor. Sometimes these are succeeded by a small fruit about the size of a pear, which has occasioned some to suppose the male plant a distinct species. The flowers of the female have short peduncles ; they are large and bell-shaped, composed of six yellow petals. When these drop off, the germ swells to a large fleshy fruit the size of a small melon. When ripe it is eaten by the inhabitants of the Caribbee Islands, but its flavor is very indifferent. The most common use of them is when they are about half grown, to soak them in salt water, to get out the milky juice, and pickle them as mangoes, for which they are considered a good substitute. The plant generally is said to have the property of intenerating animal fibre by suspension under its leaves or branches ; but this quality wants confirmation. In our stoves the plants grow freely in loamy soil, and are increased by large cuttings with their leaves on in a moist heat.

2096. *Stratiotes*. From *στρατός*, a camp ; in English, water-soldier ; both names alluding to the military appearance of the plant, with its long sword-like leaves, and flowers which may be likened to plumes of white feathers. An aquatic plant, remaining the greatest part of the year immersed in water, but rising to flower. It increases with such rapidity as to become a troublesome weed in artificial pieces of water in which it is planted.

2097. *Hyænanche*. From *hyæna*, and *αγκη*, pain ; because the fruit is used at the Cape of Good Hope to poison hyænas. A small tree, six or seven feet high, also called *Toxicodendron capense*. The flowers grow in axillary branched yellowish panicles, and are succeeded by smooth nuts, which, being pounded, are used to poison the carcasses of lambs, by which the hyænas are infallibly destroyed.

2098. *Euclea*. From *ευκλεια*, glory or beauty ; in allusion to the permanent beauty of the neat evergreen foliage of the plants. Shrubs or small trees, natives of the Cape of Good Hope. Of one species the berries are brought to the market of Cape Town for sale, and is the only kind of native fruit, except that of *Cissou capensis*, which is there eaten. Ripened cuttings root in sand under a glass.

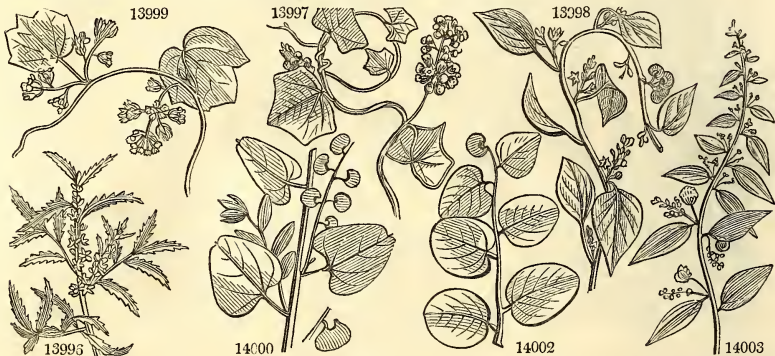
2099. DATISCA. <i>W.</i>	DATISCA.				<i>Resedaceæ.</i>	<i>Sp.</i> 1—2.			
13995 cannabina <i>W.</i>	Hemp-like	♂	△	or 4	jl.s	Y	Candia	1640.	D co Alp. exot. t. 298
2100. MENISPERMUM. <i>D.</i>	MOON SEED.								
13997 canadense <i>W.</i>	Canadian	♂		or 10	jn.jl	G.Y	N. Amer.	1691.	R s.p Bot. mag. 1910
13998 virginicum <i>W.</i>	Virginian	♂		or 20	jn.jl	G.Y	N. Amer.	1732.	R s.p Dil. el. t. 178. f. 219
13999 smilacinum <i>Dec.</i>	Smilax-leaved	♂	⌋	or 10	...	G.Y	Carolina	1776.	R l.p Jac. ic. 3. t. 629
	<i>Cissampelos smilacina W.</i>								
2101. COCCULUS. <i>Dec.</i>	COCCULUS.								
14000 Plukenetii <i>Dec.</i>	official	♂	□	or 10	...	G.Y	E. Indies	1790.	R l.p Pl. man. t. 345. f. 2
14001 Karolinæ <i>W.</i>	Carolina	♂	□	or 4	jn.jl	G.Y	N. Amer.	1810.	R s.p
	<i>Wendlandia populifolia</i>								
14002 orbiculatus <i>Dec.</i>	round-leaved	♂	□	or 6	...	G.Y	E. Indies	1790.	R l.p Pluk. al. t. 384. f. 6
14003 villosus <i>Dec.</i>	villous	♂	□	or 6	...	G.Y	E. Indies	1800.	R l.p Plu. am. t. 384. f. 3
	<i>β hirsutus Dec.</i>	♂	□	or 6	...	G.Y	E. Indies	1800.	R l.p Plu. am. t. 384. f. 7

ICOSANDRIA.

2102. FLACOURTIA. <i>W.</i>	FLACOURTIA.								
14004 Ramontchi <i>W.</i>	shining-leaved	♂	□	fr 12	jn.jl	W	Madagasc.	1775.	C p.l L'Her. stir. 59. t. 30
14005 flavescens <i>W.</i>	yellow-flower'd	♂	□	fr 15	...	W	Guinea	1780.	C p.l
14006 cataphracta <i>W.</i>	many-spined	♂	□	fr 4	...	W	E. Indies	1804.	C p.l
14007 sápidá <i>W.</i>	esulent	♂	□	fr 10	...	W	E. Indies	1800.	C p.l Roxb. cor. 1. t. 69
2103. PEUMUS. <i>Pers.</i>	PEUMUS.								
14008 frágrans <i>Pers.</i>	fragrant	♀	□	ft 30	.....	.....	Chili	1824.	C p.l Feuillée, 3. t. 6
2104. GELONIUM. <i>Roxb.</i>	GELONIUM.								
14009 bifárium <i>Roxb.</i>	oval-leaved	♂	□	un 6	jn.au	Ap	E. Indies	1793.	C p.l
2105. ROTTLE'RA. <i>Roxb.</i>	ROTTLE'RA.								
14010 tinctória <i>Roxb.</i>	dyer's	♂	□	un 15	...	Ap	E. Indies	1810.	C p.l Roxb. cor. 2. t. 168

POLYANDRIA.

2106. CLIFFORTIA. <i>W.</i>	CLIFFORTIA.								
14011 cuneáta <i>W.</i>	wedge-leaved	♂	⌋	or 3	ap	G.W	C. G. H.	1787.	C p.l
14012 ilicifolia <i>W.</i>	Ilex-leaved	♂	⌋	or 3	mys. G	C. G. H.	1714.	C p.l	Dill. ett. t. 31. f. 35
14013 tridentáta <i>W.</i>	three-toothed	♂	⌋	or 3	mys. G	C. G. H.	...	C p.l	
14014 ruscifolia <i>W.</i>	Ruscus-leaved	♂	⌋	or 3	jn.jl	G.W	C. G. H.	1752.	C p.l L'hort. cliff. t. 31
14015 cinérea <i>W.</i>	cinereous	♂	⌋	or 4	jn.jl	G.W	C. G. H.	1800.	C p.l
14016 pulchélla <i>W.</i>	beautiful	♂	⌋	or 1½	ap.my	G.W	C. G. H.	1795.	C p.l
14017 crenáta <i>W.</i>	notched-leaved	♂	⌋	or 3	jl.au	G.W	C. G. H.	1791.	C p.l
14018 ericáfolia <i>W.</i>	Heath-leaved	♂	⌋	or 3	jl.s	G.W	C. G. H.	1799.	C p.l



History, Use, Propagation, Culture,

2099. *Datisca*. A word the meaning of which is unknown. The plant is of no beauty, and of the easiest culture. 2100. *Menispermum*. From *μην*, the moon, and *σπερμα*, seed; on account of the crescent-like form of the fruit. All the species are of the easiest propagation and culture.

The *M. palmatum* produces the famous Colombo root, which is so remarkable for the intense bitterness of its bitter taste, and valuable on this account in dyspepsia, diarrhœa, dysentery, and as a wash for putrid sores.

2101. *Cocculus*. This word is derived from *coccus*, the name of the well-known dyers' insect, and has been applied to this genus on account of the resemblance which has been found to exist between that insect and the scarlet berries of the plant. A genus with the habit of *Menispermum*.

Cocculus Plukenetii produces berries and bunches like grapes, but smaller; first white, then red, and finally blackish purple. In the East Indies they are made up into a paste, and used to intoxicate fish, birds, and different sorts of vermin.

2102. *Flacourtia*. Named in honor of Etienne de Flacourt, a director of the French East India Company, and the commander of an expedition to Madagascar in 1648; of which he afterwards wrote an account, containing considerable details upon the botany of the country. L'Heritier dedicated to him the first species of the genus, which was found by him in Madagascar, where it is called *Ramontchi*. It is a thorny shrub or tree, with leaves and fruit resembling those of the plum. The fruit is young, of a beautiful red when ripe, and finally of a dark violet color: the skin is very thin, and the flesh transparent red, of the same consistence with our common plums: in the middle are a dozen or fourteen small kernels, the size of those in the apple, and nearly of the same shape; they are bitterish like our apricot kernels, and covered with a tender shell. The natives eat the fruit; it is sweet, but leaves a slight sharpness in the mouth. An island on the coast of Madagascar is covered with these trees; and because they resemble the European plum-tree, the sailors have named the island *Isle aux Prunes*, or Plum-tree Island. All the species grow freely in a mixture of loam and peat, and cuttings root in sand, plunged and covered.

2103. *Peumus*. The Chilian name of this plant is *Peumo*. It is the *Ruizia* of the Flora Peruviana, and forms an evergreen tree among the woods upon the sandy shores of Chili; it is valuable for its wood, which is very fragrant.

13996 Stem smooth

13997 Leaves peltate cordate roundish angular

13998 Leaves peltate cordate lobed

13999 Leaves peltate smoothish cordate-roundish bluntly angular glaucous beneath, Racemes simple

14000 Leaves ovate subcordate at base bluntly truncate at end with a little point, Fem. racemes axillary simple

14001 Leaves cordate villous beneath

14002 Leaves orbicular subcordate obtuse 5-7-nerved mucronulate ash-colored beneath, Peduncles very large

14003 Leaves ovate or lanceolate 3-5-nerved: younger villous; old ones downy, Branchlets vill. Pedicels few. fl.

ICOSANDRIA.

14004 Leaves roundish ovate acute crenate

14005 Leaves oblong obtuse serrated narrowed at base

14006 Leaves ovate oblong acuminate serrated

14007 Leaves elliptical bluntish repand serrated obtuse at base

14008 Leaves ovate oblong with pellucid dots, Racemes short pellucid

14009 Leaves elliptical sharp-pointed

14010 Leaves alternate oblong elliptical acute at each end

POLYANDRIA.

14011 Leaves alternate cuneiform truncate 5-toothed at end streaked with veins

14012 Leaves altern. roundish ellipt. amplexicaul. from the middle to end mucronate toothed streaked with veins

14013 Leaves alternate oblong cuneiform entire and 3-toothed nerved downy beneath

14014 Leaves alternate lanceolate smooth nerved terminated by a spine: floral 3-toothed, Branches downy

14015 Leaves connate ovate 3-cornered hoary

14016 Leaves opposite orbicular entire appressed many-nerved

14017 Leaves opposite or ternate orbicular appressed toothletted 7-nerved

14018 Leaves fasciated rounded furrowed smooth



and Miscellaneous Particulars.

2104. *Gelonium*. So named by Roxburgh; but it is not known with what meaning. East Indian trees, with alternate leaves, the tubular stipular of a *Ficus*, and axillary flowers.

2105. *Rottlera*. Named by Roxburgh, in honor of the Rev. Dr. Rottler, an East Indian botanist of reputation, who resided many years at Tranquebar in the character of a Danish missionary. *Rottlera tinctoria* is a native of the inland mountainous parts of the Circars of Hindostan, flowering in the cold season. Dr. Roxburgh never found it any where else. This is a middle-sized, erect, branching tree. Leaves alternate, elliptic, oblong, acute, entire, from four to eight inches in length, three-ribbed, and veiny; nearly smooth above; downy beneath, furnished at their base with two brown glands. Footstalks round, downy, from one to three inches long. Flowers small, in clusters about the tops of the branches, axillary, and terminal; the latter branched. Capsules the size of a small cherry, clothed with abundance of deep red granular powder, easily rubbed off. This powder is a valuable article of commerce, being much esteemed, especially among the Moors, for dyeing silk of a deep, bright, very beautiful and durable, full orange or flower color. When the capsules are ripe, in February or March, they are gathered, and the powder carefully brushed off. It is preserved without any further process, and is sold to the merchants trading to Hyderabad and other inland parts. This substance is but little acted upon by water, except with the admixture of alkaline salts, when it gives out a very deep blood-red color. To spirits it communicates a rich, deep, reddish flame color; but in neither instance does it dissolve, the grains remaining entire, like sand. The inhabitants know this powder by the name of *Wassunta-gunda*, and use it in the following manner:—To four parts of *Wassunta-gunda* are added one of alum, and two of salt of soda, native barilla. These are rubbed well together, with a portion of expressed oil of Sesamum, so small as hardly to be perceived. When well mixed, the whole is put into boiling water, in quantity proportioned to the silk which is to be dyed, and kept boiling smartly, more or less time, according to the shade required. The silk is turned frequently, to render the color uniform.

2106. *Cliffortia*. Named in honor of George Clifford, a Dutch gentleman; a great lover of plants, and one of the earliest of Linnaeus's patrons. He had a superb garden at Hartcamp, of which Linnaeus published the catalogue in one volume folio, in 1737. Shrubs of little beauty, except *C. pulchella*, which is exceedingly pretty; they are easily cultivated in a good greenhouse.

14019	obcordata W.	heart-leaved	三	or	3	jn.au	G.w	C. G. H.	1790.	C	p.1	
14020	trifoliata W.	three-leaved	三	or	10	ap.jl	G.w	C. G. H.	1752.	C	p.1	Pluk.al.t.319.f.4
14021	sarmentosa W.	twiggy	三	or	4	jn.au	W	C. G. H.	1793.	C	p.1	
2107. CYCAS. W.												
Cycas.												
14022	circinalis W.	broad-leaved	三	cu	3	...	Ap	E. Indies	1700.	Sk	r.m	Rh.mal.3.t.13.21
14023	revoluta W.	narrow-leaved	三	cu	3	jl.au	Ap	China	1737.	Sk	r.m	Lin.trans.6.t.29
2108. ZA'MIA. W.												
Zamia.												
14024	pungens W.	needle	三	cu	...	...	Ap	C. G. H.	1775.	Sk	l.p	Till.pis.129.t.45
14025	cycadifolia W.	Cycas-leaved	三	cu	...	...	Ap	C. G. H.	1775.	Sk	l.p	Ja.frag.1.t.25.26
14026	angustifolia Jac.	narrow-leaved	三	cu	...	jl.au	Ap	Bahama I.	...	Sk	p.1	Jac.ic.3.t.636
14027	media Jac.	intermediate	三	cu	...	jl.au	Ap	W. Indies	...	Sk	p.1	Bot.mag.1838
14028	debilis W.	long-leaved	三	cu	...	jl.au	Ap	W. Indies	1777.	Sk	p.1	Bot.cab.155
14029	integrifolia W.	dwarf	三	cu	...	jl.au	Ap	W. Indies	1768.	Sk	p.1	Bot.mag.1851
14030	pygmaea B. M.	least	三	cu	...	my	Ap	W. Indies	...	Sk	p.1	Bot.mag.1741
14031	furfuracea W.	broad-leaved	三	cu	3	jl.au	Ap	W. Indies	1691.	Sk	p.1	Bot.mag.1969
14032	spiralis W.	spiral	三	cu	3	jl.au	Ap	N. S. W.	1796.	Sk	p.1	
14033	horrida W.	gray	三	cu	3	...	Ap	C. G. H.	1800.	Sk	p.1	Jac.fr.27.t.27.28
14034	Cycadis W.	Cycas-like	三	cu	3	...	Ap	C. G. H.	1775.	Sk	p.1	Th.act.ups.2.t.5
14035	pumila B. M.	pygmy	三	cu	1 1/2	...	Ap	C. G. H.	1812.	Sk	p.1	Bot.mag.2006
14036	lanuginosa W.	woolly	三	cu	3	...	Ap	C. G. H.	1812.	Sk	p.1	Jac.frag.t.27.28
14037	longifolia W.	long-leaved	三	cu	7	...	Ap	C. G. H.	1818.	Sk	p.1	Jac.fragm.t.29
14038	tridentata W.	three-toothed	三	cu	2	...	Ap	C. G. H.	1814.	Sk	p.1	

MONADELPHIA.

2109. LATA'NIA. J.												
BOURBON PALM.												
14039	rubra W.	red	三	or	15	...	G.w	Mauritius	1788.	S	co	Jac.frag.13.t.8
14040	borbonica W.	common	三	or	20	...	G.w	Bourbon	1816.	S	co	Jac.frag.t.11.f.1
2110. LEPTOCARPUS. R. Br.												
LEPTOCARPUS.												
14041	tenax R. Br.	tough	三	un	2	...	Ap	N. Holl.	1823.	D	co	Lab.no.hol.t.229
<i>Scaenodium tenax</i> Lab.												
2111. RUS'CUS. W.												
BUTCHER'S BROOM.												
14042	aculeatus W.	prickly	三	or	1	jn.d	G	England	thick.	Sk	co	Eng.bot.560
<i>β larus</i> L. T.												
loose												
14043	Hypophyllum W.	broad-leaved	三	or	1	ja.jn	G	Portugal	...	Sk	co	
14044	Hypoglossum W.	double-leaved	三	or	1	my.jn	G	Italy	1640.	Sk	co	Bot.mag.2049
14045	racemosus W.	climbing	三	or	3	ap.my	G.w	Canaries	1713.	R	p.1	Sch.han.3.t.340
14046	racemosa W.	Alexandrian Laurel	三	or	4	jn	G.Y	Portugal	1713.	Sk	co	Bot.mag.1898
<i>Dend. brit. 145</i>												
2112. ARAUCA'RIA. J.												
ARAUCA'RIA.												
14047	imbricata W.	Sir J. Banks's	三	tm	150	...	Ap	Chili	1796.	C	p.1	Lam.ill.t.328
14048	excelsa H. K.	Norfolk Island	三	tm	100	...	Ap	Norfolk I.	1793.	C	p.1	Lam.pin.t.39.40



History, Use, Propagation, Culture,

2107. *Cycas*. A name employed by the ancients to designate a little palm which grew in Ethiopia. The modern plant is analogous to it. This genus, which seems intermediate between palms and ferns, produces the nutritive granulated power called sago, from *sagu*, the name of a sort of bread made from the pith of the trunk in Tonquin. It is cultivated in China and Japan, and the fruit is eaten in the latter country. The tree, however, is chiefly valued for the pith of its trunk, which is full of white pith like that of the elder. The tree being cut down, this pith is beaten with a wooden pestle in a great mortar or trough; it is then strained, and the sediment, without farther preparation, constitutes sago. The native Indians live wholly upon it for three or four months in the year. That which is transported is dried and granulated. In our stoves these plants require the culture common to all the palm tribe; a rich loamy soil, plenty of pot-room, and a strong moist heat.

2108. *Zamia*. From *ζημια*, loss or damage. Pliny applied the name to the pine-cones of the fir, which, when suffered to decay upon the tree, injured the succeeding crop. The modern genus bears heads of flowers very like pine cones.

2109. *Latania*. The name of this plant in the Isle of Bourbon is *Latanier*. *L. borbonica* is a middle-sized palm with plaited fan-like fronds, which from the elongation of the axis and terminal lobe, seems as if pinnate. When young their middle nerve is downy; it afterwards becomes naked. The stalks of the leaves are spiny. The other species, *L. rubra*, is a much smaller plant, and is remarkable for its red livid leaves.

2110. *Leptocarpus*. From *λεπτος*, smooth, and *καρπος*, fruit; with reference to the polished surface of the seeds. Rushy plants allied to *Restio*, and all natives of New Holland and the South Seas.

2111. *Ruscus*. Anciently *bruscus*, and derived, it is said, from *beus*, box, and *kelem*, holly, in Celtic; box-holly. The French at this day call one species *buis-Épineux* and *petit-houx*. *R. aculeatus* has thick white twining roots, which strike deep into the ground, and send out fibres like those of asparagus. The stem is suffruticose, tough, stiff, and dark green; having many stiff sharp prickly pointed leaves. From the middle of the leaf above, comes out a single flower, on a very short pedicel: when it first appears it is the size and shape of a small pin's head; when expanded, composed of three outer calyxed leaves, and three inner ones con-

- 14019 Leaves ternate veinless smooth roundish elliptical : the middle one smaller orbiculate
 14020 Leaves ternate fascicled veiny hairy : lateral lanceolate entire ; middle one obovate 3-toothed
 14021 Leaves ternate linear villous

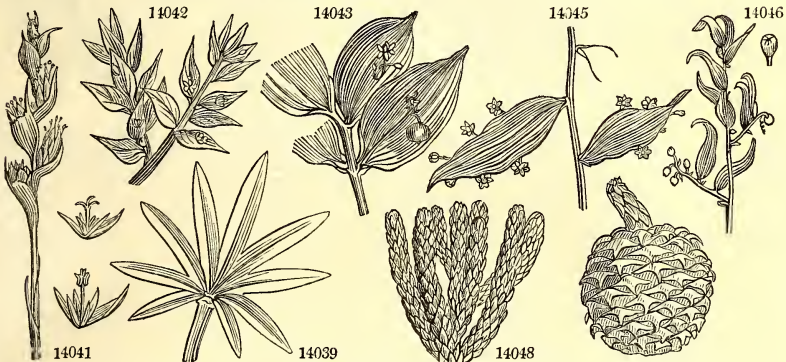
- 14022 Fronds pinnated, Leaflets lanceolate linear acute 1-nerved flat
 14023 Fronds pinnated, Leaflets linear mucronate 1-nerved revolute at edge

- 14024 Fronds pinnat. Leaf. subul. spread. straight rigid mucron. : outer margin of base rounded, Stalk roundish [unarmed
 14025 Fronds pinnated, Leaflets linear mucronate distichous : lower opposite, Stalk $\frac{1}{2}$ -round channelled downy
 14026 Fronds pinnated, Leaflets linear entire with a callous end twice emarginate obtuse, Stalk $\frac{1}{2}$ -round
 14027 Fronds pinnated, Leaflets linear lanc. blunt obsoletely serrulate at end and flat, Stalk 3-cornered smooth
 14028 Fronds pinnated, Leaflets lanc. acute pointless serrated at end, Stalk 3-cornered smooth
 14029 Fronds pinnat. Leaf. lanc. rounded blunt narrow, at base serrul. on outside at end, Stalk smooth nearly sq.
 14030 Very smooth, Leaflets of 16 pairs ovate oblique imbr. serr. at end, Stem round, Ament ovate nodding
 14031 Fronds pinnated, Leaf. lanc. ac. pointless serrat. from middle to end chaffy ben. Stalk roundish spiny below
 14032 Fronds pinnated, Leaflets in 30-40 pairs falciform outwards with 3 or 4 prickly teeth at the end [smooth
 14033 Fronds pinnat. Leaf. frost. glauc. lanc. ac. point. with spiny teeth in midd. on outside, Stalk sq. and trunk
 14034 Leaflets oblique linear-lanceolate subulate hairy curved with 1 or 3 spines at the end and none on stalk
 14035 Leaflets linear entire obtuse of 20 pairs, Stem round unarmed scurfy at base [woolly
 14036 Leaf. oblique lanc. acute mucron. in midd. on outside with 2 spiny teeth smooth, Stalk sq. smooth, Trunk
 14037 Leaflets oblique lanceolate distichous acute pointless entire, Stalk smooth bluntly 4-cornered
 14038 Leaflets oblique linear somewhat sulcate 3-toothed at end smooth, Stalk $\frac{1}{2}$ round channelled

MONADELPHIA.

- 14039 Fronds plaited flabelliform, Leaflets spiny serrulate, Stalk unarmed
 14040 Fronds plaited flabelliform elongated in the middle, Leaflets smooth at edge, Stalk spiny
 14041 Spike divided, Catkins oblong somewhat squarrose. Scales cartilaginous acuminate, Culm simple
 14042 Leaves mucronate pungent flower-bearing on their upper side and naked
 ♂ Leaves elliptical acute at each end, Branches weak
 14043 Leaves bearing flowers on their underside naked
 14044 Leaves bearing flowers on their upper side under a leaflet
 14045 Leaves bearing flowers at their edge
 14046 Raceme terminal hermaphrodite

- 14047 Leaves about 8 imbricated ovate-lanceolate mucronate perennial
 14048 Old leaves closely imbricated inflexed pointless

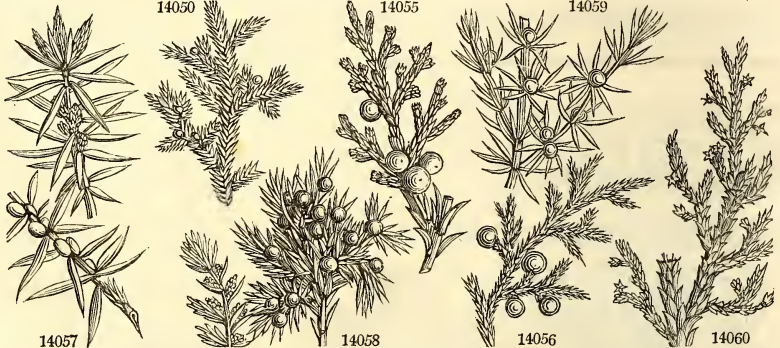


and Miscellaneous Particulars.

sidered as petals. Mr. Woodward remarks, that the flower does not properly grow out of the leaf, but on a pedicel from the bosom of the leaf, which is immersed beneath the outer coat, whence it may with ease be dissected. The female flowers are succeeded by red berries, almost as large as some cherries; they are sweet tasted, with two large orange-colored seeds in each. The green shoots were formerly used by butchers for sweeping their blocks, whence the common English name of the plant. It is still made into besoms in Italy. The tender growths, soon after they have sprung up from the root in spring, have been gathered and eaten by the poor like those of asparagus; and the branches, with the ripe fruit on them, were formerly stuck up in sand, with the stalks of Peony and Iris, displaying their capsules of ripe seeds; the three together made a sort of winter nosegay for rooms. In landscape gardening the plant is valuable as an evergreen, which will grow under the shade and drip of other trees. It harmonizes well with *Daphne Laureola*, and *Ulex nana*, and *Vaccinium vitis idæa*. *R. hypophyllum* has the flowers on the under side of the leaves, which are succeeded by small red berries about the size of those of Juniper. *R. racemosus* is an elegant evergreen shrub, by some supposed to be the plant with which the ancients crowned their victors; but the more general opinion is in favor of *Laurus nobilis*. All the species are readily increased by suckers from the root.

212. *Araucaria*. The inhabitants of Chili call this noble ornament of their forests *araucanos*. *A. excelsa*, the Norfolk Island pine, is a most superb plant, growing to an enormous size, and never losing the bright imperishable foliage with which it is covered, as with a coat of mail. This genus, Sweet observes, "may be termed the handsomest genus of plants with which we are acquainted. *A. imbricata*, in particular, is certainly one of the grandest plants known. It will thrive well in the open air, with the protection of a mat or two in very severe weather, and when got pretty large, will, no doubt, be perfectly hardy. *A. excelsa*, or Norfolk Island pine, is also a beautiful tree, but will not do without the protection of a greenhouse. An equal mixture of sandy loam and peat will suit them very well; and cuttings may be rooted, though with difficulty, taken off at a joint in ripened wood, and planted in a pot of sand, which must be put under a hand-glass, in the propagating house, but not plunged in heat." (*Bot. Cult.* p. 136.)

2113. JUNI'PERUS. <i>W.</i>	JUNIPER.				<i>Coniferæ. Sp. 14--17.</i>			
14049	<i>thurifera W.</i>	Spanish	♂	or 10	my.jn	Ap	S. Europe 1732.	L s.l
14050	<i>bermudiána W.</i>	Bermudas Cedar	♂ Δ	tm 20	my.jn	Ap	Bermudas 1833.	S p.l Herm. lug. t.347
14051	<i>chinénsis W.</i>	Chinese	♂ Δ	or 10	my.jn	Ap	China 1804.	L p.l
14052	<i>excélsa W.</i>	tall	♂	tm 20	...	Ap	Siberia 1806.	L s.l
14053	<i>Sabina W.</i>	Common Savin	♂	or 4	my.jn	Ap	S. Europe 1548.	L s.l
	β <i>tamariscifolia</i>	<i>Tamarisk-ld. do.</i>	♂	or 4	my.jn	Ap	S. Europe 1562.	L s.l
14054	<i>prostráta P. S.</i>	prostrate	♂	or 3	my.jn	Ap	N. Amer. ...	S s.l
14055	<i>daúrica Pall.</i>	Daurian	♂	or 8	jn.au	Ap	Dauria 1791.	L s.l Bot. rep. 534
14056	<i>virginíana W.</i>	Red Cedar	♂	tm 30	my.jn	Ap	N. Amer. 1864.	S s.p Mich. arb. 3. t. 5
14057	<i>communís W.</i>	common	♂	or 15	my.jn	Ap	Britain heaths.	S s.l Eng. bot. 1110
	β <i>suecica</i>	Swedish	♂	or 15	my.jn	Ap	N. Europe ...	L s.l
14058	<i>nána W.</i>	mountain	♂	or 2	my.jn	Ap	Siberia ...	S l.p Par. 2. t. 54. f. A B
14059	<i>Oxycedrus W.</i>	brown-berried	♂	or 15	my.jn	Ap	Spain 1739.	S s.l Duh. arb. 1. t. 128
14060	<i>phenicea W.</i>	Phœnician	♂	or 10	my.jn	Ap	S. Europe 1683.	C s.l Pall. ross. 2. t. 57
14061	<i>lycia W.</i>	Lycian	♂	or 15	my.jn	Ap	S. Europe 1693.	L s.l Pall. ross. 2. t. 57
14062	<i>barbadénsis W.</i>	Barbadoes Cedar	♂	or 20	...	Ap	Florida 1811.	L s.l Pluk. al. t. 197. f. 4
2114. TAX'US. <i>W.</i>	YEW-TREE.						<i>Coniferæ. Sp. 1.</i>	
14063	<i>baccáta W.</i>	common	♂	or 20	f.ap	Ap	Britain	m.wo. S co Eng. bot. 746
	β <i>hibérnica</i>	Hooker	♂	or 12	...	Ap	Ireland	C p.l
2115. EPHE'DRA. <i>W.</i>	EPHEDRA.						<i>Coniferæ. Sp. 3--5.</i>	
14064	<i>distáchya W.</i>	great	♂	cu 2	jn.lj	Ap	France 1570.	L co Sch. han. 3. t. 339
14065	<i>monostáchya W.</i>	small	♂	cu 2	s.n	Ap	Siberia 1772.	L co Dend. brit. 142
14066	<i>altíssima Desf.</i>	lofty	♂	cu 24	...	Ap	Barbary 1825.	L co Desf. atl. t. 253
2116. CISSAM'PELOS. <i>Dec.</i>	PAIREIRA BRAVA ROOT.						<i>Menispermæ. Sp. 5--28.</i>	
14067	<i>Paireira Dec.</i>	genuine	♂ Δ	or 6	jl.au	G	S. Amer. 1733.	C s.p Lam. ill. t. 830



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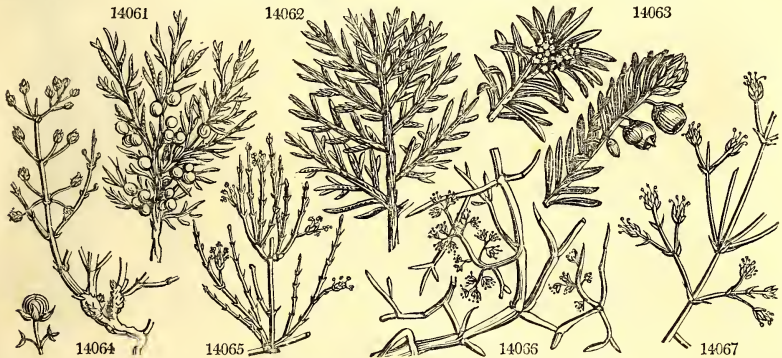
2113. *Juniperus*. From the Celtic *jeneprus*, which signifies rough, or rude. *Sandarach*, the name of a resin produced by the Juniper, is, according to Golius (p. 1225.), an alteration of the Arabic word *sandaróis*. The species, with only one or two exceptions, are close conical-growing evergreen shrubs or trees. The timber of *J. Barbadensis* and *Bermudiana* is imported from the West Indies under the name of Bermudas Cedar. *J. Virginiana* grows in the West Indies, the North American continent, and in Japan. It is one of the highest timber trees in Jamaica, affording very large boards of a reddish brown color, close and firm texture, shining, very odoriferous, and bitter to the taste. It is imported into this and various other countries for the purposes of the cabinet-maker, as it is offensive to most insects. *J. communis* is common in all the northern parts of Europe, in fertile or barren soils, on hills or in vallies, in open sandy plains, or in moist and close woods. On the sides of hills its trunk grows long, but on the tops of rocky mountains and on bogs it is a tufted shrub. In England it is found chiefly on open downs in a chalky or sandy soil. In Scotland it is found in granite, trap, and schistous hills and mountains; but not in the highest summits of the latter. In the south of Europe it is only found in elevated situations; it abounds in the Alps of Switzerland, but is not very common in the Appennines. In our shrubberies it forms a respectable looking conical bush, grouping and combining very well with cypresses, American cedars, and various species of the pine and fir tribe. It is easily transplanted, and bears cropping. Grass will not grow beneath it, but the *Avena Pratensis* is said to destroy it. The wood is hard and durable; the bark may be made into ropes; and ardent spirits, impregnated with the essential oil of these berries, forms the true Juniper water or gin. Various insects feed on this shrub; and it is eaten by horses, sheep, and goats, when they can get nothing better. A gum oozes spontaneously from the trunk of old plants, which is *Sandarach*, and in its powdered form is known under the name of pounce. Juniper berries require to remain two years on the tree before they are fully ripe. The greater quantity of those which are used in Britain, are brought from Germany, Holland, and Italy. They have a peculiar aromatic odor, and a sweetish, pungent, bitterish taste when chewed. In distillation with water, they yield a volatile terebinthinate oil of a greenish color, on which their virtues depend. The flavor and diuretic properties of hollands depend on this oil; it is also supposed to be used for flavoring English gin, but for this purpose oil of turpentine is used. Medicinally, Juniper berries are diuretic and cordial. They have been long known as a remedy in hydropic affections; but they cannot be depended on alone, although they form an excellent adjunct to foxglove and squill. The tops yield the same essential oil as the berries, and may therefore be substituted for them. (*Thom. Lond. Disp.*) *J. suecica* is by some considered only a variety. *J. sabina* seldom produces flowers or seeds in our gardens. Professor Pallas says, that in the Chersonesus *Taurica*, where it is very common, the savin is often found a foot and a half diameter; that it grows upright there, like a cypress, whereas by the Tanais it is procumbent, the branches extending on the sand several fathoms; that the wood very much resembles that of *J. lycia*, but has a more cadaverous smell, and the leaves are more fetid. The leaves and tops of common savin have a strong, heavy, disagreeable flavor, and a bitter hot taste, with a considerable degree of acrimony. These qualities depend on an essential oil, which is obtained in considerable quantity by distillation with water. Both water and alcohol extract its active principles; and Lewis found that on inspissating the spirituous tincture, there remains an extract consisting of two distinct substances, of which one is yellow, unctuous or oily, bitterish, and very pungent; the other black, resinous, tenacious, less pungent, and substringent. Medicinally, savin is a powerful stimulant, possessing diaphoretic, emmenagogue, and anthelmintic properties. It has certainly, however, a considerable effect on the uterine system; but, on account of its stimulating properties, is suited to those cases only of amenorrhœa which are unattended by fever, and in which the circulation is

- 14049 Leaves imbricated in 4 rows acute
 14050 Lower leaves ternate : upper binate decurrent subulate spreading acute
 14051 Leaves decurrent imbricated spreading closely packed, of the stem in threes of the branches in fours
 14052 Leaves opposite bluntnish glandular in the middle imbricated in 4 ways, Stem arborescent
 14053 Lvs. opp. blunt glandular in the middle imbricated in 4 ways : the younger acute and opp. Stem shrubby
 14054 Leaves opp. acute imbricated in about 4 rows smooth glaucous, Branches horizontal prostrate
 14055 Leaves opposite acute imbricated decurrent : occasionally spreading and subulate
 14056 Leaves in 3s adnate at base : younger imbricated ; old ones spreading
 14057 Leaves ternate spreading mucronate longer than the berry
 14058 Leaves ternate falcate somewhat imbricated the length of berries
 14059 Leaves ternate spreading pointed shorter than berry
 14060 Leaves ternate obliterated imbricated blunt
 14061 Leaves ternate imbricated all ways ovate blunt
 14062 Leaves all imbricated in 4 rows : younger ovate ; old ones acute

14063 Leaves thickly set linear distichous flat, Male receptacles globose

- 14064 Sheaths of joints 2-toothed blunt, Catkins 2-3 opposite stalked, Peduncles shorter than catkins
 14065 Sheaths of joints 2-toothed blunt, Catkins solitary scattered or opposite, Peduncles longer than catkin
 14066 Sheaths of joints bifid acum. Male catkins clustered sessile or stalked, Fem. solit. stalk. Branches spreading

14067 Leaves peltate subcordate ovate-orbicular silky beneath, Female racemes longer than leaves



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languid. In plethoric habits, its use should be preceded by repeated bleedings ; and at all times its internal exhibition requires caution. It has been given in gout and worm cases also, but is seldom used. As an external local stimulant or escharotic, the dried leaves in powder are applied to warts, flabby ulcers, and carious bones ; and the expressed juice diluted, or an infusion of the leaves, as a lotion to gangrenous sores, scabies, and tinea capitis, or mixed with lard and wax as an issue ointment. (*Thom. Lond. Disp.* p. 342.)

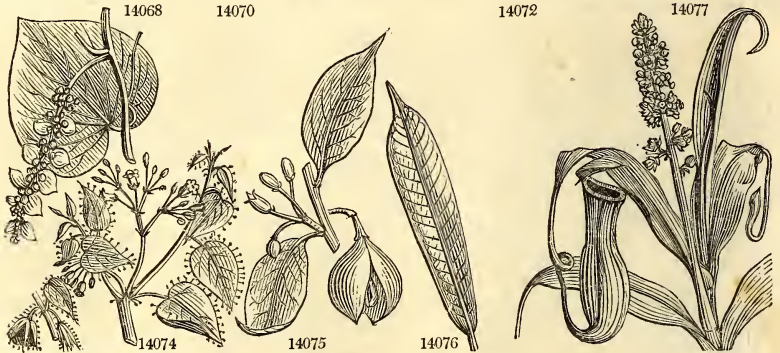
J. Lycia, which greatly resembles the savin, is commonly thought to produce the gum resin called Olibanum ; though Dr. Thomson and others consider the *Boswellia Serrata* of Roxburgh as the true plant. Olibanum is supposed to have been the incense used by the ancients in their religious ceremonies ; it is much employed by the Roman Catholics in their churches, and generally as a perfume in sick rooms.

2114. *Taxus*. According to Vossius this word is derived from *ταξος*, an arrow, because that weapon was formerly poisoned with the juice of the plant. Yew seems to be an alteration of the Celtic *iw*, green. *T. baccata* inhabits mountainous woods in Europe, North America, and Japan. Casar mentions it as very common in Gaul and Germany. In Britain and Ireland there was formerly great abundance in a wild state, and planted in church-yards. Ray says that our ancestors planted the yew in church-yards because it was an evergreen tree, as a symbol of that immortality which they hoped and expected for the persons there deposited. Hence a custom, which still exists in a few places of Wales and Ireland, of carrying twigs of this and other evergreen trees in funerals, and throwing them into the grave with the corpse. According to some, the yew was planted in church-yards on account of its utility in making bows ; but this is by no means likely, when the tree was so common in a wild state, and when a single one would have afforded so very scanty a supply. The bow was considered an engine of military warfare, at least up to the time of Henry VIII. ; so great was the demand for yew in the days of archery, that our own stock could not supply the demand ; it was obliged to be imported, and various laws were passed concerning it from the time of Edward IV. to Elizabeth. The wood of the yew is red and veined, very hard and smooth, used by turners, cabinet-makers, millwrights, and a variety of other artisans. Flood-gates for ponds made of it, are said to be of incredible duration. The twigs and leaves of yew, eaten in a very small quantity, are certain death to horses and cows ; but deer, it is said, will crop these trees with impunity, and sheep and goats are said by Linnæus to eat them. Turkeys, peacocks, and other poultry and birds eat both the leaves and fruit. A few of the berries are not deleterious to the human species, but the leaves are fatal. The tree is very patient of the shears, and was much employed in the ancient style of gardening for verdant architecture and sculpture. Allowed to take its natural shape, and when advanced to a considerable age, it forms one of the handsomest of British evergreens, harmonizing admirably with the holly, the box, and the juniper. The yew is generally propagated from seeds, which are either sown as soon as they are ripe, without clearing them from the pulp, or mixed with sand, and laid in a heap to be turned over two or three times during the winter, and in spring, the seeds from which the pulp will have rotted sown in beds of light loamy soil. By either mode, a part of the plants will come up the first season, and the remainder in that following. The Irish yew is probably a distinct species.

2115. *Ephedra*. This was a name given by the Greeks to our *Equisetum*, which the plant now called *Ephedra* strongly resembles. *E. Distachya* abounds in the southern parts of Russia, and from thence southwards to Persia and India. The berries ripen in July and August : they are sweetish, mucous, and leave a little heat in the throat. They are eaten by the Russian peasants, and by the wandering horaces of all Great Tartary.

2116. *Cissampelos*. From *κισσος*, the Greek name of the ivy, and *αμπελος*, vine ; a plant partaking of the

14068 Caapéba <i>Dec.</i>	nervous-leaved	☒	or	4	jl.au	G	S. Amer.	1733.	C s.p	Plum. ic. 67. f. 2
14069 capen'sis <i>Dec.</i>	Cape	☒	or	6	...	G	C. G. H.	1775.	R p.l	
2117. EXCÆCARIÆ <i>W.</i>	EXCÆCARIÆ.						<i>Euphorbiaceæ.</i>	Sp. 1—6.		
14070 serrata <i>H. K.</i>	saw-leaved	☒	or	6	f.n	W	Chili	1796.	C p.l	
2118. ADELIA. <i>W.</i>	ADELIA.						<i>Euphorbiaceæ.</i>	Sp. 3—6.		
14071 Bernardia <i>W.</i>	villous-leaved	☒	or	6	jl.au	G	Jamaica	1768.	C p.l	
14072 Ricinella <i>W.</i>	smooth-leaved	☒	or	6	jn.au	G.w	Jamaica	1768.	C p.l	
14073 Acidoton <i>W.</i>	Box-leaved	☒	or	3	jn.jl	G.w	Jamaica	1768.	C p.l	
2119. LOUREIRA. <i>W.</i>	LOUREIRA.						<i>Euphorbiaceæ.</i>	Sp. 1—2.		
14074 glandulosa <i>W.</i>	glandulous	☒	or	6	...	...	Mexico	1799.	C p.l	Cav. ic. 5. t. 430
2120. MYRISTICA. <i>W.</i>	NUTMEG.						<i>Myristicææ.</i>	Sp. 2—14.		
14075 moschata <i>W.</i>	true	☒	or	30	...	G.w	E. Indies	1795.	C p.l	Lam. ill. t. 832
14076 fatua <i>W.</i>	tasteless	☒	or	30	...	G.w	Surinam	1812.	C p.l	Pluk.al. t.250. f.6
2121. NEPENTHES. <i>W.</i>	PITCHER PLANT.						Sp. 1—6.			
14077 distillatoria <i>W.</i>	Chinese	☒	or	2	ap.my	G	China	1789.	C p.l	Bur. zeyl.42. t.17
2122. CLUYTIA. <i>W.</i>	CLUYTIA.						<i>Euphorbiaceæ.</i>	Sp. 8—11.		
14078 alaternoides <i>W.</i>	narrow-leaved	☒	or	2	mr.d	W	C. G. H.	1692.	C p.l	Bot. mag. 1321
14079 polygonoides <i>W.</i>	Polygonum-like	☒	or	2	mr d	W	C. G. H.	1790.	C p.l	W. hort. ber. 51
14080 daphnoides <i>W.</i>	Daphne-leaved	☒	or	3	my.jn	W	C. G. H.	1731.	C p.l	W. hort. ber. 52
14081 ericoides <i>W.</i>	Heath-leaved	☒	or	2	ap.jn	W	C. G. H.	1790.	C p.l	
14082 polifolia <i>W.</i>	Poley-leaved	☒	or	2	ap.jn	W	C. G. H.	1790.	C p.l	Jac. schœ.2. t.50
14083 tomentosa <i>W.</i>	tomentose	☒	or	3	ap.jn	W	C. G. H.	1812.	C p.l	
14084 pulchella <i>W.</i>	broad-leaved	☒	or	2	ja.jn	W	C. G. H.	1739.	C p.l	Bot. mag. 1945
14085 collina <i>W.</i>	hill	☒	or	3	...	W	E. Indies	1807.	C p.l	Rox. cor.2. t.160



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nature of the former in its foliage, and of the latter in its fruit. The roots of several species are said to have powerful medicinal qualities. That of the *C. pareira*, or *Parcira brava*, is bitter, diuretic, and aperient; of *C. caepeba* more mucilaginous.

2117. *Excæcaria*. From *excæcare*, to blind. The juice of this plant is so acrid as to cause loss of sight whenever it touches the eyes. *Agallochum*, the produce of one of the species, was the name given by the Greeks to an aromatic wood they obtained from India. In Arabia it is called, according to *Golius*, *āghalūūjij*.

2118. *Adelia*. From *α*, privative, and *δηλος*, visible. The parts of fructification are so minute as to be hardly visible. *A. Bernardia* derives its name from having been considered a distinct genus, and dedicated to the celebrated *Bernard de Jussieu*. *Bernardia* is the name which ought to have been adopted for the genus. Ugly uninteresting shrubs.

2119. *Loureira*. Dedicated by *Cavanilles* to *John de Loureiro*, a Portuguese missionary, who travelled in China and *Cochin-china*, of which he published the *Flora* in 1790.

2120. *Myristica*. From *μύρρα*, myrrh, on account of the odor of the fruit. *M. moschata* produces spheroidal drupes, fleshy, smooth, and finally drying up into a coriaceous crust, and opening on one side. Each berry contains an ovate, globular, serrated nut. The arillus or cover, which is commonly called mace, is fleshy, coriaceous, and reddish-saffron colored. Under this are two shells, the outer thin and brittle, and reticulated by the impressions of the mace: the inner shell is membranaceous, and adheres very closely to the kernel. The fruit would be a drupe was it not for the arillus.

The nutmeg-tree yields three crops annually; the first in April, which is the best; the second in August, and the third in December; yet the fruit requires nine months to ripen it. When it is gathered, the outer coriaceous covering is first stripped off, and then the mace carefully separated and dried in the sun. The nutmegs in the shell are next exposed to heat and smoke for three months, then broken, and the kernels thrown into a strong mixture of lime and water; after which they are cleaned and packed up. This process is necessary for their preservation, and with the same intention the mace is sprinkled with salt water. There are several varieties of the tree; but that denominated the queen nutmeg, which bears a small round nut, is the best. They are imported in chests, which contain each from 100 to 140lbs. weight; the mace comes in chests also of different sizes. The essential oil which is obtained in *Banda* by the distillation of the nut is brought

- 14068 Leaves somewhat orbicular cordate at base 7-nerved or little downy, Fem. racemes the length of leaves
 14069 Lvs. ovate bluntish smooth on short stalks, Racemes much branched, male ? scarcely longer than petiole
 14070 Monœcious diandrous, Leaves oblong serrated
 14071 Leaves oblong downy serrated
 14072 Leaves obovate entire
 14073 Leaves oblong blunt entire fascicled, Spines axillary
 14074 Leaves cordate glandular on the limb
 14075 Leaves oblong acuminate smooth, Veins simple, Fruit solitary smooth
 14076 Leaves oblong lanceolate with starry down beneath, Veins simple, Fruit racemose downy
 14077 Leaves sessile, Pitchers cylindrical, Flowers paniced

- 14078 Leaves sessile linear lanceolate acute, Flowers axillary solitary
 14079 Leaves sessile obovate acute, Peduncles about 3-fl. axillary
 14080 Leaves subsessile lanceolate obovate, Flowers axillary solitary
 14081 Leaves subsessile linear-lanceolate acute thickish, Flowers axillary twin
 14082 Leaves stalked linear blunt mucronate revolute at edge, Flowers axillary subsolitary on long stalks
 14083 Leaves elliptical blunt densely downy on each side, Flowers axillary solitary sessile
 14084 Leaves stalked ovate acute smooth, Flowers in 5s axillary
 14085 Leaves stalked elliptical blunt somewhat retuse smooth shining, Flowers axillary polygamous about 3



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in bottles, and the expressed oil in stone jars. Nutmegs are frequently punctured and boiled in order to obtain the essential oil, and the orifices afterwards closed with powdered sassafras. The fraud is detected by the lightness of the nutmeg. The nutmeg has a fragrant, agreeable, spicy odor, and a warm aromatic taste.

As the medical properties of nutmeg and mace depend on the essential oil they contain, they agree in these circumstances; and both are stimulant, carminative, and, in large doses, narcotic. Mace is more generally used as a culinary spice; but the nutmeg and its volatile oil are in frequent use to cover the disagreeable taste of other medicines, and are sometimes ordered in cases of languor, vomiting, and diarrhœa, and in flatulent colic. On account of the narcotic property of the oil, nutmeg should be cautiously employed in apoplectic and paralytic habits. In India its dangerous effects have been frequently felt; and in this country instances have occurred in which the nutmeg, taken in large quantity, produced drowsiness, great stupor, and insensibility, and on awakening delirium, which alternated with sleep for several hours. (*Thom. Lond. Disp.* p. 395.)

M. fatua is a branching lofty tree; the branches long, tortuous and declining; the leafy and flowering branches downy and ferruginous; and the flowers in axillary and terminal clusters. The fruit varies in size and form on different trees; but is generally oblong, and about as long as a pigeon's egg. From the kernel is extracted a species of yellowish suet or fat, which serves for various medical and economical purposes, and is made into candles. From the wounded bark flows a red acrid juice. The plants are at present rare in British collections: they grow in light loam and peat, and may be increased by cuttings in sand under a bell-glass.

2121. *Nepenthes*. The name under which Homer speaks of a substance, which appears to have been opium. It is impossible to conceive in what sense the word has been applied to the plants now bearing the name. They are the famous pitcher-plants of China and the East Indies, which bear leaves, the extremities of which are hollowed out into cup-like appendages, which are generally filled with water, which seems as if confined within them by a little lid, by which the pitchers are surmounted. The cultivation of the plants is extremely difficult. It requires a very damp atmosphere, much heat, and perhaps, not much light. They are managed more successfully by Loddiges of Hackney, than by any cultivators in this country.

2122. *Cluytia*. Named by Boerhaave, after Outgers Cluyt, or Augier Clutius, a Dutchman, and professor of botany at Leyden. He published, in 1634, a little tract upon the Cocoa-nut of the Maldives, which he called *nux-medica*. The species are of little beauty or interest, and of the easiest propagation and culture.



CLASS XXIII. — POLYGAMIA.

Flowers either male, female, or hermaphrodite, upon the same or different plants.

This class differs from the two preceding in having not only the sexes in different flowers upon the same individual as in Monœcia, or upon separate individuals as in Dioœcia, but also combined in one flower, mixed among those which are unisexual. It may, therefore, be considered to contain those genera which are in a state of transition from the common hermaphrodite structure to absolute unisexuality.

To the first of its orders are referred several grasses, which are excluded from the early classes on account of the separation of their sexes; it also contains the numerous tribe of Mimosas, so well known for their various properties as objects of food, of ornament, of medicine, or of curiosity. The maple is also stationed in the first class, as are a few genera of palms.

The most important genera of the second class, besides the poetical Palmetto, are the ash and the fig. Gleditschia and Ceratonia, two families of Leguminosæ, are valuable, the former for its light, airy, elegant foliage, and the latter for its sweet pods, which are used in Spain, in great quantities, as fodder for cattle.

Order 1. MONŒCIA.



Flowers monœcious.

2123. *Inga*. Hermaphrodite. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous. Pod 2-valved. Seeds unwrapped in pulp, or in an arillus. Male. Cal. 5-toothed. Cor. tubular, 5-fid. Stam. 100, monadelphous.
2124. *Mimosa*. Hermaphrodite. Cal. 5-toothed. Cor. O. or 5-toothed. Stam. 8. Pod separating into one-seeded joints. Male. Cal. 5-toothed. Cor. O. or 5-toothed. Stamens 8.
2125. *Schrankia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10. Pod 4-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 8-10.
2126. *Desmanthus*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 20. Pod 2-valved. Male. Cal. 5-toothed. Cor. O. Stamens 20.
2127. *Acacia*. Hermaphrodite. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100. Pod 2-valved. Male. Cal. 5-toothed. Cor. 5-fid. Stamens 4-100.
2128. *Veratrum*. Hermaphrodite. Cal. O. Cor. 6-petalous. Stamens 6. Ovaries 3. Caps. 3, many-seeded. Male. Same as hermaphrodite, but no ovary.
2129. *Andropogon*. Hermaphrodite. Cal. 1-fl. Paleæ glume bearded, either at base or tip. Stamens 3. Styles 2. Seed 1. Male. Ovary none.
2130. *Chloris*. Flowers 1-sided. Cal. 2-valved, with 2 or 6 florets: one sessile, hermaphrodite; the other stalked, male. Hermaphrodite. Paleæ with a terminal beard. Stamens 3. Styles 2. Seed 1. Male. Cal. O, Paleæ one or two, bearded. Stamens 3.
2131. *Sorghum*. Flowers paniced. Glume coriaceous-cartilaginous, 2-flowered closed. Paleæ of the hermaphrodite bearded; of the neuter single, beardless. Male. Glume 1-fl. stalked. Paleæ 2, beardless.
2132. *Holcus*. Hermaphrodite. Cal. glume 1-2-flowered. Paleæ bearded under the end. Stamens 3. Styles 2. Seed 1. Male. Cal. glume 2-valved. Paleæ O. or 2. Stamens 3.
2133. *Ischæmum*. Hermaphrodite. Cal. glume 2-flowered. Paleæ 2. Stamens 3. Styles 2. Seed 1. Male. Cal. and palea as in hermaphrodite. Stamens 3.
2134. *Æglops*. Hermaphrodite. Cal. glume about 3-flowered, cartilaginous. Palea terminated by a triple beard. Stamens 3. Styles 2. Seed 1. Male. Cal. and pal. of hermaphrodite. Stamens 3.
2135. *Manisuris*. Hermaphrodite. Glume 1-fl. Paleæ 2. Stamens 3. Style bifid. Male. Glume 1-fl. Paleæ 2. Stam. 3. All the valves of calyx emarginate at end and sides.
2136. *Valantia*. Hermaphrodite. Cal. O. Cor. 4-parted. Stamens 4. Style 2-fid. Seed 1. Male. Cal. O. Cor. 3-4-parted. Styles 3-4.
2137. *Parietaria*. Hermaphrodite. Cal. 4-fid. Cor. O. Stam. 4. Style 1. Seed 1. Female. Cal. 4-fid. Cor. O. Style 1. Seed 1.
2138. *Atriplex*. Perfect fl. Perianth. single, 5-partite, inferior. Stam. 5. Style bipartite. Fruit depressed, 1-seeded, covered by the cal. Pistilliferous fl. Perianth. single, 2-partite. Stam. O. The rest as in the perfect flower.
2139. *Rhagodia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5, or fewer. Acinus depressed. Male. Cal., cor., and stam. of the hermaphrodite.
2140. *Terminalia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stam. 10. Drupe inferior. Male. Cal. five-parted. Cor. O. Stamens 10.
2141. *Fusanus*. Hermaphrodite. Cal. 5-fid. Cor. O. Stamens 4. Ovary inferior. Stigma 4. A drupe. Male. Fruit abortive. Cal., cor., and stam. of hermaphrodite.
2142. *Brabejum*. Hermaphrodite. Cor. of catkin 4-parted. Stamens 4. Style 2-fid. Drupe with a fleshy round nut. Male. Cor. of catkin 4-parted. Stamens 4. Style 2-fid, abortive.
2143. *Acer*. Hermaphrodite. Cal. 5-fid. Cor. 5 petals. Stamens 8. Styles 2. Samara winged at end, one-seeded. Male. Cal. 5-fid. Cor. 5 petals. Stamens 8.
2144. *Negundium*. Cal. very small, unequally 4-5-toothed. Pet. O. Male. Flowers fasciated. Anthers 4-5, linear, sessile. Female. Flowers racemose.
2145. *Celtis*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Styles 2. A drupe. Male. Cal. six-parted. Cor. O. Stamens 6.
2146. *Gouania*. Hermaphrodite. Cal. 5-fid. superior. Cor. O. Stamens 5. Style 3-fid. Fruit 3-cornered, 3-parted. Male. Cal. 5-fid. Cor. O. Stamens 5.
2147. *Hermas*. Hermaphrodite. An umbel. Cor. 5 petals. Stamens 5, sterile. Male. An umbel. Cor. 5 petals. Stamens 5, fertile. Styles 2. Seeds 2, inferior, cordate, orbicular.
2148. *Bridelia*. Hermaphrodite. Cal. 5-parted. Petals 5, inserted in calyx. Stamens 5, monadelphous. Styles 2, bifid. Berry 2-seeded. Male. Cal. 5-parted. Petals 5, inserted in the calyx. Filam. columnar, bearing 5 anthers. Female. Cal. and corolla of male. Styles 2, bifid. Berry 2-seeded.
2149. *Feronia*. Hermaphrodite. Cal. 5-toothed. Cor. 5 petals. Stamens 10. Style 1. Berry 5-celled, many-seeded. Male. Cal. 5-toothed. Cor. 5 petals. Stamens 10.
2150. *Atlantus*. Hermaphrodite. Cal. 5-parted. Cor. 5 petals. Stamens 2-3. Ovaria 3-5. Styles lateral. Samaras 1-seeded. Male. Cal. 5-parted. Cor. 5 petals. Stamens 10. Female. Cal. 5-parted. Cor. 5 petals. Ovaries 3-5. Styles lateral. Samaras 1-seeded.
2151. *Clusia*. Hermaphrodite. Cal. 6-leaved. Cor. 4-6 petals. Anthers clustered. Stigmas 4-6. Caps. 6-celled, many-seeded. Male. Cal. 4-6-leaved. Cor. 6 petals. Stamens numerous.
2152. *Ophiosydon*. Hermaphrodite. Cal. 5-fid. Cor. 5-fid. Stamens 3. Ovary 1. Male. Cal. 2-fid. Cor. 5-fid. Stamens 2.

2153. *Rhapis*. Hermaphrodite. Cal. 3-fid. Cor. 3-fid. Stamens 6. Ovary 1. Drupe 1-seeded. Male. Cal. 3-fid. Cor. 3-fid. Stamens 6.

Order 2. DICECIA.



Flowers dicocious.

2154. *Gleditschia*. Hermaphrodite. Cal. 4-fid. Cor. 4 petals. Stamens 6. A pod. Male. Cal. 3-leaved. Petals 3. Stamens 6. Female. Cal. 5-leaved. Petals 5. A pod.

2155. *Ceratonia*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Style 1. Pod coriaceous, many-seeded. Male. Cal. 5-parted. Cor. O. Stamens 5. Female. Cal. about 5-toothed. Cor. O. Style 1. Pod coriaceous, many-seeded.

2156. *Fraxinus*. Hermaphrodite. Cal. O. or 4-parted. Cor. O. or 4 petals. Stamens 2. Samara 1-seeded. Female. Cal. O. or 4-parted. Cor. O. or 4 petals. Samara 1-seeded.

2157. *Brosimum*. Hermaphrodite. Catkin globose, with a solitary ovary at end. Cal. a scale. Cor. O. Anthers peltate, solitary. Style 2-fid. Female. Cal. O. Cor. O. Ovary imbricated with scales. Style 2-fid. Berry coated, 1-seeded.

2158. *Diospyrus*. Hermaphrodite. Cal. and cor. 4-fid. Stam. 8. Style 4-fid. Berry 8-seeded. Male. Cal. and cor. 4-fid. Stamens 8.

2159. *Myrsine*. Cor. half 5-cleft, conniving. Ovary filling the corolla. Drupe 1-seeded. Nut 5-celled.

2160. *Nyssa*. Hermaphrodite. Cal. 5-parted. Cor. O. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-parted. Cor. O. Stam. 10.

2161. *Hamiltonia*. Hermaphrodite. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5. Ovary 1. Drupe inferior. Male. Cal. 5-fid. Cor. O. Nect. a 5-toothed disk. Stamens 5.

2162. *Laurophyllus*. Hermaphrodite. Cal. 4-leaved. Cor. O. Stamens 4. Ovary superior. Style 1. Male. Cal. 4-leaved. Cor. O. Stamens 4.

2163. *Bursera*. Hermaphrodite. Cal. 5-toothed. Petals 5. Stamens 10. Style O. Caps. 3-valved, one-seeded. Male. Cal. 5-toothed. Petals 5. Stamens 10.

2164. *Arctopus*. Male. An umbel. Petals and stamens 5. Hermaphrodite. An umbel. Petals 5. Styles 2. Seeds 2. Involucre very large.

2165. *Panax*. Hermaphrodite. An umbel. Cal. 5-fid. Petals 5. Stamens 5. Styles 2. Berry 2-seeded. Male. An umbel. Cal. entire. Petals 5. Stamens 5.

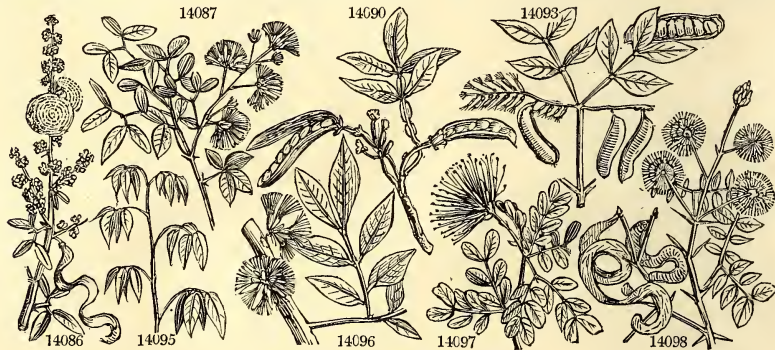
2166. *Ficus*. Common receptacle turbinate, closed, fleshy. Female. Cal. 5-parted. Cor. O. Ovary 1. Seed 1. Male. Cal. 3-parted. Cor. O. Stamens 3.

MONŒCIA.

1213. IN'GA. <i>W.</i>	INGA.				<i>Leguminosæ.</i>	<i>Sp.</i>	13—112.		
14086 dúlcis <i>W.</i>	sweet	☉	□	or 20	...	Pk	E. Indies 1800.	C	p.l Roxb. cor.1. t.99
14087 Unguis-Cati <i>W.</i>	four-leaved	☉	□	or 20	...	Pk	W. Indies 1690.	S	p.l Jac.schœ.3.t.392
14088 biglobosa <i>W.</i>	two-headed	☉	□	fr 30	...	Pk	Martinig. 1823.	S	p.l Ja.am.t.179.f.87
14089 macrophýlla <i>W.</i>	large-leaved	☉	□	or 20	...	Pk	Cumana 1815.	S	s.p
14090 véra <i>W.</i>	common	☉	□	or 30	jl.au	W	W. Indies 1739.	S	s.p Sljam.2.t.183.f.1
14091 rhoifólia <i>W. en.</i>	villous	☉	□	or 12	...	W	Brazil 1815.	S	s.p
14092 álba <i>W.</i>	white	☉	□	or 20	...	W	E. Indies 1804.	S	p.l
14093 margináta <i>W.</i>	marginéd	☉	□	fr 20	...	Pk	W. Indies 1752.	S	s.p Pluk.al.t.141.f.2
14094 mellifera <i>W.</i>	honey-bearing	☉	□	or 20	...	Pk	Arabia 1822.	S	s.p
14095 nodósa <i>W.</i>	knobbed	☉	□	or 20	...	Pk	Ceylon 1690.	S	s.p Pluk.al.t.211.f.5
14096 latifólia <i>W.</i>	broad-leaved	☉	□	or 10	mr.ap	Pu	W. Indies 1768.	S	p.l Plum. ic. t. 9
14097 purpúrea <i>W.</i>	Soldier Wood	☉	□	or 6	mr.ap	Pu	W. Indies 1733.	C	p.l Bot. reg. 129
14098 circinális <i>W.</i>	spiral-podded	☉	□	or 10	...	Pu	W. Indies 1726.	C	p.l Plum. ic. t. 5

1214. MIMO'SA. <i>W.</i>	MIMOSA.				<i>Leguminosæ.</i>	<i>Sp.</i>	12—71.		
14099 víva <i>W.</i>	lively	☉	△	or 1½	jl.s	Pu	Jamaica 1739.	S	p.l Sljam.2.t.182.f.7
14100 cásta <i>W.</i>	chaste	☉	△	pr 2	jl	Pa.Y	E. Indies 1741.	S	p.l Com.hort.1.t.28
14101 sensitíva <i>W.</i>	Sensitive Plant	☉	△	or 1½	ap.s	Pk	Brazil 1648.	C	s.p Bot. reg. 25
14102 latispínosa <i>Lam.</i>	broad-spined	☉	△	el 3	s	W	Madagasc.1823.	S	s.p
14103 obtusifólia <i>W. en.</i>	blunt-leaved	☉	△	or 3	...	Pu	Brazil 1816.	S	s.p
14104 pudica <i>W.</i>	Humble Plant	☉	△	el 1	ap.s	Pu	Brazil 1638.	S	r.m Bot. rep. 544
14105 polydáctyla <i>Humb.</i>	many-fingered	☉	△	el 1½	jn.jl	Pu	Brazil 1822.	S	r.m Kunth. mim. t.5
14106 pígra <i>H. K.</i>	straight-spined	☉	△	el 2	jn.jl	W	Vera Cruz 1733.	S	l.p Brey. cent. t.20
14107 rubicáulis <i>W.</i>	Bramble-stalk.	☉	△	el 3	jn.jl	Pa.Y	E. Indies 1799.	S	l.p Roxb.cor.2.t.200
14108 asperáta <i>W.</i>	rough	☉	△	el 2	jn.jl	W	W. Indies 1823.	S	l.p Dec. legum. t.63
14109 concinna <i>W.</i>	neat	☉	△	el 3	...	Pu	E. Indies 1794.	S	p.l
14110 polystáchya <i>W. en.</i>	many-spiked	☉	△	el 20	...	W	Martinico 1816.	S	p.l Dec.leg. tt.61,62

1215. SCHRANK'IA. <i>W.</i>	SCHRANKIA.				<i>Leguminosæ.</i>	<i>Sp.</i>	2—5.		
14111 aculeáta <i>W.</i>	Vera Cruz	☉	△	cu 2	jl.au	Pk	Vera Cruz 1733.	S	p.l Mil.ic.2.t.182.f.1
14112 uncináta <i>W.</i>	hooked	☉	△	cu 2	jl.au	Pk	N. Amer. 1789.	S	p.l Vent. choix. 23



History, Use, Propagation, Culture,

1213. *Inga*. This is an American name adopted by Marcgraaf. A fine genus of plants, remarkable for their beautiful foliage and flowers; but in cultivation they seldom blossom. *I. purpurea* is a remarkably elegant plant, and so is *Inga biglobosa*. *I. unguis-Cati*, the Cat's claw, *Mimosa*, is so called from the form of its curved spines. All the species require the greatest heat of the bark stove; they increase very slowly by cuttings.

1214. *Mimosa*. Said to be derived from *muus*, a buffoon, because the leaves of the sensitive species appear as if to play with the hand that touches them.

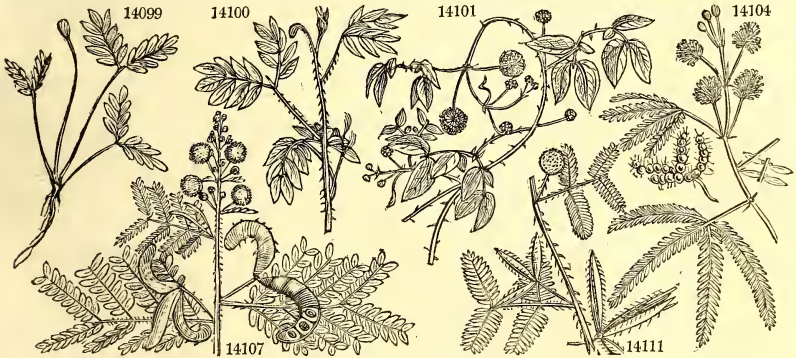
The cause of the well known motion in the leaves of the sensitive plant, has been the subject of many ingenious explanations; but it has not been treated by any botanist with so much ingenuity and address as by Dr. Dutrochet, whose theory we give, as explained by Mr. Lindley in the Botanical Register. M. Dutrochet states, that having ascertained hot nitric acid to possess the power of separating and reducing to its simplest form the whole mass of vegetable tissue, and that the action of the same acid produced other effects equally advantageous for the examination of the most obscure parts of vegetable structure, he was induced to give his attention to that of the *Mimosa pudica*, in the hope of gaining some evidence respecting the cause to which its sensibility is to be ascribed. Beginning with the pith, he observed a considerable number of minute globules of a greenish color, intermingled among the cells, and adhering to them in an irregular manner. After attempting to shew the probability of these globules having deceived M. Mirbel in various points of his analysis of vegetation, and especially in regard to the pores, which that botanist supposes to exist in the cellular tissue of plants, Dr. Dutrochet proceeds to remark, that the application of hot nitric acid to these globules renders them perfectly opaque, whence he concludes, that they are, in fact, minute cells filled with a particular fluid, which is subject to become concrete by the application of acids. Now, it is known, that such fluids as are thus altered by acids, are usually dissolved and liquefied again by the application of alkalies. A few drops, therefore, of a solution of hydrate of potash were suffered to fall upon a portion of the pith on which nitric acid had been acting, and the mixture was exposed to the heat of a lamp. Being examined after a few minutes, the globules were found to have resumed their natural appearance. This curious fact indicated, in the opinion of Dr. Dutrochet, a strong and unexpected point of analogy between plants and animals. According to the microscopical researches of some modern observers, it has been ascertained that all the organs of animals are composed of a conglomeration of minute corpuscles, similar to those just described; the corpuscles which constitute the muscles are soluble in acids, but those which compose the nervous system are insoluble in the same acids, and only soluble in alkalies. Now, as the chemical properties and the external appearance of the particles scattered among the cellular tissue of plants, and constituting the nervous system of animals, are the same, the author is induced to infer, that the spherical particles of plants are, in fact, the

MONŒCIA.

- 14086 Spines stipulary very short straight, Leaves of two pairs halved oblong obt. Panicle simple long terminal
 14087 Spines stipulary straight, Leaves of two pairs roundish elliptical halved emarginate, Raceme terminal
 14088 Unarmed, Leaves bipinnate, Spike double of two globes pendulous
 14089 Unarm. Lvs. bipin. of 2 pairs, Leaf. ov. ac. smooth shining above, Glands betw. every pair, Petiole winged
 14090 Unarm. Lvs. pinn. of about 5 pairs, Leaf. ov. obl. acum. smooth, Gland between every pair, Petiole winged
 14091 Leaf. of 5 pairs obl. acum. hairy above and shining villous beneath, Branches covered with rusty down
 14092 Unarmed, Lvs. of 3 pairs, Leaflets obl. acuminate equal smooth, Gland between each pair, Petiole winged
 14093 Unarm. Lvs. pinn. of 2 pairs, Leaf. obl. lanc. acum. smooth, Gland between each pair, Petiole wing. at end
 14094 Spines stipulary recurved, Leaves of 2 pairs, Leaflets halved obovate, Pod ensiform straight
 14095 Unarm. Lvs. pinn. of 2 pairs, Leaf. obov. obl. unequal sided smooth, A gland between the lowest small ones
 14096 Unarmed, Lvs. conjugate pinnate, Leaflets ov. obl. term. opp. lateral alternate, Flowers in lateral umbels
 14097 Unarmed, Lvs. conjugate pinnate, Leaf. obl. blunt uneq. at base, Petioles without glands, Heads stalked
 14098 Spines stipular, Lvs. conjugate pinnate, Pinnæ of 3 pairs, Leaflets ovate acute smooth, Pods spirally twisted

- 14099 Unarmed herbaceous, Leaves conjugate pinnate, Pinnæ 4 pairs, Leaflets roundish, Pods with one joint
 14100 Prickles of branches and stems scattered hooked, Lvs. bipinn. ciliat. and rough, Sutures of pods very spiny
 14101 Stem and petioles prickly, Leaflets nearly halved ovate acute hairy beneath smooth above
 14102 Spines of petiol. scatter. very broad compr. straight, Lvs. bipinn. finally smooth without glands, Leaf. 10-15
 14103 Stem and petioles prickly, Leaflets halved cordate ovate blunt smooth
 14104 Stem prickly more or less hispid, Leaves digitate-pinnate, Pinnæ 4 of many pairs, Leaflets linear
 14105 Stem aculeate smooth hairy upwards, Leaves digitate-pinnate, Pinnæ 8 of many pairs, Leaflets linear
 14106 Like *M. asperata*, but less hairy
 14107 Prickles of branches and stems scattered hooked, Leaves bipinnate, Pinnæ of 5 pairs, Leaflets 20-25 lin.
 14108 Leaves bipinnate, Pinnæ of 8-12 pairs, Leaflets of many pairs bristly ben. Peduncles twin as long as head
 14109 Prickly, Leaves bipinnate : partial of 6 pairs ; proper of many pairs cultrate, Gland of petiole depressed
 14110 Lvs. bipinnate terminated by a tendril, Pinnæ of 2-3 pairs, Leaflets oval emarg. Spikes numerous fasciated

- 14111 Prickly, Leaves bipinnate : partial of 3 pairs ; proper of many pairs, Pods acute, Stem 4-cornered
 14112 Prickly, Leaves bipinnate : partial of 6 pairs ; proper of many pairs, Pods acute, Stem 5-cornered



and Miscellaneous Particulars.

scattered elements of their nervous system. This hypothesis receives additional strength from the great similarity which exists between the medullary substance of the brain of Mollusca Gasteropoda and the cellular medullary tissue of plants. In pursuit of this idea, Dr. Dutrochet made a variety of experiments upon the sensitive plant, the results of which seem to be these. — The principal point of locomotion, or of *mobility*, exists in the little swelling which is situated at the base of the common and partial petioles of the leaves ; this swelling is composed of a very delicate cellular tissue, in which is found an immense number of nervous corpuscles ; the axis of the swelling is formed of a little fascicle of tubular vessels. It was ascertained by some delicate experiments, that the power of movement, or of contraction and expansion, exists in the parenchyma and cellular tissue of the swelling, and that the central fibres have no specific action connected with the motion. It also appeared that the energy of the nervous powers of the leaf depended wholly upon an abundance of sap, and that a diminution of that fluid occasioned an extreme diminution of the sensibility of the leaves. Prosecuting his remarks yet further, the author ascertained, that in the motion of the sensitive plant, two distinct actions take place, the one of locomotion, which is the consequence of direct violence offered to the leaves, and which occurs in the swellings already spoken of ; the other of *nervimotion*, which depends upon some stimulus applied to the surface of the leaflets, unaccompanied by actual violence, such as the solar rays concentrated in the focus of a lens. As in all cases, the bending or folding of the leaves evidently takes place from one leaf to another with perfect continuity ; it may safely be inferred, that the invisible nervous action takes place in a direct line from the point of original irritation, and that the cause by which this action of *nervimotion* is produced, must be some internal uninterrupted agency. This was, after much curious investigation, determined by the author to exist neither in the pith, nor in the bark, nor even in the cellular tissue filled with nervous corpuscles, and on which, he supposes, the locomotion of the swelling at the base of petioles to depend. It is in the ligneous part of the central system, in certain tubes supplied with nervous corpuscles, and serving for the transmission of the sap, that Dr. Dutrochet believes he has found the true seat of *nervimotion*, which he attributes to the agency of the sap alone, while he considers the power of locomotion to depend upon the nervous corpuscles alone.

Some of the species ripen seed ; others may be increased by cuttings from the points of the young shoots planted in sand and kept closely covered.

The pods of *M. fagitolia* contain a sweet whitish pulp, which the natives of Martinique suck ; they call the tree and its fruit *Pois Doux*, or sweet pea.

2125. *Schrankia*. Named by Willdenow, in honor of his countryman, Francis de Paula Schrank, a well known German botanist. Herbaceous prickly shabby-looking plants, with the habit of *Mimosa*

2126. DESMAN'THUS. <i>W.</i> DESMANTHUS.		<i>Leguminosæ.</i>		<i>Sp.</i> 7—19.	
14113 nátnas <i>W.</i>	floating	圭	un	2	jl.s W China 1800. C p.l Bot. rep. 629
14114 plénus <i>W.</i>	double-yellow	圭	un	2	jl.s Y Vera Cruz 1733. C p.l Mil. ic. 2. t. 182. f. 2
14115 diffúsus <i>W.</i>	prostrate	圭	un	3	jl.au Y W. Indies 1731. C p.l Pluk. al. t. 307. f. 3
14116 virgátus <i>W.</i>	long-twigged	圭	un	3	jl.au Y W. Indies 1774. S p.l Bot. mag. 2454
14117 punctátus <i>W.</i>	spotted-stalked	圭	un	3	jl.au W Jamaica 1686. C p.l Com. hort. 1. t. 31
14118 cinéreus <i>W.</i>	Ash-colored	圭	un	3	jn. jl W E. Indies 1739. C p.l Rox. cor. 2. t. 174
14119 divérgens <i>W. en.</i>	divergent	圭	un	6	jn. jl W Abyssinia 1816. C p.l Bruce Abys. t. 6
2127. ACA'CIA. <i>W.</i>		<i>Leguminosæ.</i>		<i>Sp.</i> 83—258.	
14120 verticilláta <i>W.</i>	whorl-leaved	圭	or	10	mr. my Y V. Di. Isl. 1780. S s.p Bot. mag. 110
14121 juniperina <i>W.</i>	Juniper-leaved	圭	or	6	mr. jn Y N. S. W. 1790. C s.p Bot. cab. 368
14122 aciculáris <i>H. K.</i>	needle-leaved	圭	or	6	mr. au Y N. S. W. 1796. S s.p
14123 genistifólia <i>Link.</i>	furze-leaved	圭	or	3	mr. au Y N. S. W. 1825. S s.p
14124 sulcáta <i>H. K.</i>	furrowed-leav.	圭	or	2	my. au Y N. Holl. 1803. S s.p Bot. reg. 928
14125 suavéolens <i>W.</i>	sweet-scented	圭	or	4	f. jn Y N. S. W. 1790. C s.p Bot. cab. 730
14126 glaucéscens <i>W.</i>	blunt-leaved	圭	or	3	f. jn Y N. S. W. 1790. S s.p
14127 floribúnda <i>W.</i>	many-flowered	圭	or	6	my. jn Y N. S. W. 1796. C s.p Vent. choix. 13
14128 linifólia <i>W.</i>	Flax-leaved	圭	or	3	my. jn Y N. S. W. 1790. S s.p Bot. mag. 2168
14129 lineáris <i>B. M.</i>	linear	圭	or	3	my. jn Y N. S. W. 1820. S s.p Bot. mag. 2153
14130 calamifólia <i>Lindl.</i>	reed-leaved	圭	or	3	my. jn Y N. S. W. 1819. S s.p Bot. reg. 839
14131 stricta <i>W.</i>	double-headed	圭	or	2	f. my Y N. S. W. 1790. C s.p Bot. rep. 53
14132 longifólia <i>W.</i>	long-leaved	圭	or	10	mr. my Y N. S. W. 1792. S s.p Bot. mag. 2166
14133 falcáta <i>W.</i>	sickle-leaved	圭	or	6	my. jn Y N. S. W. 1790. C s.p
14134 laurifólia <i>W.</i>	Laurel-leaved	圭	or	4	my. jn Y Tanna 1775. S s.p
14135 diffúsa <i>B. Reg.</i>	diffuse	圭	or	2	my. jn Y N. S. W. 1818. S s.p Bot. reg. 634
<i>A. prostrata</i> Bot. Cab. 631					
14136 longis'sima <i>Wendl.</i>	longest-leaved	圭	or	4	my. jn Y N. S. W. 1819. s.p Bot. reg. 680
14137 unduláta <i>Lindl.</i>	wavy-leaved	圭	or	4	o. n Y N. S. W. 1817. s.p Bot. reg. 843
14138 melanóxylon <i>H. K.</i>	black-wooded	圭	or	8	ap. jn Y V. Di. Isl. 1808. S s.p Bot. mag. 1659
14139 Sophóræ <i>H. K.</i>	Sophora-podd.	圭	or	10	ap. jn Y V. Di. Isl. 1805. S s.p Lab. no. h. 2. t. 237
14140 margináta <i>H. K.</i>	marginate-leav.	圭	or	4	ap. jn Y N. S. W. 1803. S s.p
14141 myrtifólia <i>W.</i>	Myrtle-leaved	圭	or	3	f. my Y N. S. W. 1789. C s.p Bot. mag. 302
14142 lunáta <i>Dec.</i>	lunate	圭	or	2	ap. my Y N. S. W. 1810. S s.p Bot. cab. 384
14143 angustifólia <i>Wendl.</i>	narrow-leaved	圭	or	2	ap. my Y N. S. W. 1816. S s.p Bot. cab. 763
14144 hispídula <i>W.</i>	little harsh	圭	or	2	ap. my Y N. S. W. 1794. S s.p Bot. cab. 384
14145 decipiens <i>H. K.</i>	paradoxical	圭	or	3	mr. jn Y N. Holl. 1803. C s.p Bot. mag. 1745
14146 bitóra <i>H. K.</i>	two-flowered	圭	or	3	mr. jn Y N. Holl. 1803. S s.p
14147 armáta <i>H. K.</i>	simp. lv.-prick.	圭	or	6	ap. jn Y N. Holl. 1803. S s.p Bot. mag. 1653
14148 aláta <i>H. K.</i>	steeple-leaved	圭	or	6	ap. jl Y N. Holl. 1803. C s.p Bot. reg. 396
14149 vestíta <i>B. Reg.</i>	clothed	圭	or	6	ap. jl Y N. Holl. 1820. S s.p Bot. reg. 698
14150 scándens <i>W.</i>	climbing	圭	or	10	... Pu India 1780. S s.p Rh. mal. 8. t. 32. 34
14151 Lambertiana <i>B. Reg.</i>	Cowan's	圭	el	6	my. jn Pu Mexico 1818. S s.p Bot. reg. 721
14152 ciliáta <i>H. K.</i>	ciliate-winged	圭	or	8	mr. jn Y N. Holl. 1803. S s.p
14153 nigricans <i>H. K.</i>	unequal-wing.	圭	or	8	my. jl Y N. Holl. 1803. S s.p Bot. mag. 2188
14154 guianénsis <i>W.</i>	Guiana	圭	or	40	... W Cayenne 1803. C l.p Aub. gui. 2. t. 357
14155 Houstóni <i>W.</i>	Houston's	圭	or	10	s. n Pu Vera Cruz 1729. C p.l Bot. reg. 98
14156 odorátissima <i>W.</i>	fragrant	圭	it	40	... W E. Indies 1790. S p.l Rox. cor. 2. t. 120
14157 venústa <i>W. en.</i>	charming	圭	or	6	... W Pk S. Amer. 1816. C l.p
14158 arbórea <i>W.</i>	tree	圭	or	40	... W Jamaica 1768. S p.l Plu. al. 6. t. 251. f. 2
14159 Julibrissin <i>W.</i>	Silk tree	圭	or	20	au W Levant 1745. C l.p Scop. in. 1. t. 8



History, Use, Propagation, Culture,

3126. *Desmanthus*. From *δισμν*, a bond, and *ανθος*, a flower, on account of the fascicles of flowers, which seem as if bound up together. These plants are chiefly aquatic; a few are prickly; and they all have the habit of *Mimosa*. *D. natans* is used in China as a pot-herb; and is described by Loureiro, under the name of *Neptunia oleracea*. Willdenow, the author of the genus, observes, that the neuter florets have always a different color from that of the hermaphrodites, whence the spikes appear parti-colored, by which character the genus may be known at a distance. Culture as in *Mimosa*. *D. natans* should be grown in water.

2127. *Acacia*. This was the Greek name of some plant of the present genus, and not being appropriated, was taken by Willdenow, in his reformation of the old genus *Mimosa*, as the designation of one of his new divisions. This is one of the most ornamental families of the greenhouse plants, and some are curious as well as beautiful. *A. Julibrissin*, the *Gul ebruschim*, or rose of silk of the Persians, and the *Gazia* of Italian gardeners, is an elegant hardy tree with beautiful tufts of pink colored flowers, which resemble tassels of silken threads.

A. Catechu and *vera* are used in medicine. The inner wood of the former tree is of a brown color, from which the catechu is thus prepared. "After felling the trees, the manufacturer carefully cuts off all the exterior white part of the wood. The interior colored part is cut into chips, with which he fills a narrow-mouthed unglazed earthen pot, pouring water upon them until he sees it among the upper chips; and when

- 14113 Unarmed, Leaves bipinnate: partial of 3 pairs; proper of many pairs, Spikes ovate, Pedunc. with bracts
 14114 Unarmed, Leaves bipinnate: partial of 3 or 4 pairs; proper of 12 pairs, Spikes ovate, Stem prost. compress.
 14115 Unarmed, Lvs. bipinnate: partial of 4 or 5 pairs; proper of 12 pairs, Spikes few-fl. capit. pentand. Pods lin.
 14116 Unarmed, Lvs. bipinnate: partial of 4 pairs; proper of 12 pairs, Spikes few-fl. capitate decand. Pods linear
 14117 Unarmed, Leaves bipinnate; partial of 4 or 5 pairs; proper of many pairs, Spikes ovate, Pods obl. blunt
 14118 Spines solit. Lvs. bipinn.: partial of about 9 pairs; proper of many pairs, Spikes cylind. atten. at base cernu.
 14119 Spines solitary, Leaves bipinn.: partial of 8 pairs; proper of many pairs, Spikes cylindrical twin pendulous

1. Leafless.

- 14120 Unarmed, Petioles linear subulate mucronate rigid pungent whorled, Spikes cylindrical solitary
 14121 Unarmed, Petioles linear subulate mucronate rigid pungent alternate clustered, Spikes globose solitary
 14122 Petioles round subulate mucronate scattered rigid, Stipules deciduous, Spikes globose solitary
 14123 Stipules spiny very minute, Petioles linear subulate-pungent close together, Peduncles solitary
 14124 Petioles filiform furrowed on each side: point harmless, Heads twin, Pods wavy
 14125 Unarmed, Petioles linear narrowed at base mucron. Spikes globose stalked racemose, Branches 3-cornered
 14126 Unarmed, Petioles lanceolate subfalcate narrowed at base blunt about 2-nerved glaucous, Spikes axillary
 14127 Unarm. Petioles lin. narrowed at each end mucron. arcuate striat. Fls. interruptedly spik. Branches round.
 14128 Unarm. Petiol. lin. narrow. at base straight mucron. Spikes glob. stalk. racem. Racemes nearly as long as lvs.
 14129 Petioles narrow lin. very long 1-nerved erect entire, Spikes several axillary generally branched
 14130 Stip. scarcely any, Petioles filiform compressed cernuous spreading with an incurved point, Pods torulose
 14131 Unarmed, Petioles linear lanceolate narrowed at base obtuse, Spikes globose axillary stalked double
 14132 Unarmed, Petioles lin. lanc. narrowed at each end 3-nerved striated, Spikes axillary double cylindrical
 14133 Unarmed, Petioles oblong falcate narrowed at base acute veiny, Branches 2-edged
 14134 Unarmed, Petioles ovato-acute many-nerved, Spikes globose stalked, Pods falcate
 14135 Stip. very small decidu. Petiol. lin. 1-nerved with an oblique point, Branches procumb. diff. smooth angul.

- 14136 Petioles very long filiform 1-nerved spreading, Spikes several axillary generally branched
 14137 Petioles half oblong wavy: their inner edge a little truncate, Stipules spiny, Branches smooth
 14138 Petioles lanceolate oblong nerved somewhat falcate, Heads racemose, Young shoots furred
 14139 Petioles oblong equal-sided nerved, Spikes twin sessile, Corollas 4-petals, Pods torose
 14140 Petioles long lanc. somewhat falcate edged 1-nerved: the anterior edge with 1 gland, Heads racemose 4-fl.
 14141 Unarmed, Petioles oblong acuminate veiny, Spikes globose stalked racemose
 14142 Petioles half obl. somew. falcate tapered at base with a little gland on the convex side, Branches smooth
 14143 Petioles linear tapered at base acute mucronate 1-nerved entire, Heads racemose many-flowered
 14144 Unarmed, Petioles sessile oblong cuspidate toothletted scabrous, Spikes globose solitary axillary
 14145 Petioles triangular: outer angle spiny; inner bearing glands, Stip. setaceous caducous, Branchlets smooth
 14146 Petiol. triangul.: outer angle spiny; inner bearing glands, Stip. setaceous spiny persist. Branchlets downy
 14147 Petiol. halv. obl. smooth mucronul. 1-nerv.: never parallel with inner edge, Stip. veiny, Branches hirsute
 14148 Stem winged two ways, Petioles decurrent 1-nerved terminated by a spine, Stipules spiny
 14149 Petioles half elliptical lanceolate mucronate aristate 1-nerved in middle and branches hispid

2. Leafy.

* Unarmed.

- 14150 Leaves conjugate pinnate terminated by a tendril, Pinnae of 4 pairs, Spikes filif. Petals 5, Stem climbing
 14151 Unarmed, Leaves bipinnate: partial of 2 pair; proper of 2 pair vill. Petiole without glands, Head globose
 14152 Unarmed hairy, Lvs. bipinnate: partial of 2 pair; proper of 2 or 3 pair, Stip. somew. setaceous deciduous
 14153 Unarmed smooth, Leaves bipinnate: partial of 2 pair; proper of 2 to 7 pair, Stip. subulate setaceous
 14154 Lvs. bipinnate: partial and proper of 10 pairs ellipt. blunt, Gland of petiole convex, Spikes filif. solit. axill.
 14155 Leaves bipinnate: partial of about 6 pairs; proper of many, Petioles downy, Spike terminal interrupted
 14156 Leaves bipinnate: partial of 4 pairs; proper of 10-12, lowest very minute, Spikes globose term. panicled
 14157 Unarmed, Leaves bipinnated, Pinnae of 3 or 5 pair, Leaflets of 15 or 20 pair falcate acute smoothish
 14158 Lvs. bipinn.: partial of 7 pair; proper of 17 pair halv. acute, Spikes glob. stalk. axill. Pods arcuate twisted
 14159 Lvs. bipinn.: partial of 11 pair; proper of many pair halved acute, Spikes subglobose terminal aggregated



and Miscellaneous Particulars.

this is half evaporated by boiling, the decoction, without straining, is poured into a flat earthen pot, boiled to one-third part, and then set in a place to cool for one day. The decoction is afterwards evaporated by the heat of the sun, stirring it several times in the day; and when it is reduced to a considerable thickness, it is spread upon a mat or cloth, which has previously been covered with the ashes of cowdung. The mass is lastly divided into square or quadrangular pieces by a string, and completely dried by turning them in the sun, until they are fit for sale. This extract, when first introduced as a medicine into Europe, was named Terra Japonica, from the supposition that it came from Japan and was an earth."

Medicinally catechu is one of the most valuable of the vegetable astringents; and as the dark colored contains the greater quantity of tannin, on which its astringency depends, it is to be preferred for medicinal use. It is employed with the best effects in dysentery and diarrhoea, when the use of astringents is admissible; in alvine and uterine hæmorrhages, leucorrhœa, gleet, and in obstinate catarrhal affections. As a local astringent, it is used in sponginess of the gums, and aphthous ulcerations of the mouth and fauces, and we have found the slow solution of a small piece of it in the mouth, a certain remedy for the troublesome cough induced by a relaxed uvula hanging into and irritating the glottis. Dr. Paris recommends it as a dentifrice, especially when the gums are spongy.

A. vera produces the gum arabic of the shops. The tree is found in almost every part of Africa, but those

14160 speciosa W.	splendid	♂	□	or	10	au.s	Pu	E. Indies	1742.	C	lp	Jac. ic. t. 1. 198
14161 latisiliqua W.	broad-podded	♂	□	or	10	mr.jn	Pk	W. Indies	1777.	C	lp	Plum. ic. 3. t. 6
14162 Lebbeck W.	Egyptian	♂	□	or	20	mr.jn	Pk	Egypt	1823.	C	lp	Pl. man. p. 331. f. 1
14163 discolor W.	two-colored	♂	□	or	10	mr.jn	Y	N. S. W.	1788.	S	sp	Bot. rep. 235
14164 pubescens H. K.	hairy-stemmed	♂	□	or	10	mr.jn	Y	N. S. W.	1790.	R	sp	Bot. mag. 1263
14165 lophantha W.	two-spiked	♂	□	or	6	my.jl	Y	N. Holl.	1803.	C	sp	Bot. mag. 2108
14166 brachyloba W.	Illinois	♂	△	or	2	...	W	N. Amer.	1803.	C	sp	
14167 glandulosa W.	glandulous	♂	□	or	2	...	W	N. Amer.	1806.	C	sp	Vent. choix. 27
14168 decurrens W.	decurrent	♂	□	or	6	my.jl	Y	N. S. W.	1790.	S	sp	
14169 mollis B. Reg.	soft	♂	□	or	6	jl.au	Y	N. Holl.	1810.	C	sp	Bot. reg. 371
14170 peregrina W.	white-flowered	♂	□	or	8	jl	W	S. Amer.	1780.	C	sp	
14171 grandiflora W.	great-flowered	♂	□	or	10	jn.s	Pu	E. Indies	1769.	C	p1	Bot. reg. 592
14172 glauca W.	glaucous	♂	□	or	5	jn.au	W	America	1690.	S	sp	Cat. car. 2. t. 42
14173 leucocéphala Pers.	white-headed	♂	□	or	5	jn.au	W	S. Amer.	1823.	S	sp	
14174 portoricensis W.	Portorice	♂	□	or	6	jn.au	W	S. Amer.	1824.	S	sp	Jacq. ic. t. 633
14175 quadranguláris Link.	quadrangular	♂	□	or	4	jl.s	W	.....	1825.	S	sp	Bot. mag. 2651
14176 dealbata Link.	whitened	♂	□	or	4	...	Y	.....	1824.	C	sp	

14177 strombulifera W.	spiral-podded	♂	□	or	8	...	...	Peru	1825.	S	sp	
14178 reticulata W. en.	netted	♂	□	or	10	...	W	C. G. H.	1816.	C	sp	Pluk. al. t. 123. f. 2
14179 pulchella H. K.	zigzag spiny	♂	□	or	4	ap.jl	Y	N. Holl.	1803.	S	sp	Bot. cab. 212
14180 juliflora W.	long-flowered	♂	□	or	3	...	W	Jamaica	1793.	C	sp	
14181 Sénégal W.	Arabian	♂	□	or	20	...	W	Arabia	1823.	C	sp	Alp. ægypt. t. 15
14182 Giráffe W. en.	camelopard's	♂	□	or	40	...	...	C. G. H.	1816.	S	p1	
14183 Cáfra W.	Hottentot	♂	□	or	12	...	Y.w	C. G. H.	1800.	S	sp	
14184 Chándra W.	hook-spined	♂	□	or	15	E. Indies	1789.	C	sp	

14185 Cátechu W.	medicinal	♂	□	m	40	...	Pa.Y	E. Indies	1790.	S	p1	Rox. cor. 2. t. 175
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14186 leucophlæa W.	panicled	♂	□	or	12	...	Pa.Y	E. Indies	1812.	C	p1	Rox. cor. 2. t. 150
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14187 cornigera W.	Cuckold Tree	♂	□	or	15	...	Pa.Y	S. Amer.	1692.	C	p1	Plu. al. S. t. 122. f. 1
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14188 eburnea W.	ivory-thorned	♂	□	or	5	...	Y	E. Indies	1792.	C	p1	Rox. cor. 2. t. 199
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14189 hamatoxylon W. en.	hoary	♂	□	or	20	...	Y.w	C. G. H.	1816.	C	p1	
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14190 farnesiána W.	Sponge Tree	♂	□	ft	15	jn.au	Y	St. Domin.	1656.	S	p1	
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14191 véra W.	Egyptian Thorn	♂	□	or	12	jl	W	Egypt	1596.	C	p1	Pluk. al. t. 123. f. 1
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14192 arábica W.	Gum Arab. tree	♂	□	ec	20	...	W	E. Indies	1820.	S	p1	Pluk. al. t. 251. f. 1
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14193 cæ'sia W.	gray	♂	□	or	15	...	Y	E. Indies	1773.	S	p1	Pluk. t. 330. f. 1
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14194 pennata W.	fine-leaved	♂	□	or	12	...	Y	E. Indies	1773.	S	p1	Burm. zeyl. 2. t. 1
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14195 Yntsia W.	angular-stalked	♂	□	or	12	...	Y.w	E. Indies	1778.	S	p1	Rheed. mal. 6. t. 4
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14196 Ceratónia W.	round-leaved	♂	□	or	3	...	W	S. Amer.	1800.	S	p1	Plum. ic. t. 8
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14197 tamarindifolia W.	Tamarind-ld.	♂	□	or	4	...	W	W. Indies	1774.	S	p1	Jac. schœ. 3. t. 396
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14198 hórrida W.	horrid	♂	□	or	6	Africa	1823.	S	p1	Pluk. al. t. 121. f. 4
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14199 flexuosa W.	flexuose	♂	□	or	6	Cumana	1824.	S	p1	
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14200 brachyacantha W. en.	short-spined	♂	□	or	4	S. Amer.	1824.	C	p1	
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14201 ciliáris W. en.	ciliated	♂	□	or	4	S. Amer.	1822.	C	p1	
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14202 peruviana W. en.	Peruvian	♂	□	or	6	Peru	1820.	C	p1	
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2128. VERA'TRUM W. VERATRUM. *Melanthaceæ. Sp. 5-7.*

14203 álbum W.	white	♂	△	m	5	jn.au	L.Y	Europe	1548.	Sk	p1	Fl. dan. 1120
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14204 viride W.	green-flowered	♂	△	or	5	jl.au	G	N. Amer.	1742.	Sk	p1	Bot. mag. 1096
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History, Use, Propagation, Culture,

which yield the gum which is exported from Barbary to Great Britain, grow principally in the Atlas mountains. It is a hard withered looking low tree, with a crooked stem, and a grey bark. The gum exudes naturally from the bark of the trunk and the branches, in a soft, nearly fluid state, and hardens in the air without losing its transparency. It is collected about the middle of December. It has a faint smell when first stowed in the warehouses, and is heard to crack spontaneously for many weeks.

Medicinally gum exerts no action on the living system, but is a simple demulcent, serving to lubricate abraded surfaces, and involve acrid matters in the prima via. In the solid form it is scarcely ever given, unless to sheath the fauces, and allay the tickling irritation which occasions the cough in catarrh and phthisis pulmonalis; in which cases a piece of it is allowed to dissolve slowly in the mouth. It is chiefly used in a state of mucilage.

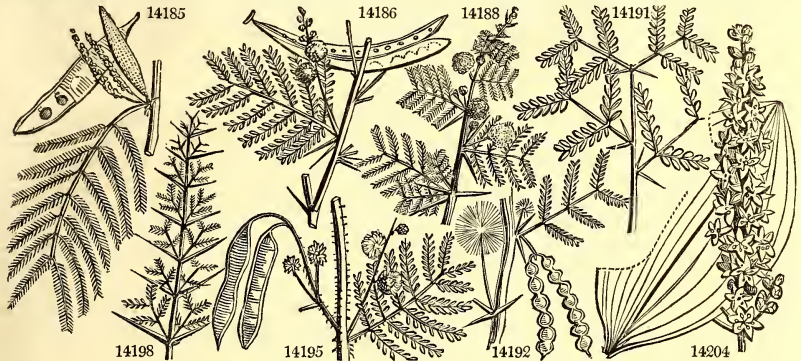
According to Sweet, all the species of Acacia are of easy culture. Those of the hothouse he recommends to be grown in loam and peat. "Cuttings," he says, "of most kinds will strike root. From the strongest growing kinds, take off large cuttings at a joint, and plunge them in a pot of sand under a hand-glass in the bark-bow.

- 14160 Lvs. bipinn. : partial of 4-5 pair ; proper of 7-11 pair halved blunt smooth, Spikes subcapitate axill. aggregate
 14161 Lvs. bipinn. : partial of 5 pair ; proper of 10 pair ellipt. blunt, Spikes globose stalked termin. with bractæa
 14162 Lvs. bipinn. : partial of 4 pair ; proper of many pair oblong halved blunt, Spikes subglobose term. aggregate
 14163 Lvs. bipinn. : partial of 5 pair ; proper of about 10 pair discolored beneath, Spikes globose stalked racemose
 14164 Lvs. bipinn. : partial of 8 pair ; proper of about 15 pair, Racemes axillary solitary, Heads globose stalked
 14165 Lvs. bipinn. : partial of 9-12 pair ; proper of 20 pair lanc. veinless, A gland on stalk and betw. 2 term. petiol.
 14166 Lvs. bipinn. : partial of 8 pair ; proper of many pair, A gland between the lowest pair of the partial ones
 14167 Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland betw. every pair of partial ones, Spikes glob.
 14168 Lvs. bipinn. : part. of 11 pair ; prop. of many pair, A gland betw. every pair of part. ones, Part. petiole marg.
 14169 Lvs. bipinn. : partial of 8-18 pair ; proper of many pair lin. very close downy, A gland between every pair
 14170 Lvs. bipinn. : partial of 16 pair ; proper of about 40 pair, A gland on petiole, Spikes glob. stalked axill. in 3s
 14171 Lvs. bipinnate : partial of 17 pair ; proper of about 40 pair, Spikes subcapitate stalked racemose terminal
 14172 Leaves bipinnate : partial 5-6 pairs ; proper of 18 distant pair, Spikes globose stalked axillary
 14173 Leaves bipinnate, Pinnæ of 4 or 5 pair, Leaflets of 12 or 15 pair oblong linear acute, Petiole downy
 14174 Lvs. bipinn. : partial of 5 pair ; proper of many pair lin. acute, Spikes glob. axill. about 3, Cal. ciliat. at edge
 14175 Lvs. of 5 pair, Pinnæ of many pairs, Leaf. lin. acute ciliat. Rachis of lvs. downy, Heads axill. on long stalks
 14176 Leaves of 15 pair, Pinnæ of many pair, Leaflets equal-sided minute downy, Racemes lateral

* Spiny.

- 14177 Spines stipulary, Leaves conjugate pinnate, Pinnæ of 4-6 pair, Pods spirally twisted
 14178 Spines stipul. straight almost length of leaf. Leaflets oblong linear obtuse dist. Petiole with a gland at end
 14179 Lvs. conjugate pinnate, A stalked gland betw. pinnæ which consist of 5-7 pair, Stip. spiny as long as leaves
 14180 Spines stipulary twin, Lvs. bipinn. : partial of 2 pair ; proper of 20 pair, Spikes axill. 2-3 cylind. pendulous
 14181 Spines stipul. in 3s : midd. one reflex. Lvs. bipinn. : part. of 5 or 6 pair ; prop. of many pair, Spikes axill. cylind.
 14182 Spines stipul. twin con. as long as lvs. Lvs. bipinn. Pinnæ 3 or 6 pair, Leaf. 20 pair, Gland betw. every pinnæ
 14183 Spines stipulary twin incurv. Lvs. bipinn. : partial of 12 pair ; proper of many pair, A gland on the petiole
 14184 Spines stipulary twin hooked, Leaves bipinnate : partial of 9-13 pair ; proper of many pair, A gland on the petiole and between the three terminal outer leaflets
 14185 Spines stipulary twin hooked, Leaves bipinnate : partial of 10 pair ; proper of many or downy, A gland on the petiole and between the two terminal outer leaflets
 14186 Spines stipulary twin connate, Leaves bipinnate : partial of 6-10 pair ; proper of many, A gland between the 2 pair of partial leaves
 14187 Spines stipulary connate compressed, Leaves bipinnate : partial of 6 pair : proper of 20 pair smooth, A gland on the petiole
 14188 Spines stipul. connate twin, Leaves bipinnate : partial of 4 pair ; proper of 6 pair, Spikes globose aggregate
 14189 Spines double slender and branches smooth, Branchlets, leaves, peduncles and fls. hoary
 14190 Spines stipulary setac. dist. Lvs. bipinn. : partial 16 pair ; proper many pair, A gland on petiole and between 2 term. pair of partial leaves
 14191 Spines stipulary twin spreading, Leaves bipinnate : partial of 2 pair ; proper of 8-10 pair, A gland betw. each pair of partial leaves
 14192 Spines stipul. twin spread. Lvs. bipinn. : partial of 5 pair ; proper of many pr. Spikes globose axill. stalked
 14193 Prickly, Lvs. bipinn. : partial of 7 pair ; proper of 16 pair, A gland on petiole, Spikes globose panic. term.
 14194 Prickly, Lvs. bipinn. : partial and proper of many pr. A gland on petiole, Com. ped. and petioles prickly at
 14195 Prickly, Leaves bipinnate : partial of 6 pair ; proper of about 12 pair incurved, Petioles prickly [base
 14196 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 3 pair obovate 3-nerved
 14197 Prickly, Leaves bipinnate : partial of 5 pair ; proper of 15 pair, Gland on petioles stip. and bractes cordate
 14198 Spines stipul. twin nearly as long as lvs. Lvs. bipinn. of 2 or 3 pr. : partial of about 10 pr. Spikes glob. stalked
 14199 Spines stipulary twin connate, Leaves bipinnate : partial of 16 pair ; proper of many pair, A gland on the petiole and between the two terminal pair of partial leaves
 14200 Spines stipulary twin hooked, Leaves bipinnate, Pinnæ of about 10 pair, Leaflets of 10 or 12 pair ciliated
 14201 Spines stipul. twin straight subulate, Leaves bipinnate, Pinnæ of 3 or 4 pair, Leaflets of 13 pair ciliated
 14202 Spines stipulary setaceous double, Leaves bipinnate, Pinnæ of 2 pair, Leaflets of 11-15 pair blunt smooth

- 14203 Racemes panicled, Bractes of branches oblong : partial as long as downy peduncle, Flowers erect
 14204 Racemes panicled, Bractes of branches oblong-lanceolate : partial longer than downy petiole



and Miscellaneous Particulars.

Of the smaller kinds take younger cuttings, and put them under a bell-glass, also plunged in heat. The sooner the plants are potted off after they are rooted the better. If they stay too long, the sand injures their roots: they should be kept under a close glass, and shaded for a few days after potting off, and exposed to the air by degrees." (*Bot. Cult.* 11.)

The greenhouse species are particularly valuable as flowering for the most part in winter, or early in spring; they are very hardy and grow freely in loam, peat, and sand well drained. Cuttings of most kinds, Sweet observes, will root pretty freely, taken off in the young wood and planted in sand, under a bell-glass, and plunged in a little bottom heat. The kinds that do not root readily from cuttings may be increased by taking off roots, as large pieces as can be spared, and planting them in the same kind of soil as the old plants, when they should be plunged under a hand-glass in a little bottom heat. Most of the kinds might be propagated by that means. (*Bot. Cult.* 126.)

2128. *Veratrum*. Said by Lemery to be so called, because its root is *vere-atrum*, truly black. *V. album* has a fleshy fusiform root, beset with strong fibres, gathered into a head; this root and every part of the plant is

14205 virginicum <i>H. K.</i>	Virginian	☞ Δ or	2	jn.jl	Br	N. Amer.	1768.	D	l p	Bot. mag. 985
14206 nigrum <i>W.</i>	dark-flowered	☞ Δ or	3	jn.jl	D. Pu	Siberia	1596.	D	p.1	Bot. mag. 963
14207 parviflorum <i>W.</i>	small-flowered	☞ Δ or	2	jn.jl	G	Carolina	1809.	D	p.1	
2129. ANDROPOGON. <i>W.</i> ANDROPOGON. <i>Gramineæ.</i> <i>Sp. 6—66.</i>										
14208 striatum <i>W.</i>	nerve-glumed	☞ Δ un	1½	au	Ap	E. Indies	1798.	D	co	
14209 contortus <i>W.</i>	twisted	☞ Δ un	2	jl.s	Ap	E. Indies	1779.	D	co	Sch.ha.3.t.342.a.
14210 Schœnanthus <i>W.</i>	Lemon-grass	☞ Δ ft	1½	...	Ap	E. Indies	1586.	D	co	Ru.am.5. t.72. f.2
14211 distachyos <i>W.</i>	two-spiked	☞ Δ un	1½	jl.au	Ap	S. Europe	1805.	D	co	Fl. græc. 1. t. 69
14212 mitis <i>W.</i>	smooth-spiked	☞ Δ un	½	jl.s	Ap	C. G. H.	1794.	D	co	
14213 Ischæmum <i>W.</i>	woolly	☞ Δ un	1	au	Ap	S. Europe	1768.	D	co	Sch. gram. 2. t. 33
2130. CHLORIS. <i>W.</i> <i>Chloris.</i> <i>Sp. 5—24.</i>										
14214 petraea <i>W.</i>	flat-stalked	☞ Δ pr	½	jl.au	Ap	Jamaica	1779.	D	co	Vah.symb.2.t.27
14215 ciliata <i>W.</i>	ciliated	☞ Δ pr	¾	jl.s	Ap	Jamaica	1779.	D	co	
14216 radiata <i>W.</i>	many-spiked	☞ Δ pr	1	au.s	Ap	W. Indies	1739.	S	co	Moris.s.8.t.3.f.15
14217 barbata <i>W.</i>	bearded	☞ Δ pr	1	jn.jl	Ap	E. Indies	1777.	S	co	
14218 curtispéndula <i>W.</i>	short-spiked	☞ Δ pr	½	jn.au	Ap	Illinois	1808.	D	co	
2131. SORGHUM. <i>W. en.</i> SORGHUM. <i>Gramineæ.</i> <i>Sp. 5—9.</i>										
14219 bicolor <i>W. en.</i>	two-colored	☞ ○ clt	3	jl	Ap	Persia	1731.	S	co	M.ac.he.8.t.4.f.4
14220 vulgare <i>W. en.</i>	Indian Millet	☞ ○ clt	4	jl	Ap	India	1596.	S	co	M.ac.he.8.t.4.f.3
14221 rubrum <i>W. en.</i>	red-seeded	☞ ○ clt	3	jl	Ap	Africa	1817.	S	co	
14222 saccharatum <i>W. en.</i>	yellow-seeded	☞ ○ clt	6	jl.au	Ap	India	1759.	S	co	A.ac.pa.1. t.4.f.2
14223 halepense <i>P. S.</i>	panicked	☞ Δ un	3	jl.au	Ap	Syria	1691.	D	co	Fl. græc. 1. t. 68
2132. HOLCUS. <i>W. en.</i> SOFT-GRASS. <i>Gramineæ.</i> <i>Sp. 6—8.</i>										
14224 Grýllus <i>R. Br.</i>	purple-flower'd	☞ Δ un	jn.jl	Ap	S. Europe	1791.	D	co	Fl. græc. 1. t. 67	
14225 mollis <i>W.</i>	creeping	☞ Δ ag	2	jl.au	Ap	Britain	corn fi.	D	h.1	Eng. bot. 1170
14226 lanáta <i>W.</i>	meadow	☞ Δ ag	3	jn.jl	Ap	Britain	me.pa.	D	h.1	Eng. bot. 1169
14227 avenaceus <i>W. en.</i>	owl-like	☞ Δ ag	5	jn.jl	Ap	Britain	me.pa.	D	co	Eng. bot. 813
14228 bulbosus <i>W. en.</i>	bulbous-rooted	☞ Δ ag	3	jn.jl	Ap	.....	.....	D	co	
14229 odoratus <i>W.</i>	sweet-scented	☞ Δ ft	1½	ju.jl	Ap	N. Amer.	1777.	D	co	
2133. ISCHÆMUM. <i>W.</i> ISCHÆMUM. <i>Gramineæ.</i> <i>Sp. 2—21.</i>										
14230 aristatum <i>W.</i>	bearded	☞ Δ un	2	jn.jl	Ap	E. Indies	1803.	D	co	
14231 rugosum <i>W.</i>	rough	☞ Δ un	2	jl.au	Ap	E. Indies	1791.	S	co	Sal.stir.rar.1.t.1



History, Use, Propagation, Culture,

extremely acrid and poisonous. It is used in medicine, and its properties are found to depend on veratrine, the same alkaline principle which is the active ingredient of colchicum. Medicinally it is violently cathartic and sternutatory. When taken internally, even in moderate doses, its operation is violent and dangerous; producing besides hypercatharsis, with bloody stools and excessive vomiting, great anxiety, tremors, vertigo, syncope, sinking of the pulse, cold sweats, and convulsions, terminating, if the dose be large, in death. Its external application to an ulcerated surface also produces griping and purging. Notwithstanding these effects, Veratrum has been exhibited internally, and with advantage, in mania, epilepsis, scabies, lepra, and obstinate herpetic eruptions. But the most ordinary use of white hellebore is as a local stimulant. When taken internally as a poison, the best antidote is a strong infusion of nut-galls. (*Thom. Lond. Disp. p. 545.*)

V. nigrum is very nearly allied to album, but differs in color, and seems not to be so strong and acrid in its qualities; for when both sorts are placed near each other, snails will entirely devour the leaves of this species, when they will scarcely touch those of the other.

2129. *Andropogon.* From *ανδρ*, a man, and *πογων*, a beard. A hyperbolic comparison of the little tuft of hairs upon the flower to the beard of a man. *A. schœnanthus* has an agreeable smell, with a warm, bitterish, not unpleasant taste. It was formerly brought over from Turkey in bundles about a foot long, and kept in the shops to be employed as a stomachic and deobstruent, but it is now little used. All the species are of the easiest culture.

2130. *Chloris.* Derived from *χλωρος*, green, on account of the color of its herbage. Pretty little grasses, with beautiful one-sided spikes of silky flowers.

2131. *Sorghum.* *Sorghí* is the Indian name, according to Bauhin. *S. vulgare*, *grand millet*, Fr., *Saggena* or *Sorgo*, Ital., and *alcandia*, Span., is much cultivated in Arabia and most parts of Asia Minor. It has been introduced into Italy, Spain, Switzerland, and some parts of Germany; also into China, Cochinchina, and the West Indies, where it grows commonly five or six feet high or more, and being esteemed a hearty food for labourers, is called *Negro Guinea corn*. Its long awns or bristles defend it from the birds. In England, the autumns are seldom dry and warm enough to ripen the seeds well in the field. In Arabia it is called *Dora* or *Durra*. The flour is very white, and they make good bread of it, or rather cakes, about two inches in thickness. The bread which they make of it in some parts of Italy is dark and coarse. In Tuscany it is used chiefly for feeding poultry and pigeons; sometimes for kine, swine, and horses. Brooms are made of the spikes, which are also sent to this country for the same purpose. The Indian millet, as well as the common sort (*Panicum*), is cultivated in some parts of North America, and has been tried in this country, but it is only in the warmest autumns that it ripens its seeds. It might probably, however, be acclimated.

- 14205 Racemes paniced, Bractes shorter than peduncle, Petals with 2 glands at base
 14206 Racemes supradecomposed paniced, Bractes of branches linear-lanceolate very long
 14207 Racemes paniced, Petals bearing the stamens on their claw

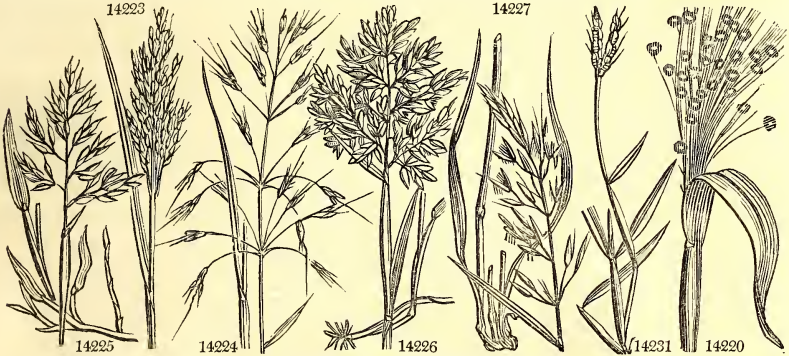
- 14208 Spike simple, Flowers twin : hermaphrodite sessile awned ; male stalked, Outer valve of cal. nerved
 14209 Spike simple, Lower flower beardless, Male and hermaphrodite calyxes hairy, Awns very long hirsute
 14210 Spikes imbric, conjug. panic. bract. Fls. in 3s : midd. hermap. beard ; beard smooth : lat. stalk. male bearded.
 14211 Spikes twin terminal, Florets twin bearded : hermaphrodite sessile ; male bearded, Culm undivided
 14212 Spikes digitate about 3, Florets alternate sessile beardless
 14213 Spikes digitate about 8, Florets twin woolly at base : hermaphrodite sessile bearded ; male stalked bearded

- 14214 Spikes 4-5-6 straight erect, Florets imbric, nearly smooth beardless, Outer valve of cal. beard. Culm compr.
 14215 Spikes digitate about 5 erect, Glumes ciliated
 14216 Spikes many fascicled nearly erect, Florets subulate smooth
 14217 Spikes many fascicled, Glumes ciliated bearded, Male valves ventricose bearded
 14218 Spikes many alternate paniced pendulous, Spikelets 4-flowered

- 14219 Panicle contracted ovate, Florets strigose with down black, Seeds white round
 14220 Panicle contracted oblong, Florets obovate shining hairy, Seeds compressed
 14221 Panicle spreading, Florets oblong acute shining ciliated
 14222 Panicle effuse, Branches spreading, Florets villous oblong, Leaves broad lanceolate
 14223 Panicle spreading, Branches rough, Florets lanc. acute silky shining, Leaves lanceolate rough at edge

- 14224 Panicle effuse spreading, Branches whorled 3-fl. Peduncles bearded, Leaves and sheaths hairy
 14225 Glumes 2-fl. hermaphrodite, Sessile floret beardless stalked bearded, Beard longer than flower
 14226 Glumes 2-fl. : hermaphrodite beardless, Beard of the male much shorter than flower recurved
 14227 Male flowers with a jointed beard twice as long as calyx, Joints of culm smooth, Root nodose
 14228 Male flowers with a jointed beard twice as long as calyx, Joints of culm villous, Root bulbous [Gm.
 14229 Panicle spread. Glumes 3-fl. bearded. Flor. heaped : hernap. in midd. diand. ; male triand. ciliat. *Hierochloa*

- 14230 Leaves lanc. Florets naked, Outer valve of cal. with 2 nodules on each side, Beard of cor. long twisted
 14231 Leaves lanceolate, Neuter florets intermediate wrinkled across : two lateral smooth



and Miscellaneous Particulars.

2132. *Holcus*. From *ἄλω*, to extract. It was a popular notion among the ancients, that the leaves of the plant they called *Holcus*, which seems to have been a grass of some kind, had the property of extracting thorns from the flesh. *H. mollis* is distinguished by its creeping roots, which, when once in possession of the soil, as Mr. Sinclair observes, can hardly be again expelled without great labor and expence. It is the true couch-grass of light sandy soils, and underground stolons have been found five feet in length, the growth of a few months only. These root-shoots contain a very considerable quantity of nutritive matter, which has the flavor of new made meal. Pigs are very fond of the roots, and dig them up with eagerness; but the herbage is disliked by cattle, more than that of any other species of the genus, being extremely soft, dry, and tasteless. The best mode of banishing this weed from light arable lands, is to collect the roots with the fork after the plough. (*Sinclair, Hort. Gram.* 167.)

H. lanatus has a fibrous root, and grows on all soils from the richest to the poorest, but attains to the highest degree of luxuriance on light moist peaty soils. Cattle prefer almost any other grass to this; it is seen in pastures with full grown perfect leaves, while the grasses that surround it are cropped to the roots. Its nutritive matter consists entirely of mucilage and sugar; while the nutritive matters of grasses most liked by cattle are either sub-acid or saline. Mr. Sinclair suggests, that this grass might probably be made more palatable to cattle, by being sprinkled over with salt. (*Hort. Gram.* 164.)

H. avenaceus, the *Avena elatior* of Linnaeus, Curtis, and Host, is a bulky productive grass, eaten by horses, cattle, and sheep, but less nutritious than many other grasses. It pushes rapidly after being cropped; and though later in flowering than many other species, produces an early and plentiful supply of herbage in the spring. These properties would entitle it to rank high as a grass adapted for the alternate husbandry, but its nutritive matter contains too large a proportion of bitter extractive and saline matters to warrant its cultivation, without a considerable admixture of different grasses; and the same objection extends to its culture for permanent pasture. It is always present in the composition of the best natural pastures, and, as before mentioned, eaten in common with other grasses. It does not, however, constitute a large proportion of the herbage, but rather the least of any of the more valuable grasses that have been mentioned. (*Hort. Gram.* p. 171.) This grass and *Triticum repens* are the two species eaten by dogs to excite vomiting. One variety has bulbous roots, and is a noxious weed in arable lands.

H. odoratus is one of the earliest flowering grasses; but it is tender, the spring produce of herbage is inconsiderable, and its powerful creeping roots render it unfit for agricultural purposes. (*Hort. Gram.* 169.)

2133. *Ischaemum*. From *ἰσχω*, to stop, and *αιμα*, blood. Fliny says, that the Thracians first discovered that the woolly seed which is borne by the *Ischaemum*, if introduced into the nostrils, has the power of stopping the bleeding at the nose. Useless grasses.

2134. <i>ÆGILOPS</i> . <i>W.</i>	HARD-GRASS.				<i>Gramineæ.</i>	<i>Sp. 5.</i>			
14232 <i>ovata</i> <i>W.</i>	oval-spiked	♂	○	un	♂ jn.jl	Ap	S. Europe	1683.	S co
14233 <i>triuncialis</i> <i>W.</i>	long-spiked	♂	○	un	♂ jl.au	Ap	S. Europe	1739.	S co
14234 <i>cylindrica</i> <i>W.</i>	cylindrical	♂	○	un	1 ju.jl	Ap	Hungary	1805.	S co
14235 <i>squarrosa</i> <i>W.</i>	rough-spiked	♂	△	un	1½ jn.jl	Ap	Levant	1794.	S co
14236 <i>caudata</i> <i>W.</i>	Cretan	♂	○	un	1 jn.jl	Ap	Candia	1739.	S co
2135. <i>MANISURIS</i> . <i>W.</i>	MANISURIS.				<i>Gramineæ.</i>	<i>Sp. 1—2.</i>			
14237 <i>granularis</i> <i>W.</i>	round-grained	♂	□	cu	1½ jn.jl	Ap	E. Indies	1784.	S co
2136. <i>VALANTIA</i> . <i>W.</i>	VALANTIA.				<i>Rubiaceæ.</i>	<i>Sp. 10.</i>			
14238 <i>Cruciata</i> <i>W.</i>	Crosswort	♂	△	or	1½ my.jn	Y	Britain	...	D co
14239 <i>murâlis</i> <i>W.</i>	wall	♂	○	un	♂ my.jl	G	S. Europe	1739.	S co
14240 <i>hispida</i> <i>W.</i>	bristly	♂	○	un	1 my.jl	G-y	S. Europe	1768.	S co
14241 <i>filiformis</i> <i>W.</i>	least	♂	○	un	½ jl.s	G-y	Canaries	1780.	S co
14242 <i>pedemontana</i> <i>W.</i>	Piedmont	♂	○	un	½ jl	G-y	Hungary	1799.	S co
14243 <i>Cucullaria</i> <i>W.</i>	hooded	♂	○	un	my.jn	G-y	Levant	1780.	S co
14244 <i>Aparine</i> <i>W.</i>	warty-fruited	♂	○	w	♂ jn.au	G-y	Britain	...	S co
	<i>Gâitium verrucosum</i>	E. B.							
14245 <i>articulata</i> <i>W.</i>	jointed	♂	○	un	1 jl.au	G-y	Egypt	1752.	S co
14246 <i>glabra</i> <i>W.</i>	smooth	♂	△	un	1 jl.au	G-y	S. Europe	1731.	D co
14247 <i>aspera</i> <i>W.</i>	rough	♂	△	un	½ jn.jl	G-y	Siberia	1804.	D co
2137. <i>PARIETARIA</i> . <i>W.</i>	PELLITORY.				<i>Urticæ.</i>	<i>Sp. 7—19.</i>			
14248 <i>indica</i> <i>W.</i>	Indian	♀	□	un	1½ ap.my	G	E. Indies	1790.	D co
14249 <i>officinâlis</i> <i>W.</i>	wall	♀	△	w	1 jn.s	G	Britain walls.	D co	
14250 <i>juddica</i> <i>W.</i>	Basil-leaved	♀	○	un	1 jn.s	G	Germany	1728.	S co
14251 <i>persylvanica</i> <i>W.</i>	Pennsylvanian	♀	○	un	½ jl	G	Pensylva.	1821.	S co
14252 <i>urticæfolia</i> <i>W.</i>	Nettle-leaved	♀	□	un	1 jn.s	G	Bourboin	1700.	S co
14253 <i>lusitânica</i> <i>W.</i>	Chickweed-lvd.	♀	○	un	½ jl.au	G	Spain	1710.	S co
14254 <i>polygonoides</i> <i>W.</i>	Polygonum-lvd.	♀	○	un	½ jl.au	G	Armenia	1728.	S co
2138. <i>A/TRIPLEX</i> . <i>W.</i>	ORACHE.				<i>Chenopodeæ.</i>	<i>Sp. 15—37.</i>			
14255 <i>Hâlinus</i> <i>W.</i>	tall shrubby	♂	or	5	jl.au	G	Spain	1640.	C co
14256 <i>portulacoides</i> <i>W.</i>	dwarf shrubby	♂	or	2	jl.au	G	Britain mud.s.	C co	
14257 <i>glauca</i> <i>W.</i>	glaucous	♂	□	un	2 jn.jl	G	S. Europe	1732.	C s.l
14258 <i>âlbicans</i> <i>W.</i>	white	♂	□	un	2 jn.jl	G	C. G. H.	1774.	C s.l
14259 <i>rôsea</i> <i>W.</i>	Rose	♂	○	un	1½ jn.jl	G	S. Europe	1739.	S co
14260 <i>sibirica</i> <i>W.</i>	Siberian	♂	○	un	2 jl.au	G	Siberia	1783.	S co
14261 <i>tatârîca</i> <i>W.</i>	Tartarian	♂	○	un	2 jl.au	G	Tartary	1778.	S co
14262 <i>horténsis</i> <i>W.</i>	garden	♂	○	cul	6 jl.au	G	Tartary	1548.	S co
	<i>red garden</i>	♂	○	cul	6 jl.au	G	Tartary	1548.	S co
14263 <i>lacinîata</i> <i>W.</i>	frosted sea	♂	○	w	1½ jl.au	G	Britain san.sh.	S co	Eng. bot. 165
14264 <i>pâtula</i> <i>W.</i>	spreading	♂	○	w	¾ jn.s	G	Britain dungh.	S co	Eng. bot. 936
14265 <i>angustifolia</i> <i>W.</i>	narrow-leaved	♂	○	w	¾ jn.au	G	Britain rub.	S co	Eng. bot. 1774
14266 <i>erecta</i> <i>W.</i>	upright	♂	○	w	1½ au	G	England fields.	S co	Eng. bot. 2323
14267 <i>littorâlis</i> <i>W.</i>	Grass-leaved	♂	○	w	1 au.s	G	Britain mud.s.	S co	Eng. bot. 708
14268 <i>pedunculata</i> <i>W.</i>	pedunculated	♂	○	w	1½ jl.s	G	England sal.m.	S co	Eng. bot. 232
14269 <i>microspérma</i> <i>W.</i>	small-seeded	♂	○	un	1½ jl.s	G	Hungary	1800.	S co
2139. <i>RHAGODIA</i> . <i>R. Br.</i>	RHAGODIA.				<i>Chenopodeæ.</i>	<i>Sp. 1—7.</i>			
14270 <i>hastata</i> <i>R. Br.</i>	halberd-leaved	♂	□	un	2 jn.jl	G	N. S. W.	1803.	C l.p



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2134. *Ægilops*. From *αἴς* *ayos*, a goat, and *ὄψ*, the eye. The ancients believed that the plant they named *Ægilops* had the power of curing a disease of one corner of the eye, which seems to have been what we call *Fistula lachrymalis*. The *Ægilops ovata* is a common Sicilian grass; when ripe, it is gathered by the peasantry, who tie the heads up in bunches, and set them on fire; they burn with rapidity, and so give the grains a slight roasting, which are then considered agreeable food.

2135. *Manisuris*. Said to be so called, from *μανος*, relaxed, and *υρα*, tail, or, in botanical language, a head of grass; because the spikes are loose, and not compact. A curious little plant remarkable for its wrinkled grains.

2136. *Valantia*. Miserable weeds of no beauty or use; called by their present name by Linnæus in reference to Sebastian Vaillant, a learned and excellent French botanist, who died in 1722. The author of the name would have employed his time better in considering the botanical writings of Vaillant, than in identifying with the most worthless part of vegetation an author whose merits he was not able to understand. No man was more given to sneers of this kind than Linnæus; and yet his followers manifest a most extraordinary degree of sensitiveness whenever he is retorted upon in a similar way; although few ever deserved criticism in some things in a higher degree than himself.

2137. *Parietaria*. From *paries*, a wall. Weeds which are commonly found upon old walls, or rubbish heaps. *P. officinalis* presents some curious anomalies in its inflorescence and fructification. To obtain a perfect idea of

- 14232 Spike ovate, Cal. all with 4 beards scabrous, Culms ascending
 14233 Spike cylind. Lower cal. with 2 beards: the rest with 3, Beards of 2 terminal florets longer than the rest
 14234 Spike cylindrical, Cal. with 1 beard, Cor. beardless, Terminal beards very long
 14235 Spike cylindrical, Cal. 2-toothed beardless, Co.r with 1 beard
 14236 Spike cylindrical, Cal. 2-toothed: teeth unequal beardless, Valves of terminal floret with 1 valve only

14237 Valves of female fl. globose tessellated warted, Culm erect branched, Sheaths hairy

- 14238 Leaves 4 ellipt. obl. 3-nerved netted hispid, Peduncles branched smooth bracted, Fruit smooth
 14239 Leaves 4 elliptical netted smooth, Male fl. trifid attached to the base of the hermaphrodite
 14240 Leaves 4 obovate-oblong veinless roughish, Male fl. trifid attached to the base of the hermaphrodite
 14241 Leaves 4 oblong ciliate toothletted netted smooth, Ovary oblong chaffy longer than pedicel
 14242 Leaves 4 oblong ciliate hispid, Pedunc. subbifid ciliated, Male fl. trifid, Ovary smooth
 14243 Leaves 4 oblong, Peduncles protected by the ovate deflexed bractea, Stem erect
 14244 Leaves 6 linear lanceolate hispid at edge, Pedunc. 2-fl. naked, Male fl. trifid, Fruit warted

- 14245 Male fl. 4-fid, Pedunc. dichotomous leafless, Leaves cordate
 14246 Leaves 4 elliptical ciliated, Pedunc. branched naked and fruit smooth
 14247 Leaves 6 linear very rough at edge, Stalk and fruit hispid

- 14248 Leaves lanceolate, Stem erect
 14249 Leaves oblong ovate acuminate at each end with pellucid dots, Pedunc. dichotomous, Cal. 2-leaved
 14250 Leaves ovate, Stem erect, Invol. 3-flowered, Male corollas long cylindrical
 14251 Leaves oblong lanceolate veiny with opaque dots, Involucre longer than flowers
 14252 Leaves opposite stalked ovate serrated veiny downy, Flowers axillary
 14253 Leaves roundish ovate obtuse the length of petiole, Stems filiform procumbent
 14254 Leaves linear lanceolate subsessile hairy, Invol. longer than flower

- 14255 Stem shrubby, Leaves alternate or opposite oblong subrhomboid entire
 14256 Stem shrubby, Leaves obovate-lanceolate entire silvery white
 14257 Stem half-shrubby procumbent, Leaves ovate sessile entire: lower a little toothed
 14258 Stem shrubby erect, Leaves hastate entire acute, Spikes terminal
 14259 Stem herb. spreading, Leaves triangular hoary unequally toothed, Cal. of fruit quadrang. toothed
 14260 Stem herbaceous spreading, Leaves rhomboid somewhat toothed, Cal. of fruit muricate toothed
 14261 Stem herbaceous erect, Leaves oblong sinuated cuneate at base hoary beneath, Cal. of fruit toothed
 14262 Stem herbaceous erect, Leaves triangular toothed whole-colored, Cal. of fruit ovate netted entire

- 14263 Stem herbaceous diffuse, Leaves ovato-deltoid dentato-sinuate very mealy beneath [tuberculat. at side
 14264 Stem herb. spreading, Lvs. triang. hast. glab. above irregul. tooth.: upp. ones ent. Cal. of fr. more or less
 14265 Stem herb. spread. Lvs. lanc. ent.: lower ones somew. hast. Cal. of fruit hastate slightly tuberculat. at sides
 14266 Stem herbaceous erect, Leaves ovate-lanceolate; lower sinuated, Cal. of seeds muricated
 14267 Stem herbaceous erect, Lvs. all linear ent. or toothed, Perianth. of fruit sinuated and muricated on back
 14268 Stem herbaceous flexuose spreading, Leaves obovate entire, Female flowers stalked cuneiform
 14269 Stem herbaceous erect, Leaves triang. hastate acutish a little toothed, Cal. of fruit ovate acute entire

14270 Branches diffuse, Leaves nearly opposite rhomboid-hastate entire smooth, Spikes terminal leafless



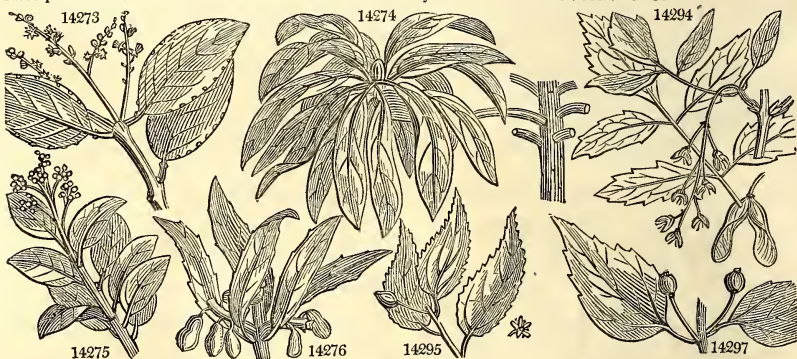
and Miscellaneous Particulars.

the manner in which this is carried on, the flowers should be examined at a very early period of their expansion. The manner in which the stamens shed their pollen is curious. The filaments on their first appearance all bend inwards; as soon as the pollen is arrived at a proper state to be discharged, the warmth of the sun, or the least touch from the point of a pin will make them instantly fly back, and discharge a little cloud of dust. This process is best seen in a morning, when the sun shines on a plant in July or August: if the plant be large, numbers will be seen exploding at the same instant. Mr. Curtis remarks, that the same degree of cold (thirty-one Fahrenheit) which strips the mulberry of its leaves, will destroy the herbage of Parietaria. The ashes of the plant are said to contain a considerable quantity of nitre.

2138. *Atriplex*. The same name as *Atraphaxis*, which see. *A. Halimus* (ἀλίμος, maritime) grows on the sea-coast of the south of Europe, and in this country its silver-colored foliage adds to the variety of our shrubberies. *A. portulacoides* requires to be planted on a poor gravelly soil; in its native state it prefers the seashore and salt marshes. *A. hortensis*, sometimes called mountain spinach, was formerly cultivated as a culinary herb, and is still grown to a considerable extent in the neighbourhood of Paris, and the leaves gathered as spinach. There are several varieties more or less tinged with red or purple. The leaves of all the species may no doubt be used as pot-herbs.

2139. *Rhagodia*. From ῥαγώδης, bearing berries. New Holland shrubs with alternate leaves, and flowers growing in racemose spikes.

2140. TERMINALIA. <i>W. TERMINALIA.</i>				<i>Combretaceæ.</i>	<i>Sp. 4—11.</i>			
14271 Catappa <i>W.</i>	broad-leaved	♂ or ♀	20	... W.g	E. Indies	1778.	S	p1 Jac. ic. 1. t. 197
14272 moluccana <i>W.</i>	Molucca	♂ or ♀	20	... W.g	E. Indies	1804.	C	p1
14273 Chébula <i>W.</i>	oval-leaved	♂ or ♀	20	... W.g	E. Indies	1796.	C	p1 Rox. cor. 2. t. 197
14274 angustifolia <i>W.</i>	narrow-leaved	♂ or ♀	20	... W.g	E. Indies	1692.	S	p1 Jac. vind. 3. t. 100
2141. FUSA'NUS. <i>L.</i>	COLPOON.				<i>Santalaceæ.</i>	<i>Sp. 1.</i>		
14275 compressus <i>L.</i>	flat-stalked	♂ un	1½	... G.w	C. G. H.	1776.	C	lp Ber. ca. 38. t. 1. f. 1
2142. BRABE'JUM. <i>W.</i>	AFRICAN-ALMOND.				<i>Protaceæ.</i>	<i>Sp. 1.</i>		
14276 stellatum <i>Thunb.</i>	COMMON	♂ or ♀	15	mr. ap W	C. G. H.	1791.	C	lp Brey. cent. 1. t. 1
2143. A'CER. <i>W.</i>	MAPLE.				<i>Acerineæ.</i>	<i>Sp. 17—30.</i>		
14277 heterophyllum <i>W.</i>	evergreen	♂ or ♀	4	my. jn G	Levant	1759.	S	co W. arb. 10. t. 1. f. 1
14278 tataricum <i>W.</i>	Tartarian	tm	20	my. jn G	Tartary	1759.	L	co Dend. brit. 160
14279 Pseudo-Platanus	Sycamore	tm	50	ap. my G	Britain	hed.	S	co Eng. bot. 303
14280 rubrum <i>W.</i>	Red or Swamp	tm	20	ap. my R	N. Amer.	1636.	L	s1 Mich. arb. 2. t. 14
14281 dasycarpum <i>W.</i>	Sir C. Wager's	tm	25	ap. my G. y	N. Amer.	1715.	L	s1 Mich. arb. 2. t. 13
14282 barbátum <i>W.</i>	bearded	tra	15	ap. my G	N. Amer.	1822.	S	s1
14283 saccharinum <i>W.</i>	Sugar	tm	40	ap. my G	N. Amer.	1735.	S	s1 Mich. arb. 2. t. 15
14284 nigrum <i>Ph.</i>	black	tm	40	ap. my G	N. Amer.	1812.	S	s1 Mich. arb. 2. t. 16
14285 platanoides <i>W.</i>	Norway	tm	50	my. jn G	Europe	1683.	S	co Sch. arb. 1. t. 3. 4
14286 lactinatum <i>W.</i>	cut-leaved	tm	30	my. jn G	Europe	1683.	L	co Sch. arb. 1. t. 5
14286 striatum <i>Ph.</i>	striped-barked	or	20	my. jn G	N. Amer.	1735.	L	co Sch. arb. 2. t. 17
14287 montanum <i>Ph.</i>	mountain	or	25	ap. my G	N. Amer.	1750.	L	s1 Sch. arb. 1. t. 11
14288 campéstre <i>W.</i>	common	or	25	my. jn G	Britain	hed.	S	co Eng. bot. 304
14289 O'palus <i>W.</i>	Italian	or	50	my. jn G	Italy	1752.	L	co Tra. arc. 1. n. 13. ic
14290 opalifolium <i>Vill.</i>	Guelder-rose-ly.	or	12	my. jn G	S. France	1893.	L	co Sch. arb. 1. t. 14
14291 monspessulanum <i>W.</i>	Montpelier	or	8	my G	France	1739.	L	co Tra. arc. 1. n. 14. ic
14292 obtusatum <i>Kit.</i>	blunt-leaved	or	8	my G	Hungary	1825.	L	co Sch. arb. 1. t. 15
14293 créticum <i>W.</i>	Cretan	or	4	my. jn G	Levant	1752.	L	co
2144. NEGUNDIUM. <i>Dec.</i>	BOX-ELDER.				<i>Acerineæ.</i>	<i>Sp. 1—2.</i>		
14294 americanum <i>Dec.</i>	Ash-leaved	♂	or 35	ap G	N. Amer.	1688.	L	s1 Sch. arb. 1. t. 12
2145. CEL'TIS. <i>W.</i>	NETTLE TREE.				<i>Ulmaceæ.</i>	<i>Sp. 9—19.</i>		
14295 australis <i>W.</i>	European	♂ or ♀	40	my G	S. Europe	1796.	S	co Dend. brit. 105
14296 Tourneforti <i>W.</i>	Tournefort's	cu	8	... G	Levant	1759.	S	co Tourn. it. 2. t. 47
14297 occidentalis <i>W.</i>	American	or	20	ap. my G	N. Amer.	1636.	L	co D. nd. brit. 141
14298 lavigata <i>W.</i>	polished	or	20	ap. my G	Louisiana	... L	co	
14299 crassifolia <i>W.</i>	Hoop-Ash	or	20	ap. my G	N. Amer.	1812.	C	co Duha. arb. 2. t. 9
14300 pumila <i>Ph.</i>	dwarf	cu	6	my G	N. Amer.	1812.	C	co



History, Use, Propagation, Culture,

2140. *Terminalia*. Because the leaves grow in bunches at the *termination* of the branches. The species grow in loam and peat, and ripened cuttings, with their leaves on, will root in sand closely covered.

2141. *Fusanus*. The ancient name of the *Euonymus*. This plant resembles it in foliage. A little Cape shrub, formerly included in *Thesium*.

2142. *Brabejum*. From *εραβιον*, a sceptre. The elegant racemes of splendid flowers may well be compared to a sceptre.

2143. *Acer*. A Latin word signifying vigorous or sharp. The wood was formerly manufactured into the heads of pikes and other weapons. The species consist of trees, most of them yielding a saccharine juice from the trunk, branches, and leaves. A. *Pseudo-Platanus*, *Plane tree*, Scot., grows wild in Switzerland, Germany, Austria, and Italy. It is remarkably hardy, and will grow with an erect stem, exposed to the highest winds, or to the sea-breeze. It is in leaf by the middle of April; and on their first appearance the leaves are of a pleasant green, but they exude a clammy juice so abundantly, that they attract a variety of insects, which soon perforate and disfigure them. The flowers of none of the species are of any beauty. The shade of the tree is said to do less damage to pasture than most trees. The timber was formerly much used by the turner, and is still in repute by the saddle-tree maker and the millwright. In spring and autumn, if the trunk be pierced, it yields abundance of juice, from which a good wine may be made, or sugar to a certain extent procured by evaporation. A. *rubrum* grows in swamps in Pennsylvania, where the natives use it for almost all sorts of wood-work; with the bark they dye a dark blue, and make a good black ink. The Canadians tap the tree for the juice, of which they make sugar and treacle. The scarlet flowers of this species come out in spring before the leaves; they are without petals, and have not more than six stamens.

A. *saccharinum* bears a considerable resemblance to A. *platanoides*, especially when young. From this tree, and probably also from other species, the inhabitants of North America make a very good sort of sugar. The trees are tapped in February, March, and April, during warm days and frosty nights. The incision is made with an axe or auger, or about two inches deep. A spout of sumach or elder is introduced, through which the sap flows, from four to six weeks, into a trough, whence it is carried daily to a larger receiver; from which it is conveyed after being strained to the boiler. The boiling and refining process is or should be carried on in the same manner with that for the cane sugar in the West Indies. A tree of an ordinary size yields in a good season from twenty to thirty gallons of sap, from which are made from five to six pounds of granulated sugar.

A. *platanoides* grows on the mountains of the northern counties of Europe, descending in some places of

- 14271 Leaves oovate without glands at base blunt obsoletely toothletted : beneath soft with down
- 14272 Leaves obovate without glands at base blunt entire smooth on each side
- 14273 Leaves obovate oblong blunt entire smooth on each side, Petioles with 2 glands above
- 14274 Leaves linear-lanceolate repand downy beneath

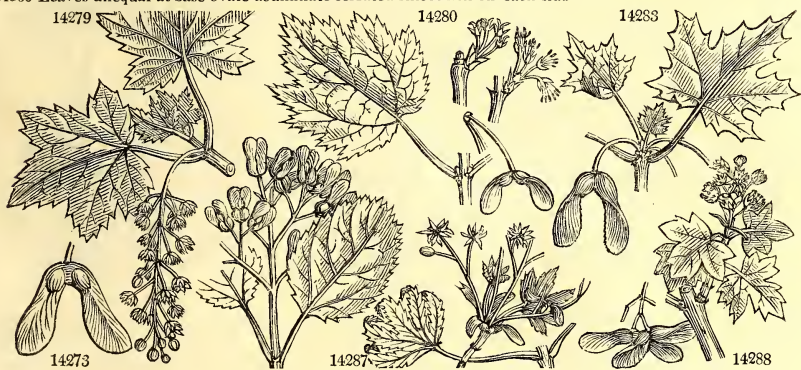
14275 The only species

14276 The only species

- 14277 Leaves evergreen entire and 3-lobed obsoletely toothletted smooth on very short stalks
- 14278 Leaves cordate somewhat cut unequally toothed, Corymbs erect, Fruit smooth
- 14279 Lvs. cord. 5-lobed glauc. and smooth beneath : lobes unequally tooth. Racemes pendulous, Fruit smooth
- 14280 Lvs. on long stalks subcordate 5-fid smooth glauc. beneath : segm. acuminate cut-toothed, Umbels erect
- 14281 Lvs. cordate 5-fid whitish and smooth beneath : segm. acuminate cut-toothed, Fl. in capitate umbels
- 14282 Lvs. shortly 3-lobed serrated smooth on each side : male peduncles branched ; female simple
- 14283 Lvs. subcord. acutely 5-lobed downy beneath : lobes nearly entire, Corymbs before the lvs. loose nodding
- 14284 Lvs. cordate 5-lobed downy beneath, Corymbs sessile nodding, Fruit smooth
- 14285 Lvs. cordate 5-fid smooth : segm. acuminate cuspidate somewhat toothed, Corymbs nearly erect
- 14286 Lvs. cordate 3-fid acuminate serrated smooth, Racemes simple long pendulous, Branches striated
- 14287 Lvs. about 5-lobed acute serrated downy beneath, Racemes compound erect
- 14288 Lvs. cord. bluntly 5-lobed shining smth. beneath : lobes nearly ent. Corymbs erect, Wings of fruit divaricat.
- 14289 Lvs. on long stalks round. coriac. bluntly 5-lob. pale ben. : lobes bluntly tooth. Corymbs erect, Fruit smth.
- 14290 Lvs. cord. 5-lobed glauc. beneath netted : lobes blunt crenate-tooth. Umb. pendul. Pedun. and fruit smooth
- 14291 Lvs. annual cordate 3-lobed : lobes nearly entire equal, Corymbs few-flowered erect, Fruit smooth
- 14292 Lvs. cordate slightly and very bluntly 5-lobed downy beneath : lobes repand, Umbels pendulous
- 14293 Lvs. evergreen tapered at base 3-fid : segments toothletted ; lateral shortest, Corymbs few-flowered erect

14294 Leaves ternate and pinnate cut serrate, Male flowers corymbose : female racemose

- 14295 Leaves oblong-lanceolate acum. finely serrated scabrous above beneath soft with down unequal at base
- 14296 Lvs. ovate acute serrated unequal at base roughish above : younger somewhat cordate
- 14297 Leaves ovate acuminate serrated unequal at base rough above hairy beneath
- 14298 Leaves unequally cordate acuminate nearly entire smooth on each side
- 14299 Leaves ovate acuminate serrated unequally cordate at base subcoriaceous rough on both sides
- 14300 Leaves unequal at base ovate acuminate serrated smoothish on each side



and Miscellaneous Particulars.

Norway to the sea-shore. It abounds in the north of Poland and Lithuania, and is common through Germany, Switzerland, and Savoy. On a tolerable soil it attains a large size, and the leaves being smooth and of a shining green, as large or larger than those of the sycamore, and being seldom eaten or defaced, because the tree abounds in a sharp milky juice disliked by insects, they have a much better appearance than those of the sycamore ; and in the spring, when the flowers are out, which are of a fine yellow color, this tree has great beauty. Hanbury observes, that in the autumn the leaves die to a golden yellow color, which produces a good effect at that season, when the different tints of the decaying vegetable world are displayed. He says further, that it is a quick growing tree, arrives at a great bulk, and is one of the best trees for sheltering habitations. Linnæus recommends it for sheltering walks and plantations ; as yielding a juice from which sugar may be made, if it be wounded in the winter ; and as cutting out into a white smooth wood, fit for the stocks of guns, the joiner and the turner. Dr. Hunter observes, that it is a quick grower, arrives at a great bulk, and answers all the purposes of the sycamore ; the raising it for use, as well as ornament and variety, should not be neglected. (*Mill. Gard. Dict.*)

A. striatum has a slender stem, with a smooth bark beautifully varied with green and white stripes, the boughs of a shining red in winter. The thickness of the shade, the beauty of the bark, and the tree not being liable to insects, render it very desirable for ornamental plantations ; the only objections to it are, that it is subject to be injured by storms, and that the abundance of its foliage and seeds occasions a great litter in autumn.

A. campestre forms a very picturesque little tree, and the timber is said to be far superior to that of the beech or the sycamore for the purposes of the turner. It is also frequently substituted for that of the holly and box by the mathematical instrument maker.

A. Opulus is a noble tree, with large and beautiful foliage, throwing an extensive shade ; it is much prized in Italy for planting by avenues and public walks. All the species are easily raised from seed, though the ash-leaved and some other species are occasionally propagated by layers and cuttings ; the cuttings should be cut off at a joint, and, as in the case of most hardy trees and shrubs, they succeed best when planted in the autumn in a sheltered situation in the open ground.

2144. *Negundium*. A genus obviously distinguished from *Acer* by its pinnated leaves. A fine ornamental tree, called in North America black ash. There is another species in China.

2145. *Celtis*. One of the names anciently given to the *Lotus*. Tournefort first applied the name to the modern genus, which may be said to resemble both in fruit and foliage the shrubby *Lotus* of the ancients,

14301 <i>sinensis Pers.</i>	Chinese	♀	or 12	...	G	Asia	1820.	L	p.l	
14302 <i>micrantha W.</i>	smooth	♀	or 10	aus.	G	Jamaica	1739.	C	p.l	Plum.ic.t.206.f.1
14303 <i>aculeata W.</i>	prickly	♀	or 10	...	G	Jamaica	1791.	C	p.l	
2146. <i>GOUANIA. W.</i>	GOUANIA.					<i>Rhamnææ.</i>	<i>Sp. 2—20.</i>			
14304 <i>domingensis W.</i>	Chaw-stick	♀	or 10	...	G	W. Indies	1739.	C	p.l	Pluk.al.t.201.f.4
14305 <i>tillæfolia W.</i>	Lime-tree-ldv.	♀	or 10	...	G	E. Indies	1810.	C	p.l	Rox. cor. 1. t. 98
2147. <i>HERMAS. W.</i>	HERMAS.					<i>Umbelliferæ.</i>	<i>Sp. 2—5.</i>			
14306 <i>depauperata W.</i>	hairly	♀	or 2	ju. jl.	G	C. G. H.	1795.	D	l.p	Bur. afr. t.71. f.2
14307 <i>gigantea W.</i>	gigantic	♀	or 4	ju. jl.	G	C. G. H.	1794.	D	l.p	T.in.ac.p.14.t.11
2148. <i>BRIDELIA. W.</i>	BRIDELIA.					<i>Euphorbiaceæ.</i>	<i>Sp. 1—5.</i>			
14308 <i>spinosa W.</i>	prickly	♂	or 6	ju. jl.	Ap	E. Indies	1823.	C	l.p	Roxb. cor. t. 172
2149. <i>FERONIA. Correa.</i>	ELEPHANT	APPLE.				<i>Aurantiaceæ.</i>	<i>Sp. 1.</i>			
14309 <i>elephantum Corr.</i>	Indian	♂	or 40	...	W	E. Indies	1804.	C	l.p	Rox. cor.2. t.141
2150. <i>AILANTUS. W.</i>	AILANTUS.					<i>Terebinthaceæ.</i>	<i>Sp. 2—4.</i>			
14310 <i>glandulosa W.</i>	Chinese	♀	or 20	au	G	China	1751.	R	l.p	Dend. brit. 104
14311 <i>excelsa W.</i>	Indian	♂	or 50	...	G	E. Indies	1800.	C	s.p	Rox. cor. 1. t. 23
2151. <i>CLUSIA. W.</i>	BALSAM TREE.					<i>Guttiferæ.</i>	<i>Sp. 4—16.</i>			
14312 <i>rosea W.</i>	Rose-colored	♂	or 30	ju. au	R	Carolina	1692.	C	r.m	Cat. car. 2. t. 99
14313 <i>alba W.</i>	white-flowered	♂	or 30	...	W	S. Amer.	1752.	C	l.p	Jac. amer. t. 166
14314 <i>flava W.</i>	yellow-flower'd	♂	or 30	s	Y	Jamaica	1759.	C	r.m	Bot. rep. 223
14315 <i>venosa W.</i>	veiny-leaved	♂	or 50	...	...	S. Amer.	1733.	C	r.m	Plum. ic. 87. f. 2
2152. <i>OPHIOXYLON. W.</i>	OPHIOXYLON.						<i>Sp. 1—3.</i>			
14316 <i>serpentinum W.</i>	red-flowered	♂	or 3	my. ju	W	E. Indies	1680.	R	r.m	Bot. mag. 784
2153. <i>RHA'PIS. W.</i>	RHAPIS.					<i>Palmæ.</i>	<i>Sp. 2.</i>			
14317 <i>flabelliformis W.</i>	creeping-rooted	♂	or 6	au	G	China	1774.	R	p.l	Bot. mag. 1371
14318 <i>arundinacea W.</i>	simple-leaved	♂	or 6	s	G	Carolina	1765.	R	p.l	



History, Use, Propagation, Culture,

C. australis, sometimes called the lote tree, is reckoned among the largest timber trees of the south of Europe. The wood is one of the hardest we are acquainted with; it is also very tough and flexible. In France, the forked branches are peeled, and cut so as to resemble rude hay-forks, and in that state used for various agricultural purposes. The leaves have a cheerful light green color; the berries are the size of a small cherry, first yellow and then black; they are eaten by birds and children.

C. occidentalis bears a great resemblance to the first. The leaves come out late in the spring, but they are also the latest in fading of any of the deciduous sort; the timber is tough and pliable, and imported by coach-makers for the frames of their carriages. It grows more freely in this country than the European species, and in some years bears abundance of fruit.

C. orientalis is a low-spreading tree or bush; the timber is white, and yields a gum like that of the cherry. *C. aculeata* is an inelegant little tree, with a drupe double the size of a pea, which is eaten by the natives of the Caribbee Islands and the neighbouring continent. All the species are easily increased by layers or seeds.

2146. *Gouania*. Antoine Gouan was professor of botany at Montpellier in the middle of the eighteenth century, and was a good botanist. The species are increased by ripened cuttings under a hand-glass in heat.

2147. *Hermas*. A name, the meaning of which is wholly unknown. An inconspicuous starved-looking plant of no known use; whence it is called *depauperata*.

2148. *Bridelia*. Named in honor of Professor Bridel, the celebrated muscologist. Small bushes or trees, with little beauty to recommend them.

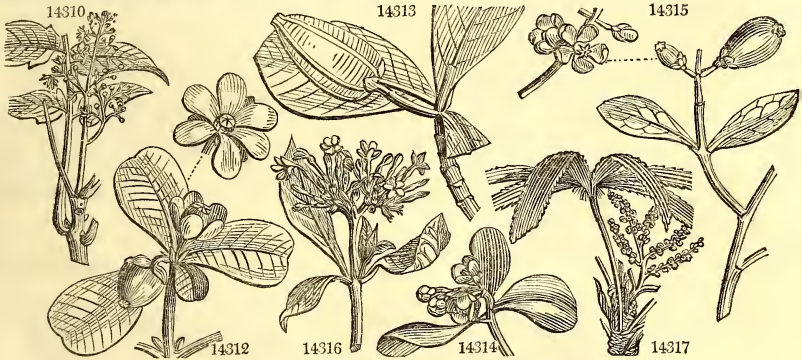
2149. *Feronia*. Elegantly named by the classical Correa de Serra, after Feronia, the goddess of the forests. This is a noble Indian timber tree, bearing a fruit not unlike an orange, to which it is botanically related.

2150. *Ailantus*. Derived from *Ailanto*, the name of one species in the Moluccas. The usual way of writing it, *Ailanthus*, is therefore incorrect. *A. glandulosa* is a tree which may be compared to a gigantic stag's-horn sumach; it has very large leaves, unequally pinnate, with foot-stalks from one to two feet in length, and numerous flowers in a terminating pedicel, which exhale a disagreeable odor. The tree grows very fast, and on very poor soil, especially if it be calcareous. If the bark be wounded, a resinous juice flows out, which hardens in a few days. The wood is hard, heavy, glossy like satin, and susceptible of a very fine polish. It is propagated by cuttings of the roots. In general the trees bear only male flowers; but in France it has produced both male and female flowers, and fruit twice in ten years.

2151. *Clusia*. So called, in honor of the celebrated Charles de l'Ecuse, born at Artois in 1526, and died in 1609. He was one of the most excellent botanists who ever lived, and author of many works whose value will only cease with the world. But he is not more known for his mental excellence, than for his personal calamities. In his early youth he undertook to travel through Portugal, Spain, England, Hungary, and other countries in pursuit of plants; no easy task in those days. By excessive fatigue he contracted, so soon as in his twenty-fourth year, a dropsical complaint, of which he was afterwards cured with chicory by the celebrated

- 14301 Leaves broad ovate acuminate serrate smooth on each side
 14302 Leaves ovate oblong acuminate serrulate unequally cordate at base rough above hairy beneath
 14303 Lvs. ovate obl. acum. equally cordate at base entire obsolete serrated at end smooth, Branches prickly
 14304 Leaves ovate acuminate bluntly serrated smooth
 14305 Leaves cordate-ovate with glandular serratures roughish, Racemes terminal downy
 14306 Stem downy, Leaves oblong sessile toothed downy beneath
 14307 Leaves lanceolate ovate woolly above downy beneath entire
 14308 Shrubby erect spiny, Leaves ovate entire acute glabrous
 14309 The only species
 14310 Leaves pinnated with an odd one, Leaflets toothed at base, Teeth glandular
 14311 Leaves abruptly pinnated, Leaflets serrated
 14312 Leaves obovate blunt veinless, Cor. hexapetalous twice as large as calyx
 14313 Leaves obovate blunt veinless, Cor 5.7 petalous half as large again as calyx
 14314 Leaves obovate blunt veinless, Cor. 4-petalous twice as large as calyx
 15315 Leaves obovate blunt veiny, Flowers tetrapetalous
 14316 Leaves in fours

- 14317 Fronds palmate plaited, Plaits and margins prickly
 14318 Fronds simple 2-parted, Lobes acute plaited, Plaits roughish



and Miscellaneous Particulars.

Rondelet. See *Rondeletia*. At the age of thirty-nine he broke his right arm, during one of his botanical rambles; and a short time afterwards his right thigh. When fifty-five, he dislocated his left ankle while at Vienna; and eight years after his right hip. Having been unskillfully treated, he was ever after obliged to walk with crutches. The consequent deprivation of his natural exercise brought on other diseases, among not the least distressing of which were calculus and hernia. After having been the director of the Imperial Gardens of Vienna for fourteen years, he finally returned to his native country, Flanders. He was named professor of botany at Leyden, where he gave botanical lectures for sixteen years, when he died overwhelmed by the multitude of his bodily infirmities, but retaining his faculties unimpaired to the last.

The species are trees abounding in a tenacious glutinous juice, of a balsamic flavor, whence the English name. *C. rosea* has handsome flowers, in which the stamina and pistillum are covered with a gelatinous gluten. The fruit is green and of the size of a middling apple, with eight lines running, like meridians on a globe, from the stalk to the crown of it. When it ripens, it opens at these lines, and divides into eight parts, disclosing many mucilaginous scarlet seeds, resembling those of the pomegranate. The whole tree is exceedingly beautiful, and the structure of the fruit is a most exquisite piece of mechanism. It grows on rocks, and frequently on the trunk and limbs of trees, occasioned by birds scattering or voiding the seeds, which being glutinous, like those of the misletoe, take root in the same manner; but the roots not finding sufficient nutriment, spread on the surface of the tree till they find a decayed hole, or other lodgment, wherein is some small portion of soil; the fertility of this being exhausted, a root is discharged out of the hole till it reaches the ground, where it fixes itself, and the stem becomes a large tree. Roots have been known to do this at forty feet from the surface. The resin is used to cure sores in horses, and instead of tallow for boats.

C. alba is an elegant tree, and epiphytall on other vast trees, like the foregoing; the trunk is frequently a foot in diameter, and supports a spreading head. The whole abounds in a balsamic juice, of a green color, but becoming of a brownish color on being exposed to the air. The flowers are white, and of no great beauty; the fruit scarlet, with a scarlet pulp; the birds are very fond of them, hang over them on the wing, and pluck out the seeds with the pulp adhering.

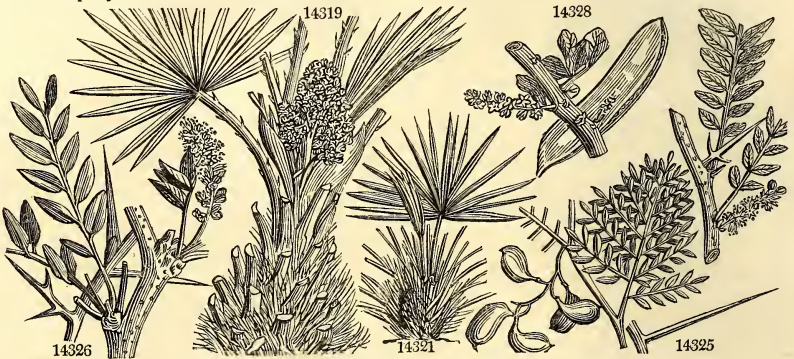
C. flava bears in all respects a considerable resemblance to the former. A very good idea of the progress of culture since Miller's time, may be formed by comparing his directions for propagating this plant, and those of Sweet. Mr. Miller says, the best way is to have them brought over in tubs from the West Indies: according to Sweet, the pots should be well drained, the soil for rooted plants should be a light sandy loam, and "cuttings root very freely in sand under a hand-glass."

2152. *Ophioxylon*. From *οφίς*, serpent, and *ξύλον*, wood. In Ceylon they employ the plant in cases of the bite of serpents. It grows freely in a mixture of loam and peat, and may be increased by cuttings in sand under a hand-glass.

2153. *Rhapis*. So named by Loureiro, from *ραπίς*, a needle, on account of the acute awns of the corolla, which stick into the clothes. Culture as in the other palms; that is, abundance of heat and room, both for the roots and top.

DICECIA.

2154. CHAME'ROPS. <i>W.</i>	CHAMEROPS.				<i>Palmæ. Sp. 4.</i>				
14319 húmilis <i>W.</i>	Dwarf Fan Palm	♂	△	or 10	fn.jl	G. w	N. Amer.	1731.	Sk r.m Bot. rep. 599
14320 serruláta <i>W.</i>	saw-leaved	♂	△	or 10	...	G. w	N. Amer.	1809.	Sk r.m
14321 Hýstrix <i>Ph.</i>	Porcupine	♂	△	or 10	...	G. w	Georgia	1801.	S r.m
14322 Palmét'to <i>W.</i>	smooth-stalked	♂	△	or 20	...	G. w	Carolina	1809.	S r.m
2155. GLEDITS'CHIA. <i>W.</i>	GLEDITSCHIA.								<i>Leguminosæ. Sp. 5-7.</i>
14323 triacáthos <i>Ph.</i>	Honey-locust Tree	♂		or 30	jn.jl	G	N. Amer.	1700.	S s.l Dend. brit. 138
β inérmys	smooth	♂		or 30	jn.jl	G	.....	...	S s.l
14324 brachycárpa <i>Ph.</i>	curved-spined	♂		or 30	jn.jl	G	N. Amer.	...	S s.l
14325 monospérma <i>Ph.</i>	Swamp Locust Tree	♂		or 20	jn.jl	G	N. Amer.	1723.	S p.l Cat. car. 1. t. 43
14326 hórida <i>W.</i>	strong-spined	♂		or 10	jn.jl	G	China	1774.	L p.l Dend. brit. 75
14327 sínensis <i>P. S.</i>	Chinese	♂	△	or 19	...	G	China	1812.	L p.l
2156. CERATONIA. <i>W.</i>	CAROB TREE.								<i>Leguminosæ. Sp. 1.</i>
14328 Siliqua <i>W.</i>	St. John's Bread	♀	△	ec 15	s.o	R. Y	Levant	1570.	S s.l Bot. rep. 567
2157. FRAX'INUS. <i>W.</i>	ASH TREE.								<i>Oleinae. Sp. 34-37.</i>
14329 americana <i>W.</i>	white	♂		tm 20	my	G	N. Amer.	1723.	G co
14330 acumináta <i>Lam.</i>	Green	♂		tm 40	my	G	N. Amer.	1723.	G co
14331 juglandifolia <i>W.</i>	Western black	♂		or 40	my.jn	G	N. Amer.	1783.	G co Du.Roi. ed.2. t.1
14332 caroliniana <i>W.</i>	shining	♂		or 30	my.jn	G	N. Amer.	1783.	G co Catesb. car. t. 80
14333 pubescens <i>W.</i>	Red or black	♂		or 20	my	G	N. Amer.	1811.	G co
14334 pannósa <i>Vent.</i>	cloth-leaved	♂		tm 30	my	G	Carolina	1820.	G co
14335 epíptera <i>W.</i>	cut-winged	♂		tm 30	my	G	N. Amer.	1823.	G co
14336 quadranguláta <i>W.</i>	Blue	♂		or 30	my	G	N. Amer.	1822.	G co
14337 platycárpa <i>W.</i>	broad-fruited	♂		or 30	my	G	N. Amer.	1820.	G co
14338 expánsa <i>W.</i>	expanded	♂		or 30	my	G	N. Amer.	1824.	G co
14339 míxta <i>Bosc.</i>	mixed	♂		or 30	my	G	N. Amer.	1824.	G co
14340 pulverulénta <i>Bosc.</i>	powdered	♂		or 30	my	G	N. Amer.	1824.	G co
14341 rubicúnda <i>Bosc.</i>	pink-veined	♂		or 30	my	G	N. Amer.	1824.	G co
14342 longifolia <i>Bosc.</i>	long-leaved	♂		or 30	my	G	N. Amer.	1824.	G co
14343 viridis <i>Bosc.</i>	green	♂		or 30	my	G	N. Amer.	1824.	G co
14344 cinérea <i>Bosc.</i>	ash-colored	♂		or 30	my	G	N. Amer.	1824.	G co
14345 álba <i>Bosc.</i>	white	♂		or 50	ap.my	G	N. Amer.	1823.	G co
14346 Richárdi <i>Bosc.</i>	Richard's	♂		or 30	ap.my	G	N. Amer.	...	G co
14347 ováta <i>Bosc.</i>	ovate	♂		or 30	ap.my	G	N. Amer.	...	G co
14348 elliptica <i>Bosc.</i>	elliptical	♂		or 30	ap.my	G	N. Amer.	1825.	G co
14349 nígra <i>Bosc.</i>	black-branched	♂		or 30	ap.my	G	N. Amer.	...	G co
14350 fúscá <i>Bosc.</i>	fuscous	♂		or 30	ap.my	G	N. Amer.	1823.	G co
14351 rúfa <i>Bosc.</i>	rufous	♂		or 30	ap.my	G	N. Amer.	1822.	G co
14352 pállida <i>Bosc.</i>	pale	♂		or 30	ap.my	G	N. Amer.	...	G co
14353 excélsior <i>W.</i>	common	♂		tm 80	ap.my	G	Britain	woods.	S s.l Eng. bot. 1692
β péndula <i>Hort.</i>	weeping	♂		or 20	ap.my	G	.....	...	G co
γ jaspidea <i>W. en.</i>	yellow-barked	♂		or 50	ap.my	G	.....	...	G co
δ atrovirens <i>P. S.</i>	green curled-lv.	♂		or 4	ap.my	G	.....	...	G co
14354 verrucósa <i>Link.</i>	warted	♂		or 60	ap.my	G	England	Norf.	G co
14355 heterophýlla <i>Vahl.</i>	various-leaved	♂		tm 30	ap.my	G	England	woods.	G s.l Eng. bot. 2476
<i>F. simplicifolia</i> <i>W.</i>									



History, Use, Propagation, Culture,

2154. *Chamerops*. This word is said by etymologists to be synonymous with χαμαιδενς, or χαμαιδενς, a dwarf oak. The modern genus consists of ornamental palms, which are fine hardy greenhouse plants.

2155. *Gleditschia*. Called in honor of John Gottlieb Gleditsch, a native of Leipzig, and member of the academy of Berlin, and the author of several works, among which his Arrangement of Fungi, published in 1753, and his Botanical System, are the most remarkable. *G. triacanthos*, the honey locust of North America, attains the size of a large tree, but very seldom flowers and ripens its seeds in this country. All the species grow in common garden soil, and are generally raised from seeds.

2156. *Ceratonia*. This name has been derived from κερως, a horn, in allusion to the long horn-like pods of this plant, which contain a sweet fecula, for the sake of which they are often imported from Spain under the name of the Algaroba bean. This last word is a slight alteration, by the prefix of the article *al*, of the Arabic name of the tree, *Kharroub*, whence also our English name *Carob-tree*. This is generally considered the locust-tree of scripture; and in Spain, where the seeds are eaten, it is called Saint John's bread. Ignorance of eastern manners and natural history, Professor Martin observes, induced some persons to fancy that the locusts on which John the Baptist fed, were the tender shoots of plants, and that the wild honey was the pulp of the pod of the Carob, whence it had the name of Saint John's bread. There is better reason to suppose, he adds, that the shells of the carob pod might be the husks which the prodigal son desired to partake

DICEIA.

- 14319 Fronds palmate with spiny stalks, Spathe simple
 14320 Fronds palmate with spiny stalks, Caudex creeping
 14321 Stem creeping, Stalks with very long entangled prickles, Fronds palmate
 14322 Fronds palmate with unarmed stalks, Spathes double, Stem arboreous

14323 Branches spiny, Spines thick triple, Leaflets linear oblong, Pods many-seeded

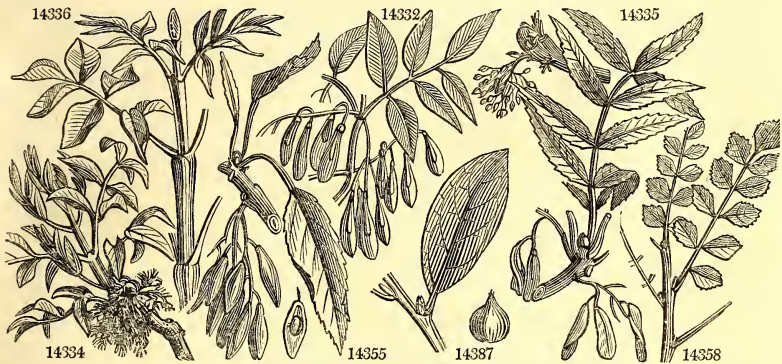
- 14324 Spines short thick triple, Leaflets oblong blunt, Pods oblong short
 14325 Branches somewhat spiny, Leaflets ovate-oblong, Pods 1-seeded
 14326 Trunks spiny, Spines branched, Leaflets oval-oblong
 14327 Spines robust alternately branched, Leaflets elliptical smooth

14328 The only species

- 14329 Leaflets stalked oblong shining acuminate entire glaucous beneath, Buds yellowish
 14330 Leaflets quite entire with long points glaucous beneath, Buds tawny
 14331 Leaf. stalked ovate opaque serrated glaucous ben. Axils of veins downy, Branches smooth, Buds fuscous
 14332 Leaflets stalked lanceolate serrulate shining smooth, Branches smooth, Buds fuscous
 14333 Leaflets stalked elliptical ovate serrated beneath with the petioles and branchlets downy

- 14334 Lvs. of 3 pair shining above vill. with down ben. Leaf. stalk. ov. ent. taper. toward each end, Buds tawny
 14335 Leaflets oblong lanceolate subserrated, Wing of fruit stalked cuneate emarginate, Buds fuscous
 14336 Leaflets subsessile lanc. ellipt. serrated downy beneath, Branches square with winged angles, Buds grey
 14337 Leaflets subsessile serrated outwardly and fruit lanceolate elliptical
 14338 Leaflets ovate oblong unequally serrate about 11 smooth stalked, Branchlets smooth, Buds fuscous
 14339 Leaves of 5 pair smooth above, Veins above hairy, Leaflets oblong subsessile unequally toothed
 14340 Lvs. of 6 pair somew. downy ben. Leaf. on long stalks oblong acute sinuated, Petioles somew. powdery
 14341 Lvs. of 3 pair coriac. a little downy ben. Leaf. obl. acute somewhat toothed, Veins and petioles ben. pink
 14342 Lvs. of 3 pair shining above ben. with the petioles downy, Leaflets obl. lanc. acuminate, Branches hirsute
 14343 Lvs. of 3 pair shining above with veins downy ben. Leaflets oblong acute finely serrated, Branches green
 14344 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaflets lanc. unequally toothed, Buds lin. cinereous hairy
 14345 Lvs. of 3 pair beneath and petioles hirsute, Leaf. lanc. unequally and finely toothed acum. Branches grey
 14346 Lvs. of 3 pair smooth, Veins ben. rather hairy, Leaf. obl. acute toothed, Branches cinereous hairy at base
 14347 Leaves of 3 pair downy beneath, Leaflets ovate acute equally toothed, Buds tawny
 14348 Lvs. of 3 pair hairy ben. Leaflets oblong mucronate somew. toothed, Branches brownish-black, Buds tawny
 14349 Leaves of 3 pair smooth, Leaflets oblong acute subsinuate toothed, Branches blackish
 14350 Lvs. of 3 pair smooth above, Veins beneath villous, Leaf. obl. mucron. equally toothed, Branches fuscous
 14351 Leaves of 2 pair with rufous hairs beneath, Leaflets lanceolate acuminate cuspidate unequally toothed
 14352 Leaves of 3 pair smooth, Leaflets subsessile ovate lanceolate toothed, Branches yellow
 14353 Leaflets somewhat stalked lanceolate acuminate serrated smooth cuneate at base, Branches flat smooth

- 14354 Leaf. somewhat stalked lanceolate acuminate serrate smooth, Branches round warted
 14355 Leaves simple and compound tooth-serrated, Buds black



and Miscellaneous Particulars.

of with the swine. The tree is very common in the south of Spain, and the seeds or beans, as they were there called, often formed the principal food of the British cavalry horses during the war of 1811 and 1812. In our greenhouses the plant seldom flowers, but it grows very well in loam and peat, and ripened cuttings root in sand under a hand-glass.

2157. *Fraxinus*. The origin of this word is far from certain. Linnæus says, it has been taken from the Greek *φραξινος*, a separation, in allusion to the facility of splitting its wood. De Theis remarks, that M. A. Dureau de la Malle has proved, in a learned dissertation published in 1804, that the *Fraxinus* of the Latins and the *Melia* of the Greeks are our *Ornus europæus*, while the *Ornus* of the Latins and the *Boumelia* of the Greeks are, in fact, our *Fraxinus excelsior*, or common ash. *Le Frêne*, Fr., *Esche*, Ger., and *Frassino*, Ital. The English name is from the Celtic *æsc*, a pike. *F. excelsior* is one of the most useful of our native timber trees. It is peculiarly adapted for implements of husbandry, and the coachmaker and wheeler; it makes excellent fuel, with very little smoke; good hop-poles and hoops, excellent handles for tools, and very good walking-sticks. Its period of leafing is very late, being seldom earlier than the last week of April, and not unfrequently about the middle of May: the leaves have been used to adulterate tea; they are bitter, and said to communicate a rank taste to the milk and butter of cows which eat them. The roots spread to a great extent, and lie very near the surface; and these, together with the shade of the head, are found very injurious to hedges and pastures. The variety of this species, *F. pendula*, was first discovered in a field at Gamblingay,

14356	macrophylla	Thouin	large-leaved	辛	or	40	ap.my	G	.....	1823.	G	co	
14357	parvifolia	W.	small-leaved	辛	or	20	ap.my	G	Levant	1822.	G	co	Willd.arb.t.6.f.2
14358	lentiscifolia	W.	Aleppo	辛	or	6	my.jn	G	Aleppo	1710.	G	co	Pluk.al.t.182.f.4
14359	argentea	Lois.	silvery	辛	or	15	my.jn	G	Corsica	1825.	G	co	
14360	sambucifolia	W.	Water	辛	or	30	my.jn	G	N. Amer.	1800.	G	s.l	
14361	nana	Bosc.	dwarf	辛	or	6	my.jn	G	.....	.....	G	co	
14362	oxycarpa	W.	Caucasian	辛	or	20	...	G	Caucasus	1815.	G	co	
	β oxyphylla	F.	narrow-leaved	辛	or	20	...	G	S. Europe	1821.	G	co	
2158.	BROSIMUM.	W.	BREAD-NUT.			.....	.....	.....	Sp. 2-4.				
14363	Alicastrum	W.	Jamaica	辛	or	6	...	Ap	Jamaica	1776.	C	r.m	S.fl.i.oc.1.t.1.f.1
14364	spurium	W.	Milkwood	辛	or	6	...	Ap	Jamaica	1789.	C	r.m	
2159.	DIOSPYROS.	W.	DATE PLUM.			.....	.....	.....	Ebenaceæ. Sp. 12-29.				
14365	Lótus	W.	European	辛	clt	20	jn.jl	Y.g	Italy	1596.	L	s.l	Mill. ic. t. 116
14366	virginiana	W.	American	辛	clt	20	jn.jl	Y.g	N. Amer.	1629.	S	s.l	Dend. brit. 146
14367	pubescens	Ph.	pubescent	辛	clt	20	ap	Y.g	N. Amer.	1812.	C	s.l	
14368	sylvatica	W.	wood	辛	or	30	...	W	E. Indies	1812.	C	s.l	Roxb. cor.1. t.47
14369	E'bentum	W.	smooth	辛	or	30	...	W	E. Indies	1793.	L	r.m	Kæm.amc.t.806
14370	Káki	W.	Japan	辛	tm	30	...	W	E. Indies	1792.	C	s.l	Ro.in.ac.ha.2.t.5
14371	Embryopteris	Pers.	polyandrous	辛	fr	12	...	W.g	Japan	1789.	L	r.m	Bot. reg. 439
14372	vacinioides	Lindl.	vacinium-like	辛	pr	25	jl	W.g	E. Indies	1818.	L	r.m	Hook. ex. n. 139
14373	dissorin	W.	Maholo-fruit	辛	pr	2	ap.my	W	China	1823.	C	r.m	
14374	montana	W.	mountain	辛	fr	20	...	W	Philippin.	1823.	C	r.m	
14375	cordifolia	W.	heart-leaved	辛	or	6	...	W.g	E. Indies	18-2.	C	r.m	
14376	obovata	W.	four-seeded	辛	or	15	...	W.g	E. Indies	1794.	G	co	Roxb. cor.1. t.50
				辛	or	15	...	W.g	W. Indies	1795.	G	co	Jac.schœ.3.t.312
2160.	MYRSINE.	R. Br.	MYRSINE.			.....	.....	.....	Myrsinæe. Sp. 4-13.				
14377	africana	W.	African	辛	or	2	mr.my	Br	C. G. H.	1691.	C	p.l	Com.hort.1. t.64
14378	retosa	W.	round-leaved	辛	pr	2	jn	W.g	Azores	1778.	C	p.l	Vent. cels. 85
14379	Samára	R. Rr.	oval-leaved	辛	pr	3	fn	W.g	C. G. H.	1770.	C	lp	
14380	melanophleus	R. Br.	Laurel-leaved	辛	pr	3	...	W.g	C. G. H.	1783.	C	lp	Jac.vind.1. t.71
	Sideroxylon	melanophleum	W.										
2161.	NYS-SA.	W.	TUPELO.			.....	.....	.....	Santalacææ? Sp. 5-9.				
14381	villósa	W.	Sour-gum	辛	or	10	my	G	N. Amer.	1806.	L	s.l	Mich. arb. 21
14382	biflora	W.	mountain	辛	or	10	ap.my	G	N. Amer.	1739.	C	s.l	Mich. arb. 22
14383	capitata	H. K.	round-headed	辛	or	10	...	G	N. Amer.	1806.	C	s.l	
14384	to mentosa	W.	downy	辛	or	15	ap.my	G	N. Amer.	1818.	C	s.l	
	grandidentata	Mich.											
14385	can'dicans	W.	Ogechee lime	辛	or	20	...	G	N. Amer.	1812.	C	s.l	Mich. arb. 20
14386	denticulata	W.	water	辛	or	30	...	G	N. Amer.	1735.	L	s.l	Cat. car. 1. t. 60
2162.	HAMILTONIA.	W.	OIL-NUT.			.....	.....	.....	Sp. 1.				
14387	oleifera	W.	Olive-bearing	辛	or	6	...	G.Y	N. Amer.	1800.	C	s.l	
	Pyrdaria	pábera	Mich.										
2163.	LAUROPHYL/LUS.	W.	LAUROPHYLLUS.			Sp. 1.				
14388	capensis	W.	Cape	辛	or	6	...	G	C. G. H.	1801.	L	p.l	



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in Cambridgeshire. There are other varieties with curled leaves, striped leaves, variegated bark, &c. and some consider *F. simplicifolia* only a variety. *F. Americana* is a lofty tree, in few respects different from the common ash. Those species which do not produce seeds, are readily increased by grafting.

Little is known of the qualities of the greater part of the numerous varieties of American ash, distinguished by Bosc. They probably all form fine trees; the young plants in our gardens grow freely, and exhibit indications of valuable properties as ornamental trees.

2158. *Brosimum*. From *βρωσιμος*, good to eat. *B. Alicastrum* is common in the woods of Jamaica. The timber is not despicable; but the leaves and younger branches are more useful, and a hearty fattening fodder for all sorts of cattle. The fruit, boiled with salt fish, pork, beef, or pickle, has been frequently the support of the negroes and poorer sort of white people in times of scarcity, and proved a wholesome, and not unpleasant food, when roasted, it eats something like our European chestnuts, and is called bread-nut. The leaves and younger shoots are full of gum, which renders them disagreeable to most cattle at first, but they soon grow very fond of them.

B. spurium is also common in woods in the West Indies, but its timber is of little value. In our stoves both species thrive well, and like loamy soil; and old cuttings, with their leaves on, root in sand in moist heat.

2159. *Diospyros*. From *Διος αυγος*, the fruit of Jove, or heavenly fruit. It has been fancied that the European species of this plant produced that famous fruit, which, according to ancient romancers, caused oblivion. *D. Kaki* is a valuable Japanese tree, which bears the fruit sometimes received from China in a dried form under the name of dates. *D. discolor* also bears a fine fruit. *D. lotus* produces fruit the size of a

14356 Leaves simple blistered ovate coarsely serrated dark-green quite smooth
 14357 Leaf. ovate subsessile acute mucronate serrate smooth cuneate at base
 14358 Leaf. oblong stalked acute at each end mucronate serrated smooth
 14359 Leaves unequally pinnated of 3 pair, Leaflets stalked lanceolate acuminate serrated silvery
 14360 Leaf. sessile ovate lanc. serrated rugose-shining rounded at base unequal, Axils of veins villous beneath
 14361 Lvs. of 3 pairs smooth, Leaf. obl. acum. tooth Com. petiole winged at base, Branches ciner. Buds blackish
 14362 Leaflets subsessile lanc. acuminate serrated smooth, Fruit lanc. narrowed at each end with a long point

14363 Leaves ovate lanc. evergreen, Catkins globose stalked twin axillary, Fruit coated
 14364 Leaves lanceolate-ovate acuminate, Catkins subsessile ovate axillary twin, Fruit soft

14365 Leaves obl. acuminate downy beneath, Buds hairy inside
 14366 Leaves ovate bluntnish shining smooth netted with veins, Petioles downy, Buds smooth
 14367 Leaves obl. acute downy beneath, Petioles long, Fruit few-seeded
 14368 Lvs. obl. acute at base and end smooth on each side, Fl. trigynous erect, Hermaphrodite cor. as long as cal.
 14369 Leaves ovate-lanc. acuminate, Buds hairy
 14370 Leaves ovate-elliptical acuminate acute at base downy beneath, Branches downy
 14371 Leaves lanc. oblong, Flowers axillary polyandrous, Berry 8-seeded
 14372 Lvs. simple fleshy nerveless cover. on each side with scatter. stell. scales, Sterile obl.-lanc. Fert. lin.-lanc.
 14373 Leaves oblong acute rounded at base acute at end : smooth above ; silky and glaucous beneath
 14374 Leaves oblong rounded at base acute at end smooth on each side
 14375 Spiny, Leaves oblong acuminate cordate downy beneath
 14376 Leaves obovate blunt smooth on each side

14377 Leaves obovate elliptical acute serrated at end, Pedunc. umbelled axillary, Stamens exerted
 14378 Leaves obovate retuse toothletted, Flowers axillary clustered, Stamens included
 14379 Leaves ellipt. Corymbs axillary aggregate

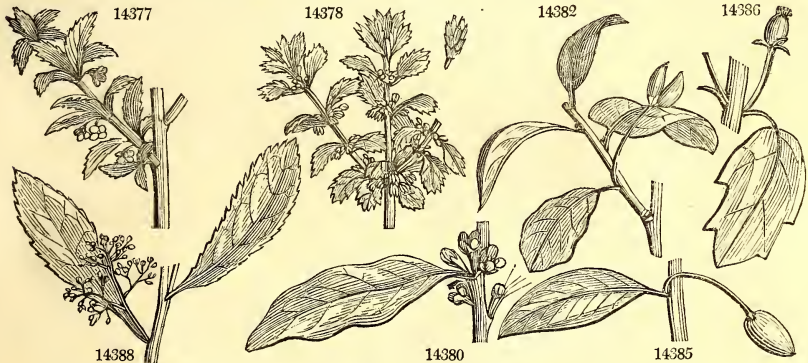
14380 Leaves oblong lanc. subcoriaceous entire, Flowers axillary clustered

14381 Leaves oblong entire acute at each end, Petiole middle rib and edge villous, Female peduncles about 3-fl.
 14382 Leaves ovate-oblong entire acute at each end smooth, Female peduncles 2-flowered
 14383 Leaves cordate ovate slightly serrated glaucous beneath, Flowers in globose heads, Drupes oblong
 14384 Leaves on long stalks obl. acuminate remotely serrate downy beneath, Female peduncles 1-flowered

14385 Leaves on short stalks obl. nearly entire cuneate at base whitish beneath, Female peduncle 1-fl.
 14386 Leaves on long stalks obl. acuminate remotely serrated smooth on both sides, Female pedunc. 1-fl.

14387 Leaves oval-oblong acuminate entire

14388 Leaves stalked oblong acute serrated coriaceous veiny smooth



and Miscellaneous Particulars.

cherry, yellow when ripe, sweet, and somewhat astringent ; they are recommended as a cure for the diarrhoea. *D. virginiana* has a white brittle wood, covered with a dark brown bark. The fruit is in form and bigness like a date, very firm, like that fruit, and almost as sweet, with a large kernel.

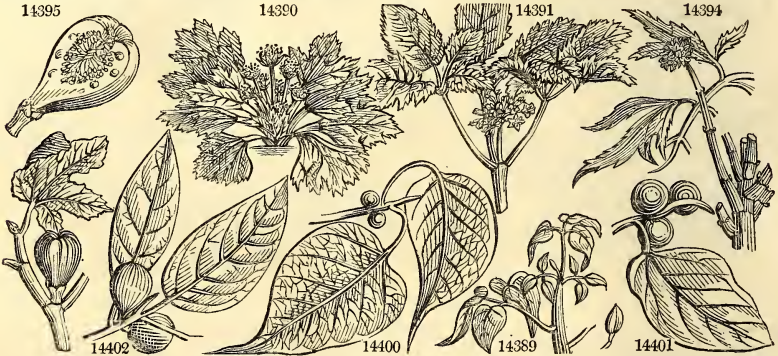
2160. *Myrsine*. A Greek word synonymous with Myrtle. Modern botanists have applied the name to a genus of African myrtle-like shrubs. The species grow freely in loam and peat, and are increased by young cuttings in sand under a hand-glass.

2161. *Nyssa*. A name of a nymph, according to Linnæus. The species are large shrubs, which grow freely in any soil or situation, but prefer moisture. *N. denticulata* grows naturally in wet swamps in Carolina and Florida, and rises there to the height of eighty or hundred feet. Marshall, in his American Grove, describes it as a tree of great singularity and beauty. It produces fruit about the size and shape of small olives, which are preserved like them by the French inhabitants of the Mississippi, where it greatly abounds, and is called the olive-tree. The timber is white and soft when unseasoned, but light and compact when dry, which renders it very proper for the carver and turner. All the species are readily propagated by layers or seeds.

2162. *Hamiltonia*. Dedicated by Muhlenburg, to Mr. Hamilton, an American botanist. A shrub growing to the height of from three to six feet. The flowers grow in terminal racemes from an inch to an inch and a half long.

2163. *Laurophyllus*. An hybrid name created by Thunberg, to express the resemblance of the leaves, $\phi\lambda\lambda\alpha$, to a laurel. A shrub with stalked, oblong, acute, serrated, coriaceous leaves, and minute flowers growing in panicles three or four inches long.

2164. BURSE'RA. <i>W.</i>	BURSEREA.				<i>Terebintaceæ.</i>	<i>Sp. 1.</i>							
14389 gummifera <i>W.</i>	Jamaica	♀	□	or	20	...	W. G.	W. Indies	1690.	S	p.l	Jac. amer. t. 65	
2165. ARCTO'PUS. <i>W.</i>	ARCTOPUS.					Umbelliferae.	<i>Sp. 1.</i>						
14390 echinatus <i>W.</i>	rough	♂	□	m	1	my.ju	G	C. G. H.	1774.	D	p.l	Bot. reg. 705	
2166. PANAX. <i>W.</i>	PANAX.							<i>Araliaceæ.</i>	<i>Sp. 4-16.</i>				
14391 quinquefolium <i>W.</i>	Ginseng	♂	△	pr	1½	jn	L, Y	N. Amer.	1740.	D	s.p	Bot. mag. 1333	
14392 trifolium <i>W.</i>	lesser	♂	△	pr	1½	my.ju	G	N. Amer.	1759.	D	s.p	Bot. mag. 1334	
14393 aculéatum <i>W.</i>	prickly	♂	△	m	1½	n	G	China	1773.	C	s.p	Jac. ic. 3. t. 63+4	
14394 fruticosum <i>W.</i>	shrubby	♂	□	pr	6	au.s	G	Ternate	1800.	R	r.m	Bot. rep. 595	
2167. FYCUS. <i>W.</i>	FIG TREE.							<i>Urticæ.</i>	<i>Sp. 47-143.</i>				
14395 Cárica <i>W.</i>	common	♀	□	fr	15	jn.jl	Ap	S. Europe	1548.	C	co	Tre. ehret. t. 73, 4	
14396 rubrinérvia <i>Link.</i>	red-nerved	♀	□	or	10	...	Ap	Brazil	1824.	C	co		
14397 aquática <i>W.</i>	rough-leaved	♀	□	or	10	...	Ap	E. Indies	1758.	C	lp	Rhee. mal. 3. t. 62	
14398 nymphæifolia <i>W.</i>	Water-lily-ld.	♀	□	or	10	...	Ap	E. Indies	1759.	C	p.l		
14399 crassinérvia <i>W.</i>	thick-nerved	♀	□	or	10	...	Ap	S. Amer.	1823.	C	p.l		
14400 religiôsa <i>W.</i>	Poplar-leaved	♀	□	ec	25	...	Ap	E. Indies	1731.	C	p.l	Rhee. mal. 1. t. 27	
14401 benghalensis <i>W.</i>	Bengal	♀	□	or	25	ap	Ap	E. Indies	1690.	C	p.l	Rhee. mal. 1. t. 23	
14402 venôsa <i>W.</i>	vein-leaved	♀	□	or	10	...	Ap	E. Indies	1763.	C	p.l	W.h.ber. 1. t. 36	
14403 Bras'sii <i>Sabine</i>	Brass's	♀	□	or	20	...	Ap	S. Leone	1822.	C	p.l		
14404 coriacea <i>W.</i>	leathery-leaved	♀	□	or	10	...	Ap	E. Indies	1772.	C	p.l		
14405 lasiophylla <i>Link.</i>	woolly-leaved	♀	□	or	10	...	Ap	.....	1820.	C	p.l		
14406 costata <i>W.</i>	rib-leaved	♀	□	or	10	...	Ap	E. Indies	1763.	C	p.l		
14407 lúcida <i>W.</i>	shining-leaved	♀	□	or	10	...	Ap	E. Indies	1772.	C	p.l		
14408 oblongata <i>Link.</i>	oblong-leaved	♀	□	or	6	...	Ap	C. G. H.	1825.	C	p.l		
14409 martinicensis <i>W.</i>	round-fruited	♀	□	or	10	...	Ap	W. Indies	1759.	C	p.l	Sloa. jam. 2. t. 223	
14410 infectoria <i>W.</i>	veiny	♀	□	or	15	...	Ap	E. Indies	1763.	C	p.l	Rhee. mal. 3. t. 64	
14411 supersticiosa <i>Link.</i>	superstitious	♀	□	or	6	...	Ap	.....	1776.	C	p.l		
14412 pedunculata <i>W.</i>	Willow-leaved	♀	□	or	6	...	Ap	S. Amer.	1763.	C	p.l	Pluk. al. t. 178. f. 4	
14413 ulmifolia <i>W.</i>	elm-leaved	♀	□	or	4	...	Ap	Phillipin.	1813.	C	p.l		
14414 cordata <i>W.</i>	heart-leaved	♀	□	or	6	...	Ap	C. G. H.	1802.	C	p.l	Thunb. diss. c. ic.	
14415 macrophylla <i>P. S.</i>	large-leaved	♀	□	or	14	...	Ap	N. Holl.	...	C	p.l		
14416 obtusata <i>Link.</i>	blunt	♀	□	or	4	...	Ap	.....	1821.	C	p.l		
14417 Mun'tia <i>Link.</i>	doubtful	♀	□	or	4	...	Ap	N. Holl.	1822.	C	p.l		
14418 australis <i>W.</i>	ferruginous	♀	□	or	6	mr.jn	Ap	N. S. W.	1789.	C	p.l	Ven. malm. t. 114	
14419 elástica <i>Rox.</i>	Elastic-gum	♀	□	or	20	...	Ap	E. Indies	1815.	C	p.l		
14420 microcarpa <i>Vahl.</i>	small-fruited	♀	□	or	20	...	Ap	Guinea	1819.	C	p.l		
14421 ciliolosa <i>Link.</i>	ciliated	♀	□	or	4	...	Ap	.....	1823.	C	p.l		
14422 stipulata <i>W.</i>	trailing	♀	□	or	4	...	Ap	China	1771.	C	p.l		
14423 púmila <i>W.</i>	dwarf	♀	□	or	3	...	Ap	China	1771.	C	p.l		
14424 tinctoria <i>W.</i>	Otaheite	♀	□	or	15	my.jn	Ap	Society I.	1793.	C	p.l	Kam. amœ. t. 804	
14425 brasiliensis <i>Link.</i>	Brazilian	♀	□	or	4	...	Ap	Brazil	1823.	C	p.l		
14426 benjamina <i>W.</i>	oval-leaved	♀	□	or	10	...	Ap	E. Indies	1757.	C	p.l	Rhee. mal. 1. t. 26	
14427 Lichtensteinii <i>Link.</i>	Lichtenstein's	♀	□	or	3	...	Ap	C. G. H.	1824.	C	p.l		
14428 pertusa <i>W.</i>	Laurel-leaved	♀	□	or	8	...	Ap	S. Amer.	1780.	C	p.l		
14429 nitida <i>W.</i>	glossy-leaved	♀	□	or	6	mr.jn	Ap	E. Indies	1786.	C	p.l	Hook. ex. fl. 111	
14430 índica <i>W.</i>	Banyan Tree	♀	□	or	30	...	Ap	E. Indies	1759.	C	p.l	khee. mal. 3. t. 63	
14431 popul'nea <i>W.</i>	poplar-leaved	♀	□	or	12	...	Ap	S. Amer.	1812.	C	p.l		
14432 levigata <i>Vahl.</i>	polished	♀	□	or	6	...	Ap	W. Indies	1823.	C	p.l		
14433 racemosa <i>W.</i>	clustered	♀	□	or	4	...	Ap	E. Indies	1753.	C	p.l	Rhee. mal. 1. t. 25	
14434 retusa <i>W.</i>	blunt-leaved	♀	□	or	2	...	Ap	E. Indies	1793.	C	p.l		
14435 repens <i>W.</i>	creeping-stem.	♀	□	or	1½	...	Ap	E. Indies	1805.	C	p.l		
14436 pendula <i>Link.</i>	pendulous	♀	□	or	12	...	Ap	.....	1824.	C	p.l		



History, Use, Propagation, Culture.

2164. *Bursera*. So called after Joachim Bursar, a disciple and friend of Caspar Bauhin, and professor of botany at Sara, in Naples. He is said to have left behind him an Herbarium, in twenty-five volumes. *B. gummifera* is a large tree with a fine leafy head, and abounds in copious watery balsamic fluid, which soon becomes inspissated by exposure to the air. The root is said to possess the same properties as *Quassia*. Hedges are made of it by the Spanish residents in South America, who call it *Amcigo*.

2165. *Arctopus*. Literally, bear's foot, *αρκτος* *πους*. An inconspicuous prickly umbelliferous plant. The roots are used with success at the Cape, in cases of siphilis; but upon trial here some years since, they were found to be less efficient than *Sarsaparilla*.

2166. *Panax*. A high-sounding title, meaning little less than that the plant which bears it is the long sought *universal elixir*; the name has been taken from *πας*, and *ακος*, a remedy; a remedy for all things. *P. quinquefolium* is a native of Chinese Tartary, and also of North America. In the former country it has been gathered as an invaluable drug from time immemorial. The roots, which are said to bear some resemblance to the human form, are gathered and dried, and enter into almost every medicine used by the Tartars and Chinese. Osbeck says, that he never looked into the apothecaries' shops, but they were always selling Ginseng, that both poor people and those of the highest rank made use of it, and that they boil half an ounce in their

14389 Racemes axillary, Leaves pinnated with an odd one, Leaflets ovate acute

14390 Leaves prickly with stellate spines

14391 Stem herbaceous, Leaves ternate or quinate, Leaf. ovate acuminate serrated

14392 Stem herbaceous, Leaves ternate or quinate, Leaf. oblong lanc. serrated

14393 Leaves ternate: the upper near the flowers clustered simple, Petioles and branches prickly

14394 Leaves supradecomposed toothed-ciliated, Stem shrubby

14395 Leaves cordate 3-5-lobed repand-toothed: lobes blunt rough above downy beneath

14396 Leaves ovate with a short point netted beneath very smooth

14397 Leaves oblong 3-lobed and sinuated entire rough on each side

14398 Leaves cordate roundish mucronate entire glabrous glaucous beneath

14399 Leaves ovate oblong entire acute blunt at base smooth

14400 Leaves subcordate ovate with very long points

14401 Leaves ovate entire very blunt rounded at base subcordate 5-nerved

14402 Leaves oblong ovate entire acute subcordate at base impressed with dots on the upper surface

14403 Leaves oblong pointed smooth on both sides widely toothed, Branches covered with brown hairs

14404 Leaves oblong smooth narrowed at base cordate coriaceous, Veins immersed

14405 Leaves ovate blunt soft with down beneath

14406 Leaves ovate-cordate with a deep narrow sinus quite entire smooth acute green on each side

14407 Leaves ovate-cordate entire smooth blunt 3-nerved at base, Branches erect

14408 Leaves cordate oblong with a short point obtuse smooth with parallel nerves

14409 Leaves oblong-lanc. entire narrowed and acute at end rounded at base with white dots above

14410 Leaves obl. quite entire narrowed and acute at end rounded and subcord. at base: with punctures above

14411 Leaves ovate tapered at the base with a long point

14412 Leaves ovate-obl. entire acuminate blunt obsoletely cordate at base

14413 Leaves ovate unequal-sided toothed acuminate rough on each side

14414 Leaves ovate-lanc. entire slightly cordate at base

14415 Leaves cordate oblong entire nerved shining

14416 Leaves ovate-oblong bluntly serrate crenate hairy on each side

14417 Leaves oval acute serrated rough above soft beneath

14418 Leaves ellipt. entire rounded at each end smooth: young ones rusty with down beneath

14419 Leaves smooth elliptical entire shining very large

14420 Leaves oblong ovate blunt smooth, Fruit twin globose sessile

14421 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious

14422 Leaves ovate blunt entire cordate unequal at base, Stipules membranous twin persistent, Stem creeping

14423 Leaves ovate bluntnish entire netted beneath

14424 Leaves obliquely ovate blunt

14425 Leaves broad lanc. with a short point tapered at base shining very smooth netted beneath

14426 Lvs. ellipt. obl. ent. narrow, at base bluntly acum. at end with fine parallel veins; dotted with white above

14427 Leaves cordate lanc. repand toothed obtuse downy beneath

14428 Leaves obl. acuminate entire narrowed at base about 3-nerved with parallel veins

14429 Leaves obovate entire with very short points and fine parallel veins shining smooth

14430 Leaves ovate acuminate entire acute at base

14431 Leaves obl. with short points entire smooth

14432 Leaves cordate ovate acuminate veiny very smooth, Fruit stalked globose smooth

14433 Leaves oblong-lanc. acute quite entire somewhat narrowed at base 3-nerved veiny dotted beneath

14434 Leaves obovate entire blunt smooth, Branchlets furrowed

14435 Leaves cordate ovate acute serrated unequal at base scabrous above hairy beneath, Stem creeping

14436 Leaves oblong acuminate tapered at base, Branches pendulous



and Miscellaneous Particulars.

tea or soup every morning, as a remedy for consumption and other diseases. Jartoux relates, that the most eminent physicians of China have written volumes on the medicinal powers of this plant, asserting that it gives immediate relief in extreme fatigue, either of body or mind, that it dissolves pituitous humours, and renders respiration easy, strengthens the stomach, promotes appetite, stops vomiting, removes hysterical, hypochondriacal, and all nervous affections, giving a vigorous tone of body even in extreme old age. The French in Canada use this root for curing the asthma, and as a stomachic. After all, our physicians say, that we have no proofs of the efficacy of Ginseng in Europe, and that from its sensible qualities it seems to possess very little power as a medicine. The hardy species thrive well in light rich soil; the others grow in loam and peat, and are increased by cuttings in sand under a hand-glass.

2167. *Ficus*. It is not known what the derivation of this word is; but in most languages it is nearly the same. In Greek it is *συκκη*, in Latin *Ficus*, in Celtic *Figuzen*, in Teutonic *Feige*, in Slavonic *Jige*, in Hungarian *fuge*, in Anglo-Saxon *fic*. The species are trees or shrubs, abounding in a milky juice. The fruit is turbinate, fleshy, soft, and hollow within. All the species are natives of warm countries. *F. Carica*, *le figuier*, Fr., *Feigenbaum*, Ger., and *Fico*, Ital., is supposed to be originally from Caria, in Asia, though it is now acclimatized, and in some respects naturalized in the Levant and

14437 myrtifolia Link.	Myrtle-leaved	♂ or	4	...	Ap	.....	1824.	C	p.l
14438 aspera W.	rough-leaved	♂ or	3	mr.jn	Ap	N. Holl.	1807.	C	p.l
14439 oppositifolia W. scabra P. S.	opposite-leaved	♂ or	4	...	Ap	E. Indies	1802.	C	p.l Roxb.cor.2.t.124
14440 arbutifolia Link.	Arbutus-leav'd	♂ or	3	...	Ap	.....	1825.	C	p.l
14441 capensis W.	Cape	♂ or	4	...	Ap	C. G. H.	1816.	C	p.l

History, Use, Propagation, Culture,

the south of Europe. In these countries the fruit green and dried forms an important part of the food of the inhabitants. In this country it is cultivated as a fruit tree, but not generally or extensively. It is only in very warm situations that it will ripen its fruit in the open air, even though trained against a wall; though there are one or two exceptions in Sussex on the sea-coast, where it ripens its fruit on standards. The only certain mode, however, is to grow it in houses built on purpose. No tree is more robust or more prolific. Even plants in pots or tubs kept in a temperature adapted for the orange-tree will fruit freely, and ripen two crops a year. Kept in the temperature of the pine-apple, Mr. Knight has proved, that the fig will go on growing and ripening fruit without intermission. A variety of curious and important matter respecting this tree will be found in the Transactions of the Horticultural Society, and in the Encyclo-

CLASS XXIV. — CRYPTOGRAMIA.

Sexual organs hidden; either imperfect, or not existing.

This class differs essentially from all the preceding in the peculiar conformation of the organs of reproduction, which are not formed of male and female parts, like those of the higher classes of plants, but are of a nature altogether different, consisting either of buds under a particular form, or of vessels containing vegetable substances analogous to seeds, but differing in not being the result of impregnation, and in having the power of striking root indifferently from any point of their surface. The internal composition of these vegetable substances, which are denominated sporules, is, on account of their extreme minuteness, unknown. Willdenow describes Cryptogamous plants to be vegetables without any visible flower, and differing from other plants in their external characters, in which respect they also differ from each other. By more modern botanists they are said to be distinguished from other plants by the absence of lymphatic vessels, and of pores of the epidermis; but the latter character has been disputed, and neither apply to the three first orders of Cryptogamia. For the purposes of this work, which follows the system of Linnæus, the definition, if it can be so called, of Willdenow is most applicable. In the arrangement of the orders of Cryptogamia, it has been found advisable to adhere to the divisions of modern writers, who, by extensive observations, and great powers of perception, have brought this most abstruse part of botany to a considerable degree of perfection.

The orders which are here adopted, are

I. FILICES. Reproductive organs uniform. Thecæ naked, or covered by an involucre, placed on the back of a frond, which is either foliaceous, or contracted in such a way as only to cover the clusters of thecæ, and always circinate when young.

II. EQUISETACEÆ. Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7 elongated involucre containing the seeds. Branches whorled, rigid.

III. LYCOPODINEÆ. Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing granules, the other larger bodies. Stems covered with many small leaves.

IV. MARSIACEÆ. Reproductive organs radical, uniform. Sporules? contained in roundish, one or many-celled indehiscent heads. Plants simple, aquatic.

V. MUSCI. Reproductive organs of two kinds. Thecæ many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

VI. HEPATICÆ. Reproductive organs of two kinds. 1st. Thecæ without an operculum, either naked or sessile, or furnished with a veil, through which they are, more or less, protruded. Sporules naked, or mixed with spiral threads. 2d. Minute, roundish, or oblong bodies variously situated. Plants frondose, of a cellular structure, not submersed.

VII. ALGÆ. Reproductive organs of two kinds. 1st. Thecæ or tubercles variously situated. 2d. Sporules or granules naked, or immersed in the frond. Plants always aquatic, and submersed.

VIII. LICHENES. Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

IX. FUNGI. Reproductive organs uniform. Sporules arranged in tubular cells, placed in some part of the external surface. Substance various, mostly thick and fleshy, sometimes vesicular. Thallus none.

A few other divisions, such as Hypoxyla, &c., which have been proposed by some writers of authority, not having appeared to possess characters of sufficient importance, are here merged in others.

In consequence of the wide difference which exists between the lower orders of vegetables and the higher, and the impossibility of subjecting the former to cultivation, it has been found requisite, with the exception

- 14437 Leaves oblong acute subcordate at base netted beneath
 14438 Leaves ovate unequal-sided sinuate-toothed cordate at base rough on each side
 14439 Leaves opp. obovate oblong serrated acute scabrous above hairy beneath
 14440 Leaves oblong acuminate blunt tapered at base netted beneath, Stipules scarious smooth
 14441 Leaves ovate-oblong acute sinuate toothed smooth

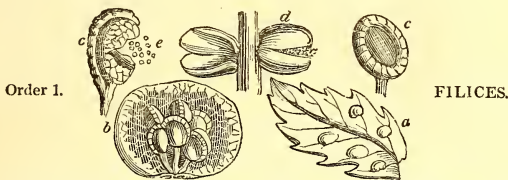
and *Miscellaneous Particulars.*

pædia of Gardening. (§ 4839.) *F. elastica* as well as some other plants produce the gum known as India-rubber.

F. indica is an immense tree, spreading very wide, the branches ash-colored, and throwing down roots into the soil. Marsden mentions one of these growing near Memgee, twenty miles west of Patna, in Bengal, which was in diameter 370 feet; the circumference of the shadow at noon was 1116 feet, and there were fifty or sixty stems. It is called the priest's tree, and held in so much veneration by the Gentoos, that if any one cuts or ops off a branch, he is looked upon with as great abhorrence as if he had broken a cow's leg. *F. religiosa* is so called, because it is sacred to the idol Vishnu. The horizontal branches root into the soil like the other; all the species are of remarkably easy culture, and root easily from large cuttings.

of Filices and their nearest allies, to introduce some alterations into the form of the pages of this work. These alterations commence with Musci.

The orders of Cryptogamia being equal in importance to the classes of flowering plants, they will be treated of as the classes have hitherto been treated. Each order will, therefore, stand by itself, and will have its genera and species arranged under it, without immediate connection with any other order.



Reproductive organs uniform. Thecae naked, or having an involucre placed on the back of a frond, which is either foliaceous, or contracted so as only to cover the clusters of thecae, and always circinate when young.

This is the most beautiful of all the orders of Cryptogamic plants, and has always been a favorite tribe, to which the most celebrated botanists of all modern times have given their attention. Till some time, however, after the death of Linnæus, ferns shared the fate of all other departments of botany, being viewed rather as objects of elegant form than of scientific examination. Sir James Edward Smith was the first author who attempted to distribute them into genera, by characters derived from a minute inspection of their organs of reproduction; and his arrangement, however imperfect it may now be considered, is certainly that upon the principles of which the more precise divisions of recent authors have been effected. He was succeeded by Swartz, Willdenow, Brown, and many others, and lastly by Dr. George Frederick Kauffuss, Professor of Botany at Halle, whose arrangement of 1824 is chiefly here adopted as being the most recent which has been published.

The principal distinction which exists between ferns and other orders of Cryptogamous plants is found in the situation of what are called their *sori*, or patches of reproductive organs, which are in all cases inserted upon the back surface of the leaf, or, as it is called in ferns, the frond, sometimes appearing only in the form of little spots, sometimes covering the whole of the under side of the frond, and sometimes contracting the substance of the frond, so as to give it the appearance of a single mass of fructification, bursting in a determinate manner, as in *Ophioglossum*, *Schizaa*, &c. Besides this character, the fronds are always rolled up in a circinate manner when they are first developed.

That part of the frond which occupies the place of the petiole of a compound leaf is called the *rachis*. The groups of thecae forming the organs of reproduction are called *sori* (*a*), which are either naked or covered with an involucre, or, as it is more frequently termed, *indusium*. (*b*) This latter organ, when present, either bursts outwardly towards the margin of the frond, or inwardly towards the midrib or rachis. It may also be either single or double; the latter term signifying, that there is a cover on each side the sorus. The bodies which are called *thecæ* by some authors, and capsules by others, are constructed in two ways; they are either surrounded

by an elastic furrowed ring, when they are called *Annulatæ* (c), or they are destitute of such a ring, in which case they are termed *Exannulatæ* (d). They contain the minute powdery matter, which is that by which ferns are reproduced; the constituent parts of this matter are called *sporules* (e), and are analogous to seeds in more perfect plants.

TRIBE I. POLYPODIACEÆ.

Thecæ 1-celled, with an articulated, elastic, longitudinal ring, bursting across in an irregular manner.

2163. *Polybotrya*. Thecæ closely covering the whole surface of the pinnules of an altered frond. Indusium none.
2169. *Acrostichum*. Thecæ scattered, occupying all the lower surface of the frond, or a part of it. Indusium none.
2170. *Hemionitis*. Thecæ seated on the reticulated veins of the frond. Indusium none.
2171. *Gymnogramma*. Thecæ seated on the forked veins of the frond. Indusium none.
2172. *Meniscium*. Sori linear, lunulate, somewhat parallel, placed across the spaces between the veins of the fronds. Indusium none.
2173. *Xiphopteris*. Sori oblong, oblique, placed on the reflexed points of the frond. Indusium none.
2174. *Ceterach*. Sori linear, transverse, concealed under palææ. Indusium none.
2175. *Polypodium*. Sori in little round scattered convex spots. Indusium none.
2176. *Taxitis*. Sorus linear, longitudinal, placed between the midrib and margin of the frond under the end. Indusium none.
2177. *Nothochlæna*. Sori almost marginal, continuous, covered by the scales, setæ, or hairs of the frond. Indusium none.
2178. *Onoclea*. Sori globose, inserted upon columnar receptacles, inclosed within the berry-like pinnules. Indusium double: common placed on the edge of the pinnule, and united into the form of a berry; proper membranous enveloping the sori.
2179. *Struthiopteris*. Sori linear, crossing, inserted upon crested receptacles, included in a double row within the somewhat articulated pinna. Indusium double: common marginal opening inwards in a rugged manner; proper membranous, and resembling a partition.
2180. *Allosorus*. Sori placed on the transverse forked veins of spike-like pinnules, finally becoming confluent. Common indusium very narrow, arising from the revolute margin which is rolled inwards.
2181. *Elleocaropus*. Thecæ globose, irregularly attached to the longitudinal veins of the frond. Indusium transparent, discolored, arising from the revolute edge of the frond, continuous, and opening by a longitudinal suture.
2182. *Lomariæ*. Sori linear, continuous, occupying the surface of the linear pinna of a particular frond. Indusium marginal or submarginal, conniving, involute.
2183. *Blechnum*. Sori linear, continuous, (sometimes interrupted) contiguous to the midrib. Indusium membranous, superficial, continuous, opening inwards.
2184. *Woodwardia*. Sori oblong, distinct, in rows, parallel, contiguous to the midrib. Indusium membranous, superficial, vaulted, opening inwards.
2185. *Doodia*. Sori lunulate, distinct, parallel to the midrib. Indusium membranous, superficial, flat, separating inwardly.
2186. *Asplenium*. Sori linear, placed upon lateral veins. Indusium membranous, flat, separating inwardly.
2187. *Allantodia*. Sori oblong, oblique with respect to the midrib. Indusium membranous, vaulted, cylindrical, adhering to a vein, opening inwards, finally spreading outwards.
2188. *Scolopendrium*. Sori linear, oblique, opposite, double, parallel. Indusium membranous, opening in opposite pairs.
2189. *Diplazium*. Sori linear, double alongside the veins. Indusium double, narrow, placed between the sori, fixed lengthwise by the middle, with their exterior margin separate.
2190. *Pteris*. Sori continuous, linear, marginal. Indusium from the inflexed edge of the frond, opening inwards.

POLYPODIACEÆ.

2163. POLYBOTRYA. H. & B. POLYBOTRYA. Sp. 1—17.
1442 cervina Kaulf. hart's-tongue ♀ ♂ or $\frac{1}{2}$ ap. my Br Jamaica 1823. D 1p Petiv. fil. t. 8. f. 3

History, Use, Propagation, Culture.

2163. *Polybotrya*. So called in allusion to the numerous bunches of the fertile divisions of its frond; from *πολύς*, many, and *βότρυς*, a bunch. Handsome species of West Indian and South American ferns. The genera of ferns are not very dissimilar in habit, so that it will be seldom that any remarks upon that subject will be found in these notes, which must necessarily consist chiefly of the etymology of the names. The medical properties are probably the same in all the genera; such as appear of any consequence are, however, inserted in the proper places. We will here take occasion to remark, that the cultivation of ferns is nearly the same in all cases, and that the soil best adapted for their growth is light peaty earth with a little loam. They are propagated by division of the roots, or by seeds or sporules. The latter plan has been practised at Liverpool,

2191. *Vittaria*. Sori solitary, continuous, linear, marginal or submarginal, immersed. Indusium double, superficial.
2192. *Lonchitis*. Sori lunate, marginal, placed under the recesses of the frond. Indusium from the margin of the frond, inflexed, opening inwards.
2193. *Antrophyum*. Sori linear, continuous, immersed in the reticulated veins of the frond. Indusium double, opening in the middle.
2194. *Adiantum*. Sori inserted into the indusium, linear, contiguous, or roundish. Indusium marginal, opening inwards, either nearly continuous, or squamiform, or reniform.
2195. *Cheilanthes*. Sori dot-like, separate, marginal in the recess of the indusium. Indusium either reflexed crenules of the frond, or squamiform, membranous, and arising from the margin, or nearly continuous, opening inwards.
2196. *Davallia*. Sori roundish, nearly terminal and marginal, distinct. Indusium superficial, attached inwards, and opening outwards.
2197. *Dicksonia*. Sori dot-like, marginal, solitary in the recesses of the frond. Indusium membranous, nearly globose, marginal, adnate, opening unequally with lacerated orifices, and spreading back in all directions.
2198. *Balanium*. Sori oblong-linear, nearly terminal and marginal, transverse. Indusium coriaceous, reniform, 2-valved, opening outwards: upper valve marginal, patera-shaped; lower nearly flat.
2199. *Aspidium*. Sori roundish, scattered. Indusium solitary, orbicular, peltate, or reniform.
2200. *Woodsia*. Sori dot-like, scattered. Indusium membranous, placed under the sori, somewhat patera-shaped and ciliated.
2201. *Cyathea*. Sori globose, scattered, inserted upon an elevated receptacle, which arises from a division of the vein. Indusium spherical, opening in the middle, and finally becoming patera-shaped.
2202. *Trichomanes*. Sori marginal, inserted upon a long setaceous receptacle. Indusium erect, campanulate.
2203. *Hymenophyllum*. Sori marginal, inserted upon a claviform receptacle. Indusium erect, 2-valved.

TRIBE II. OSMUNDACEÆ.

Thecæ without a ring, netted, pellucid, with radiating striæ upon their top, bursting lengthwise on one side.

2204. *Todea*. Sori oblong, seated upon forked veins of an unchanged frond. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2205. *Osmunda*. Sori nearly globose, alternately arising from the margin of a frond, which becomes changed into a panicle. Thecæ globose, stalked, netted, opening from their base as high as a pellucid dorsal projection. Indusium none.
2206. *Lygodium*. Thecæ oblong-ovate, striated at the end in a radiate manner, seated in two rows upon 1-sided marginal spikelets, fixed by their backs and opening lengthwise in front. Indusium funnel-shaped, covering up each capsule.
2207. *Anemia*. Thecæ ovate, striated at the top in a radiated manner, disposed in compound unilateral spikes, attached by the base, and opening lengthwise. Indusium none.

TRIBE III. OPHIOGLOSSÆ.

Thecæ 1-celled, adnate at base, roundish, coriaceous, opaque, without a ring, not vascular, sometimes fastened together, half-bivalved.

2208. *Botrychium*. Thecæ naked, globose, distinct, attached to the rachis of a compound spike, half 2-valved, opening nearly at one side.
2209. *Ophioglossum*. Thecæ naked, connate in a distichous jointed spike, half 2-valved, opening at the side.
2210. *Marattia*. Sori oval, somewhat marginal. Thecæ united in a double row, opening inwards by a cleft. Indusium arched, opening lengthwise above, 2-valved, inclosing on each side a row of thecæ.

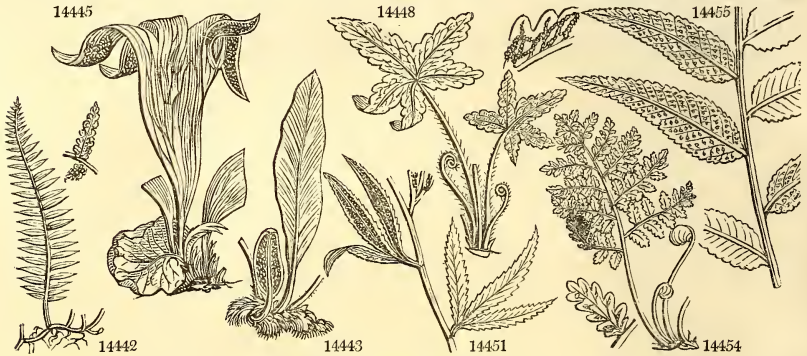
POLYPODIACEÆ.

1442 Ster. fronds pinnat. Pinn. ov. lanc. ent. margin. Fert. fr. bipinn. Pinnæ lin. Pinnul. obl. flatt. runn. together

and Miscellaneous Particulars.

by Mr. H. Shepherd, with so much success, that his method has been made the subject of a communication to the Horticultural Society, of which the following is an extract. "Having provided a common garden-pot four and a half inches in depth, and three and a half wide, let the bottom part, to the height of one inch, be filled with fragments of broken pots, by way of drain. Over these should be spread a stratum of such soil as is commonly used for potting greenhouse plants, of the depth of two inches; the remaining inch and half should be filled with brown loamy earth sifted through a hair-sieve, the surface being made perfectly smooth, and on this the seeds are to be scattered as evenly as possible. Care must be taken that the wind be not suffered to blow the seeds away, leaving nothing but empty capsules. The seeds being sown, no other covering is

2169. ACROSTICHUM. <i>L. ACROSTICHUM.</i>	Sp. 5—42.				
14443 simplex <i>W.</i>	simple	✓ [] or	1 ...	Br	Jamaica 1793. D l.p Bot. cab. 709
14444 crinitum <i>W.</i>	hairy	✓ [] or	3 ...	Br	W. Indies 1793. D l.p Plum. fil. t. 125
14445 alcicorné <i>W.</i>	Elk's-horn	✓ [] cu	3 au.o	Br	N. S. W. 1868. R s.p Bot. reg. 262-3
14446 sorbifolium <i>W.</i>	Sorbus-leaved	✓ [] or	1 1/2 ...	Br	W. Indies 1793. D l.p Plum. fil. t. 117
14447 aureum <i>L.</i>	golden	✓ [] or	4 au	Br	W. Indies 1815. D l.p Plum. fil. t. 104
2170. HEMIONITIS. <i>L. HEMIONITIS.</i>	Sp. 1—5.				
14448 palmata <i>L.</i>	palmated	✓ [] el	3/4 ju.au	Br	W. Indies 1793. D l.p Hook. ex. fl. 33
2171. GYMNOGRAMMA. <i>Desv. GYMNOGRAMMA.</i>	Sp. 6—26.				
14449 pedatum <i>Kaulf.</i>	pedate	✓ [] pr	1/2 ju.jl	Br	N. Spain 1822. D l.p Sw. syn. fil. t. l.f.3
14450 rufum <i>Desv.</i>	rusty-haired	✓ [] pr	1/2 ju.au	Br	Jamaica 1793. D l.p Schk. fil. t. 17, 21
<i>Hemionitis rufa W.</i>					
14451 trifoliatum <i>Desv.</i>	three-leaved	✓ [] or	1 jl.au	Br	Jamaica 1810. D l.p Plum. fil. t. 144
14452 sulphareum <i>Desv.</i>	sulphury	✓ [] el	1 ju.jl	Br	Jamaica 1808. D l.p Schku. crypt. t. 4
14453 tartareum <i>Desv.</i>	whitened	✓ [] el	1 au	Br	W. Indies 1817. D l.p
<i>Hemionitis dealbata W.</i>					
14454 calomelanos <i>Kaulf.</i>	mealy	✓ [] el	1 jl.au	Br	W. Indies 1790. D s.p W. hort. ber. 41
<i>Acrostichum calomelanos W.</i>					
2172. MENISCIUM. <i>Schreb. MENISCIUM.</i>	Sp. 1—6.				
14455 reticulatum <i>Schr.</i>	netted	✓ [] el	3/4 ap.my	Br	Martinico 1793. D l.p Plum. fil. t. 110
2173. XIPHOPTERIS. <i>Kaulf. SWORD-FERN.</i>	Sp. 1—2.				
14456 serrulata <i>Kaulf.</i>	serrulate	✓ [] pr	1/2 ju.jl	Br	W. Indies 1823. D l.p Schku. crypt. t. 7
<i>Grammitis serrulata W.</i>					
2174. CETERACH. <i>W. CETERACH.</i>	Sp. 1—4.				
14457 officinarum <i>W.</i>	common	✓ [] m	3/4 my.o	Br	Britain cal.ro. D l.p Eng. bot. 1244
2175. POLYPODIUM. <i>L. POLYPODY.</i>	Sp. 27—160.				
14458 piloselloides <i>W.</i>	Mouse-ear	✓ [] or	1/2 au	Br	W. Indies 1793. D l.p Plum. fil. t. 118
14459 lycopodioides <i>W.</i>	Club-moss	✓ [] or	1/2 jl	Br	W. Indies 1793. D l.p Schk. fil. t. 8. c.p
14460 phyllitidis <i>W.</i>	Hart's-tongue	✓ [] or	1/2 ju.s	Br	W. Indies 1793. Sk s.p Plum. fil. t. 130
14461 Lin'gua <i>W.</i>	tongue-leaved	✓ [] or	1 my.jl	Br	China 1817. D l.p Thunb. jap. t. 38
14462 aureum <i>W.</i>	golden	✓ [] or	3 mr.ap	Br	W. Indies 1742. Sk s.p Plum. fil. t. 76
14463 vulgare <i>W.</i>	common	✓ [] or	1 my.o	Br	Britain sha.ba. D l.p Eng. bot. 1149
<i>β cambricum Welsh</i>		✓ [] cu	1 my.o	Br	Britain ... D l.p Plum. fil. t. 2 f.5.a
14464 virginianum <i>W.</i>	Virginian	✓ [] or	1 jl	Br	W. Indies 1793. D l.p Plum. fil. t. 77
14465 pectinatum <i>W.</i>	comb-leaved	✓ [] or	1 1/2 ju.s	Br	W. Indies 1793. Sk s.p Bot. cab. 748
14466 asplenifolium <i>W.</i>	Spleenwort-ld.	✓ [] or	2 jl	Br	Martinico 1790. Sk s.p Plum. fil. t. 102. A
14467 incanum <i>W.</i>	hoary	✓ [] or	1/2 jl	Br	N. Amer. 1811. D l.p Schk. fil. t. 11. b
14468 Phegopteris <i>W.</i>	Sun-fern	✓ [] or	3/4 ju.jl	Br	Britain moun. D l.p Eng. bot. 2224
14469 hexagonopterum <i>W.</i>	triangular	✓ [] or	1 jl	Br	N. Amer. 1811. D l.p Pluk. al. t. 284. f.2
14470 pruinaum <i>W.</i>	white-leaved	✓ [] or	2 s	Br	Jamaica 1793. D l.p
14471 effusum <i>W.</i>	spreading	✓ [] or	3 n	Br	Jamaica 1769. Sk s.p Slo. jam. l. t. 57. f.3
14472 Dryopteris <i>W.</i>	tender-branch.	✓ [] or	1 ju.s	Br	Britain moi.pl. D l.p Eng. bot. 616
14473 calcareum <i>W.</i>	rigid-branched	✓ [] or	1 jl	Br	Britain cal.ro. D l.p Eng. bot. 1525
14474 crassifolium <i>W.</i>	thick-leaved	✓ [] or	3 aus	Br	W. Indies 1823. D l.p Plum. fil. t. 123.



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required than a bell-glass, which should just fit within the rim of the pot, so as to exclude all air. The pot is then to be kept in a pan always half full of water, and set in a shady part of the stove or hot-house, being always regularly watered as above directed. When the young plants have acquired their second leaf, it is proper to give them a little air, by placing a small piece of wood under the edge of the glass, at one side. In a short time afterwards the glass may entirely be removed."

The vegetation of ferns appears to be less tardy than botanists have supposed. Specimens of *Gymnogramma tartareum* having been brought from Jamaica to Liverpool, on the tenth of July 1817, a few seeds were brushed off them and sown immediately. Several plants thus obtained perfected seeds by the fifth of August 1818, which being committed to the earth, had produced young plants, covering the surface like a fine moss, by the eighth of September following. Specimens of *Pteris cretica*, and another marked *Pteris acrostichoides*, from William Jackson Hooker, Esq., afforded seeds which have vegetated and produced very fine plants of both species. Dr. William Carey sent from Serampore specimens of *Polypodium giganteum*, and what appears to be a new *Diplazium*. These reached Liverpool, July the tenth 1818; their seeds being immediately sown, had produced young plants by the eighth of September. A small fern from Sicily, with several others of this tribe, collected in the Brazils by William Swainson, Jun., Esq., afforded ripe seeds, which being sown in the spring of 1818, had partly vegetated, and in September had produced *Polypodium decumanum*, as well as *Gymnogramma calomelanos*. Mr. Shepherd obtained two plants of the latter from seeds brushed from the specimens in the Herbarium of Dr. John Reinhold Forster, now belonging to the botanic garden at Liverpool, and perhaps fifty years old. He made the experiments on other ferns in that collection, but without success, which, indeed, is not wonderful.

The seeds of this order of plants are of course liable to damage from damp or other accidents, like those of plants in general. It seems, moreover, that they are very soon shed by the bursting of their capsules, so that

- 14443 Fronds lanceolate tapered each way smooth : fertile linear lanceolate, Stalks very short naked
 14444 Fronds elliptical obtuse at each end hairy villous at the edges, Stalk villous
 14445 Ster. fronds renif. somew. lobed entire horizontal : fert. erect palmate dichotom. bearing fr. on lanc. segm.
 14446 Fronds pinnate : pinn. lanc. acum. serr. cuneate at base, Fert. pinn. : pinn. linear entire, Stem climbing
 14447 Fronds pinnate : pinn. altern. obl. lanceolate ent. cuneate and equal at base, all acum. : the upper fertile

14448 Fronds cordate 5-lobed toothed ciliated, Stalk long

14449 Fronds pinnate : pinnæ pinnatifid acuminate hairy

14450 Fronds pinnate : pinnæ oblong acutish subcordate subserrate on each side as well as the stalk hairy

14451 Fronds pinnate : pinnæ ternate in pairs and solitary stalked lin. crenul. ; fertile yellow with meal beneath

14452 Fronds bipinnate : pinnulæ pinnatifid ; segm. cuneate truncate at end toothletted yell. with meal beneath

14453 Fronds bipinnate : upper pinn. confluent obl. obt. serrul. ; lower somew. pinnatif. white with meal beneath

14454 Fronds bipinnate : pinn. lanc. white with meal beneath ; lower pinnatifid auricled at base, upper confluent

14455 Fronds pinn. : pinn. lanc. acuminate cuneate at base all repand : lower opposite, Stem none

14456 Fronds linear toothed when fructifying entire at the end, Stem filiform ascending simple

14457 Fronds pinnatifid : segm. oblong obtuse chaffy with entire palæ beneath

14458 Fronds hairy : sterile oblong ovate entire ; fertile lanceolate, Sori solit. Stem filiform rooting chaffy

14459 Fronds lanceolate entire smooth, Sori solitary, Stem filiform creeping with bristly palæ

14460 Fronds lanceolate margined acute tapered at base smooth, Sori in two rows

14461 Fronds oblong obtuse entire smooth above rusty with down beneath, Sori contiguous copious

14462 Fronds deeply pinnatifid glaucous : segm. lanc. acuminate entire, Lower sori scattered ; upper solitary

14463 Fronds deeply pinnatifid : segm. lin. lanc. blunt crenul. contig. : upper smaller by degrees, Sori solitary

14464 Fronds deeply pinnatifid : segm. lanc. blunt entire contig. ; upp. smaller by degrees, Sori solit. Stalk naked

14465 Fronds deeply pinnatifid : segm. lanc. acute entire parallel smooth ; upper and lower smallest, Sori solitary

14466 Fronds pinnatifid hairy : segments half ovate blunt, Sori solitary

14467 Fronds deeply pinnatifid : segm. altern. lin. ent. obt. ; upper smaller by degrees ben. as well as stalk chaffy

14468 Fronds bipinnatif. : 2 lower pinnæ defl. ; segm. lin. lanc. blunt ent. ciliat. Veins hairy, Sori solit. marginal

14469 Fronds downy and ciliated bipinnatifid, Membranes connecting the opposite pinnæ oblong hexagonal

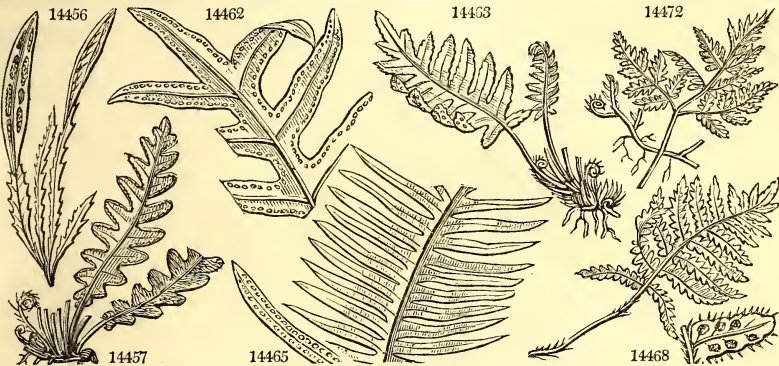
14470 Fronds 4-pinn. Branches and branchlets lanc. Pinnæ lanc. pinnatifid, Segm. ovate acute glaucous beneath

14471 Fronds 3-pinn. : pinnulæ pinnatif. ; segm. lin. serrat. acute, Rachis edged naked, Sori solit. Stalk smooth

14472 Fronds ternate bipinnate spreading deflexed : segments blunt nearly entire, Sori marginal, Root filiform

14473 Fronds ternate bipinnate straight rigid : segments bluntish nearly entire, Sori marginal confluent

14474 Fronds oblong smooth entire margined acute at each end, Sori in rows



and Miscellaneous Particulars.

they are more likely to be found in such specimens as are just beginning to turn brown in their fructification, than in others more advanced.

2169. *Acrostichum*. Said to be formed from the words $\alpha\kappa\rho\sigma\tau\iota\chi\omicron\varsigma$, the commencement of a verse, and to have been so called because the reverse of their leaves indicates traces of lines, resembling the beginning of lines of poetry. These are fine, chiefly tropical, ferns, one of which, *A. aureum*, sometimes grows to the height of five or six feet.

2170. *Hemionitis*. Said by Dioscorides to be so called from the resemblance of its nature to that of a mule, $\eta\mu\iota\omicron\nu\omicron\varsigma$; it was always considered sterile, bearing neither flowers nor fruit.

2171. *Gymnogramma*. Named by Desvaux from $\gamma\upsilon\mu\iota\omicron\varsigma$, naked, and $\gamma\rho\alpha\mu\mu\alpha$, writing, in allusion to the disposition of the naked sori upon the forked veins of the frond, whence they seem to resemble Roman letters. The species have been separated from *Hemionitis* and *Acrostichum*.

2172. *Meniscium*. From $\mu\eta\sigma\eta$, the moon; the sori are crescent-shaped. These ferns are remarkable for the arrangement of their veins. The little veins which unite the transverse veins of the sterile frond are usually at right angles, and generally united with each other by a little branch which sets off from one or other of their angles. In the fertile fronds the veins on which the sori are placed are either curved or straight.

2173. *Xiphopteris*. Divided from *Grammitis* by Kaulfuss, who seems to have named it from $\xi\pi\phi\omicron\varsigma$, a sword, and $\pi\tau\epsilon\rho\eta$, a fern, on account of the sword-like form of their fronds.

2174. *Ceterach*. The name employed by the Arabian and Persian physicians for this plant was *Chetherak*. (*Gazoph. Ling. Pers.* p. 377.) They employed the plant in obstructions of the viscera, for the jaundice, and for disorders of the spleen.

2175. *Polypodium*. From $\pi\omicron\lambda\upsilon\varsigma$, many, and $\pi\upsilon\delta$, a foot, on account of the multitude of the roots which form close entangled patches. Many of the species of this genus are noble plants. They are mostly epiphytic

14475	<i>decumánum W.</i>	tall	☒ Δ el	5 au	Br	Brazil	1818.	D lp		
14476	<i>fraxinifólium W.</i>	ash-leaved	☒ Δ el	2 au	Br	Caracas	1817.	D lp	Jacq. ic. t. 639	
14477	<i>lanceolátum W.</i>	lanceolate	☒ Δ or	1 au	Br	W. Indies	1812.	D lp	Plum. fil. t. 137	
14478	<i>phymatódies W.</i>	red	☒ Δ or	½ jn.au	Br	E. Indies	1823.	D lp	Plu. phyt. 404. f. 5	
14479	<i>quercifólium W.</i>	oak-leaved	☒ Δ or	1½ s	Br	E. Indies	1824.	D lp	Rumph. 6. t. 35	
14480	<i>repéns W.</i>	creeping	☒ Δ pr	2	my.jn	Br	W. Indies	1810.	D lp	Plum. fil. t. 134
14481	<i>serpens W.</i>	gliding	☒ Δ pr	½	my.jn	Br	W. Indies	1816.	D lp	Plum. fil. 121
14482	<i>tenístum W.</i>	jointed	☒ Δ pr	2	my.jn	Br	S. Amer.	1815.	D lp	
14483	<i>pertúsium W.</i>	bored	☒ Δ pr	½	ja.d	Br	China	1821.	D lp	Hook. ex. fl. 162
14484	<i>crenátum W.</i>	crenate	☒ Δ pr	1½	au	Br	Jamaica	1823.	D lp	
2176.	<i>TE'NITIS Swz.</i>	TENITIS.						Sp. 1—5.		
14485	<i>lanceoláta Kauf.</i>	lanceolate	☒ Δ pr	1	au	Br	W. Indies	1818.	D lp	Plum. fil. t. 132
2177.	<i>NOTHOCHLÆ'NA. R. Br.</i>	NOTHOCHLÆNA.						Sp. 1—16.		
14486	<i>lanuginósa Desv.</i>	woolly	☒ Δ or	¾	au.s	Br	Madeira	1778.	R s.p	Desf. atl. 2. t. 256
	<i>Acrostichum vel'tcum W.</i>									
2178.	<i>ONOCLE'A L.</i>	ONOCLEA.						Sp. 2.		
14487	<i>sensibilis W.</i>	sensitive	☒ Δ or	1½	au	Br	Virginia	1799.	D lp	Schk. fil. t. 102
14488	<i>obtusilobáta Schk.</i>	obtuse-lobed	☒ Δ or	1	jl	Br	N. Amer.	1812.	D lp	Schk. fil. t. 103
2179.	<i>STRUTHIOP'TERIS W.</i>	STRUTHIOPTERIS.						Sp. 2.		
14489	<i>germánica W.</i>	Russian	☒ Δ or	2	jl.au	Br	Europe	1760.	D lp	Schk. fil. t. 105
14490	<i>pensylvánica W.</i>	Onoclea-like	☒ Δ or	2	au	Br	N. Amer.	1812.	D lp	Schk. fil. t. 111
2180.	<i>ALLOSORUS Bernh.</i>	ALLOSORUS.						Sp. 1.		
14491	<i>crispus Bernh.</i>	curled	☒ Δ cu	½	jl.au	Br	Britain	sto. hi.	D lp	Eng. bot. 1160
	<i>Pteris crispa L.</i>									
2181.	<i>ELLOBOCAR'PUS Kauf.</i>	POD-FERN.						Sp. 1—2.		
14492	<i>oleráceus Kauf.</i>	eatable	☒ Δ or	1½	au	Br	Tranqueb.	1818.	D lp	Plu. alm. t. 215. f. 3
2182.	<i>LOMA'RIA W.</i>	LOMARIA.						Sp. 1—20.		
14493	<i>longifolia Kauf.</i>	long-leaved	☒ Δ or	2	jn.jl	Br	W. Indies	1810.	D lp	Pl. fil. t. 117. dextr
2183.	<i>BLECH'NUM L.</i>	BLECHNUM.						Sp. 3—29.		
14494	<i>boreále W.</i>	northern	☒ Δ pr	¾	jl	Br	Britain	hea.	D lp	Eng. bot. 1159
14495	<i>austrále W.</i>	Cape	☒ Δ pr	¾	mr.s	Dr	C. G. H.	1691.	R s.p	Schk. fil. t. 110. b
14496	<i>occidentále W.</i>	American	☒ Δ pr	1	mr.s	Br	S. Amer.	1777.	R s.p	Jac. ic. 3. t. 644
2184.	<i>WOODWAR'DIA Sm.</i>	WOODWARDIA.						Sp. 2—7.		
14497	<i>rádicans W.</i>	rooting-leaved	☒ Δ or	1½	s	Br	Madeira	1779.	R s.p	Schk. fil. t. 112
14498	<i>virginica Ph.</i>	Virginian	☒ Δ or	1	au.s	Br	N. Amer.	1774.	D lp	Plu. alm. t. 179. f. 2
2185.	<i>DOO'DIA R. Br.</i>	DOODIA.						Sp. 1—3.		
14499	<i>áspera R. Br.</i>	rough-stalked	☒ Δ pr	¾	mr.s	Br	N. S. W.	1808.	R s.p	
2186.	<i>ASPLE'NIUM L.</i>	SPLEENWORT.						Sp. 27—117.		
14500	<i>fontánium R. Br.</i>	smooth rock	☒ Δ el	¾	jn.au	Br	England	w. & r.	D lp	Eng. bot. 2024
	<i>Aspidium fontánium E. B.</i>									
14501	<i>Filix-fe'mina R. Br.</i>	female	☒ Δ or	2	jn.s	Br	Britain	w.sh.pl.	D lp	Eng. bot. 1459
14502	<i>Adiántum-nigrum W.</i>	black	☒ Δ pr	1	ap.o	Br	Britain	sha.pl.	D lp	Eng. bot. 1950
14503	<i>montánium W.</i>	mountain	☒ Δ pr	½	jl	Br	N. Amer.	1812.	D lp	
14504	<i>lanceolátum W.</i>	lanceolate	☒ Δ pr	½	jn.s	Br	England	rocks.	D lp	Eng. bot. 240
14505	<i>frágrans W.</i>	fragrant	☒ Δ el	½	jl	Br	Jamaica	1793.	D lp	Plu. alm. t. 282. f. 1
14506	<i>Ruta-murária W.</i>	Wall-rue	☒ Δ cu	½	jn.o	Br	Britain	sh.roc.	D lp	Eng. bot. 150



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upon trees. *Polypodium vulgare* is sometimes burnt for the sake of its ashes, which contain a large proportion of carbonate of potash, which is employed in the fusion of flint for some kinds of glass-ware.

2176. *Tenitis*. From the resemblance of the interrupted line of sori to the *tænia* or tape-worm.

2177. *Nothochlæna*. From *νοθος*, spurious, and *χλαίνα*, a cloak. So called because the sori are not enclosed in a genuine indusium, but are frequently covered over by the palææ of the frond. A genus extracted by Mr. Robert Brown from the ancient *Acrostichum*.

2178. *Onoclea*. A name given by Dioscorides, Pliny, and Galen, to a Boragineous plant, and strangely applied by the moderns to a genus of ferns. *O. sensibilis* has been so called from the delicacy of its frond, which is so impatient of injury as to perish with almost the least violence.

2179. *Struthiopteris*. Named from *στρουθιος*, an ostrich, and *πτερις*, a fern, on account of the similarity between its fine fronds and the feathers of an ostrich. A genus divided from *Osmunda* by Willdenow.

2180. *Allosorus*. From *αλλος*, various, and *sorus*; a name contrived by Bernharti, in a paper printed in Schrader's Journal, we presume in allusion to the different states of the sori at different periods. A curious little rock plant.

2181. *Ellobocarpus*. Named by Kaulfuss, from *ελλωβος*, enclosed in a pod, and *καρπος*, fruit, in allusion to the pod-like form of the divisions of the fronds on which the sori are placed.

- 14475 Fronds deeply pinnatifid glaucous : segments lanceolate acuminate repand serrate, Sori in rows
 14476 Fronds pinnate, Leaflets lanceolate acuminate repand wavy distant
 14477 Fronds lanceolate entire smooth or somewhat scaly rigid erect, Sori solitary
 14478 Fronds simple 3-lobed and pinnatifid : segments lanceolate acuminate opposite, Sori scattered immersed
 14479 Sterile fronds sessile ovate sinuated : fertile pinnatifid ; segments lanceolate
 14480 Fronds on a creeping stem lanceolate acuminate entire subulcid with flexuous veins, Sori scattered
 14481 Sterile fronds oblong entire : fertile linear lanceolate repand, Sori solitary, Stem paleaceous rooting
 14482 Fronds linear lanceolate much tapered at the base somewhat repand quite smooth, Sori scattered
 14483 Ster. fronds obl. lanc. taper. at base : fert. lin.-lanc. bear. sori on upp. half, Sori oval immers. in dense wool
 14484 Fronds pinnate, Pinn. somewhat stalked oblong acuminate coarsely and bluntly serrated, Sori in rows

14485 Fronds simple lanceolate acute at each end nearly entire fructifying at end

14486 Fronds bipinnate woolly : pinnules elliptical obtuse covered all over with long wool

14487 Pinnæ lanceolate acute cut toothed : pinnules and rachis smooth
 14488 Pinnæ pinnatifid with rounded lobes : pinnules villous, Rachis scaly

14489 Sterile fronds bipinnatifid : segments entire acute equal
 14490 Sterile fronds bipinnatifid : segments entire obtuse ; lower long acute

14491 Fronds supradecomposed, Pinnæ alternate roundish cut

14492 Alternate pinnæ pinnulate on the upper-side linear : lower 2-parted

14493 Sterile pinnæ long-lanceolate acuminate cuneate at base repand-toothed : fertile linear

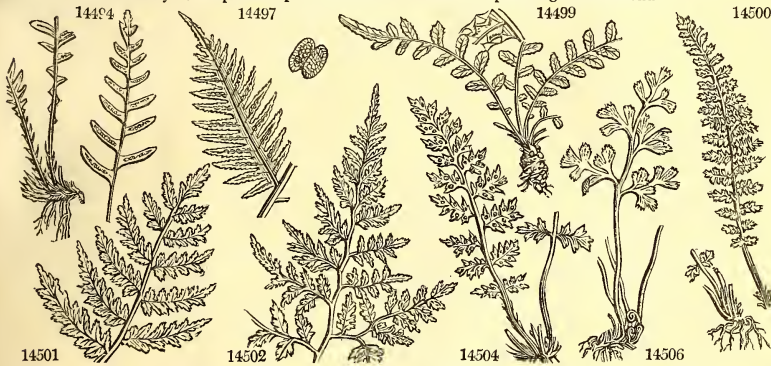
14494 Fronds pinnated smooth, Pinnæ linear bluntish entire nearly equal at base
 14495 Fronds pinnated, Pinnæ linear-lanceolate mucronate auricled at base scabrous at edge
 14496 Fronds pinnated, Lower pinnæ opposite lanceolate entire subcordate at base : upper alternate united

14497 Fronds pinnate-pinnatifid : segments lanceolate acuminate somewhat repand finely serrulate
 14498 Fronds very smooth pinnate, Pinnæ sessile lanceolate pinnatifid, Segments oblong blunt crenulate

14499 Fronds lanceolate pinnatifid : segm. linear ensiform acuminate spinulose, Sori lanceolate in two rows

14500 Fronds pinn. : pinnæ cordate pinnatifid ; segm. ovate rather acute, lower and terminal usually 3-lobed

- 14501 Fronds bipinn. : pinnules obl. lanc. cut serrated : serratures 2 or 3-toothed nearly acute, Sori obl. straight
 14502 Fronds bipinn. : pinnæ obl. lanc. acute ; pinnules oblong pinnatifid cut, Sori becoming confluent
 14503 Fronds bipinn. : pinnules pinnatifid ; segments 3 or 2-toothed
 14504 Fronds bipinn. : pinnules obovate blunt cuneate at base acutely toothed at end, Sori becoming confluent
 14505 Fronds bipinn. : pinnules oblong acute at each end serrated at end : upper confluent
 14506 Fronds alternately decomposed : pinnæ rhomboid cuneiform spreading bitten at end



and Miscellaneous Particulars.

2182. *Lomaria*. From *λωμα*, an edge, on account of the marginal position of the indusia. These are fine plants, resembling *Acrostichum* in habit.

2183. *Blechnum*. One of the Greek names of the fern was *βλεχρον*. Athenæus writes it *βλαχρον*, and derives it from *ελαξ*, powerless, insipid.

2184. *Woodwardia*. Named by Sir James Smith, after his friend Thomas Jenkinson Woodward, Esq., a good practical English botanist. One of the species produces little hairy bulbs at the axillæ of the leaves, which either fall off and strike root in the ground, or vegetate while attached to the parent plant. This property is common to many other ferns, and in one instance, the young plants so produced have been mistaken in *Pteris cornuta* for parasites by an acute cryptogamic botanist.

2185. *Doodia*. So called in honor of Samuel Doodly, a London apothecary, who was almost the first investigator of British cryptogamic plants. Small rough-leaved ferns of rigid texture.

2186. *Asplenium*. From *α*, privative, and *σπλην*, the spleen. This plant was formerly held to be a sovereign remedy for all diseases of this organ, and to be so powerful as even to destroy it if employed in excess.

14507 <i>præmorsum W.</i>	snip-leaved	✓	△	el	3/4	au	Br	Jamaica	1793.	R	s.p	Plu.alm. t.73. f.5
14508 <i>striatum W.</i>	striated	✓	△	pr	1	jn.au	Br	W. Indies	1793.	R	s.p	Plum.fil. t.18, 19
14509 <i>rhizophorum W.</i>	root-bearing	✓	△	pr	1	au	Br	Jamaica	1793.	D	l.p	Sl.ja. l.t.29,30.f.1
14510 <i>viride W.</i>	green	✓	△	pr	1/2	jn.s	Br	Britain	al roc.	D	l.p	Eng. bot. 2257
14511 <i>melanocaulon Ph.</i>	black-stalked	✓	△	pr	1/2	jl	Br	N. Amer.	1812.	D	l.p	
14512 <i>Trichomanes W.</i>	Maiden-hair	✓	△	pr	1/2	my.o	Br	Britain	sh.roc.	D	l.p	Eng. bot. 576
14513 <i>alternifolium Sm.</i>	alternate-leav'd	✓	△	cu	1/2	jn.o	Br	Scotland	...	D	l.p	Eng. bot. 2258
14514 <i>ebeneum Ph.</i>	ebony-stalked	✓	△	or	1/2	s	Br	N. Amer.	1779.	D	l.p	Schk. fil. t. 73
14515 <i>monanthemum W.</i>	one-flowered	✓	△	cu	1	jl	Br	C. G. H.	1790.	D	l.p	Smith ined. t. 73
14516 <i>Nidus W.</i>	Bird's Nest	✓	△	el	2	au	Br	E. Indies	1820.	D	l.p	Breyn. cent. t.99
14517 <i>marinum W.</i>	sea	✓	△	or	1/2	jn.o	Br	Britain	rocks.	R	s.p	Eng. bot. 392
14518 <i>angustifolium W.</i>	narrow-leaved	✓	△	el	1	jn.jl	Br	N. Amer.	1812.	D	l.p	Schk. fil. t. 67, 69
14519 <i>septentrionale W.</i>	forked	✓	△	or	1	jn.o	Br	Britain	rocks.	D	l.p	Eng. bot. 1017
14520 <i>rhizophyllum W.</i>	rooting-leaved	✓	△	cu	1/2	jn.jl	Br	N. Amer.	1680.	D	l.p	Pluk.al. t.105.f.3
14521 <i>serratum W.</i>	saw-leaved	✓	△	pr	1 1/2	...	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 64
14522 <i>bisectum Suz.</i>	split	✓	△	or	1 1/2	au	Br	Jamaica	1821.	D	l.p	
14523 <i>pumilum W.</i>	pygmy	✓	△	pr	1 1/2	jn.jl	Br	W. Indies	1823.	D	l.p	Plum.fil. t.66. A.
14524 <i>zamiæfolium W.</i>	Zamia-leaved	✓	△	cu	1 1/2	jn.s	Br	Caraccas	1820.	D	l.p	
14525 <i>acutum W.</i>	acute	✓	△	or	2	ap.my	Br	Teneriffe	1818.	D	l.p	
14526 <i>palmatum W.</i>	palmate	✓	△	or	2	au.s	Br	S. Europe	1816.	D	l.p	Bot. cab. 868
2187. <i>ALLANTODIA. R. Br.</i>	<i>ALLANTODIA.</i>								<i>Sp. 2—3.</i>			
14527 <i>axillaris Kauf.</i>	axillary	✓	△	or	2	jn.s	Br	Madeira	1779.	D	l.p	
14528 <i>umbrosa R. Br.</i>	Madeira	✓	△	or	4	jn.s	Br	Madeira	1779.	D	l.p	Schk. fil. t. 61
	<i>Polypodium umbrosum H. K.</i>											
2188. <i>SCOLOPENDRIUM. Smith.</i>	<i>HART'S TONGUE. Sp. 1.</i>											
14529 <i>officinatum Swz.</i>	common	✓	△	cu	1 1/2	jl.au	Br	Britain	m.s.pl.	D	l.p	Eng. bot. 1150
	<i>β crispum</i>	✓	△	cu	1 1/2	jl.au	Br	Britain	...	D	l.p	
	<i>γ undulatum</i>	✓	△	cu	1 1/2	jl.au	Br	Britain	...	D	l.p	Plu.phyt.248. f.1
	<i>δ multifidum</i>	✓	△	cu	1 1/2	jl.au	Br	Britain	...	D	l.p	
	<i>ε ramosum</i>	✓	△	cu	1 1/2	jl.au	Br	Britain	...	D	l.p	Plu.phyt.248. f.1
2189. <i>DIPLAZIUM. Swz.</i>	<i>DIPLAZIUM.</i>								<i>Sp. 2—13.</i>			
14530 <i>grandifolium W.</i>	large-leaved	✓	△	or	2	au	Br	Jamaica	1793.	D	l.p	
14531 <i>auriculatum Kauf.</i>	auricled	✓	△	or	10	au	Br	Caraccas	1820.	D	l.p	
2190. <i>PTERIS. L.</i>	<i>BRAKE.</i>								<i>Sp. 15—37.</i>			
14532 <i>longifolia W.</i>	long-leaved	✓	△	or	2	jl.s	Br	W. Indies	1770.	Sk	s.p	J.sch.3.t.399,400
14533 <i>grandifolia W.</i>	large-leaved	✓	△	or	2	au	Br	W. Indies	1793.	Sk	s.p	Schk. fil. t. 89
14534 <i>serrulata W.</i>	various-leaved	✓	△	pr	1 1/2	au.s	Br	India	1770.	Sk	s.p	Schk. fil. t. 91
14535 <i>atropurpurea W.</i>	purple	✓	△	pr	1 1/2	au.s	Br	N. Amer.	1770.	D	l.p	Schk. fil. t. 101
14536 <i>arguta W.</i>	sharp-notched	✓	△	el	1	au.s	Br	Madeira	1778.	D	l.p	Plu.alm.t.290.f.2
14537 <i>aculeata W.</i>	prickly-stemm.	✓	△	or	10	au.s	Br	W. Indies	1793.	D	l.p	Plum.fil.t.5.et.11
14538 <i>esculenta Swz.</i>	esculent	✓	△	or	3	au.s	Br	N. S. W.	1815.	D	l.p	La.n.hol.2. t.244
14539 <i>caudata W.</i>	American	✓	△	pr	2	s.d	Br	N. Amer.	1777.	D	l.p	Jac. ic. 3. t. 645
14540 <i>aquilina W.</i>	common	✓	△	or	3	jl.au	Br	Britain	hea.w.	D	l.p	Eng. bot. 1679
14541 <i>podophylla W.</i>	pedated	✓	△	pr	1 1/2	jn.jl	Br	Jamaica	1793.	D	l.p	Brow. jam.89.t.1
14542 <i>crética W.</i>	Candian	✓	△	cu	1	jl.au	Br	Candia	1820.	D	l.p	Schku.crypt.t.90
14543 <i>hastata W.</i>	hastate	✓	△	or	2	jl.s	Br	C. G. H.	1823.	D	l.p	Pl. phyt.t.403.f.5
14544 <i>palmata W.</i>	palmate	✓	△	or	2	jn.au	Br	Caraccas	1821.	D	l.p	
14545 <i>pedata W.</i>	pedate	✓	△	or	2	jl.au	Br	Virginia	1820.	D	l.p	Plum. fil. t. 152
14546 <i>Plumieri Link.</i>	Plumier's	✓	△	or	2	jl	Br	S. Amer.	1818.	D	l.p	
2191. <i>VITTA'RIA. Sm.</i>	<i>VITTARIA.</i>								<i>Sp. 1—10.</i>			
14547 <i>lineata W.</i>	linear-leaved	✓	△	cu	2	au	Br	America	1793.	D	l.p	Schk. fil. t. 101.b.
2192. <i>LONCHITIS L.</i>	<i>LONCHITIS.</i>								<i>Sp. 1—5.</i>			
14548 <i>hirsuta W.</i>	hairy	✓	△	pr	1	jn.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 86
2193. <i>ANTROPHYUM. Kauf.</i>	<i>ANTROPHYUM.</i>								<i>Sp. 1—8.</i>			
14549 <i>lanceolatum Kauf.</i>	spear-leaved	✓	△	or	2	jl.s	Br	W. Indies	1793.	D	l.p	Schk. fil. t. 6
	<i>Hemionitis lanceolata L.</i>											



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2187. *Allantodia.* So named from *αλλαντος*, a sausage, or sort of small pudding, to which the cylindrical arched indusia bear considerable resemblance.

2188. *Scolopendrium.* On the lower surface of the fronds of this plant are to be seen little marks which bear a likeness to the insect called Scolopendra. It is probable that the supposed varieties of this plant are distinct species. One of them has been ascertained not to alter in being raised from the seed.

2189. *Diplazium.* From *διπλασις*, double; the indusia are double. Handsome ferns of large size; one forms a small tree.

2190. *Pteris.* The Greeks called ferns in general by this name, because they generally resemble plumes, *πτειρῆς*, in their light and divided appearance. *Pteris aquilina* is the common brake, well known as an excellent covert for game, and for serving for many household purposes in the north of England. It is used as litter for

- 14507 Fronds pinnated : pinnæ cuneate ovate acute deeply pinnatifid ; segments lanc. cuneate unequally toothed
 14508 Fronds pinnated : pinnæ stalked oblong acuminate pinnatif. ; segm. obl. obt. sharply serrat. Sori parallel
 14509 Fronds pinnated : pinnæ ovate repand somew. auricled ; term. remote small entire, Fronds rooting at end
 14510 Fronds pinnated : pinnæ alternate elliptical roundish crenate, Rachis flattened beneath
 14511 Fronds pinnated : pinnæ roundish blunt crenate cuneate at base, Stalk discolored
 14512 Fronds pinnated : pinnæ ovate-roundish crenate, Rachis shining keeled beneath
 14513 Fronds pinnated : pinnæ alternate cuneiform erect eroded at end
 14514 Fronds pinnated : pinnæ sessile lanceolate serrulate cordate at base auricled upwards
 14515 Fronds pinnated : pinnæ lanceolate blunt equally and bluntly serrated, Sorus one on each pinna
 14516 Fronds broad-lanceolate subsessile, Sori very near parallel contiguous to the midrib
 14517 Fronds pinnated : pinnæ ovate oblique serrated obtuse unequal at base cuneate
 14518 Fronds pinnat. : pinnæ altern. ; upp. usually opp. lin.-lanc. subrepand truncat. at base above rounded below
 14519 Fronds pinnated trifid : pinnæ alternate linear torn at end
 14520 Fronds lanceol. stalked rather crenate auricled cordate at base at the end very long linear-filiform rooting
 14521 Fronds lanceolate on short stalks acuminate serrated tapered at base and entire, Sori contiguous parallel
 14522 Fronds pinnate : pinnæ lanceolate taper-pointed at end pinnatifid ; segments bifid, Stalk shining glabrous
 14523 Fronds ternate : middle leaflet pinnatifid ; lateral 3-parted toothed
 14524 Fronds pinnated : pinnæ obl. lanceolate acuminate coriaceous serrated at end tapered at base, Stalk chaffy
 14525 Fronds 3 pinnated : pinnæ oblong lanceolate with very long points, Sori becoming confluent
 14526 Frond 5-lobed cordate, Three middle lobes acuminate

- 14527 Fronds bipinnate : pinnules oblong pinnatifid ; segments lanceolate finely bidentate, Sorus solit. at base
 14528 Fronds 3-pinnate : pinnules lanceolate decurrent cut serrated, Sori contiguous finally becoming confluent

- 14529 Frond simple cordate-lingulate smooth beneath

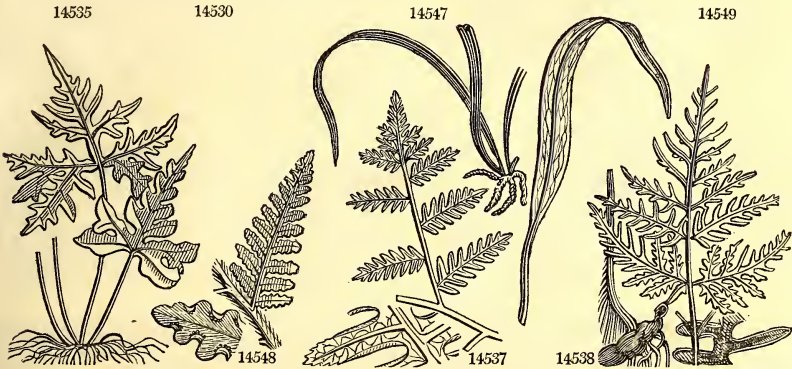
- 14530 Fronds pinnat. : pinnæ lanc. serrat. at end truncate at base above rounded and somew. wedge-shaped below
 14531 Fronds pinnat. : pinnæ lanc. coarsely toothed ; teeth rounded serrated at end tapered and finely toothed

- 14532 Fronds pinnated : pinnæ linear auricled cordate at base serrulate, Stalk and rachis paleaceous hairy
 14533 Fronds pinnated : pinnæ oblong lanceol. on short stalks entire cuneate at base, Stalk and rachis smooth
 14534 Fronds pinnated : pinnæ lin. decurrent ; lower 3-parted, Sterile acutely serrated : fertile ent. serrul. at end
 14535 Fronds decomound : lower bipinnate ; pinnules lanceol. retuse at base, terminal longer, Stalk pubescent
 14536 Fronds bipinnatifid, Lower branches twin 2-partite below, Pinnules lanceolate subfalcate sharply serrated
 14537 Fronds supradecomound : pinnæ broad-lanceolate pinnatifid, Stem and branches prickly
 14538 Fronds tripinnate : pinnules linear decurrent downy beneath ; those at the end longest, Rachis smooth
 14539 Frond 3-parted, Branches bipinnate, Pinnules linear elongated blunt entire : lower bipinnatifid
 14540 Frond 3-parted, Branches bipinn. Pinnules lin. lanc. : upper undivided ; lower pinnatif. Segm. obl. blunt
 14541 Frond pedate, Branches pinnate, Pinnules obl. lanceolate acumin. pinnatifid, Segm. oblong acute serrated
 14542 Fronds pinnat. : pinnæ lanc. acum. on short stalks tapered and serrated at base ; lowest 2-parted or ternate
 14543 Fronds bipinn. : pinnules somew. stalked ovate-lanc. blunt crenulate ; lower hastate 3-lobed, Stalk smooth
 14544 Fronds deeply 5-lobed palmate, Lobes pinnatifid : segments linear lanceolate acumin. Recesses rounded
 14545 Fronds deeply 5-lobed palmate, Lobes pinnatifid : segments linear lanceolate acute, Recesses acute
 14546 Pinnæ opposite pinnatifid, Nerve above a little strigose, Pinnules lanceolate blunt entire, Petiole smooth

- 14547 Fronds linear very long pendulous, Sori solitary within the margin

- 14548 Fronds bipinnate hairy : pinnæ pinnatifid acuminate ; segments blunt, Stalk and rachis villous

- 14549 Fronds linear-lanceolate tapered at each end ribbed, Sori reticulated



and Miscellaneous Particulars.

cattle, and very frequently for the purpose of thatching cottages. The ashes are employed in the manufactory of soap and glass. Its astringent quality has recommended it in dressing and preparing kid or chamois leather. The country people take it medicinally to destroy worms, and a bed made of the green plant is esteemed a sovereign cure for the rickets in children.

2191. *Vittaria*. From *vitta*, a ribband, on account of the narrow ribband-like appearance of the fronds. Small simple-leaved grass-like plants, of difficult cultivation.

2192. *Lonchitis*. From *λωχνη*, a lance, on account of the form of the fronds of some species. The Greeks had a plant named *λωχνην*, but it must have been very different from that of the moderns.

2193. *Antrophyum*. A genus divided by Kaulfuss from *Hemionitis*, and named from *αντρος*, a cavern, and *φυον*, to grow, in reference to its native places of habitation.

2194. ADIANTUM <i>W.</i>	MAIDENHAIR.				Sp. 10—63.						
14550 reniforme <i>W.</i>	Kidney-leaved	✓	△	pr	¾ jls.	Br	Madeira	1699.	R s.p	Bot. cab. 841	
14551 radiatum <i>W.</i>	radiated	✓	△	pr	¾ ap.au	Br	W. Indies	1776.	D l.p	Plum. fil. t. 100	
14552 macrophyllum <i>W.</i>	large-leaved	✓	△	pr	1 jl.au	Br	Jamaica	1793.	D l.p	Bro. jam. t. 38 f.1	
14553 pedatum <i>W.</i>	Canadian	✓	△	el	1 au.s	Br	N. Amer.	1640.	R s.p	Schk. fil. t. 115	
14554 villösium <i>W.</i>	hairy-stalked	✓	△	or	1 jn.s	Br	Jamaica	1775.	D s.p	Schk. fil. t. 120	
14555 pulverulentum <i>W.</i>	dusty	✓	△	or	1 ½ jn.s	Br	W. Indies	1793.	D s.p	Schk. fil. t. 119	
14556 trapeziiforme <i>W.</i>	rhomb-leaved	✓	△	el	1 ½ jn.jl	Br	W. Indies	1793.	R s.p	Schk. fil. t. 112	
14557 Capillus-veneris <i>W.</i>	triumph	✓	△	pr	¾ my.s	Br	Britain rocks.	R s.p	Eng. bot. 1564		
14558 tenerum <i>W.</i>	tender	✓	△	el	1 jl	Br	Jamaica	1793.	D s.p	Pluk. al. t. 354. f.1	
14559 serrulatum <i>W.</i>	serrulate	✓	△	or	1 au	Br	Jamaica	1822.	D l.p	Pluk. al. t. 125. f.2	
2195. CHEILANTHES. <i>Swz.</i>	CHEILANTHES.				Sp. 4—30.						
14560 pteroides <i>W.</i>	Pteris-like	✓	△	pr	¼ jls.	Br	C. G. H.	1775.	D l.p	Hon.n.hist.t.96.f.3	
14561 vestita <i>Swz.</i>	hairy	✓	△	pr	¾ au	Br	N. Amer.	1812.	D l.p	Schk. fil. t. 124	
14562 fragrans <i>W.</i>	sweet-scented	✓	△	pr	¾ au	Br	Madeira	1778.	D l.p	Sw. syn.f. t.3.f.6	
14563 lentigera <i>Swz.</i>	chaffy	✓	△	pr	¾ jn.au	Br	N. Spain	...	D l.p		
2196. DAVAL'LIA. <i>Sm.</i>	DAVALLIA.				Sp. 2—39.						
14564 pyxidata <i>W.</i>	shining	✓	□	or	¾ ap.s	Br	N. S. W.	1808.	D l.p		
14565 canariensis <i>W.</i>	Hare's-foot	✓	□	or	1 ½ ap.s	Br	Canaries	1699.	R s.p	Jac. ic. 1. t. 200	
2197. DICKSON'IA. <i>L'Her.</i>	DICKSONIA.				Sp. 2—23.						
14566 arborescens <i>W.</i>	tree	✓	□	or	15 jn.d	Br	St. Helena	1786.	D l.p		
14567 dissecta <i>W.</i>	cut-leaved	✓	□	pr	3 s.o	Br	Jamaica	1793.	D l.p		
14568 pitosiuscula <i>W.</i>	hairy	✓	□	pr	2 jls.	Br	N. Amer.	1811.	D l.p	Schk. fil. t. 131	
2198. BALAN'TIUM. <i>Kauf.</i>	BALANTIUM.				Sp. 1—2.						
14569 Cúlcita <i>Kauf.</i>	smooth-stemm.	✓	□	or	3 au	Br	Madeira	...	D l.p		
	<i>Dicksónia Cúlcita W.</i>										
2199. ASPIDIUM. <i>Swz.</i>	SHIELD FERN.				Sp. 30—160.						
14570 dentatum <i>W.</i>	toothed	✓	△	or	¾ jl	Br	Wales rocks.	D l.p	Eng. bot. 1583		
14571 bulbiferum <i>W.</i>	bulbiferous	✓	△	or	1 jl.au	Br	N. Amer.	1638.	D l.p		
14572 fragile <i>W.</i>	brittle	✓	△	el	¾ jn.au	Br	Britain walls.	D l.p	Eng. bot. 1587		
14573 régium <i>W.</i>	lacinated	✓	△	el	¾ jn	Br	Britain alroc.	D l.p	Eng. bot. 163		
14574 rhe'ticum <i>W.</i>	stone	✓	△	el	¾ jn.jl	Br	Britain rocks.	D l.p			
14575 irriguum <i>E. B.</i>	brook	✓	△	or	1 jn.jl	Br	Britain w.sh.p.	D l.p			
14576 æ'mulum <i>W.</i>	dwarf	✓	△	or	2 au	Br	Madeira	1779.	D l.p		
14577 trifoliatum <i>W.</i>	three-leaved	✓	△	or	1 ½ ap.au	Br	W. Indies	1769.	D l.p	Jac. ic. 3. t. 638	
14578 Lönchitis <i>W.</i>	rough Alpine	✓	△	or	¾ my.au	Br	Britain alroc.	D l.p	Eng. bot. 797		
14579 auriculatum <i>W.</i>	eared	✓	△	or	¾ jl	Br	E. Indies	1793.	D l.p		
14580 exaltatum <i>W.</i>	lofty	✓	△	or	4 jl	Br	Jamaica	1793.	D l.p	Schk. fil. t. 32. b.	
14581 unitum <i>W.</i>	smooth	✓	△	or	2 au	Br	E. Indies	1793.	D l.p		
14582 propinquum <i>Kauf.</i>	pubescent	✓	△	or	2 au	Br	E. Indies	1793.	D l.p		
14583 patens <i>W.</i>	downy	✓	△	or	2 jls.	Br	Jamaica	1784.	D l.p	Schk. fil. t. 534	
14584 noveboracense <i>W.</i>	river-side	✓	△	or	1 ½ jl	Br	N. Amer.	1812.	D l.p	Schk. fil. t. 45	
14585 Oreópters <i>W.</i>	Heath	✓	△	or	3 jl	Br	Britain	hea.	D l.p	Eng. bot. 1019	
14586 Thelypteris <i>W.</i>	Lady-fern	✓	△	or	1 jl.au	Br	Britain	mar.	D l.p	Eng. bot. 1018	
14587 cristatum <i>W.</i>	lesser-crested	✓	△	or	1 ½ jn.au	Br	England	bog.h.	D l.p	Eng. bot. 2125	
14588 aculeatum <i>W.</i>	com.-prickly	✓	△	or	2 jn.au	Br	Britain	sh.pl.	D l.p	Eng. bot. 1562	
14589 marginale <i>W.</i>	marginal-flow.	✓	△	or	2 jn.s	Br	N. Amer.	1772.	D l.p	Schk. fil. t. 45. b.	
14590 Filix-mas <i>W.</i>	Male-fern	✓	△	w	3 jn.au	Br	Britain	sh.pl.	D l.p	Eng. bot. 1458	
14591 lobatum <i>W.</i>	close-leaved	✓	△	or	2 jn.au	Br	England	sh.pl.	D l.p	Eng. bot. 1563	



History, Use, Propagation, Culture,

2194. *Adiantum*. From *ἀδιανρον*, dry. In vain you plunge the *Adiantum* in water, says Pliny, it always remains dry. The prettiest of all ferns, on account of the delicate slender stalks on which the pinnules are balanced in the air; one species on this account is called *Capillus Veneris*, or in English, Maiden's Hair.

2195. *Cheilanthes*. From *χελιδας*, a lip, and *ανθος*, a flower, in allusion to the lip-like form of the indusium. Pretty plants, formerly referred to *Pteris*.

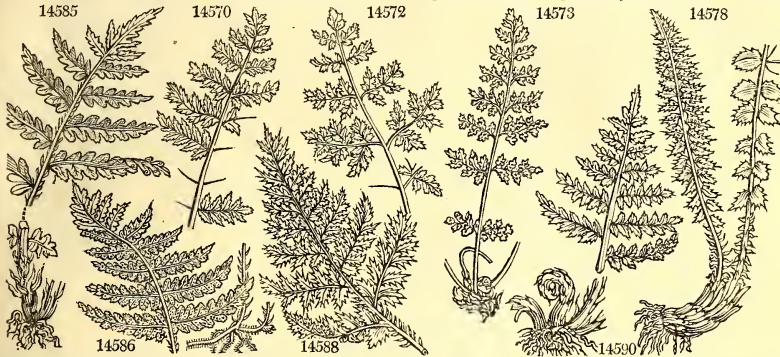
2196. *Davallia*. Named by Sir James Smith, after his friend M. Davall, a Swiss botanist, who sent him large collections of plants. *D. canariensis* is popularly called the hare's-foot fern, on account of the peculiar form of its rootstock, which curves over the side of the pot in which it grows, and, being covered with close brown hairs, resembles very perfectly the foot of a hare.

2197. *Dicksonia*. In honor of the late Mr. James Dickson, a celebrated British cryptogamic botanist. A noble genus containing several arborescent species, among which the tree-fern of St. Helena is placed. This plant is often brought in a living state to this country, but the mode of cultivating it being unknown, it rarely survives more than a few months.

2198. *Balanium*. A genus of Madeira ferns, divided from *Dicksonia* by Kaulfuss, on account of its transverse two-valved indusium; and named from *βαλαντιον*, a purse, on account of the form of the indusium.

- 14550 Fronds simple reniform-orbicular crenate, Both diameters equal
 14551 Frond digitate, Branches pinnate, Pinnæ linear-oblong obtuse nearly halved crenate, Stalk smooth
 14552 Fronds pinnate: pinnæ ovate acuminate cuneate at base toothed at end, Sori continuous upon each edge
 14553 Frond pedate, Leaflets pinnate, Pinnæ rhomboid-oblong somewhat lunate cut-lobed
 14554 Fronds bipinnate: pinnules trapezoid-obl. blunt, Sori oblong at the end of the upper edge, Stalk villous
 14555 Fronds bipinnate: pinnules rhomboid oval serrated at end, Sorus lin. solitary on upper edge, Stalk hairy
 14556 Fronds supradecompos.: pinnules trapezoid acum. cut crenate towards end of upper edge, Sori on crenatures
 14557 Frond alternately decomposed: pinnules stalked cuneiform lobed
 14558 Fronds supradecomposed: pinnules rhomboid blunt cut lobed on upper edge, Lobes toothl. bearing sori
 14559 Fronds pinn. or bipinn.: pinnæ obl. lanc. halved truncate at base serrul. Sori on upper edge, Stalk smooth
- 14560 Fronds bipinnate, Lower pinnæ bipinnate: pinnules ovate-ellipt. obtuse obsolete subcordate crenulate
 14561 Fronds bipinn. hairy on each side: pinnules pinnatifid.; segments obl. blunt entire, Stalk and rachis hairy
 14562 Fronds bipinnate smooth: pinnules obl. lanc. obtuse pinnatifid cut; segments subbid, Stalk paleaceous
 14563 Fronds tripinnate somewhat villous, Leaflets orbicular very small
- 14564 Fronds bipinnate alternate, Leaflets lanceolate pinnatifid, Sori linear oblong
 14565 Fronds 3-parted alternately decomposed: segments lanceolate; those bearing sori obovate
- 14566 Fronds supradecomposed villous, Leaflets nearly entire, Stem arboreous
 14567 Fronds tripinnate: pinnæ tapered; pinnules oblong blunt pinnatifid, Segments blunt toothed
 14568 Fronds bipinnate: pinnæ pinnatifid; segments toothed, Rachis somewhat hairy
- 14569 Fronds tripinnate smooth: pinnules ovate oblong cuneate cut-toothed

- 14570 Fronds pinnate: pinnæ ovate-oblong pinnatifid; segments oblong blunt toothletted
 14571 Fronds pinnate remotish: pinnules oblong serrated bulb-bearing beneath; lower pinnatifid
 14572 Fronds bipinnate: pinnules oblong blunt cut-serrated, Serratures blunt toothletted, Rachis winged
 14573 Fronds bipinn.: pinnules ov. obl. lobed pinnatif.; segm. linear-oblong blunt nearly entire, Rachis winged
 14574 Fronds bipinn.: pinnules lanceolate acuminate pinnatifid; segments linear acute serrated, Rachis winged
 14575 Frond lanceolate pinnate: pinnæ deeply pinnatifid cut toothed, Rachis quadrangular, Sori lateral
 14576 Fronds tripinnate: pinnules pinnatifid; segments linear toothed at end
 14577 Fronds simple cordate 3-lobed or ternate: middle larger; lateral auricled at base
 14578 Fronds pinnate: pinnæ ciliate serrate, Stalk strigose
 14579 Fronds pinnate: pinnæ falcate lanceolate serrate truncate at base auricled above [marginal
 14580 Fronds pinn.: pinnæ lanc. subfalcate cordate at base gibb, and somew. serrul. on upper edge, Sori solitary
 14581 Fronds pinnate: pinnæ ensiform serrated, Serratures half ovate ovate nerved
 14582 Fronds pinn.: pinnæ ensiform attenuated at end downy ben. cut. pinnatif. Sori almost marginal contiguous
 14583 Fronds pinn.: pinnæ pinnatif.; segm. lanc. ac. Lowest of last pinnæ longest pinnatif. cut, Veins hairy ben.
 14584 Pinnæ pinnatifid somewhat linear: pinnules oblong nearly entire, Sori in rows near the edge of pinnæ
 14585 Fronds pinnate: pinnæ lanceolate glabrous resinous glandulose beneath pinnatifid; the segm. lanceolate obtuse entire, lowermost ones longer, Sori marginal
 14586 Fronds pinn.: pinnæ lin.-lanc. pinnatif. glab.: segm. ov. ac. ent. Sori marginal contigu. at length confluent
 14587 Fronds pinnate: pinnæ subcordate oblong pinnatifid; segments oblong obtuse dentato-serr. Stalk chaffy
 14588 Fronds bipinnate: pinnules rigid ovate sublunate acum. aristate oblique and cuneate at base and recur.; the margins faintly serrated spinulose with a tooth near the base on upper side, Stalk and rachis chaffy
 14589 Fronds bipinnate: pinnules oblong obtuse decurrent crenate. Crenatures of base deepest, Sori marginal
 14590 Fronds bipinn.: pinnules obl. obt. serrat. mutic. Sori near the central nerve, Stalk and rachis chaffy
 14591 Fronds bipinnate: pinnules scarcely rigid ovate rather obt. aristate truncate at base which has a lobe on the upper margin shortly petiolate; the margin deeply serrated and spinulose, Stalk and rachis chaffy



and Miscellaneous Particulars.

2199. *Aspidium*. From *æscis*, a little buckler, on account of the form of the indusia. *Fougère*, Fr., *Johannis wurtzel*, Ger., *Feli Maschia*, Ital., and *Polypodio Helecho Masculino*, Span. The male fern is common to Europe, in shady places and woods. The root consists of many matted fibres, forming a turfy or caspitose head, of the thickness of the finger, blackish and scaly. It has been celebrated from time immemorial as a specific for worms. It appears to have been used as such by Theophrastus, Dioscorides, and Galen; but seems to have been neglected by the moderns, with the exception of empiric practitioners, until the publication of Madame Nufer's specific for the tape-worm by the French government again brought it into notice. According to her plan of administering it, from one to three drachms of the powdered root were directed to be taken in a large cupful of water in the morning, while the patient was in bed; and two hours afterwards, a strong cathartic of calomel and gamboge, proportioned to the age and strength of the patient, was given; and if necessary, the further operation was promoted by a dose of purging salts; nothing but broth being taken till the worms came away. If this, however, did not happen on the same day, the process was ordered to be repeated on the next day. In the present state of medical science, oil of turpentine is considered a certain specific for expelling tænia. (*Thom. Lond. Disp.* 186.)

Aspidium Baromez is the famous Scythian lamb, of which so many fables have been related. Although it

14592 spinulosum <i>W.</i>	crested-prickly	3 Δ or	1 jn.au	Br	Britain mar.	D l p	Eng. bot. 1460
14593 dilatatum <i>W.</i>	great-crested	3 Δ or	2 jn.au	Br	Britain w.sh.p.	D l p	Eng. bot. 1461
14594 elongatum <i>W.</i>	cut-leaved	3 Δ or	2 jl.au	Br	Madeira 1779.	D l p	
14595 villosum <i>W.</i>	villous	3 Δ or	3 jl	Br	W. Indies 1793.	D l p	Schk. fil. t. 46. b.
14596 mollis <i>W.</i>	soft	3 Δ or	2 aus	Br	Caraccas 1824.	D l p	Jacq. ic. t. 640
14597 acrostichoides <i>W.</i>	Acrostichum-like	3 Δ or	1 1/2 jl.au	Br	N. Amer. ...	D l p	Schk. crypt. t. 30
14598 intermedium <i>W.</i>	intermediate	3 Δ or	2 jn.s	Br	N. Amer. 1823.	D l p	
14599 asplenoides <i>W.</i>	Asplenium-like	3 Δ or	1 1/2 jn.s	Br	N. Amer. 1823.	D l p	Schk. crypt. t. 78
2200. WOODSIA <i>R. Br.</i>	WOODSIA.						
14600 hyperborea <i>R. Br.</i>	hairy Alpine	3 Δ el	3/4 jls	Br	Scotland al.roc.	D l p	Eng. bot. 2023
14601 ilvensis <i>R. Br.</i>	rock	3 Δ el	3/4 jn.jl	Br	N. Amer. 1812.	D l p	Schk. fil. t. 19
2201. CYATHEA <i>A. Sm.</i>	CYATHEA.						
14602 arborea <i>W.</i>	tree	♂ □ or	15 ...	Br	W. Indies 1793.	D l p	Plum. fil. t. 1, 1, 2
2202. TRICHOMANES <i>L.</i>	TRICHOMANES.						
14603 brevisetum <i>H. K.</i>	short-styled	3 Δ el	3/4 my.jn	Br	Britain moi.ro.	D l p	Eng. bot. 1417
	<i>Hymenophyllum atatum</i> <i>E. B.</i>						
2203. HYMENOPHYLLUM <i>L. Sm.</i>	FILMY-LEAF.						
14604 tunbridgensis <i>W.</i>	Tunbridge	3 Δ el	3/4 my.jn	Br	Britain moi.ro.	D l p	Eng. bot. 162

OSMUNDACEÆ.

2204. TODEA <i>W.</i>	TODEA.						
14605 africana <i>W.</i>	African	3 Δ or	2 my.au	Br	C. G. H. 1805.	D l p	Schk. fil. t. 147
2205. OSMUNDA <i>L.</i>	OSMUNDA.						
14606 cinnamomea <i>Ph.</i>	woolly	3 Δ or	2 jn	Br	N. Amer. 1772.	D l p	Schk. fil. t. 146
14607 regalis <i>W.</i>	Flowering-Fern	3 Δ or	2 jl.au	Br	Britain sha.bo.	D l p	Eng. bot. 209
14608 Claytoniana <i>W.</i>	Clayton's	3 Δ or	2 au	Br	N. Amer. 1772.	D l p	
14609 interrupta <i>W.</i>	interrupted	3 Δ or	2 jn.jl	Br	N. Amer. ...	D l p	Schk. fil. t. 144
14610 spectabilis <i>W.</i>	showy	3 Δ el	2 jl	Br	N. Amer. 1811.	D l p	Plu.alm.t. 184.f.4
2206. LYGOIDIUM <i>Swz.</i>	SNAKE'S-TONGUE.						
14611 scandens <i>Swz.</i>	climbing	3 Δ el	3 my.s	Br	E. Indies 1793.	D l p	Bot. cab. 742
14612 circinatum <i>Swz.</i>	circinate	3 Δ el	3 au	Br	E. Indies 1823.	D l p	Rum. amb. 6.t. 33
14613 palmatum <i>Swz.</i>	palmate	3 Δ el	3 aus	Br	N. Amer. ...	D l p	Ac.E. 1802.t. 1.f. 2
2207. ANEMIA <i>Swz.</i>	ANEMIA.						
14614 hirsuta <i>Swz.</i>	hairy	3 Δ or	3 ...	Br	Jamaica 1794.	D l p	Plum. fil. t. 162
14615 adiantifolia <i>Swz.</i>	Maiden-hair-lvd.	3 Δ or	3 aus	Br	W. Indies 1793.	D p. 1	

OPHIOGLOSSÆ.

2208. BOTRYCHIUM <i>Swz.</i>	MOONWORT.						
14616 lunaria <i>W.</i>	common	3 Δ cu	3/4 my.jn	Br	Britain hil.pa.	D p. 1	Eng. bot. 318
14617 fumarioides <i>W.</i>	Fumitory-leav.	3 Δ cu	3/4 jl.au	Br	Carolina 1806.	D p. 1	Schk. fil. t. 157
14618 dissectum <i>W.</i>	cut-leaved	3 Δ cu	3/4 jl	Br	N. Amer. 1806.	D p. 1	Schk. fil. t. 158
14619 virginicum <i>W.</i>	Rattlesnake Fern	3 Δ cu	1 au	Br	N. Amer. 1790.	D p. 1	Schk. fil. t. 156
14620 obliquum <i>W.</i>	oblique	3 Δ cu	3/4 au	Br	N. Amer. 1821.	D p. 1	



History, Use, Propagation, Culture,

is often brought in a fresh state to the markets of Macao, as an article of medicine, no plants have ever reached this country alive. Its name has arisen from the resemblance which its brown hairy rootstalk bears to a little rufous dog couching; and the belief in its animal nature has been confirmed by the color of the juice, which is of a rich blood color, and soon becoming thick by exposure to the air. It is needless to add, that the stories about no plant being able to grow near it are mere fables. Kæmpfer says, that *borannek* is the name which the people on the borders of the Caspian Sea give to a kind of sheep of that country.

2200. *Woodsia*. Small ferns formerly referred to *Polypodium*, *Aspidium*, and *Nephrodium*, by various writers; and distinguished from all these by Mr. Brown, who named the genus after Mr. Joseph Woods, an ingenious British botanist.

2201. *Cyathea*. From *κυσθος*, a cup; on account of the cup-shaped form of the indusia. A fine tropical genus of ferns, which does not appear to have been well understood by its author, who confounds it with little British plants referred by all other botanists to *Aspidium*. Nearly all the species are arborescent, and arrive at the greatest height of which ferns are susceptible. *C. glauca* forms a lofty tree in the Island of Bourbon, and *C. speciosa* and *excelsa* are not less than twenty-four feet in height.

2202. *Trichomanes*. From *τριχος*, hair, and *μανια*, excess. The Greeks gave this name to the plant now called *Asplenium trichomanoides*, on account of its fine shining stems, which resemble hairs. Elegant plants with almost transparent foliage.

14592 Frond somew. bipinn. : pinnules decurrent ellipt. pinnatifid serrul. spiny, Rachis smooth, Nerves flexuose
 14593 Fronds bipinnate : pinnules oblong distinct inciso-pinnatifid ; segments mucronato-serrate, Stalk chaffy
 14594 Fronds bipinnate : pinnæ pinnated bipinnatifid below ; pinnules lanc. blunt, Segments ovate toothletted
 14595 Fronds 3-pinnate : pinnules oblong blunt hairy above, toothed, Stalk and rachis bristly chaffy
 14596 Fronds pinnate : pinnæ lanc. hairy on each side pinnatifid ; segm. oblong blunt entire, lowest nearly equal
 14597 Fronds pinn. : pinnæ altern. subsess. ciliat. auric. at base on upp. edge, Upp. pinnæ bear. sori, Stalk
 14598 Fronds bipinnate : pinnules lin. pinnatifid cut ; segm. mucronate serrate at end, Stalk chaffy [chaffy
 14599 Fronds bipinn. : pinnules lin. lanc. cut serr. Serrat. 2 or 3 toothed : those at end most ac. Sori obl. lunate

14600 Frond lanceolate pinnate : pinnæ cordate pinnatifid hairy on each side, Lobes rounded repand
 14691 Fronds bipinnatifid : pinnæ oblong blunt ; lower repand, upper entire

14602 Fronds bipinnate : pinnules lanceolate serrate sharpish ; upper confluent, Stalk smooth, Stem arboreous

14603 Frond tripinnatifid lobed smooth : segments linear entire, Stalk winged, Columella included

14604 Frond alternately bipinnatifid : segments and invol. serrated, Sori solitary axillary

OSMUNDACEÆ.

14605 The only species

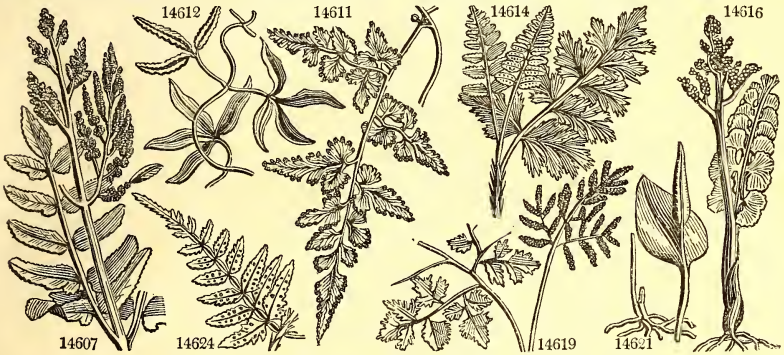
14606 Fronds pinnat. : ster. bipinnatif. ; segm. ov. obl. obt. entire, Stalk woolly, Fertile fronds bipinnate woolly
 14607 Frond bipinnate bearing the spike at end : pinnules cordate-lanceolate smooth
 14608 Fronds bipinnatifid rusty with down contracted and fertile at the end
 14609 Fronds bipinnatifid entire smooth interrupted in the middle by 3 pair of fertile pinnated racemes
 14610 Fronds bipinn. : pinnules lanc. sharply serrat. cune. at base ; all altern. A fert. bipinn. panic. at end of frond

14611 Stem flexuose round, Fronds conjugate pinnate, Leaflets bearing spikes on each edge
 14612 Stem flexuose climbing, Fronds conjugate 3-4-lobed palmate, Lobes lanceolate acute entire
 14613 Stem flexuose climbing, Fronds conjugate cord. 5-lobed palmate, Lobes lanc. ent. obt. obscurely sinuated

14614 Frond bipinnatifid hirsute : segments cuneate lined blunt and serrated at end
 14615 Frond 3-pinnatifid triangular : segm. ovate acute toothletted at end, beneath and the rachis downy

OPHIOGLOSSEÆ.

14616 Scape with a simple frond above, Frond pinnate : pinnæ lunate entire
 14617 Scape none, Fronds radical 3-parted bipinnate : pinnules lunate crenate
 14618 Scape with a simple frond at bottom, Frond 3-parted bipinnatifid : segm. linear 2-parted 2-toothed at end
 14619 Scape frondose in midd. Frond subtern. 3-parted bipinnatifid, Leaflets cut pinnatif. Segm. obtuse 3-toothed
 14620 Scape with a simple frond at bottom, Frond mostly bitern. Leaflets obl. lanc. serrul. unequally cord. at base



and Miscellaneous Particulars.

2203. *Hymenophyllum*. From *ἕμνον*, a membrane, and *φυλλον*, a leaf, in allusion to the tenuity of the foliage. This and the last are the most elegant of all ferns ; they generally grow in damp shady places among moss, and have hitherto refused cultivation under any plan which has been devised.

2204. *Todea*. Named after Tode, an experienced mycologist, author of *Fungi Mecklenburgensis*. Mr. Brown unites this genus to *Osmunda*, but Kaulfuss keeps them distinct.

2205. *Osmunda*. A word said to be of northern origin, and to have received its name on account of its potential qualities in medicine. *Osmunder* was one of the names of Thor, a Celtic divinity, and *mund*, in Anglo-Saxon, is expressive of force or power. These are noble species of hardy ferns. *O. regalis* is the finest of all our native species.

2206. *Lygodium*. From *λυγος*, a band. The species are elegant twining plants, which bind together the grass or small shrubs near which they chance to grow. L. palmatum, although a North American plant, must have the protection of a good frame.

2207. *Anemia*. From *ἀνείμωτον*, naked ; in allusion to the naked spikes of inflorescence ; whence some authors write the word *Anemia*.

2208. *Botrychium*. Derived from *βοτρυς*, a bunch, on account of the bunch-like form of its fructification. *Botrychium virginicum* is the largest of the American kinds, and is called the rattle-snake fern, from the circumstance of its generally growing where these venomous reptiles are usually found.

2209. OPHIOGLOSSUM. L.	ADDER'S-TONGUE.	Sp. 3—9.						
14621 vulgatum W.	common	☿ Δ cu	$\frac{1}{3}$ my.jn	Br	Britain	m.me.	D p.l	Eng. bot. 108
14622 reticulatum W.	netted	☿ ☐ pr	$\frac{1}{4}$ my.jn	Br	W. Indies	1793.	D p.l	Plum. fil. t. 164
14623 bulbosum W.	bulbous	☿ Δ pr	$\frac{1}{4}$ jl.au	Br	N. Amer.	...	D l.p	
2210. MARANTIA. Swz.	MARATTIA.	Sp. 1—6.						
14624 alata W.	winged	☿ ☐ or	$1\frac{1}{2}$ au	Br	Jamaica	1793.	D l.p	Sm. ined. t. 46

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2209. *Ophioglossum*. From *οφις*, a serpent, and *γλωσσα*, a tongue. The little green narrow-pointed leaves, seated on a narrow stalk or neck, and peeping up from among the grass, may be not unaptly compared to a snake's tongue.

14621 Frond ovate veinless

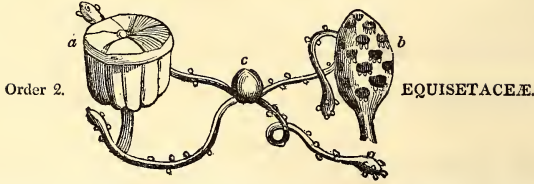
14622 Spike cauline, Frond cordate acute reticulated

14623 Spike cauline, Frond subcordate ovate obtuse, Root bulbous

14624 Fronds bipinnate: pinnules acutely serrate, Rachis scaly: partial winged

and Miscellaneous Particulars.

2210. *Marattia*. In honor of J. F. Maratti, a writer upon ferns. He lived at Vallombrosa, in Tuscany. Kaulfuss considers this, *Danaea*, and *Angiopteris* as constituting a particular tribe, which he calls *Marattiaceæ*, but of which he has not given the characters.

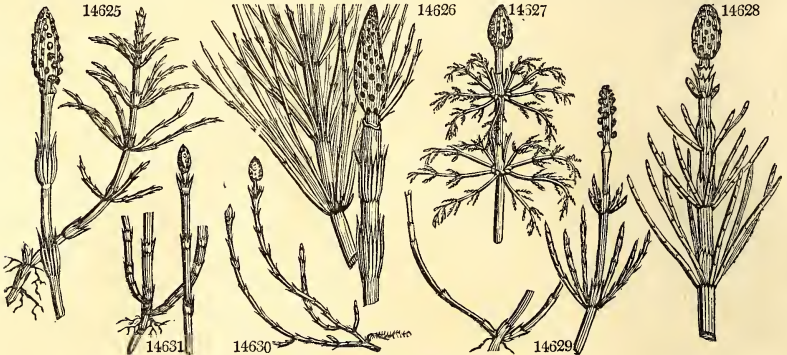


Reproductive organs uniform, in terminal spikes, composed of peltate, several-sided scales, producing on their under surface 4-7 elongated involucre containing the seeds. Branches whorled, rigid.

This order contains one genus only, which is among the most puzzling of all the anomalous formations which are so frequently met with among the lower orders of vegetation. Both the stems and branches are regularly articulated, and arise from a tubular sheath. There are no leaves, and the reproductive organs are arranged in a terminal spike (b), on all sides of which are inserted many peltate scales (a) with several sides or angles. Several wedge-shaped hollow bodies project from the surface of these scales, and bursting inwardly, discharge their contents, which are not yet well understood. They consist of a number of green roundish bodies, surrounded by minute granules, and furnished at the base with four elastic filaments (c), thickened at their apex. By some observers the granules have been considered pollen, the filaments stamens, and the green bodies ovaries; by others the granules have been called naked seeds; by Kaulfuss the wedge-shaped hollow bodies are considered capsules, and the green bodies, seeds. It is probable that none of these theories are true.

2209. *Equisetum*. Character the same as of the order.

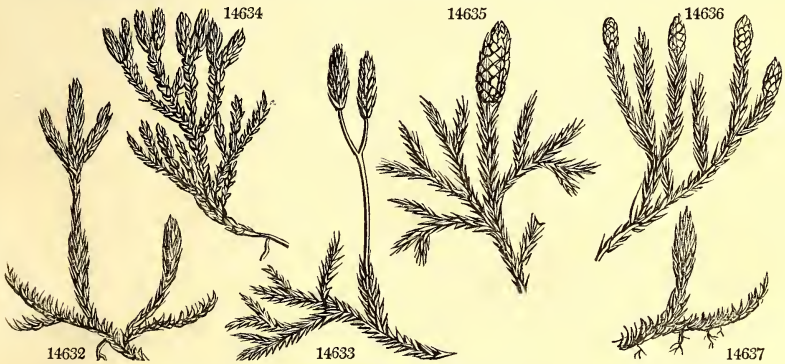
2211. EUISETUM. L. HORSE-TAIL.		Sp. 7-18.								
14625 <i>arvense</i> W.	corn	3	Δ w	1/2	mr.ap	Br	Britain	moi.fi.	D p.l	Eng. bot. 2020
14626 <i>fluviatile</i> W.	great-water	3	Δ w	6	ap.my	Br	Britain	wat.pl.	D p.l	Eng bot. 2022
14627 <i>sylvaticum</i> W.	wood	3	Δ w	1	ap.my	Br	Britain	m.s.pl.	D p.l	Eng. bot. 1874
14628 <i>limosum</i> W.	smooth naked	3	Δ w	2	jn.jl	Br	Britain	wat.pl.	D p.l	Eng. bot. 929
14629 <i>palustre</i> W.	marsh	3	Δ w	1 1/2	jn.jl	Br	Britain	bog.pl.	D p.l	Eng. bot. 2021
14630 <i>variegatum</i> W.	variegated	3	Δ or	3/4	jn.jl	Br	Scotland	sc.sh.	D p.l	Eng. bot. 1987
14631 <i>hyemale</i> W.	Dutch Rush	3	Δ ec	1 1/2	jl.au	Br	Britain	moi.w.	D p.l	Eng. bot. 915



History, Use, Propagation, Culture,

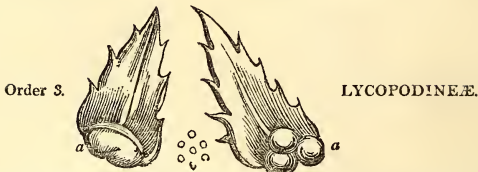
2211. *Equisetum*. Literally, horse-hair, from *equus*, a horse, and *seta*, hair; so called, in allusion to the fine branches of all the species. The first five species are noxious weeds on deep loamy soil, especially such as has been gained from rivers or lakes. *E. fluviatile* rises three or four feet high, the thickness of a finger, with numerous branchlets or leaves proceeding from the whorls; according to Haller, this species was eaten by the common people among the Romans. Linnaeus affirms, that rein-deer, who refuse hay, will, however, eat this:

- 14625 Ster. stems decumb. with simp. branches, which are rough. tetragon. : fertile ones erect simp. their sheaths cylind. inciso-dentate
 14626 Sterile stems with very numerous simple branches, which are roughish octagonal: fertile ones simple; the sheaths infundibuliform laciniato-dentate, their teeth setaceous
 14627 Sterile and fertile stems with their branches comp. roughish deflexed 4-sided, Branchlets subtriquetrous
 14628 Stems branch. upw with branches about 12 in a whorl simple pentagon. smooth, Spike or catkin terminal
 14629 Stems branched glabrous sulcate, Branches simple pentagonal, Spike terminal
 14630 Stems naked very rough branched at base, Sheaths black with white membran. lanc. teeth, Spike terminal
 14631 Stems simple erect very rough bearing spikes at the extremity, Sheaths whitish black at base and summits,
 Teeth aristate deciduous



and Miscellaneous Particulars.

that it is cut as fodder for kine, but that it is not so acceptable to horses. E. hyemale is the best species for polishing wood and metal, and is imported from Holland for that purpose under the name of Dutch rushes. It is much used by whitesmiths, cabinet-makers, and comb-makers, and formerly it was in demand for scouring pewter and wooden things in the kitchen.



Reproductive organs axillary, sometimes apparently spiked. Thecæ? of two kinds, the one containing minute granules, the other larger bodies. Stems covered with many small leaves.

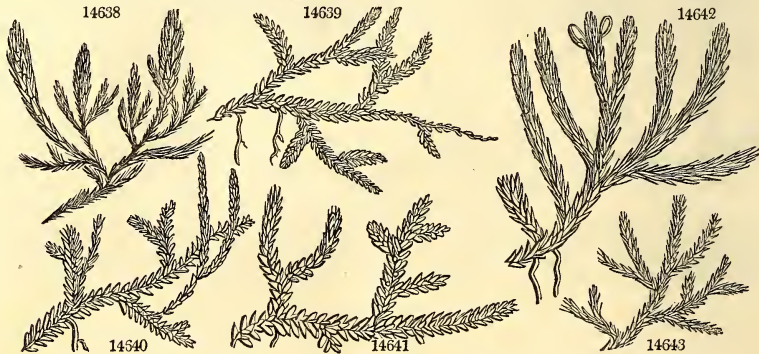
THE reproductive organs of these plants are always axillary, the apparently spiked arrangement which they occasionally present being caused by the partial abortion of the leaves, at the base of which they are seated. The thecæ (a)? the nature of which is very doubtful, and which have accordingly been called by different writers capsules, conceptacula, and cocci, are formed of from one to three valves, and of a similar number of cells, and contain either a mass of minute powdery granules, or some corpuscles of a larger size. The nature and properties of both these are uncertain. Decandolle imagines that one may be the means of fertilizing the other.

2210. *Lycopodium*. Thecæ reniform, 1-celled, 2-valved, with many sporules. Sporules very minute, powdery.

2211. *Psilotum*. Thecæ 3-coccous, 3-celled; cells opening upwards, half 2-valved.

2212. LYCOPODIUM. L. CLUB-MOSS.		Sp. 15-114.	
14632 clavatum W.	common	2 Δ cu	½ jl.au Br Britain hea. D p.l Eng. bot. 224
14633 complanatum W.	Arbor-vitæ-lvd.	2 Δ cu	¾ jl.au Br N. Amer. 1770. D p.l Fl. dan. 78
14634 alpinum W.	Savin-leaved	2 Δ cu	¾ au Br Britain al.bogs. D p.l Eng. bot. 234
14635 dendroideum W.	fan	2 Δ cu	¾ jl Br N. Amer. 1770. D p.l Hook. ex. fl. 7
14636 annotinum W.	interrupted	2 Δ cu	¾ jn.au Br Britain al.he. D p.l Eng. bot. 1727
14637 inundatum W.	marsh	2 Δ cu	½ jn.jl Br Britain tur.bo. D p.l Eng. bot. 239
14638 Selaginoides W.	prickly	2 Δ cu	½ au Br Britain w.al.h. D p.l Eng. bot. 1148
14639 ornithopodioides W.	Bird's-claw	2 Δ cu	½ jn.au Br 1812. D p.l Dil.M.t.66.f.1.B.
14640 helveticum W.	Swiss	2 Δ cu	lin ... Br Switzerl. 1779. D p.l Dill. M. t. 64. f. 2
14641 denticulatum W.	toothed	2 Δ cu	lin jl Br Switzerl. 1779. D p.l Dil.M.t.66.f.1.A
14642 Selago W.	Fir	2 Δ cu	½ au Br Britain w.al.h. D p.l Eng. bot. 233
14643 rupèstre W.	rock	2 Δ cu	½ au Br N. Amer. ... D p.l Schk. fil. t. 165
14644 lucidulum W.	glittering	2 Δ cu	¾ au Br N. Amer. 1823. D p.l Schk. fil. t. 159
14645 apodum W.	stemless	2 Δ cu	¾ au Br N. Amer. 1819. D p.l Dill. mus.t.64.f.3
14646 alopecuroides W.	Walking Fern	2 Δ cu	¾ au Br N. Amer. 1821. D p.l Dill. mus.t.62.f.6

2213. PSILOTUM. Swz. PSILOTUM.		Sp. 1-3.	
14647 triquetrum Swz.	triangular	2 ▽ cu	¾ jl.au Br W. Indies 1793. D p.l Schk. fil. t.165.b.

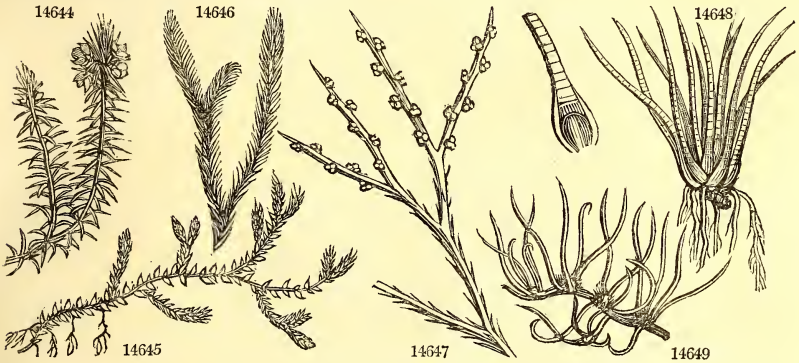


History, Use, Propagation, Culture,

2212. *Lycopodium*. From *lycos*, a wolf, and *pus*, a foot; on account, as Dalechamp assures us, of the resemblance the roots bear to a wolf's foot. Selago is an ancient word applied to some succulent plant, and derived, according to De Theis, from the Celtic *sel*, sight, and *jach*, salutary, as being useful for complaints in the eyes. From the same root *sel*, was formed *selma*, the name of Fingal's hall, which in modern language would be called *Belle-vue*. The species are neat little evergreen moss-like herbaceous plants, some of which are found in all parts of the world. *L. helveticum* is a pretty prostrate plant, with small bright green leaves; for the beauty of which it is often cultivated in hothouses on the edge of the aquarium, or in pots set in pans of water. *L. Phlegmaria* is a fine species found in various parts of the East Indies, but hitherto a stranger to our gardens. It is a parasite upon the trunks of trees, whence it hangs down in tufts from six inches to a

- 14632 Stem creeping, Branches ascending, Leaves scattered incurved and hair-pointed, Spikes geminate cylindrical pedunculate : their scales ovate acuminate eroso-dentate
 14633 Stem erect, Branches altern. dichotom. Leaves bifarious connate spreading at end, Spikes 4 round cylind.
 14634 Stems prostrate, Branches dichotomous and fasciculated, Leaves quadrifarious oblong convex acute appressed, Spikes terminal solitary sessile short cylindrical
 14635 Stem erect, Branches alternate compact dichotomous spreading, Spikes solitary terminal sessile
 14636 Stem creeping, Branches ascending dichotomously branched, Branchlets simple, Leaves in 5 rows linear lanceolate mucronate serrulate patent, Spikes oblongo-cylindrical solitary sessile terminal
 14637 Stem creeping, Branches simple solitary erect with a single sessile leafy spike at its extremity, Leaves linear scattered acute entire curved upwards
 14638 Stem creep. Branches ascend. simple, Lvs. scattered lanc. subpatent ciliato-denticul. Spikes term. solitary
 14639 Leaves bifarious spreading ovate acute : of the surface distichous ciliated flat, Spikes roundish sessile
 14640 Lvs. bifar. $\frac{1}{2}$ -cord. blunt. : of surface altern. distichous ovate-obl. blunt, Spikes stalked term. mostly in pairs
 14641 Lvs. bifarious ovate subcord. acute toothletted : of surface altern. ovate acute, Spikes terminal short sessile
 14642 Stems dichotomously branched erect fastigiata, Leaves scattered in 8 rows linear-lanceolate acuminate entire imbricated rigid, Capsules scattered not spiked
 14643 Stem creeping branched, Leaves scatt. imbric. ciliated with a hair at end, Spikes solitary sessile terminal
 14644 Leaves in 8 rows linear-lanceolate toothletted acute spreading reflexed, Stem ascending bifid
 14645 Lvs. bifarious roundish ovate acute flat toothl. Stem branched rooting at base, Spikes term. sess. subsolit.
 14646 Branches nearly simple long ascend. with one spike at top, Lvs. lin.-subul. toothed at base, Spike sess. leafy

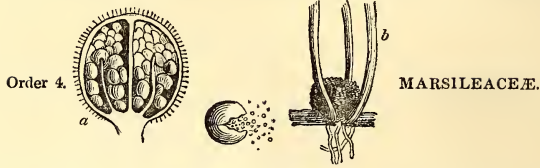
14647 Stem dichotomous, Branches 3-cornered



and Miscellaneous Particulars.

foot in length. *L. Selago* is used in Skye, and some other places, to fix colours in dying, instead of alum. The Highlanders employ it in infusion as an emetic and cathartic ; but it operates violently, and, unless taken in a small dose, brings on giddiness and convulsions. Linnæus says, the Swedes use a decoction of it to destroy lice on swine and other animals. All the species may be cultivated in a light peaty soil, but they require an abundance of moisture.

2213. *Psilotum*. From $\Psi\iota\lambda\omicron\varsigma$, naked. This is a little bushy evergreen herbaceous plant of no beauty. Its branches are 3-cornered, and altogether destitute of leaves. The theca appear from the little indentations of the branches, and are of a whitish-yellow color. It is easily cultivated in a little peat and sand, but it has no merit except as an object of curiosity.



Order 4.

MARSILEACEÆ.

Reproductive organs radical, uniform. Sporules contained in roundish one or many-celled indehiscent heads. Plants simple, aquatic.

VERY few plants are found in this order. Their vegetation is various; they are at most a few inches high, and are more or less aquatic. In Isoetes the leaves resemble those of a young rush. The organs of reproduction are always near the root, and are variable, and their nature is by no means understood. In Pilularia (a) it consists of a roundish head, divided internally into 1-4-cells, each cell containing small bodies of two kinds. In Isoetes (b) the fructification is even less known and understood.

2214. *Isoetes*. Head membranous, not opening, immersed in the base of the frond, 1-celled. Sporules angular, inserted upon many filiform receptacles.

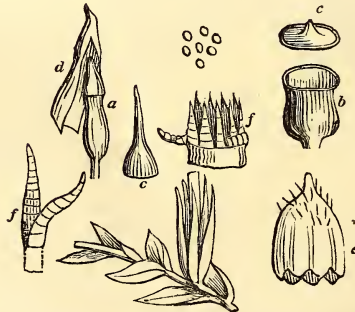
2215. *Pilularia*. Heads imbricated, solitary, nearly sessile, globose, coriaceous, 4-celled. Cells containing two kinds of bodies.

2214. ISOETES. L.	QUILLWORT.	Sp. 1—2.					
14648 lacustris W.	marsh	≅ Δ cu	½ my.o	Br	Britain	allak. D p.l	Eng. bot. 1084
2215. PILULARIA. L.	PILLWORT.	Sp. 1.					
14649 globulifera W.	Pepper-grass	≈ Δ cu	¼ jn.s	Br	Britain	moi.h. D p.l	Eng. bot. 521

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2214. *Isoetes*. From *isos*, equal, and *etes*, the year; a plant which remains the same through all the seasons. A very curious little submersed aquatic, which grows at the bottom of some of the Scotch lakes. The leaves are long and cylindrical, whence the English name Quill-wort.

Order 5.



MUSCI.

Reproductive organs of 2 kinds. Theca many-seeded, solitary, furnished with an operculum and columella. Plants leafy.

MOSSES are distinguished from all other similar plants, by the peculiar nature of the reproductive organs, which are of two kinds. The principal and the most obvious is a theca (a, b), which is furnished with an operculum or lid (c), by means of which the sporules are retained in the theca, and a columella, or central axis, to which they are attached. The other consist of minute spherical pedicellated organs, concealed in the axils of some of the leaves, and called anthers by Hedwig. The theca is either entire, or split into four valves, as in *Andreaea*; when in a very young state it is enclosed in an indusium, which is torn asunder as the theca is elongated, and being carried up with it, remains upon the summit of the theca in the form of a little extinguisher called

14648 Fronds subulate half-cylindrical, Heads roundish 2-celled

14649 Filiform branched creeping, Heads brown

and Miscellaneous Particulars.

2215. *Pilularia*. From *pilula*, a pill. The little heads in which the reproductive organs are enclosed resemble pills. An obscure little plant found creeping among grass in meadows in many parts of England, and especially in damp places which are overflowed during winter.

calyptra (*d*); if the calyptra is slit up one side it is called *dimidiate* (*d*), if divided at the base into many short clefts, it is termed *mitriform* (*e*). The orifice of the theca, when the operculum is removed, is either covered by a simple membrane, or by various processes called the *peristome* (*f*), either annular, or in the form of teeth, and arranged in a single or double row. These processes vary in number, and in the manner of their division; from such differences excellent characters for the genera have been obtained.

The minute attention which mosses have received in modern times has brought their arrangement to a degree of perfection unknown in other Cryptogamic orders. This has been effected by the labor of Hooker, Greville, and Brown in our own country, and of Hedwig, Swartz, Bridel, Schwaegrichen, Palisot de Beauvois, Nees von Esenbeck, and Hornschuch abroad. The arrangement of the two last authors is chiefly adopted here from their excellent *Bryologia Germanica*.

With this order, the alteration in the form of our page, of which we have already spoken, commences. The columns indicating the *habit*, *habitation in the garden*, *propagation*, and *soil*, are necessarily omitted; and their place is supplied by a more extended *popular character*, and more detailed references to plates. The heights indicated are to be understood as in inches, and not as feet; and the colors as the general color of the plant. In the figures it has been also found necessary to represent the plants in many cases much magnified; whenever this has taken place, the figures which are larger than nature are distinguished by a * affixed to their number. The popular synonyms of this and the succeeding orders have been rendered as complete as possible, especially with reference to Sowerby's English Botany, to which valuable work this will be a complete modern index even in Cryptogamia.

TRIBE I. EVAGINULATI.

Theca entirely sessile; its receptacle stalked, and without perichætal leaves.

2216. *Sphagnum*. Receptacle of theca stalked. Peduncle resembling a fruitstalk. Theca sessile on the receptacle. Mouth naked.

TRIBE II. VAGINULATI OLOCARPI.

Theca more or less stalked; with perichætal leaves; not valvular.

A. *Theca* terminal.

* *Theca* indehiscent.

2217. *Phascum*. Theca entire, adnate with the persistent lid. Calyptra shorter than the theca.

**** Theca dehiscent. Peristome absent.**

- 2218. *Schistostega*. Fruitstalks terminal; mouth of theca naked. Lid lacinated, with deciduous segments.
- 2219. *Gymnostomum*. Fruitstalk terminal. Calyptra dimidiate. Mouth of theca naked.

***** Theca dehiscent. Peristome present.**
 † *Peristome single.*

- 2220. *Hymenostomum*. Fruitstalk terminal. Peristome destitute of teeth, but having an inner horizontal membrane perforated in the middle.
- 2221. *Tetraphis*. Fruitstalk terminal. Peristome of 4 erect teeth.
- 2222. *Encalypta*. Fruitstalk terminal. Peristome single of 16 teeth. Calyptra cylindrico-campanulate, wholly concealing the nature of the theca.
- 2223. *Grimmia*. Fruitstalk terminal. Peristome single, of 16 entire or perforated rarely cleft teeth. Calyptra mitriform.
- 2224. *Weissia*. Fruitstalk terminal. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
- 2225. *Dicranum*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
- 2226. *Trichostomum*. Fruitstalk terminal. Peristome single, of 16 equal teeth divided to the base, or 32 in pairs. Calyptra mitriform.
- 2227. *Cinctidotus*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth anastomosing at their base. Calyptra mitriform.
- 2228. *Tortula*. Fruitstalk terminal. Peristome single, of 32 filiform twisted teeth, nearly free, or more or less united by a tubiform membrane. Calyptra dimidiate.
- 2229. *Pterogonium*. Fruitstalk lateral. Peristome single, of 16 entire equidistant teeth. Calyptra dimidiate.
- 2230. *Ditymodon*. Fruitstalk terminal. Peristome single, of 16 bifid equidistant teeth. Calyptra dimidiate.
- 2231. *Splachnum*. Fruitstalk terminal. Peristome single, of 8 geminate teeth. Theca with an evident apophysis. Columella exserted, capitate. Calyptra mitriform.
- 2232. *Conostomum*. Fruitstalk terminal. Peristome simple; teeth solitary, entire, separate at base, 16 in number, united at the tips.

†† *Peristome double.*

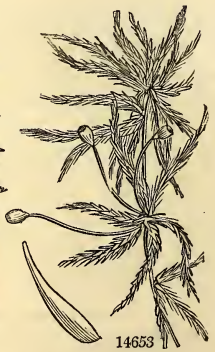
- 2233. *Orthotrichum*. Fruitstalk terminal. Peristome mostly double; outer one of 16 teeth, approaching in pairs; inner one of 8-16 ciliary processes or none. Calyptra mitriform. Columella capitate.
- 2234. *Zygodon*. Fruitstalk terminal. Peristome double or simple; teeth in pairs. Calyptra cucullate.
- 2235. *Diphyscium*. Fruitstalk terminal. Peristome always double; outer with 16 teeth: teeth obscure. Theca subsessile.

EVAGINULATI.

Systematic Name and Authority.	English Name.	Popular Character.	Length in inches.	Time of flowering, or when most conspicuous.	Color of the Plant.	Locality.	Reference to Figures.
2216. SPHAGNUM. L.	SPHAGNUM.			Sp. 4-11.			
14650 obtusifolium Ehr.	blunt-leaved	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
<i>a. vulgáris</i> Hooker	common	aquatic	7	all months	Y.G	bogs	Eng. bot. t. 1405
<i>S. latifolium</i> E. B.							
<i>β minus</i> Hooker	small	aquatic	3	all months	Y.G	bogs	Schwægr. sup. t.3
<i>γ nitans</i> Turner	floating	aquatic	24	all months	Y.G	bogs	
14652 squarrosum Web.	squarrose	aquatic	7	all months	Y.G	bogs	Musc. brit. t.4
14652 acutifolium Ehr.	sharp-leaved	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4
<i>capitífolium</i> E. B.							
14653 cuspidatum Ehr.	cuspidate	aquatic	6	all months	Y.G	bogs	Musc. brit. t.4

VAGINULATI OLOCARPI.

2217. PHAS'CUM. L.	PHAS'CUM.			Sp. 11-39.			
14654 serratum Schreb.	serrated	solitary	1 1/2	spring		Pa.G shady banks	Musc. brit.t.5
<i>stoloniferum</i> E. B. t.2106							



History, Use, Propagation, Culture,

2216. *Sphagnum*. A name employed by Pliny to distinguish some kind of moss that grew upon trees. In this genus the theca is sessile, being entirely destitute of a real fruitstalk. That which appears like one is the footstalk of the receptacle, which in most of the *Sphagna* is so much lengthened out as greatly to exceed the perichætal leaves. All the species agree in the peculiar structure of the leaves, of which the reticulation is

2236. *Burbaunia*. Fruitstalk terminal. Stem none. Theca oblique, gibbous. Peristome double: outer one of many filiform, torulose processes; inner one of a conical plicate membrane. Calyptra mitriform.
2237. *Punaria*. Fruitstalk terminal. Peristome double, oblique; outer and inner ones each of 16 teeth, opposite to each other.
2238. *Bartramia*. Fruitstalk terminal. Theca subglobose. Peristome double: outer one of 16 teeth; inner one of a membrane cleft into 16 bifid segments. Calyptra dimidiata.
2239. *Pohlia*. Fruitstalk terminal. Peristome double: teeth separate acute; membrane with 16 processes, which are entire at the end without cilia.
2240. *Bryum*. Fruitstalk terminal. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 equal segments, with filiform processes often placed between them. Calyptra dimidiata.
2241. *Polytrichum*. Fruitstalk terminal. Peristome double: outer one of 32 or 64 equidistant incurved teeth; inner one of a dense horizontal membrane connected with the outer teeth. Calyptra dimidiata.

B. *Theca lateral*.

2242. *Anictangium*. Fruitstalk lateral. Calyptra mitriform. Mouth of theca naked.
2243. *Pisidens*. Fruitstalk lateral. Peristome simple. Calyptra smooth. Teeth bifid.
2244. *Leucodon*. Fruitstalk lateral. Peristome simple, with bifid processes.
2245. *Fontinalis*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of 16 ciliary processes formed by transverse bars into a reticulated cone. Calyptra mitriform.
2246. *Anomodon*. Fruitstalk lateral. Peristome double: the first of 16 teeth; the second of 16 ciliary processes arising from the teeth. Calyptra dimidiata.
2247. *Neckera*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of 16 ciliary processes, connected only at the base by a short membrane. Calyptra dimidiata.
2248. *Daltonia*. Fruitstalk lateral. Peristome double: membrane figured, with 16 ciliae and reflexed teeth.
2249. *Hookeria*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner one of a membrane cut into 16 entire segments. Calyptra mitriform.
2250. *Leskea*. Fruitstalk lateral. Peristome double. Membrane with 16 entire processes. Teeth erect or reflexed. Calyptra cucullate.
2251. *Hypnum*. Fruitstalk lateral. Peristome double: outer one of 16 teeth; inner of a membrane cut into 16 equal segments, with filiform processes often between them. Calyptra dimidiata.

TRIBE III. VAGINULATI SCHISTOCARPI.

Theca more or less stalked, with perichaetial leaves, valvular.

2252. *Andreaea*. Theca 4-valved: valves cohering at apex, and adnate with the persistent lid.

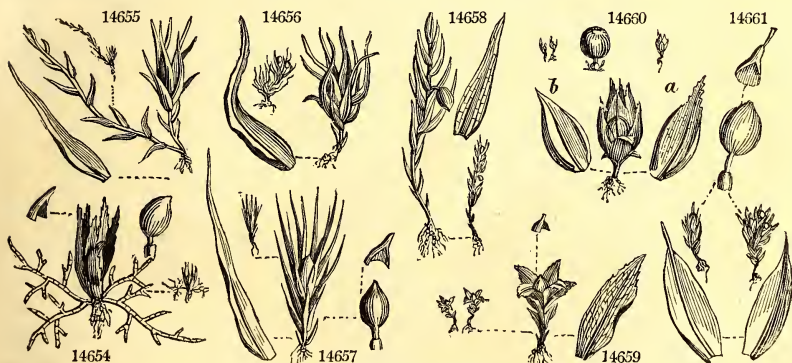
EVAGINULATI.

- 14650 Branches tumid, Leaves ovate obtuse
 α Stems loosely tufted, Leaves closely imbricated
 β Stems densely tufted, Leaves closely imbricated
 γ Stems much lengthened, Leaves scattered remote
- 14651 Branches attenuated at their extremities, Leaves ovato-acuminate squarrose recurved
- 14652 Branches attenuated, Leaves ovate-lanceolate crowded
- 14653 Branches attenuated, Leaves lanceolato-subulate lax

VAGINULATI OLOCARPI.

* Shoots creeping, leafless, articulated, branched.

- 14654 Shoots branched conferva-like, Perichaetial leaves lanceolate serrated nerveless

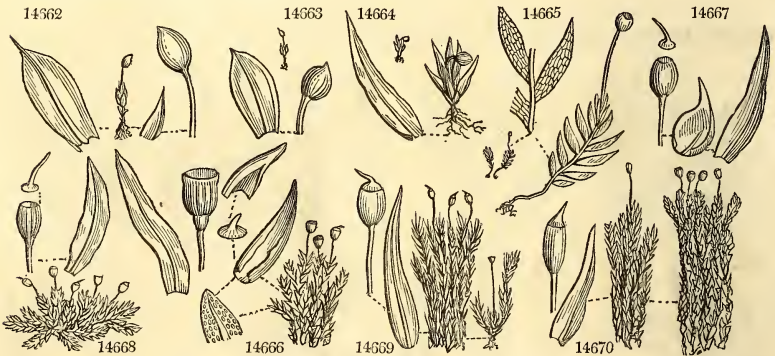


and Miscellaneous Particulars.

large, and the interstices or areole oblong, interrupted by transverse lines. The leaves are always destitute of a nerve, and are of a singularly whitish color.

2217. *Phascum*. One of the ancient Greek names of the moss was φασκον. This genus contains species

14655	<i>alternifolium</i> Dicks.	alternate-leav.	solitary	$\frac{1}{2}$ spring	Pa. G	moist banks	Musc. brit. t.5
14656	<i>crispum</i> Hedw.	crisp	solitary	$\frac{1}{2}$ spring	Pa. G	banks and fi.	Musc. brit. t.5
	<i>multicapitulare</i> E. B. 618						
14657	<i>subulatum</i> Linn.	subulate	small patches	$\frac{1}{2}$ spring	L. G	dry banks	Musc. brit. t.5
14658	<i>axillare</i> Dicks.	axillary	lax. sol.	$\frac{1}{2}$ spr. and sum.	Y. G	moist banks	Musc. brit. t.5
	<i>strictum</i> E. B. t. 2093						
14659	<i>patens</i> Hedw.	spreading	solitary	$\frac{1}{2}$ spr. and sum.	Pa. G	clay fields	Musc. brit. t.5
14660	<i>miticum</i> Schreb.	pointless	solitary	$\frac{1}{2}$ spr. and sum.	Bt. G	moist banks	Musc. brit. t.5
	<i>madus</i> Hooker	large	solitary	$\frac{1}{2}$ spr. and sum.	Bt. G	moist banks	Eng. bot. t. 2027
	<i>minus</i> Hooker	small	solitary	$\frac{1}{2}$ spr. and sum.	Bt. G	sea coast	Musc. brit. t.5
14661	<i>cuspidatum</i> Schreb.	cuspidate	solitary	$\frac{1}{2}$ spr. and sum.	Gr	hed. moi. ba.	Musc. brit. t.5
	<i>apiculatum</i> Hooker	pointed	solitary	$\frac{1}{2}$ spr. and sum.	Gsh	hed. moi. ba.	Eng. bot. t. 2025
	<i>Schreberianum</i> E. B. t. 2026						
	<i>curvisetum</i> E. B. t. 2259						
	<i>piliferum</i>	<i>piliferous</i>	solitary	$\frac{1}{2}$ spr. and sum.	Ho	sandy downs	Eng. bot. t. 1888
14662	<i>bryoides</i> Dicks.	Bryum-like	solitary	$\frac{1}{2}$ spr. and sum.	G	banks and fi.	Musc. brit. t.5
14663	<i>rec'tum</i> Withering	upright	solitary	$\frac{1}{2}$ spr. and sum.	L. G	moist banks	Musc. brit. t.5
14664	<i>curvicollum</i> Hedw.	bent-necked	solitary	$\frac{1}{2}$ spr. and sum.	L. G	moist banks	Musc. brit. t.5
2218.	SCHISTOSTE/GA. Mohr.	SCHISTOSTE/GA.		Sp. 1.			
14665	<i>pennata</i> Hooker	feathery	solitary	$\frac{1}{2}$ spring	L. G	banks, Dev.	Musc. brit. t.8
	<i>Gymnostomum pennatum</i> E. B. t. 2219						
2219.	GYMNO'STOMUM. Hedw.	GYMNO'STOMUM.		Sp. 13—47.			
14666	<i>lappinicum</i> Hedw.	Lapland	dense tufts	1 spring	D. G	alpine rocks	Musc. brit. t.6
14667	<i>astivum</i> Hedw.	summer	thick tufts	$\frac{1}{2}$ spring	Bt. G	wet rocks	Musc. brit. t.6
	<i>lutidum</i> E. B. t. 2201						
14668	<i>viridis/simum</i> E. B.	very green	tufts	$\frac{2}{3}$ summer	Bt. G	trees & rocks	Musc. brit. t.6
	<i>Grim'mia Forskéri</i> E. B. 2225						
14669	<i>curviröstrum</i> Hedw.	bent-pointed	tufts	$\frac{1}{2}$ spring	Pa. G	moist rocks	Musc. brit. t.6
	<i>stelligerum</i> E. B. t. 2202						
14670	<i>rupes/tra</i> Schwagr.	rock	large tufts	$\frac{1}{2}$ spr. and sum.	D. G	moi. mou. ro.	Schwæg. sup. t.11
	<i>eruginosum</i> E. B. t. 2200						
14671	<i>Griffithsianum</i> E. B.	Griffith's	little spots	$\frac{1}{2}$ summer	Pa. G	mountains	Musc. brit. t.7
14672	<i>ovatum</i> Hedw.	ovate	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	Musc. brit. t.7
	<i>vulgare</i> Hooker	common	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	Eng. bot. t. 1889
	<i>gracile</i> Hooker	slender	broad patches	$\frac{1}{2}$ all months	Gr	ba. & wa. tops	
14673	<i>truncatulum</i> Hoffm.	truncate	patches	$\frac{1}{2}$ all months	Bt. G	fields & ban.	Musc. brit. t.7
	<i>intermedium</i> E. B. t. 1976						
14674	<i>Heimii</i> Hedw.	Heim's	small patches	1 summer	Rsh	marit. banks	Musc. brit. t.7
	<i>obtusum</i> E. B. t. 1407						
14675	<i>conicum</i> Schwagr.	conical	little spots	$\frac{1}{2}$ summer	Pa. G	fields, S. Irel.	Musc. brit. t.7
14676	<i>fasciculare</i> Hedw.	bundled	patches	$\frac{1}{2}$ summer	Y. G	clayey banks	Musc. brit. t.7
14677	<i>pyriforme</i> Hedw.	pyriform	dense patches	$\frac{2}{3}$ summer	Bt. G	moist places	Musc. brit. t.7
14678	<i>tenue</i> Hedw.	slender	little patches	$\frac{1}{2}$ spring	Bt. G	sandst. rocks	Musc. brit. t.7
	<i>paucifolium</i> E. B. t. 2506						
14679	<i>Donniana</i> Smith	Donn's	solitary	$\frac{1}{2}$ spring	Pa. G	Scotch rocks	Musc. brit. t.7
2220.	HYMENO'STOMUM. R. Brown.	HYMENO'STOMUM.		Sp. 1.			
14680	<i>microstomum</i> R. Br.	small-mouthed	little-patches	$\frac{1}{2}$ spring	Pa. G	banks	Musc. brit. t.7
	<i>Gymnostomum microstomum</i> E. B. t. 2215						
2221.	TE'TRAPHIS. Hedw.	TETRAPHIS.		Sp. 2—5.			
14681	<i>pellucida</i> Hedw.	pellucid	wide tufts	1 all months	Pa. G	dry banks	Musc. brit. t.8
14682	<i>Browniana</i> Greville	Brown's	solitary	$\frac{1}{2}$ all months	OL. G	roofs of caves	Musc. brit. t.8
	<i>ovata</i> Hooker						
	<i>Grim'mia Browniana</i> E. B. t. 1422						



History, Use, Propagation, Culture.

which are not only amongst the minute of mosses, and often scarcely discernible to the naked eye, but also extremely dissimilar in appearance to each other.

2218. *Schistostega*. From *σχιζω*, to split, and *στεγη*, a covering, in allusion to the singular character of the lid splitting at the margin. The only known station for this minute moss is said by Dr. Hooker, from whose *Muscologia Britannica*, many of the remarks in this work upon the genera of mosses are borrowed, to be in the road from Zele to South Tawton church, near Okehampton, Devonshire.

2219. *Gymnostomum*. From *γυμνος*, naked, and *στομα*, the mouth, in allusion to the processes called teeth, from the orifice of the theca. Very minute plants, many of which are barely distinguishable by the naked eye.

**** Creeping shoots none.**

- 14655 Leaves entire lanceolato-subulate, Innovations elongated
 14656 Leaves lanceolato-subulate flexuose crisped when dry
 14657 Leaves subulato-setaceous straight : their nerve disappearing below the point
 14658 Leaves lanceolato-subulate straight : their nerve disappearing below the point, Fruit at length lateral
 14659 Leaves patent narrow-ovate serrated : their nerve disappearing below the point
 14660 Leaves ovato-rotundate acuminate concave connivent : the nerve reaching to the point
 α Leaves sharply serrated at point
 β Leaves entire
 14661 Leaves ovato-acuminate erect : their nerve reaching to the point
 α Leaves apiculate
 β Leaves hair-pointed
 14662 Leaves ovate apiculate, Thecæ elliptical
 14663 Leaves ovate with a short point, Thecæ globose, Fruitstalk nearly erect
 14664 Leaves narrow-ovate acuminate, Thecæ globose, Fruitstalk curved
 14665 The only species

*** Stem long, branched.**

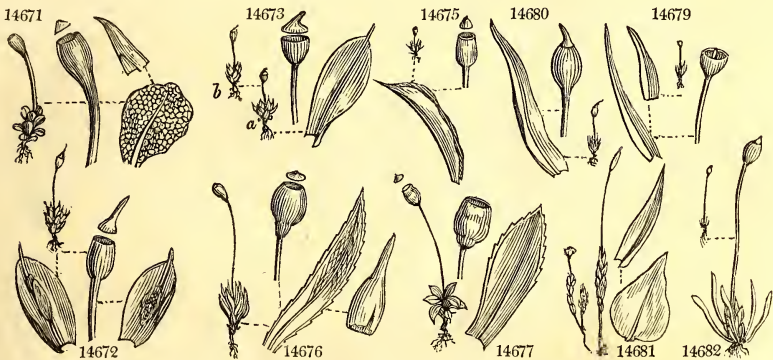
- 14666 Leaves linear lanceolate crisped when dry : perichæial broadly ovate, Thecæ turbinate striated
 14667 Lvs. lanc. twist. when dry : the perichæial ones broadly ovate ; their marg. involute, Thecæ obl. smooth
 14668 Leaves broadly lanceolate, Thecæ ovate, Lid obliquely rostrate
 14669 Leaves subulate, Thecæ turbinate ovate, Lid obliquely rostrate
 14670 Lvs. lin. subul. spreading flexuose twisted when dry, Thecæ ovate, Lid conical rostr. shorter than thecæ

**** Stems short simple.**

- 14671 Lvs. obov.-rotund. reticul. : their nerve disappear. below summit, Fruitstalk carnosè thick, Lid hemispher.
 14672 Lvs. ovate erect concave piliferous : their nerve furnished with a granuliferous membrane, Lid rostrate
 α Thecæ ovate
 β Thecæ oblong
 14673 Leaves ovate apiculate patent nearly plane, Lid obliquely rostrate
 14674 Leaves lanceolate serrated at the point, Thecæ ovato-oblong, Lid obliquely rostrate
 14675 Leaves oblongo-ovate apiculate, Thecæ ovate, Lid conical obtuse
 14676 Leaves oblongo-acum. nearly plane subserrated margined, Thecæ pyriform, Lid plane submammillate
 14677 Leaves ovato-acum. concave serrated not margined, Thecæ roundish obovate, Lid convex shortly rostr.
 14678 Stem scarcely any, Outer leaves very short ovate lanceolate : inner ones linear lanceolate ; all erect obtuse with a strong nerve disappearing below the summit, Thecæ oblong
 14679 Stem very short, Leaves subulate straight, Thecæ turbinate

- 14680 Lvs. broadly subul. : marg. invol. above flexuose crisped when dry, Thecæ ellipt. contracted at mouth, Lid [subulate incurved]

- 14681 Stems elongated, Leaves ovato-acuminate : those of the perichætium lanceolate, Thecæ cylindrical
 14682 Stems very short, Lvs. few lin. slightly incrassated upw. : those of perichætium ovate obtuse, Thecæ ovate

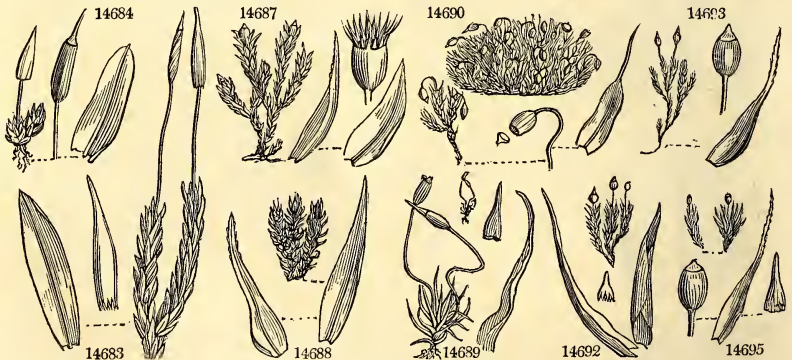


and Miscellaneous Particulars.

2420. *Hymenostomum*. From $\psi\mu\eta\sigma$, a membrane, and $\sigma\sigma\mu\alpha$, a mouth. This genus differs from the last in having a membrane stretched across the orifice of the theca, a character first discovered by Mr. Brown. Minute plants, with the habit of *Gymnostomum*.

2421. *Tetraphis*. The peculiar character of this genus is to have four teeth ($\tau\epsilon\tau\alpha$, four). The lid in the only known species of this genus is remarkably thin and scarious in texture, and the teeth are reticulated, not striated as in most mosses. The calyptra is striated or furrowed ; the leaves are rigid.

2222. ENCALYP'TA. Hedw.	ENCALYP'TA.		Sp. 4-7.			
14683 streptocárpa Hedw.	twisted-fruited	tufts	1½ all months	Bt.G	moist rocks	Musc. brit. t.13
14684 vulgáris Hedw.	common	wide patches	½ all months	Dl.G	wall tops	Musc. brit. t.13
	<i>Brjüm extinctórium</i> E. B. t. 558					
14685 ciliáta Hedw.	ciliated	tufts	½ spring	Pa.G	mountains	Musc. brit. t.13
α cóncolor Hooker	whole-colored	tufts	½ spring	Pa.G	mountains	Eng. bot. t. 1418
β alpina Hooker	alpine	tufts	½ spring	Pa.G	Scotch alps	Eng. bot. t. 2.f.1
14686 rhaptocárpa Schwæg.	straight-fruit.	tufted	all months	D.G	Scot. mount.	Gre.cryp.fl.t.163
2223. GRIM'MIA. Hedw.	GRIMMIA.		Sp. 9-29.			
14687 apocárpa Hedw.	alpine	dense tufts	1½ all months	D.Ol	rocks & trees	Musc. brit. t.13
α nigro-úridis Hooker	dark-green	tufts	1½ all seasons	D.Ol	rocks & trees	Eng. bot. t. 1134
β stric'ta Turner	straight	loose tufts	all seasons	Ruf	mountains	Tu.mu.hi. t.2.f.1
14688 marítima Turn.	sea-coast	tufted	¾ spr. and aut.	Br.G	marine rocks	Musc. brit. t.13
14689 saxicola Hooker	rock	subsultory	½ summer	Bt.G	rocks	Musc. brit. t.13
14690 pulvináta E. B.	cushion	round tufts	¾ all seasons	Br.G	house-tops	Musc. brit. t.13
14691 leucophæ'a Grev.	mottled	broad tufts	½ all seasons	D.Ol	subalp. rocks	Wer. trans.4. t.6
14692 Daviesii Turn.	Welsh	little patches	½ spring	Br.G	marit. rocks	Musc. brit. t.13
	<i>Encalyp'ta Daviesii</i> E. B. t. 1281					
14693 ováta Web. & Mohr.	ovate	tufts	¾ spr. and sum.	D.G	alpine rocks	Musc. brit. t.13
	<i>Dicranum ováte</i> E. B. t. 2165					
14694 trichophýlla Greville	hair-leaved	tufts	¾ summer	Hoá	stone w., Sc.	
14695 Doniána Smúth	Don's	little tufts	½ spring	D.G	loose stones	Musc. brit. t.13
2224. WEISSIA. Hedw.	WEISSIA.		Sp. 19-54.			
14696 splachnoides Schwæg.	Splachnu-like	broad tufts	3 summer	D.G	Scotch bogs	Gre.v.cryp.fl.145
	<i>Grim'mia splachnoides</i> E. B. t. 2164					
	<i>Splach'num lingulátum</i> E. B. t. 2095					
14697 Templetóni Hooker	Irish	little patches	½ spring	L.G	banks, Irel.	Musc. brit. t.14
	<i>Funária Templetóni</i> E. B. t. 2524					
14698 núda Hooker	naked	little patches	½ summer	L.G	clayey soil	Musc. brit. t.14
	<i>Grim'mia núda</i> E. B. t. 1421					
14699 nigrita Hedw.	dark-colored	tufts	¾ summer	Br.G	mount. ban.	Musc. brit. t.14
	<i>Grim'mia nigrita</i> E. B. t. 1825					
14700 latifólia Schwæg.	broad-leaved	tufted	½ autumn	Pa.G	Scot. mount.	Gre.v.cryp.fl.149
14701 Starkeána Hedw.	Starke's	little patches	½ spring	D.G	banks and fi.	Musc. brit. t.14
	<i>Grim'mia Starkeána</i> E. B. t. 1490					
14702 affinis Hooker	kindred	subsultory	1½ summer	Pa.G	fields	Musc. brit. t.14
14703 lanceoláta Hook.	lanceolate	subsultory	½ summer	L.G	moist banks	Musc. brit. t.14
	<i>Grim'mia lanceoláta</i> E. B. t. 1408					
14704 striáta Hooker	striated	round tufts	½ spring	Bt.G	alpine banks	Musc. brit. t.15
α minor Hook.	small	round tufts	½ spring	Bt.G	alpine banks	Hed.sp.mus.t.13
β májor Hook.	large	round tufts	½ spring	Bt.G	alpine banks	Schwæg.sup.t.19
14705 trichódes Hooker	hairy	minute patch.	½ spring	Bt.G	granite roc.	Musc. brit. t.15
	<i>Grim'mia trichódes</i> E. B. t. 2563					
14706 cirráta Hedw.	cirrhate	tufts	¾ summer	L.G	decay. wood	Musc. brit. t.15
	<i>Grim'mia cirráta</i> E. B. t. 2356					
	<i>Grim'mia Dicksóni</i> E. B. t. 1420					
14707 curviróstra Hook.	bent-beaked	tufts	1 all seasons	R.G	roc. and ban.	Musc. brit. t.14
	<i>Grim'mia recurviróstra</i> E. B. t. 1438					
14708 cris'pula Hedw.	crisp	dense tufts	¾ sum. and aut.	D.G	rooks	Musc. brit. t.15
	<i>Grim'mia cris'pula</i> E. B. t. 2203					
14709 controvérsa Hedw.	disputed	dense patches	¾ all seasons	Bt.G	banks	Musc. brit. t.15
	<i>Grim'mia controvérsa</i> E. B. t. 1367					
14710 calcárea Hedw.	chalk	subsultory	¾ spring	OLG	chalk cliffs	Musc. brit. t.15
	<i>Brjüm calcáream</i> E. B. t. 191					
14711 recurváta Hooker	recurved	solitary	¾ spring	L.G	rocks	Musc. brit. t.15
	<i>Grim'mia recurváta</i> E. B. t. 1489					



History, Use, Propagation, Culture,

2222. *Encalyp'ta*. From *εγ*, within, and *καλυπτω*, a covering or extinguisher, on account of the unusual size of the calyptra, which entirely encloses the theca; a character by which the genus may be distinguished at first sight. Small plants, forming imperfect tufts of green among moist rocks, or on mud-capped walls.

2223. *Grimmia*. Named in honor of I. F. C. Grimm, a German botanist, who published a Flora of Eisenach.

[Calyptra toothed at the base

- 14683 Stems elong. Lvs. elliptico-lanc. somew. obt. : nerve not produced beyond summ. Thecæ cylind. spir. striat.
 14684 Stems short, Leaves oblongo-elliptical obtuse : their nerve produced a little beyond the summits, Thecæ cylindrical smooth, Calypt. entire at the base
 14685 Stems short, Lvs. obl. acum. : nerve produced considerably bey. summ. Thecæ cylind. Calyp. tooth. at base
 α Leaves apiculate : their points of the same color, Theca smooth
 β Leaves much acuminate : their points diaphanous, Theca smooth
 14686 Leaves oblong acute : nerve as long or longer than the leaves, Theca straight striated

* *Fruitstalks scarcely any.*

- 14687 Stems branched, Leaves ovato-lanceolate recurvo-patent : their margins reflexed ; the perichætial ones having their nerve disappearing immediately below their summits, Thecæ ovate sess. Lid shortly rost.
 α Leaves broad dark-green
 β Stem long, Leaves narrow and rufous [running beyond summits, Theca ov. sess. Lid shortly rost.
 14688 Stems short pulvin. Lvs. lanc. acum. nearly erect crisp. when dry : marg. recurv. ; perich. ones with nerve

** *Fruitstalks longer than leaves.*

- 14689 Stem scarcely any, Lvs. lin.-subulate crisped when dry, Theca ovate, Fruitst. geniculate, Lid rost. straight
 14690 Stems short pulvinata, Leaves narrow elliptical : their margins recurved ; points diaphanous piliform, Theca ovate striated, Fruitstalks curved, Lid conical acuminate
 14691 Stem rather short, Lvs. ov. with long white pilifer. points, Footst. very short, Theca ov. Lid obscurely rost.
 14692 Stems short, Leaves lanceolate acuminate carin. entire much crisped when dry : their margins recurved ; those of the perichætium broad and convol. Theca turbinata, Lid rostrate
 14693 Stems slightly branched, Leaves lanceolate-subulate gradually produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome often perfora. and split, Lid rost.
 14694 Lvs. lanc. subul. carin. recurv. at edge with a hair-like point, Seta curv. and flex. Theca ov. ellipt. Lid rost.
 14695 Stems short, Leaves lanceolate-subulate produced into long diaphanous hair-like points : their margin incurved, Theca ovate, Teeth of the peristome quite entire, Lid shortly rostrate

* *Theca with an apophysis.*

- 14596 Lvs. lingul. rounded at top : nerve disappear. before summ. Theca obov. Apophy. obcon. Lid convex acum.

- 14697 Leaves ovato-lanceolate acute, Theca (with the apophysis) narrowly pyriform, Lid nearly plane

** *Theca destitute of an apophysis.*

1. *Leaves ovate or lanceolate.*

- 14698 Stems scarcely any, Leaves ovato-lanceolate nerveless, Theca ovate gibbous on one side cernuous
 14699 Stems elongat. Lvs. lanc. acum. Theca obovate cernuous gibbous sulcate, Lid hemispheric. obtusely point. [erect-cernuous, Lid rostrate
 14700 Stem simple short, Leaves broad and bluntly ov. with a short point imbric. Nerve shorter than leaf, Theca
 14701 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conical, Teeth of perist. subul. acute
 14702 Stems very short, Lvs. ov. with an excurr. nerve, Theca ov. erect, Lid conic. Teeth of perist. subulate acute
 14703 Stems somew. elongat. Lvs. ov. with an excurr. nerve almost piliferous, Theca ovate, Lid obliquely rostrate

2. *Leaves linear or subulate.*

- 14704 Leaves linear-denticul. crisped when dry, Theca ovato-turbinata sulcate erect, Lid obliquely subulate
 α Leaves linear-subulate subserrulate
 β Leaves broad-linear denticulate
 14705 Stems scarcely any, Leaves subulato-setaceous entire, Theca ovate striated, Lid rostrate
 14706 Leaves broadly subulate crisped when dry : their margins recurved, Theca ovate, Lid rostrate

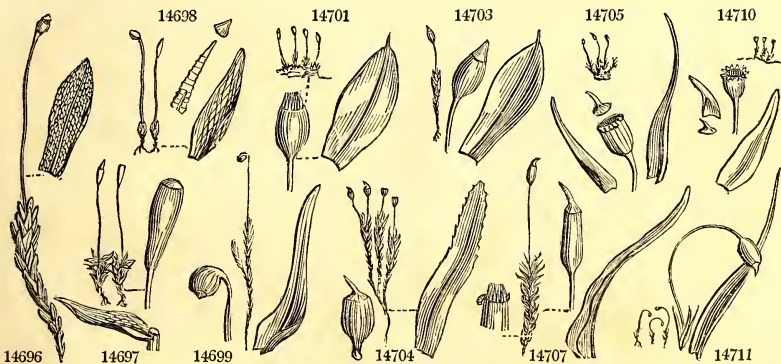
- 14707 Leaves linear-subulate, Theca ovate cylindraceous, Lid rostrate

- 14708 Stems divid. Lvs. from a broad base lanc.-subul. crisp. when dry : marg. incurv. Theca ov. ellipt. Lid rostrate

- 14709 Stems nearly simple, Lvs. lin.-subul. crisp. when dry : their marg. incurv. Theca ovato-ellipt. Lid rostrate

- 14710 Stems scarcely any, Lvs. from a broad base lin. obt. thick with a very broad nerve, Theca turbin. Lid rost.

- 14711 Stems scarcely any, Leaves subulate, Theca broadly ovate, Fruitstalks curved, Lid rostrate



and Miscellaneous Particulars.

Plants growing in roundish tufts, and nearly related to *Trichostomum*. *G. pulvinata* is the moss which forms those little cushion-like dark brownish green lumps which are so commonly spotted over the tops of old walls and houses.

2224. *Weissia*. In honor of J. W. Weiss, a German cryptogamic botanist. There was also a John

14712	<i>pusilla Hedw.</i>	dwarf	dense patches	1½	spring	Bt.G	calcar. rocks	Musc. brit. t.15	
	<i>Grimmia pusilla</i> E. B. t. 2551								
14713	<i>verticillata Schwagr.</i>	whorled	tufts	¾	summer	Bt.G	moist rocks	Musc. brit. t.15	
	<i>Grimmia verticillata</i> E. B. t. 1258								
14714	<i>acuta Hedw.</i>	acute	tufts	1	sum. and aut.	OL.G	moist rocks	Musc. brit. t.15	
	<i>Grimmia acuta</i> E. B. t. 1644								
2225. DICRANUM. Hedw. DICRANUM. <i>Sp. 23—47.</i>									
14715	<i>glaucum Hedw.</i>	glaucous	broad tufts	4	autumn	W.G	moors	Musc. brit. t.16	
14716	<i>latifolium Hedw.</i>	broad-leaved	subsolitary	¾	spring	Bt.G	moun. banks	Musc. brit. t.16	
	<i>Trichostomum piliferum</i> E. B. 2536								
14717	<i>longifolium Hedw.</i>	long-leaved	dense tufts	3	win. and spr.	Bt.G	wet rocks	Musc. brit. t.16	
14718	<i>flexuosum Hedw.</i>	flexuose	loose tufts	3	win. and spr.	D.G	peat bogs	Musc. brit. t.16	
14719	<i>flavescens Smith</i>	yellowish	tufts	3	win. and spr.	Y.G	river banks	Musc. brit. t.17	
14720	<i>squarrosum Schrad.</i>	squarrose	large masses	3	summer	Y	wet san. pl.	Musc. brit. t.17	
14721	<i>pellucidum Swz.</i>	pellucid	tufts	1½	spr. and sum.	D.G	wet san. pl.	Musc. brit. t.17	
14722	<i>spurium Hedw.</i>	spurious	dense masses	4	summer	Bt.G	bogs	Musc. brit. t.17	
14723	<i>crispum Hedw.</i>	crisp	loose patches	½	all months	Bt.G	moist banks	Musc. brit. t.17	
14724	<i>Scottianum Turn.</i>	Scott's	large masses	2½	sum. and aut.	Bt.G	mount. rocks	Musc. brit. t.18	
	<i>stagnellare</i> E. B. t. 1977								
14725	<i>polycarpon Ehr.</i>	prolific	round tufts	¾	all seasons	Bt.G	rocks	Musc. brit. t.18	
	<i>Brundöni</i> E. B. t. 2509								
14726	<i>undulatum Ehr.</i>	wave-leaved	tufts	2½	summer	Bt.G	woods & roc.	Musc. brit. t.18	
14727	<i>scoparium Hedw.</i>	rock	patches	3	win. and spr.	Dp.G	woods & ban.	Musc. brit. t.18	
	<i>α majus Hooker</i>	large	patches	3	win. and spr.	Dp.G	woods & ban.	Eng. bot. t. 354	
	<i>β fuscescens</i> Turner	brownish	tufts	2	spring	Brsh	heathy plac.	Eng. bot. t. 1537	
14728	<i>varium Hedw.</i>	various	loose patches	½	spring	D.G	moist banks	Musc. brit. t.17	
	<i>α viride</i> Hooker	green	loose patches	½	spring	D.G	moist banks	Eng. bot. t. 1215	
	<i>callistotomum</i> Smith Fl. Brit.	brown	loose patches	½	spring	Rsh	moist banks	Eng. bot. t. 1216	
	<i>β rufescens</i>	lurid	loose patches	½	spring	Lur			
14729	<i>fulvillum Smith</i>	tawny	dense tufts	¾	spr. and sum.	Bt.G	crev. of rocks	Grev. cryp. fl. 118	
14730	<i>heteromallum Hedw.</i>	interrupted	large patches	¾	spring	Bt.G	moist banks	Musc. brit. t.18	
14731	<i>subulatum Hedw.</i>	subulate	loose patches	¾	spring	Bt.G	moist banks	Musc. brit. t.18	
14732	<i>cerviculatum Hedw.</i>	hooked	small spots	¾	spring	Str	bogs	Musc. brit. t.16	
	<i>pusillum</i> E. B. t. 2491								
	<i>uncinatum</i> E. B. t. 2261								
14733	<i>virens Hedw.</i>	green	tufts	1½	all seasons	Bt.G	mount. mar.	Musc. brit. t.17	
14734	<i>strumiferum Smith</i>	thick-necked	tufts	1	all seasons	Bt.G	mount. mar.	Musc. brit. t.17	
14735	<i>falcatum Hedw.</i>	falcate	large patches	2	spr. and aut.	Bt.G	alpine rocks	Hoo. mus. br. t.17	
14736	<i>Schreberianum Hedw.</i>	Schreber's	tufted	¾	spring	Bt.G	moi. pl., Scot.	Grev. cryp. fl. 116	
14737	<i>Starkii Web. & Mohr.</i>	Stark's	tufts	1	spring	Bt.G	alpine rocks	Musc. brit. t.17	
2226. TRICHOSTOMUM. Hedw. TRICHOSTOMUM. <i>Sp. 9—18.</i>									
14738	<i>pätens Schwagr.</i>	spreading	deep patches	6	all seasons	Hoa	mountains	Musc. brit. t.19	
	<i>Dicranum pätens</i> E. B. t. 1990								
	<i>Tr. obtusum</i> Fl. Brit.								
14739	<i>lanuginosum Hedw.</i>	woolly	deep tufts	4	all seasons	Hoa	stonymount.	Musc. brit. t.19	
14740	<i>canescens Hedw.</i>	hoary	tufted creep.	1½	all seasons	Y.G	heaths	Musc. brit. t.19	
	<i>T. ericoides</i> E. B. t. 1991								
14741	<i>heterostichum Hedw.</i>	branched	broad tufts	1	all seasons	Hoa	ston. on mo.	Musc. brit. t.19	
14742	<i>microcarpon Hedw.</i>	small-fruited	deep patches	2	all seasons	Ol	rocks	Musc. brit. t.19	



History, Use, Propagation, Culture,

Christopher Weiss, who published, in 1712, a Dissertation on the pomegranate. These plants are chiefly found in wet places, most frequently in alpine countries; in habit they resemble *Gymnostomum*.

2225. *Dicranum*. Named by Hedwig, from *δικρανος*, forked, in allusion to the division of the teeth. This is one of the finest genera of mosses, containing many species which form broad masses of turfy vegetation, giving a decided character to the face of the earth where they grow. Like most of the genera of this order,

- 14712 Stems scarcely any, Leaves subulate, Theca ovate, Fruitstalks always erect, Lid rostrate
- 14713 Stems branched, Leaves broadly subulate nearly flat rather flaccid, Theca ovate, Lid rostrate
- 14714 Stems branched, Leaves subulate-setaceous subsecund rigid canaliculate, Theca turbinate, Lid rostrate

* *Theca without a struma.*

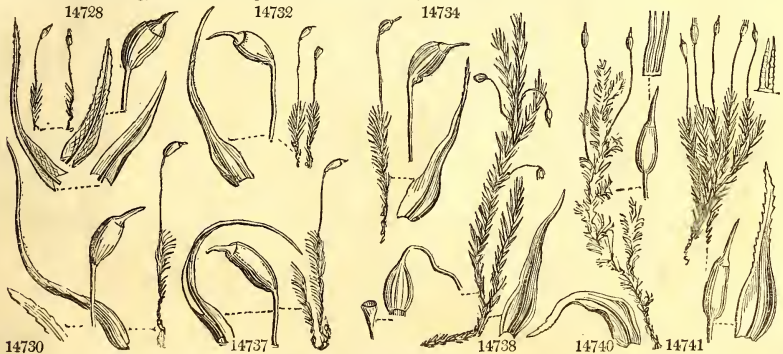
- 14715 Stems branched fastigiate, Lvs. erecto-patent ov. lanc. straight nerveless ent. Theca ov. cern. Lid ros' rate
- 14716 Stems short, Leaves oblong concave entire apiculate or piliferous, Theca erect ovato-oblong, Lid rostrate
[nearly erect, Lid rostrate
- 14717 Stems elongat. Lvs. very long subul.-setace. falcato-secund serrul. : nerve very broad, Theca oblongo-ovate
- 14718 Stems nearly simple rigid, Leaves lanceolato-subulate acuminated straight : their nerve very broad, Fruitstalks flexuose, Theca ovate striated, Lid rostrate
- 14719 Stems branched, Lvs. long lanc. serrul. point. in all directions crisp. when dry, Theca obl. erect, Lid rost.
- 14720 Stems somewhat branched, Leaves from a broad sheathing base lanceolate obtuse recurved and patent directed to every side crisped when dry, Theca ovate subcernuous, Lid rostrate
- 14721 Stems branched, Leaves lanceolate : their margins slightly undulated serrated rather obtuse pointing in all directions, Theca ovate subcernuous, Lid rostrate
- 14722 Stems elongated, Leaves fasciculated concave erecto-patent directed to every side ovate : the superior ones lanceolate serrulate, Theca oblong curved, Lid rostrate
- 14723 Stems short, Leaves from a sheathing base setaceous nearly distichous flexuoso-recurved crisped when dry, Theca erect ovate, Lid with a long beak
- 14724 Stems branched, Leaves erecto-patent directed to every side subulate : their margins plane subserrated crisped when dry, Theca ovate cylindraceous nearly erect, Lid with a long beak
- 14725 Stems branched, Lvs. patent directed to every side lanceolate-subulate : their margins recurved flexuose subserrulate crisped when dry, Theca obovate subcernuous, Lid rostrate
- 14726 Stems elongated, Leaves nearly plane lanceolate attenuate serrulate at the points transversely undul. Theca cylindrac. cernuous, Lid with a long beak
- 14727 Stems elongated, Lvs. narr. subul. canalicul. sec. Theca cylindrac. arched cernuous, Lid with a long beak
α Leaves falcato secund
β Leaves subsecund narrow crisped when dry
- 14728 Stems short, Leaves narrow hastato-lanceolate, Theca ovate, Lid rostrate
α Leaves pointing all ways lanceolate green, Theca subcernuous
β Leaves subsecund lanceolate subulate reddish, Theca erect
γ Leaves subsecund subulate lurid, Theca subcernuous [stalk, Lid short rostrate
- 14729 Stem near. simp. Lvs. very long subul. setac. : nerve obsolete. percurr. Theca obov. erect striat. with a short
- 14730 Stems branched, Leaves subul. falcato-secund nearly ent. Theca ovate subcernuous, Lid with a long beak
- 14731 Stems branch. Lvs. from a broad sheath. base subul. setace. sec. ent. Theca ov. subcern. Lid with long beak

** *Theca with a struma.*

- 14732 Stems short, Lvs. lanc. subul. ent. subsec. : nerve very broad, Theca ovate subcern. strumose, Lid rost. [tions, Theca furrowed oblongo-ovate subcern. strum. Lid rost.
- 14733 Stems elongat. Lvs. from a broad sheath. base subul. ent. : marg. plane crisp. when dry pointing in all direc-
- 14734 Stems elongated, Leaves from a broad sheathing base subulate entire : their margins plane crisped when dry pointing in all directions, Theca furrowed oblongo-ovate subcernuous strumose, Lid rostrate
- 14735 Stems nearly simple, Lvs. long lanc.-subul. falcato-secund nearly ent. Theca ov. subcern. strum. Lid rost.
- 14736 Stem erect simple, Lvs. spread. long subul. dilated and amplexic. at base, Theca ov. cernu. strum. Lid rost.
- 14737 Stems somew. branch. Lvs. lanc. subul. falcato-secund entire, Theca oblongo-ov. suberect strum. Lid rost.

- 14738 Stems elongat. Lvs. lanc. acuminated carinated : margins recurv. Theca ovate, Fruitst. curved, Lid conic.

- 14739 Stems elongated subpinnate, Leaves lanceolato-subulate acuminiate : their long diaphanous points serrat. ; margins recurved, Theca ovate, Fruitstalk short on lateral branches, Lid rostrate
- 14740 Stems elongated irregularly branched, Leaves ovato-lanceolate : their diaphanous acuminated points slightly serrated, Theca ovate, Teeth of the peristome very long and filif. Lid subulate
- 14741 Stems elongated branched, Leaves ovato-lanceolate : their diaphanous acuminated points slightly serrat. Theca oblong, Teeth of the peristome rather short, Lid rostrate
- 14742 Stems elongated branched, Leaves lanceolate : their diaphanous acuminated points slightly serrated, Theca oblong, Teeth of the peristome rather short, Lid rostrate

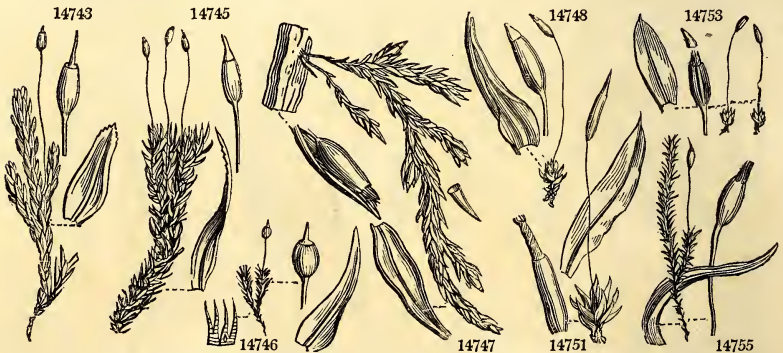


and Miscellaneous Particulars.

there are species included in this which vary considerably from the common appearance of the group. The most distinct of these forms is, however, removed, after the example of the German muscologists, to *Fissidens*; which sec.

2226. *Trichostomum*. From $\theta\epsilon\iota\zeta\ \tau\epsilon\chi\alpha\sigma\epsilon\iota$, hair, and $\sigma\tau\omicron\mu\alpha$, a mouth; the divisions of the mouth of the theca being very fine. The species are for the most part dark green mountain plants, with hair-pointed leaves,

14743	<i>aciculäre Beauv.</i>	needle-pointed	loose tufts	1½	summer	Ol.G	wet rocks	Musc. brit. t.19
	<i>Dicranum aciculäre</i> E. B. t. 1978							
14744	<i>fasciculäre Schrad.</i>	bundled	broad patches	2	all seasons	Y.G	moun. rocks	Musc. brit. t.19
14745	<i>polyphyllum Schwæg.</i>	many-leaved	round tufts	¾	summer	Bt.G	moun. rocks	Musc. brit. t.19
	<i>Dicranum polyphyllum</i> E. B. t. 1217							
	<i>Tr. cirratum</i> Fl. Brit.							
14746	<i>ellipticum Hook.</i>	elliptical	little tufts	¾	spr. and sum.	Bt.G	moun. rocks	Musc. brit. t.19
	<i>Dicranum ellipticum</i> E. B. t. 1901							
2227.	CINCLIDOTUS. <i>Pal. de Beauv.</i>		CINCLIDOTUS.		<i>Sp. 1.</i>			
14747	<i>fontinaloides Beauv.</i>	water	floating	5	summer	D.Ol	in streams	Musc. brit. t. 11
	<i>Fontinalis minor</i> E. B. t. 557							
2228.	TORTULA. <i>Ehr.</i>	TORTULA.			<i>Sp. 11—38.</i>			
14748	<i>rigida Swz.</i>	rigid	small patches	¾	all seasons	D.G	rocks & walls	Musc. brit. t.12
14749	<i>murális Hedw.</i>	wall	tufts	1	all seasons	D.G	everywhere	Musc. brit. t.12
14750	<i>rurális Ehr.</i>	country	deep patches	2	all seasons	D.G	trees & ban.	Musc. brit. t.12
14751	<i>subuláta Hedw.</i>	subulate	thick tufts	1½	all seasons	Y.G	banks	Musc. brit. t.12
14752	<i>cuneifolia Roth.</i>	wedge-leaved	solitary	¾	spring	Y.G	banks	Musc. brit. t.12
14753	<i>stelláta Smith.</i>	stellate	solitary	¾	spring	Y.G	riv. sides, Sc.	Musc. brit. t.12
14754	<i>tortuosa Hedw.</i>	tortuous	broad masses	1½	spr. and sum.	L.G	limest. rocks	Musc. brit. t.12
14755	<i>fállax Swz.</i>	deceitful	tufts	1½	all seasons	L.G	everywhere	Musc. brit. t.12
	<i>T. unguiculáta</i> E. B. t. 2316							
	<i>T. umber bis</i> E. B. t. 2329							
14756	<i>revolúta Brid.</i>	revolute	tufts	¾	spring	L.G	banks	Musc. brit. t.12
	<i>T. nervosa</i> E. B. t. 2383							
14757	<i>unguiculáta Hooker</i>	unguiculate	tufts	¾	spring	Dp.G	ban. & hedg.	Musc. brit. t.12
	<i>T. mucronuláta</i> E. B. t. 1299							
	<i>T. aristáta</i> E. B. t. 2392							
	<i>T. barbáta</i> E. B. t. 2391							
	<i>T. hámilis</i> E. B. t. 1663							
	<i>T. apiculáta</i> E. B. t. 2494							
14758	<i>convolúta Swz.</i>	convolute	loose patches	¾	spring	Y.G	moist banks	Musc. brit. t.12
2229.	PTEROGONIUM. <i>Swz.</i>	PTEROGONIUM.			<i>Sp. 3—7</i>			
14759	<i>Smith'i Swz.</i>	Smith's	creeping	3	all seasons	Bt.G	trees, S. Eng.	Musc. brit. t.14
14760	<i>gráclie Swz.</i>	slender	creeping	1½	all seasons	Bt.G	subalp. rocks	Musc. brit. t.14
14761	<i>filifórme Hedw.</i>	filiform	creeping	1½	all seasons	Bt.G	mountains	Musc. brit. t.14
	<i>P. caespitósum</i> E. B. t. 2526							
2230.	DIDYMODON. <i>Hedw.</i>	DIDYMODON.			<i>Sp. 10.</i>			
14762	<i>purpúream Hedw.</i>	purple	large patches	¾	all seasons	Rsh	moist rocks	Musc. brit. t.20
	<i>Bryum bipartítum</i> E. B. t. 2357							
	<i>Dicranum strictum</i> E. B. t. 2294							
	<i>Dicranum Celsii</i> E. B. t. 2414							
	<i>Trichostomum papillósum</i> E. B. t. 2533							
14763	<i>inclinátum Swz.</i>	inclining	spots	¾	spring	L.G	moun. rocks	Musc. brit. t.20
	<i>Grimmia inclináta</i> E. B. t. 1824							
14764	<i>nervósum Hook.</i>	nerved	loose patches	¾	spring	Dp.G	dry banks	Musc. brit. t.20
	<i>Grimmia atrovirens</i> E. B. t. 2015							
14765	<i>flexifólium Hook.</i>	bent-leaved	loose tufts	¾	spr. and sum.	Bt.G	banks	Musc. brit. t.20
	<i>Trichostomum flexifólium</i> E. B. t. 2490							
14766	<i>rigidulum Hedw.</i>	rigid	tufts	¾	spr. and sum.	Br	walls & roc.	Musc. brit. t.20
	<i>Trichostomum rigidulum</i> E. B. t. 2178							
14767	<i>trifárium Swz.</i>	three-rowed	tufted	¾	spr. and sum.	Bt.G	moist banks	Musc. brit. t.20
	<i>Trichostomum trifárium</i> E. B. t. 1707							
	<i>Trichostomum linóides</i> E. B. t. 2295							



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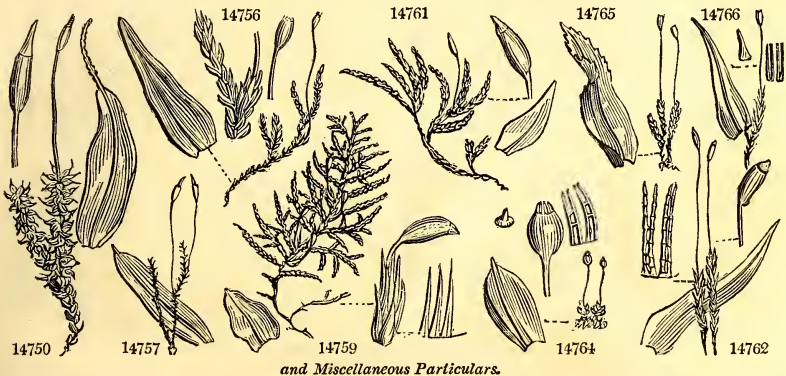
which give them the appearance of being hoary. The genus is nearly related to *Grimmia* both in natural and essential characters.

2227. *Cinclidotus*. So called from *κινκιδωτος*, grated, in allusion to the peculiar netted manner in which the ciliae of the peristome are united in parcels. A plant from four to six inches long, growing on stones and wood in streams of water, in many places exceedingly common. Its general appearance is that of *Trichostomum*, whilst the peristome more resembles that of a *Tortula*.

2228. *Tortula*. From *torqueo*, to twist, in allusion to the singular manner in which the teeth of the peristome are twisted together. Small plants, frequently forming thick tufts, and common in almost all situations from

- 14743 Stems elongat. branch. Lvs. lanc. obt. serrulat. at points : nerve vanish. before summ. Theca obl. Lid rost.
- 14744 Stems elongat. branch. Lvs. lanc. ent. : summ. never diaphan. ; margins recurv. Theca ovato-obl. Lid rost.
- 14745 Stems branch. Lvs. lanc.-subul. : marg. recurv. serrat. above very much crisp. when dry, Theca obl. Lid rost.
- 14746 Stems short nearly simple, Lvs. lanc. acum. straight : nerve broad ; margins plane, Theca ellipt. Lid rost.
- 14747 The only species
- 14748 Stems scarcely any, Lvs. patent obl. rigid : marg. much inflex. Nerve broad, Theca obl. Lid conic. acum.
- 14749 Stems short, Leaves patent linear-oblong : their margins recurved, Nerve produced beyond the leaf into a white hair-like point, Theca oblong, Lid conical acuminate
- 14750 Stems elongated, Leaves oblong carinated patent and recurved, Nerve terminating in a long generally diaphanous serrated point, Theca oblong, Lid subulate, Teeth of the peristome united below in a tube
- 14751 Stems very short, Leaves oblongo-lanceolate acuminate : the nerve excurrent often forming an apiculus, Theca cylindrical, Lid conico-subul. Teeth of the peristome united nearly to the apex into a long tube
- 14752 Stems scarcely any, Lvs. broadly obov. conc. Nerve terminating beyond top of leaf in a rather long and frequently serrulated point, Theca oblong, Lid shortly rost. Teeth of the peristome united at the base
- 14753 Stems scarcely any, Leaves ovate concave, Nerve running beyond points, Theca ovate striated, Lid rost.
- 14754 Stems elongat. branch. Lvs. lin.-subul. carinate undulate much twisted when dry, Theca cylind. Lid rost.
- 14755 Stems elongat. branch. Lvs. lanc. subul. pat. or recurv. : marg. refl. Theca obl. Lid rost. nearly as long as theca
- 14756 Stems short, Leaves lanceolate acum. : the margins of those of the stem remarkably revolute ; perichætal leaves sheathing, their sides involute, Theca oblong, Lid rostrate shorter than the theca
- 14757 Stems branched, Leaves linear-lanceolate obtuse : their nerve produced into an apiculus ; the marg. nearly plane, Theca oblong, Lid rostrate nearly as long as the theca

- 14758 Stems short, Lvs. obl. rather obt. : nerve not protruded ; perichæt. remarkably convol. Theca obl. Lid rost.
- 14759 Stems much branch. Branches pinn. Lvs. lingul. obt. ent. crisp. when dry : marg. recurv. ; nerve reaching [above half-way up, Fruitstalks very short, Lid rostrate
- 14760 Branches fasciated curved, Leaves broadly ovate acute concave : their margins plane ; summits serrated, faintly 2-nerved at the base, Lid conical
- 14761 Stems irregularly branched curved, Leaves ovate subacuminated concave : their margins recurv. serrated ; nerve single or forked : shoots faint, Lid conical
- 14762 Stems scarcely branched, Leaves lanceolate acuminate carinate : their margins recurved entire, Theca ovato-cylindraceous oblique substrumose furrowed when dry, Lid conical
- 14763 Leaves bifarious from a sheathing base subulate, Theca ovate inclined, Lid conical
- 14764 Leaves obovate shortly apiculate : their nerve incrassated above, Theca ovate erect, Lid shortly rostrate
- 14765 Stems more or less elongat. Lvs. oblon.-ov. flexu. strongly serrat. at point, Theca erect cylindrac. Lid rost.
- 14766 Leaves closely imbricated on all sides lanceolate much acum. carinate with the rigid nerve running beyond the point, Theca oblongo-ovate erect, Lid rostrate
- 14767 Leaves rather distant somewhat trifarious lanc. rather obtuse carinated with the nerve scarcely reaching to the point, Theca oblongo-ovate erect, Lid rostrate



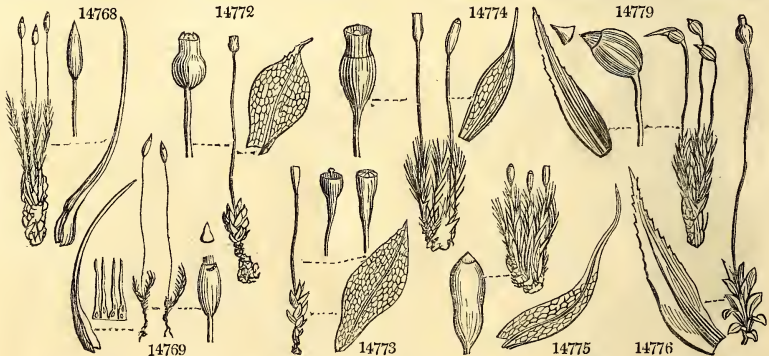
and Miscellaneous Particulars.

the banks of the sea-shore to the limits of perpetual snow. The character from which the genus has received its designation, will always indicate the species with perfect truth.

2229. *Pterogonium*. A name altered by Swartz from the *Pterigyantrum* of Hedwig, which was contrived to express that the male and female flowers of this genus of mosses are both present on a pinnated stem. An elegant collection of species, generally found in subalpine countries, where they enliven the trunks of trees and rocks with their bright green trailing entangled stems, which have altogether the habit of *Hypnum*. *P. Smithii* has only been found in this country upon trees in the southern counties, especially in Devonshire.

2230. *Didymodon*. So called, by Hedwig, from *didymos*, double, and *odus*, a tooth, in reference to the geminate

14768	<i>capillaceum</i> Schrad.	hairy	dense tufts	4	all seasons	Bt.G	moun, banks	Musc. brit. t. 20
	<i>Trichostomum capillaceum</i> E. B. t. 1152							
14769	<i>heteromallum</i> Hook.	variable	patches	$\frac{1}{2}$	spring	Y.G	mountains	Musc. brit. t. 20
	<i>Grimmia heteromalla</i> E. B. t. 1899							
14770	<i>obscurum</i> Kauf.	obscure	broad tufts	1	spr. and sum.	L.G	alpine rocks	Grev. crypt. 193
14771	<i>glaucescens</i> Greville	glaucons	closely tufted	1	sum. and win.	Gl	Scot. moun.	Grev. crypt. 127
2231. SPLACHNUM. L. SPLACHNUM.				Sp. 7—19.				
14772	<i>sphaericum</i> Linn.	spherical	solitary	2	summer	Pa.G	dung. of ani.	Musc. brit. t. 9
	<i>ovatum</i> E. B. t. 1590							
	<i>rugosum</i> E. B. t. 2094							
14773	<i>tenue</i> Dicks.	slender	subsolitary	1 $\frac{1}{2}$	summer	Pa.G	Scot. moun.	Musc. brit. t. 9
	<i>Grimmia splachnoides</i> Fl. Brit.							
14774	<i>mnioides</i> Linn.	clustered	tufts	2	all seasons	Bt.G	mountains	Musc. brit. t. 9
	α <i>minus</i> Hooker	small	tufts	1 $\frac{1}{2}$	all seasons	D.G	mountains	He.sti.cry.2.t.11
	β <i>minus</i> Hooker	large	tufts	2	all seasons	Pa.G	mountains	He.sti.cry.2.t.38
	<i>fastigiatum</i> E. B. t. 786							
14775	<i>angustatum</i> Linn.	narrowed	tufts	$\frac{1}{2}$	spring	Pa.G	cow-dung	Musc. brit. t. 9
14776	<i>ampullaceum</i> Linn.	bottle-headed	solitary	3	sum. and aut.	Pa.G	bogs	Musc. brit. t. 9
	<i>Turnerianum</i> E. B. t. 1116							
14777	<i>vasculosum</i> Hedw.	vascular	tufts	2	spring	Pa.G	mountains	Grev. crypt. t.179
	<i>rugosum</i> E. B. t. 2094?							
14778	<i>Frölichianum</i> Hedw.	Frölich's	little tufts	1 $\frac{1}{2}$	summer	Pa.G	mountains	Musc. brit. t. 9
	<i>reticulatum</i> E. B. t. 2507							
2232. CONOSTOMUM. Swz. CONOSTOMUM.				Sp. 1—4.				
14779	<i>boreale</i> Swz.	northern	small tufts	1	summer	Bt.G	moun., Scot.	Musc. brit. t. 10
	<i>Grimmia conostoma</i> E. B. t. 1135							
2233. ORTHOTRICHUM. Hedw. ORTHOTRICHUM.				Sp. 13—49.				
14780	<i>Drummondii</i> Hooker	Drummond's	creeping	1 $\frac{1}{2}$	summer	Drk	trun. of trees	Grev. crypt. 115
14781	<i>anomalum</i> Hedw.	anomalous	broad tufts	$\frac{2}{3}$	all seasons	D.OI	rocks & walls	Musc. brit. t. 21
14782	<i>cupulatum</i> Hoffm.	naked	tufted	1	all seasons	D.OI	wo. & stones	Musc. brit. t. 21
	<i>nidum</i> E. B. t. 1325							
	<i>anomalum</i> E. B. t. 1423							
14783	<i>crispum</i> Hedw.	crisp	round tufts	1	summer	Bt.G	trees & ston.	Musc. brit. t. 21
14784	<i>Ludwigii</i> Bridel	Ludwig's	creep., branc.	3	sum. and aut.	Pa.G	smth. branc.	Grev. crypt. 133
14785	<i>rupicola</i> Funck	rock	branched, lax	1	may to july	Br	rocks & walls	Grev. crypt. 105
14786	<i>Hutchinsiae</i> Smith	Miss Hutchins's	tufts	1	spring	Br.G	rocks	Musc. brit. t. 21
14787	<i>affine</i> Schrad.	akin	tufts	1 $\frac{1}{2}$	spring	Pa.G	trun. of trees	Musc. brit. t. 21
	α <i>majus</i> Hook.	large	tufts	1 $\frac{1}{2}$	spring	Pa.G	trun. of trees	Eng. bot. t. 1323
	β <i>pumilum</i> E. B.	dwarf	tufts	$\frac{1}{2}$	spring	Pa.G	trun. of trees	Eng. bot. t. 2168
14788	<i>diaphanum</i> Schrad.	transparent	tufts	$\frac{1}{2}$	spr. and sum.	Ho.	trees & walls	Musc. brit. t. 21
	<i>aristatum</i> Turn. hib. t. 9. f. 2							
14789	<i>pulechellum</i> Smith	pretty	tufts	$\frac{1}{2}$	all seasons	L.G	trun. of trees	Musc. brit. t. 21
14790	<i>revulvare</i> Turn.	rivulet	floating	2	all seasons	Ol.G	roc. in strea.	Musc. brit. t. 21
14791	<i>striatum</i> Hedw.	striated	tufts	2	all seasons	Bt.G	trees	Musc. brit. t. 21
14792	<i>Lyellii</i> Hook.	Lyell's	branched	3	all seasons	Y.G	trees	Musc. brit. t. 22



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arrangement of the teeth of the theca. In natural habit, the plants of this genus approach on the one hand to Weissia, and on the other to Dicranum. With the former, Dr. Hooker observes that two species are liable to be confounded, viz. *Didymodon inclinatum*, and *D. heteromallum*, each of which has but sixteen teeth, and their approximation in pairs is with difficulty discoverable. *D. inclinatum* is a very rare plant, having been scarcely found any where in this country, except upon the mountains of Cunnemara, in Ireland.

2231. *Splachnum*. Σπλαχνον was one of the Greek names of moss. Generally elegant little plants, with theca of exquisitely beautiful forms. The annual species are usually found growing upon dung, while the perennial are found in more permanent situations. They are in all cases of rare occurrence. *S. Frölichianum* was found on the summit of Ben High, in the Scotch Highlands.

2232. *Conostomum*. From *κωνος*, a cone, and *σωμα*, a mouth, the teeth of the theca being always united at

14768 Stems elongated, Leaves nearly distichous subulato-setaceous, Theca erect ovato-cylindrace. Lid conical

14769 Stems rather short, Leaves subsecund subulate, Theca ovate cylindraceous, Lid conical

14770 Leaves lanceolate subulate tortuose when dry, Nerve strong, Theca suberect ovate, Lid obliquely rostrate

14771 Stem branched erect, Leaves lanc. acum. spreading, Nerve reaching apex, Theca oblong with a short lid

14772 Leaves obovato-rotundate acuminate slightly serrated, Apophysis ovate globose wider than the theca

14773 Leaves obovato-acuminate serrated, Apophysis obconical narrower than the theca, Columella exerted

14774 Leaves ovato-lanceolate much acuminat. concave entire, Apophysis obovate nearly as narrow as the theca

α Deeper color with shorter stems

β Paler color with longer stems

[than the leaves

14775 Lvs. ovato-lanc. much acuminat. serrat. Apophy. obov. somew. narrow. than theca, Fruitst. scarcely longer

14776 Leaves ovato-lanceolate acuminated serrated, Apophysis inversely flagon-shaped twice as wide as theca

14777 Lvs. rhombo-rotund. obt. : the nerve disappearing before point, Apophysis globose much wider than theca

14778 Lvs. ov. rounded at points : nerve disappear. before summ. Apophysis obovate much narrower than theca

14779 Stems rather short, Leaves lanceolate acuminated carinated slightly toothed

* *Peristome without ciliary processes.*

14780 Lvs. obl. lanc. slightly curl. Theca clav. furrow. Lid with a long beak, Teeth 16 simple, Calyptra very hairy

14781 Leaves lanceolate erecto-patent, Fruitstalks exerted, Peristome of 8 double teeth, Calyptra slightly pilose

14782 Leaves lanc. erecto-patent, Theca nearly sessile, Peristome of 16 double teeth, Calyptra slightly pilose

** *Peristome with 8 ciliary processes.*

14783 Leaves lanceolato-subulate much crisped when dry, Fruitstalk much exerted, Theca striated, Peristome with 8 ciliary processes, Calyptra very pilose

14784 Leaves erect spreading narrow-lanceolate crisp when dry, Theca pyriform smooth plaited and contracted at orifice, Calyptra very hairy

14785 Lvs. erect rigid broad-lanc. Theca somew. immersed striat. toward mouth, Teeth 16, Calyptra very hairy

14786 Leaves lanceolate erect and nearly straight when dry, Fruitstalks much exerted, Theca striated, Perist. with 8 ciliary processes, Calyptra very pilose

14787 Leaves patent broadly lanceolate, Theca sessile, Peristome with 8 ciliary processes, Calyptra subpilose

*** *Peristome with 16 ciliary processes.*

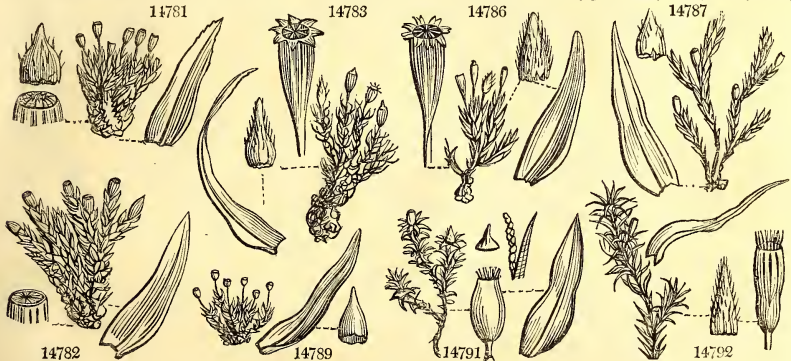
14788 Stems short, Lvs. lanc. acum. : points diaphan. Theca sess. Perist. with 16 ciliary process. Calypt. subpilose

14789 Stems short, Lvs. pat. narr. lanc. crisp when dry, Footst. exerted, Perist. with 16 slender ciliary processes, Calyptra subpilose

14790 Stems elongated much branched, Leaves broadly lanceolate obtuse, Theca sessile, Peristome with 16 slender ciliary processes, Calyptra smooth

14791 Stems elongated branched, Leaves lanceolate-patent slightly twisted when dry, Theca sess. ovate smooth, Peristome with 16 torulose ciliary processes, Calyptra subpilose

14792 Stems elongated much branched, Leaves long linear lanceolate recurvo-patent much crisped when dry, Theca obl. striat. Peristome with 16 rather broad distinctly jointed ciliary processes, Calypt. very hairy

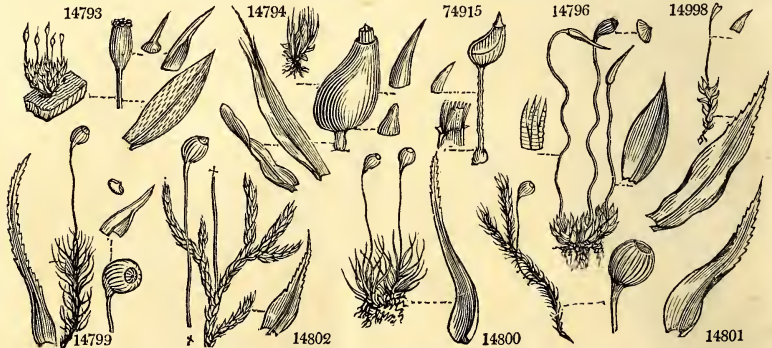


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the points. A curious genus, first established by Swartz, in Schrader's Journal. The British species approaches in habit to *Bartramia fontana*. It is quite an alpine plant, not growing in Switzerland at a lower elevation than 7 or 8000 feet. With us it inhabits the summits of the highest Scotch mountains, particularly in the Breadalbane district.

2233. *Orthotrichum*. From *ὄρθος*, straight, and *τριχός*, hair, on account of the straight, not twisted direction of the teeth of the peristome. No genus can be more natural than this, notwithstanding some variations in the peristome of some of the species from the ordinary structure. Thus *O. decipiens* and *anomalum* have no ciliary processes; and *O. striatum* has them of a peculiar shape and beaded appearance. Many of the plants referred to this genus are common occupants of the aged trunks of trees, where they vegetate among the soft earth which collects in the clefts of the dead bark. *O. Lyellii*, which is the finest of our species, is only found on trees in the New Forest.

2234. ZYGODON. Hook.	ZYGODON.		Sp. 1.			
14793 conoideum Hooker	conoical	small tufts	$\frac{1}{2}$ spring		Pa.G trun. of trees	Musc. brit. t. 21
	<i>Mnium conoideum</i> E. B. t. 1239					
2235. DIPHYSCIUM. Mohr.	DIPHYSCIUM.		Sp. 1.			
14794 foliosum Mohr.	leafy	mat. patches	$\frac{1}{2}$ spring		D.G woods	Musc. brit. t. 8
	<i>Buxbaumia foliosa</i> E. B. t. 329					
2236. BUXBAUMIA. L.	BUXBAUMIA.		Sp. 1.			
14795 aphylla L.	leafless	solitary	1 summer		Br Fir-woods	Musc. brit. t. 22
2237. FUNARIA. Hedw.	FUNARIA.		Sp. 3.			
14796 hygrometrica Hedw.	Hygrometrical tufts		$1\frac{1}{2}$ winter		Pa.G everywhere	Musc. brit. t. 20
14797 Mühlenbergii Turn.	Mühlenberg's tufts		$\frac{2}{3}$ spring		Pa.G rocks	Musc. brit. t. 20
14798 hibérnica Hook.	Irish		$\frac{2}{3}$ spring		Pa.G cottage roofs	Musc. brit. t. 20
2238. BARTRAMIA. Hedw.	BARTRAMIA.		Sp. 6—11.			
14799 pomiformis Hedw.	apple-fruited tufts		2 summer		Bt.G heaths	Musc. brit. t. 23
<i>a minor</i> Hooker	small tufts		$1\frac{1}{2}$ summer		Bt.G heaths	Eng. bot. 998
<i>β mājor</i> Hooker	large tufts		2 summer		Bt.G alp. heaths	E. b. 1526. <i>B. cris.</i>
14800 ityphylla Brid.	stiff-leaved tufts		1 summer		Bt.G dry banks	Musc. brit. t. 23
14801 grácilis Flerke	slender deep patches		3 summer		Dp.G alpine rocks	Musc. brit. t. 23
14802 fontána Swz.	fountain thin tufts		3 summer		Bt.G wet places	Musc. brit. t. 23
<i>a mājor</i> Hooker	large thin tufts		6 summer		Bt.G wet places	Dill mus. t. 44. f. 2
	<i>Bryum fontánium</i> E. B. t. 390					
<i>ρ mārchica</i> Swz.	dwarf tufts		1 summer		Bt.G wet places	Eng. bot. t. 2074
14803 Halleriána Hedw.	Haller's	deep patches	6 sum. and aut.	Bt.G	moun. rocks	Musc. brit. t. 23
14804 arcuáta Brid.	arcuate	loose tufts	4 sum. and aut.	Bt.G	mountains	Musc. brit. t. 23
2239. POHLIA. Hedw.	POHLIA.		Sp. 4—13.			
14805 inclináta Schwagr.	inclined	thin tufts	2 summer		Pa.G wetsandy pl.	Musc. brit. t. 29
	<i>Bryum turbinátum</i> E. B. 1572					
	<i>Bryum nigricans</i> E. B. 1528					
14806 elongáta Hedw.	long	subsolitary	$1\frac{1}{2}$ summer		Bt.G mountains	Musc. brit. t. 30
	<i>Bryum elongátum</i> E. B. t. 1653					
14807 cæspiticia Schw.	tufted	patches	$1\frac{1}{2}$ all seasons	Bt.G	everywhere	Musc. brit. t. 29
<i>a mājor</i> Hooker	large	patches	$1\frac{1}{2}$ all seasons	Bt.G	everywhere	Eng. bot. t. 1904
<i>β minor</i> Hooker	small	patches	1 all seasons	Bt.G	everywhere	Eng. bot. t. 1601
	<i>Br. bicolor</i> Eng. Bot.					
14808 ventricósa Schw.	ventricose	deep tufts	4 spr. and sum.	Br	mar. ground	Musc. brit. t. 30
	<i>Bryum ventricósum</i> E. B. t. 2270					
	<i>Bryum bimum</i> E. B. t. 1518					
	<i>Bryum cubitáte</i> E. B. t. 2554					
2240. BRYUM. Hedw.	BRYUM.		Sp. 22—43.			
14809 andrógynum Hedw.	androgynous	patches	1 spring	Y.G	wo. and ban.	Musc. brit. t. 28
	<i>Mnium andrógynum</i> E. B. t. 1238					
14810 palústre Swartz.	marsh	deep tufts	4 sum. and aut.	Pa.G	bogs	Musc. brit. t. 28



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2234. *Zygodon*. From *ζυγος*, a yoke, and *οδους*, a tooth, and so called, we presume, in allusion to the yoking together by pairs of the outer teeth; but the name is unexplained by its authors. A singular plant, which was referred to *Bryum* by Dickson, and to *Mnium* by Smith. The stems grow in a tufted manner like *Gymnostomum viridissimum*, but rarely exceed half an inch in length. The peristome is double; the outer consisting of sixteen short obtuse teeth approaching in pairs, which at length become recurved; inner of as many alternate cilia lying horizontally over the mouth of the theca.

2235. *Diphyscium*. From *dis*, twice, and *συσσιον*, a vesicle, in allusion to the double nature of the shell of the theca. A little plant found in woods, and on rocks in alpine situations. The stems are exceedingly short, and grow in densely matted patches. The theca is large, ovate, gibbous, and oblique. Dr. Hooker denies the existence of a double peristome, while Hornschuch asserts its presence.

2236. *Buxbaumia*. A very singular plant, destitute of apparent leaves, and resembling a minute fungus rather than a moss. It was named in honor of John Christian Buxbaum, a German botanist, who published, in 1728, an account of the plants of Asia Minor in five centuria of figures of little merit. This plant was originally discovered in the vicinity of Astrachan, afterwards in a fir-wood near Norwich, and lately in two stations in Scotland. Its minute size and want of foliage may have caused it to be overlooked.

2237. *Funaria*. From *funis*, a rope, in allusion to the twisted nature of the strongly hygrometrical fruit-stalk. This genus, though sufficiently characterized by the interior teeth or cilia being oblique and placed

14793 The only species

14794 The only species

14795 The only species

14796 Leaves very concave ovate apiculate entire, Nerve excurrent, Fruitstalk curved flexuose

14797 Stems short, Lvs. conc. ov. suddenly acuminat. serrat. : the nerve disappear. below point, Fruitst. straight

14798 Stems elongat. Lvs. plane ov.-lanc. gradually acuminat. serrat. Nerve disappear. bel. point, Fruitst. straight

* *Fruitstalks long, not curved.*

14799 Leaves patent subulate strongly serrated : the nerve reaching to the summit twisted when dry

α Leaves flexuose

β Leaves crisp

[into the substance of the leaf straight when dry, Fruitstalks much elongated

14800 Stems short, Leaves rigid erecto-patent subulate-setaceous almost entire : the nerve half-way up passing

14801 Stems elongated, Leaves recurvo-patent lanc. canaliculate serrat. Fruitstalks lateral from innovations

14802 Stems fastig. Lvs. closely imbricat. rig. erect broadly ovate or lanc. acuminat. nearly plane serr. Fruitst. lat.

α Leaves broad ovate acuminate [from innovations

** *Fruitstalks very short, curved.*

14803 Stems much elongat. prolifer. Lvs. long subul. flexu. serrat. above, Fruitst. lat. from innov. very short curv.

14804 Stems much elongated proliferous, Leaves horizontally patent ovato-lanceol. acuminate serrat. striated, Fruitstalks very short arcuate at length lateral, Theca smooth

14805 Stems short branched with innovations, Leaves ovate acuminate nearly entire : the margins slightly recurved ; the nerve running beyond the points, Theca elong.-pyrif. pendulous

14806 Stems short, Lvs. erect elong.-lanc. acuminat. serrat. Nerve reaching to point, Theca elongato-elev. inclined

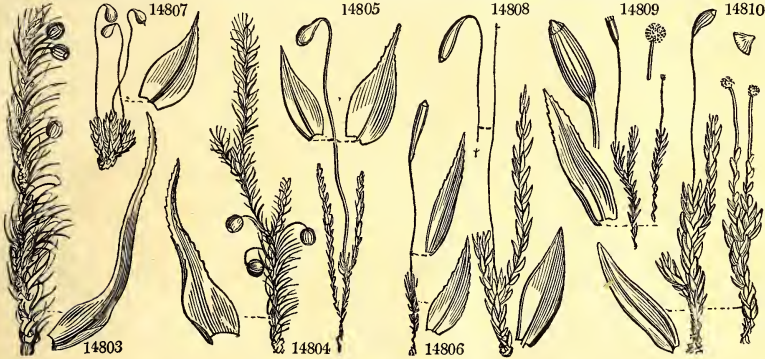
14807 Stems short, Leaves ovate acuminate entire or very obscurely serrated at the points : the marg. slightly recurved ; the nerve reaching to or beyond the point, Theca between ovate and pyriform pendulous

14808 Stems elongated branched with innovations, Leaves oblong acuminate scarcely serrul. : margins recurved nerve reaching beyond the point, Theca oblongo-obovate pendulous

* *Theca sulcated.*

14809 Stems nearly simple, Lvs. lanc. serrat. : their marg. recurv. Theca nearly erect cylind. sulcat. Lid conical

14810 Stems much branch. Lvs. lanc. obt. ent. : their margins revolute, Theca ovate oblique sulcat. Lid conical



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opposite to those of the outer, is further remarkable in these teeth lying horizontally over the mouth of the theca. In the male flowers of Hedwig, the succulent filaments are remarkable; clavate, jointed, pellucid, the joints containing greenish granules. *Funaria hibernica* has been found only on the roof of a thatched cottage at Blarney, near Cork, Ireland. The long flexuose fruitstalk of *F. hygrometrica*, one of the commonest of mosses in almost every situation, possesses strong hygrometrical qualities.

2238. *Bartramia*. So called in honor of John Bartram, an Anglo-American, to whose researches in North America the gardens of Europe owe many of their finest trees. He had a son William, who published in 1773, an account of a journey in the interior of North America. This is an elegant genus of mosses, remarkable for their fine capillary light green leaves, and spherical capsules. The genus approaches nearly to *Bryum*, but differs in almost every species having a spherical capsule; and the sixteen broad segments of the inner peristome, instead of being entire or only perforated, are cleft like the teeth of a Dicranum.

2239. *Pohlia*. Named in honor of I. E. Pohl, a German botanist. Small plants, often referred to *Bryum*, with which they entirely agree in habit.

2240. *Bryum*. One of the ancient Greek names of moss. These are all dwarf plants producing capsules in abundance, and generally found growing in wet places. In *B. palustre* are found terminal capitular bodies, which much resemble what are called the anthers of *B. androgynum*; but in *B. palustre* they are considered gemmæ, and arise not only from the main stems, but also from the innovations. *B. triquetrum* has only been

14811 <i>trichodes</i> L.	hair-pointed	patches	4	summer	Y.G	highl. moun.	Musc. brit. t. 28
14812 <i>demissum</i> Hooker.	dwarf	small tufts	$\frac{1}{2}$	july, august	Y.G	Scot. moun.	Grev.crypt. fl.92
14813 <i>triquetrum</i> Turn.	three-cornered	loose patches	9	july, august	L.G	bor. of lakes	Musc. brit. t. 28
14814 <i>dealbatum</i> Dicks.	whitened	patches	$1\frac{1}{2}$	summer	Cas.	mount. bogs	Musc. brit. t. 28
14815 <i>pyriforme</i> Swz.	pyriform	patches	2	summer	Y.G	rocks	Musc. brit. t. 28
<i>B. aurcum</i> E. B. t. 389							
14816 <i>iulaceum</i> Schrad.	iuliform	patches	$1\frac{1}{2}$	summer	Y.C	mountains	Musc. brit. t. 28
14817 <i>cradum</i> Huds.	simple	tufts	$1\frac{1}{2}$	summer	Bt.G	rocks	Musc. brit. t. 28
14818 <i>carneum</i> L.	carneous	patches	$\frac{1}{2}$	summer	L.G	banks	Musc. brit. t. 29
14819 <i>argenteum</i> L.	silvery	patches	$\frac{1}{6}$	spring	Gl.	on ground	Musc. brit. t. 29
14820 <i>Zierii</i> Dicks.	Zier's	patches	$\frac{1}{2}$	spring	Gl.	mountains	Musc. brit. t. 29
14821 <i>roseum</i> Schreb.	rose-colored	tufts	2	summer	Pk	heaths	Musc. brit. t. 29
14822 <i>capillare</i> L.	capillary	patches	1	summer	Bt.G	heaths	Musc. brit. t. 29
<i>B. stellare</i> E. B. 2434							
14823 <i>nötans</i> Schreb.	nodding	little patches	3	summer	Bt.G	walls & hea.	Musc. brit. t. 29
<i>Bryum compactum</i> E. B. t. 1527?							
14824 <i>alpinum</i> L.	alpine	tufts	2	summer	Pu	subalp. rocks	Musc. brit. t. 28
14825 <i>punctatum</i> Schreb.	dotted	solitary	3	sum. and aut.	L.G	mar. places	Musc. brit. t. 30
14826 <i>ligulatum</i> Schreb.	ligulate	solitary	4	sum. and aut.	L.G	moist banks	Musc. brit. t. 30
14827 <i>rostratum</i> Schrad.	rostrate	solitary	2	summer	L.G	subalp.coun.	Musc. brit. t. 30
14828 <i>marginatum</i> Dicks.	edged	tufts	2	summer	Y.G	shady banks	Musc. brit. t. 31
14829 <i>hórnum</i> Schreb.	lurid	deep tufts	5	summer	Y.G	mar. places	Musc. brit. t. 31
14830 <i>cuspidatum</i> Schreb.	cuspidate	subsolitary	2	summer	L.G	wo. & walls	Musc. brit. t. 31
2241. POLYTRICHUM. L. POLYTRICHUM.				<i>Sp.</i> 10—22.			
14831 <i>undulatum</i> Hedw.	wave-leaved	solitary	4	autumn	Ol.G	moist banks	Musc. brit. t. 10
14832 <i>hercynicum</i> Hedw.	Hercynian	solitary	3	autumn	Ol.G	mountains	Musc. brit. t. 10
14833 <i>piliferum</i> Schreb.	hair-pointed	solitary	3	autumn	Ol.G	heaths	Musc. brit. t. 10
14834 <i>juniperinum</i> Willd.	juniper	solitary	4	autumn	Ol.G	heaths	Musc. brit. t. 10
<i>P. strictum</i> E. B. 2435							
14835 <i>septentrionale</i> Swz.	northern	solitary	3	autumn	Ol.G	Scot. moun.	Musc. brit. t. 10
<i>P. sexangulare</i> E. B. 1906							
14836 <i>commune</i> L.	common	broad masses	9	all seasons	Ol.G	heaths	Musc. brit. t. 10
<i>α yuccafolium</i> Ehr.	<i>Aloc-leaved</i>	broad masses	9	all seasons	Ol.G	heaths	Eng. bot. t. 1197
<i>β attenuatum</i> Menz.	<i>narrowed</i>	broad masses	4	all seasons	Ol.G	heaths	Eng. bot. t. 1198
<i>P. gracile</i> E. B. t. 1827							
14837 <i>alpinum</i> L.	alpine	patches	4	summer	Ol.G	alp. regions	Musc. brit. t. 11
14838 <i>urnigerum</i> Menz.	urn-bearing	scattered	4	summer	Gl.	sides of stre.	Musc. brit. t. 11
14839 <i>aloides</i> Hedw.	stiff-leaved	scattered	$1\frac{1}{2}$	autumn	Br.G	heaths	Musc. brit. t. 11
<i>α major</i> Hooker	<i>large</i>	scattered	$1\frac{1}{2}$	autumn	Br.G	heaths	Eng. bot. t. 1649
<i>P. rubellum</i> E. B. t. 1939							
<i>β Dicksoni</i> Turner	<i>Dickson's</i>	scattered	1	autumn	Br.G	heaths	Eng bot. t. 1605



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found in Great Britain upon the borders of some lake in the north of Ireland. By Mohr it is considered a distinct genus, and called *Diplocomium*.

** *Theca destitute of furrows.*A. *Exterior peristome shorter than interior.*

- 14811 Stems somew. branch. Lvs. lin. obt. ent. reticulat. Theca obovate recurved subcernu. Fruitstalk very long
 14812 Stems branched, Leaves ovate cuspidate reticulated shorter than nerve, Theca curved pyriform pendulous
 14813 Stem elongat. branch. Lvs. lanc. carin. ac. serrated reticulat. Theca pyriform. erecto-cernu. Fruitst. very long
 14814 Stems short, Leaves lanceolate acute plane serrated at the points reticulated, Theca pyriform nearly erect

B. *Peristomes equal.*§ 1. *Leaves without a thickened margin.*

- 14815 Stems slightly branched, Leaves subul.-setaceous flexuose serrated; nerve very broad, Theca pyriform pendul.
 14816 Stems branched, Leaves closely imbricated broadly ovate concave entire obtuse: nerve running nearly to the point, Theca obovato-cylindrical pendulous
 14817 Stems simple, Leaves rigid lanceolate: the upper ones the narrowest and longest; all of them plane serrul. nerve disappearing below the summit, Theca oblong-subpyriform cernuous
 14818 Stems simple, Lvs. lanc. reticulat. slightly serrul. at point: nerve disappear. bel. summ. Theca obov. pendul.
 14819 Stems branched, Leaves closely imbricated broadly ovate suddenly and sharply acuminate subserrulate very concave: nerve disappearing below the point, Theca ovato-pyriform pendulous
 14820 Stems branch. Leaves closely imbricated more or less broadly ovate acuminate very concave reticulated entire: nerve running nearly to the point. Theca clavate cernuous
 14821 Lvs. obovato-spathulate acute serrated undul.: nerve running to the point, Theca oblongo-ovate pendul.
 14822 Stems short, Leaves obovate twisted when dry entire: their nerve produced into a hair-like point; their margins slightly thickened, Theca oblong pendulous
 14823 Stems short, Lvs. erect lanc. acuminate serrated above: nerve reach. to point, Theca oblon.pyriform pendul.
 14824 Stems rig. elongat. branch. Lvs. closely imbricat. erect lanc. somew. obt. subserrul. at apex: marg. revolute; nerve reaching to the points, Theca oblongo-ovate pendulous

§ 2. *Leaves with a thickened margin.*

- 14825 Stems elongated, Leaves obovato-rotundate very obtuse reticulated: their margins thickened entire; nerve disappearing below the point, Theca ovate pendulous, Lid shortly rostrate
 14826 Stems elongated, Leaves undul. ligul. reticulated: their margins thickened denticul.; nerve reaching a little beyond the point, Theca ovate pendulous, Lid conical
 14827 Stems elongated, Leaves broadly ovate reticulated: their margins thickened denticulated; the nerve reaching a little beyond the point, Theca ovate pendulous, Lid rostrate
 14828 Stems elongated, Leaves ovate acute reticulated: their margins thickened serrated; nerve reaching a little beyond the point, Theca ovate pendulous, Lid shortly rostrate
 14829 Stems elongated, Leaves lanceolate acute reticulated: their margins thickened denticulate; nerve generally disappearing below the summit, Theca oblongo-ovate pendulous, Lid hemisph. mucronulate
 14830 Stems elongated, Leaves obovate acute reticulated: their margins thickened denticulated above; nerve running beyond the point, Theca ovate pendulous, Lid conico-hemispheric. obtuse

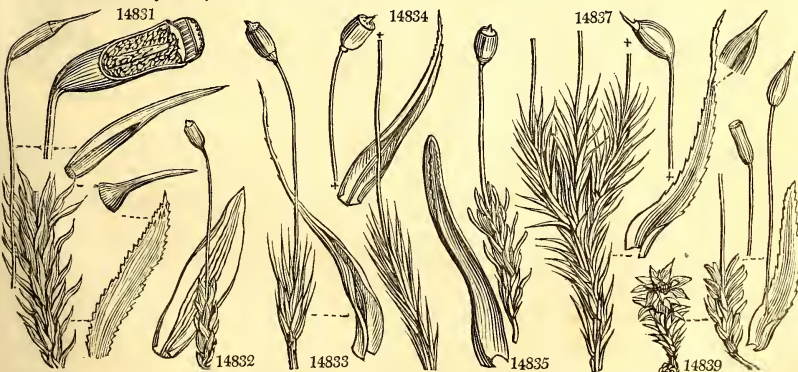
* *Calyptra naked.*

- 14831 Lvs. lanc. undul.: their margins plane denticulat.; their nerve winged, Theca cylind. curved, Lid subul.
 14832 Lvs. lanc. rig. ent.: their sides invol.; their nerve broad impress. with furr. Theca obl. suber. Lid conical

** *Calyptra hairy.*

- 14833 Leaves lanceolate-subulate: their margins involute ent. terminating in a pellucid hair-like point, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
 14834 Leaves lanceolate-subulate: their margins involute entire; their points acumin. colored subserrated, Theca ovate obtusely quadrangular furnished with an apophysis, Lid conical
 14835 Leaves lineari-subul. obtuse: their margins especially towards the top invol. subserrulate, Theca ovate subangulate furnished with a minute apophysis, Lid conical acuminate
 14836 Stems elongated, Leaves patent lineari-subulate: their margins plane serrated as well as the points of the keels, Theca erect ovate quadrangular with an evident apophysis
 α Leaves with their margins of the same color
 β Leaves shorter with their margins pellucid

- 14837 Stems elongated branched, Leaves patent subulato-lanceolate: the margins plane serrated as well as the points of the keels, Theca subovate with an indistinct apophysis
 14838 Stems elongated branched, Leaves erecto-patent lanceolate acute: their margins plane serrated, Theca erect cylindrical destitute of an apophysis
 14839 Stems short, Leaves linear-lanceolate obtuse: their margins plane serrated principally at the extremity and at the summit of the keels, Theca nearly erect cylindrical without an apophysis
 α Fruitstalks 2 inches long, Stems simple

β *Fruitstalks very short, Stems branched*and *Miscellaneous Particulars.*

2241. *Polytrichum*. From *πολυς*, many, and *τριχος*, hair, on account of the numerous hairs of the calyptra. Easily distinguished by the rigidity of the leaves and the square form of the theca, which is gene-

14840	nánum Hedw. dwarf <i>P. subrotundum</i> E. B. t. 1624	scattered	1	autumn	Br.G moist banks	Musc. brit. t.11
2242.	ANICTANGIUM Hedw. ANICTANGIUM.			Sp. 2.		
14841	ciliátum Hedw. ciliated	depress. tufts	1	summer	Ho.a rocks	Musc. brit. t. 6
	<i>Gymnostomum ciliátum</i> E. B. t. 1179					
14842	imbérbe Hooker beardless	depress. tufts	1	summer	Pa.G Irish moun.	Musc. brit. t. 6
	<i>Gymnostomum imbérbe</i> E. B. t. 2237					
2243.	FISSIDENS Hedw. FISSIDENS.			Sp. 4—11.		
14843	bryoides Hedw. Bryum-like	patches	½	spring	Pa.G moist banks	Musc. brit. t. 16
	<i>Dicranum bryoides</i> E. B. t. 625					
	<i>Dicranum viridulum</i> E. B. t. 1368					
	<i>Dicranum osmundioides</i> E. B. t. 1662					
14844	incúrvus Schwægr. incurved	patches	½	spring	L.G moist banks	Schw. suppl.t.49
	<i>Dicranum tamarindifolium</i> Turner					
14845	adiantoides Hedw. Maidenha.-lv.	patches	2	summer	L.G wet pastures	Musc. brit. t.16
	<i>Hypnum adiantoides</i> E. B. t. 264					
14846	taxifolius Hedw. Yew-leaved	tufts	¾	summer	L.G moist banks	Musc. brit. t.16
	<i>Hypnum taxifolium</i> E. B. t. 416					
2244.	LEUCODON Schwægr. LEUCODON.			Sp. 1—17.		
14847	sciuroides Hedw. Squirrel-tail	creeping	3	summer	D.G trun. of trees	Musc. brit.t. 20
	<i>Dicranum sciuroides</i> E. B. t. 1903					
2245.	FONTINALIS L. FONTINALIS.			Sp. 3—9.		
14848	antipyrética L. nerveless	floating	12	summer	DI.G rivers	Musc. brit. t. 22
14849	squamósa L. scaly	floating	6	summer	Ol.G rivulets	Musc. brit. t. 22
14850	capillácea Dicks. capillary	floating	6	summer	Br.G alp. rivulets	Musc. brit. t. 22
2246.	ANOMODON Hooker. ANOMODON.			Sp. 2—3.		
14851	curtipéndulum Hook. dark green	pinnate	8	summer	D.Ol roc. & trees	Musc. brit. t. 22
	<i>Neckera curtipéndula</i> E. B. t. 1444					
14852	viticolósum Hook. pale green	creeping	6	spring	Y.G trees & roc.	Musc. brit. t. 22
	<i>Hypnum viticolósum</i> E. B. t. 265					
2247.	NECKERA Hedw. NECKERA.			Sp. 3—24.		
14853	púmila Hedw. pigmy	creeping	2	spring	Pa.G woods	Eng. bot. t. 1443
14854	crispa Hedw. crisp	creeping	6	summer	Bt.G trees & roc.	E. b. t. 616. <i>Hypn.</i>
14855	pennáta Hedw. feathered	flat-branched	3	spr. and sum.	Bt.G trun. of trees	Gre.sc.cry. t. 109
2248.	DALTONIA Hooker. DALTONIA.			Sp. 2—5.		
14856	splachnoides Hooker long stalked	tufts	½	summer	L.G Irish moun.	Musc. brit. t. 22
	<i>Neckera splachnoides</i> E. B. t. 2564					
14857	heteromálla Hooker short-stalked	tufts	½	summer	L.G trun. of trees	Musc. brit. t. 22
	<i>Neckera heteromálla</i> E. B. t. 1180					
2249.	HOOKE'RIA Smith. HOOKERIA.			Sp. 2—27.		
14858	lúcens Smith shining	procumbent	3	summer	Pa.G moist banks	Musc. brit. t. 27
14859	late-virens Hook. bright-green	procumbent	3	summer	Bt.G Irish bog	Musc. brit. t. 27
2250.	LES'KEA Ehrhart. LESKEA.			Sp. 10—43.		
14860	trichomanóides Hedw. scymitar-shap.	entangled	2	spring	Y.G trun. of trees	Eng. bot. t. 1493
14861	complanáta Hedw. flattened	entangled	4	spring	Y.G trun. of trees	Eng. bot. t. 1492



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rally covered by a very hairy calyptra : this organ is in some species smooth, by which character they have been distinguished by the accurate Ehrhart, under the name of Catharinea ; but Dr. Hooker is of opinion that the genus is not tenable.

2242. *Anictangium*. From *ανικτος*, open, and *αγγιον*, a vase, on account of the open nature of the theca, which is not enclosed by a peristome. The only British species are two plants with nerveless leaves, and the habit of *Trichostomum*.

2243. *Fissidens*. From *fissus*, split, and *dens*, a tooth, in allusion to the structure of the peristome. Plants generally referred to *Dicranum* by British botanists, but differing from that genus entirely in habit, and sufficiently in characters. Dr. Hooker remarks, that the structure of their leaves is highly curious, and totally unlike that of any other plant with which he is acquainted. Besides being vertical, their upper half (taking the nerve for the line of separation) is, from the base beyond the middle, composed of two equal lamellæ, the lower part of which embraces the stem, and the rest very often embraces a portion of the leaf placed immediately above it.

2244. *Leucodon*. Named from *λευκος*, white, and *οδους*, a tooth, from the color of the peristome. The only British species has occasionally been thrown among the *Dicranum*, *Trichostoma*, and *Pterogonia* ; from any of which, an attentive consideration of the lateral fruit, deeply divided teeth, and dimidiate calyptra, will keep its genus distinct. The stems are long, and creeping over the bark of trees.

2245. *Fontinalis*. From *fons*, a fountain, in allusion to the places where it grows. *F. antipyrética* is a common plant, floating in large masses in rivers and pools of water. The specific name was given it because

- 14840 Stems short, Lvs. lin. lanc. : marg. serrat. principally at extrem. as well as summit of keels, Theca nearly
[erect subglobose]
- 14841 Leaves ovate much lengthened out and diaphan. at points : those of perichætium lacinated at extremity
- 14842 Leaves ovato-acuminate colored at the points : those of the perichætium serrated at the extremity
- 14843 Fruitstalks terminal, Perichætial leaves resembling the cauline ones
- 14844 Like the last, but theca drooping
- 14845 Fruitstalks lateral, Perichætial leaves ovate slightly convolute pointed
- 14846 Fruitstalks radicular, Perichætial leaves ovate sheathing involute pointed
- 14847 Leaves closely imbricated ovate-cordate acuminate striated, Theca oblong
- 14848 Leaves nerveless for the most part complicato-carinate
- 14849 Leaves nerveless plane or very slightly concave
- 14850 Leaves furnished with a nerve slightly concave
- 14851 Lvs. ov. acum. serrul. : the nerve disappear. below point, Fruitst. twice as long as perichætium, Theca ov.
- 14852 Leaves ovato lanceolate obtuse entire : the nerve reaching to the point, Fruitst. very long, Theca cylind.
- 14853 Lvs. ovato-acum. slightly conc. : marg. recurv. Fruitst. scarcely longer than perichæt. lvs. Theca oblon.-ov.
- 14854 Leaves oblong acuminulate transversely rugose, Fruitstalks much exerted, Theca ovate
- 14855 Lvs. bifar. ov. lanc. transversely undul. serrul. at point, Theca ovate subsess. shorter than perichætial lvs.
- 14856 Leaves oblongo-lanceolate, Fruitstalks long, Calyptra fimbriated at the base
- 14857 Leaves broadly ovate acute, Theca sessile impressed, Calyptra nearly entire
- 14858 Leaves broadly ovate entire obtuse nerveless
- 14859 Lvs. ov. acuminul. margin. very obscure. serrat. at extrem. with 2 nerves nearly reach. their whole length

14860 Lvs. broadly scymitar-shaped serrat. at point : nerve reach. to middle of leaf, Theca ovate erect, Lid rost.
14861 Leaves oblong apiculate entire nerveless, Theca ovate erect, Lid rostrate



and Miscellaneous Particulars.

it is employed by the Swedes to fill up the spaces between the chimney and the walls, and thus, by excluding the air, to prevent the action of fire.

2246. *Anomodon*. So called by the authors of *Muscologia Britannica*, on account of the peculiar nature of the peristome, which has narrow fringed processes arising from the very same range, and from between the teeth ; *anomos*, irregular, and *odus*, a tooth. The stems are dark, almost blackish green, long, cylindrical, and straggling. It is not uncommon on the wilds of Dartmoor.

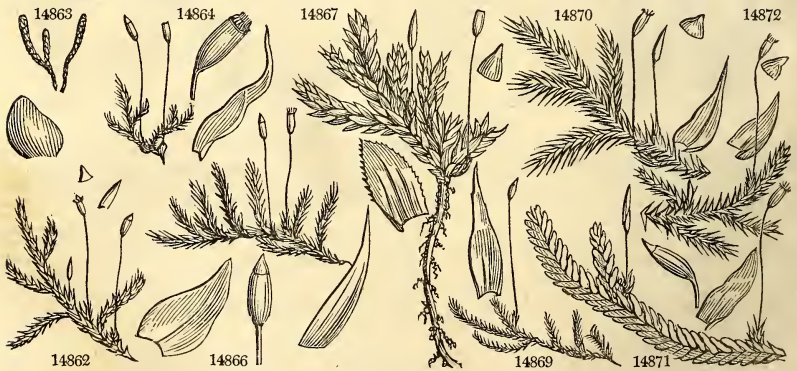
2247. *Neckera*. Named after N. J. Necker, a German botanist, who published in 1791, his *Elements of Botany*, a work which contained more useful information than many of his detractors have been pleased to allow. Beautiful mosses, found in woods and upon trees and rocks. *N. crista* has more the appearance of some fine tropical moss, than of those of our own country, where it is far from uncommon in mountainous districts, frequently covering a great extent of surface upon the trunks of old forest-trees.

2248. *Daltonia*. Named in honor of the Rev. James Dalton, a skilful English muscologist. The nitroform calyptra separates this from *Neckera*. *D. splachnoides* has only been found by the side of a streamlet on the Secawn mountain, near Dublin, where it grows sparingly in pale green tufts.

2249. *Hookeria*. This beautiful Hymnum-like genus was named by Sir James Edward Smith, in honor of Dr. William Jackson Hooker, F. R. S., &c. professor of botany in the university of Glasgow, one of the most distinguished of modern cryptogamic botanists, and a gentleman whose public reputation is only exceeded by his private excellence. The *Hookera* of Salisbury, must give way to this on every account. *H. late-virens* has hitherto been discovered only in a bog near Cork.

2250. *Leskea*. N. G. Leske was an obscure German botanist, of whom little is known, except that he gave

14862	<i>polycárpa Ehr.</i> <i>Hypnum médium E. B.</i> <i>Hypnum inundátum E. B. t. 1922</i>	many-fruited	entangled	3	spring	Lur.	trun. of trees	Eng. bot. t. 1274
14863	<i>iulácea Mohr.</i> <i>Pterogónium? rotundifólium E. B.</i>	round-leaved	prostrate	3	spring	Y.G	ground	Eng. bot. t. 2525
14864	<i>pulchélla Hedw.</i>	pretty	dense tufts	½	spr. and sum.	Bt.G	moist banks	Eng. bot. t. 2006
14865	<i>rufescens Schwægr.</i>	rufous	creeping	4	spr. and sum.	Rsh	moun. rocks	Eng. bot. t. 2296
14866	<i>sericea Hedw.</i>	silky	entangled	3	spr. and sum.	Y.G	roc. & trees	Eng. bot. t. 1445
14867	<i>dendroïdes Hedw.</i>	tree-like	erect	3	spr. and sum.	Y.G	wo. and bogs	Eng. bot. t. 1565
14868	<i>incurváta Hedw.</i> <i>Hypnum atrovirrens E. B.</i> <i>Hypnum attenuátum E. B. t. 2420</i>	incurved	procumbent	3	spr. and sum.	D.G	trees & rocks	Eng. bot. t. 2422
14869	<i>polyántha Hedw.</i>	many-flowered	creep. tangled	3	summer	Y.G	trun. of trees	Gre.cryp.fl.t.151
9251.	HYP'NUM. L.	HYPNUM.						<i>Sp. 53—119.</i>
14870	<i>ripárium L.</i>	water	loose patches	4	sum. and aut.	Bt.G	ban. of dicit.	Eng. bot. t. 2060
14871	<i>undulátum L.</i>	wavy	lax masses	6	sum. and aut.	W.G	heathy plac.	Eng. bot. t. 1181
14872	<i>undulátum L.</i>	toothletted	prostrate	1½	sum. and aut.	Bt.G	roots of trees	Eng. bot. t. 1260
α	<i>angustifólium Hook.</i>	narrow-leaved	prostrate	1½	sum. and aut.	Bt.G	roots of trees	Hed.sti.cr.4.t.31
β	<i>obtusifólium Hook.</i>	blunt-leaved	prostrate	1½	sum. and aut.	Bt.G	mountains	Eng. bot. t. 1446
14873	<i>tenéllum Dicks.</i>	delicate	dense patches	1	spring	Dp.G	roc. & old w.	Eng. bot. t. 1859
14874	<i>sérpens L.</i> <i>subtile E. B. t. 2496</i>	creeping	patches	1	spring	Bt.G	roots of trees	Eng. bot. t. 1037
14875	<i>popúleum Hedw.</i> <i>impléxum E. B. t. 1584</i>	matted	entang. patch.	2	spring	D.G	trees & ston.	Tur.mus.hi.t.16
14876	<i>refléxum Weber & Mohr</i>	reflexed	loose masses	2	spring	D.G	mountains	
14877	<i>mólle Dicks.</i>	soft	much tufted	3	sum. and aut.	Lur.	alp. rivulets	Eng. bot. t. 1992
14878	<i>Schreberí Willd.</i>	Schreber's	lax tufts	9	summer	Rsh	wo. and ban.	Eng. bot. t. 1621
14879	<i>catenulátum Schwæg.</i>	chained	close tufts	2	spr. and sum.	D.G	wet rocks	Brid.mus.t.5.f.4
14880	<i>stramíneum Dicks.</i>	straw-colored	loose patches	1½	summer	Pa.G	wet places	Eng. bot. t. 2405
14881	<i>murále Hedw.</i> <i>confertum E. B. t. 1038</i>	wall	patches	1½	all seasons	L.G	walls & ston.	Dil.mu.t.41.f.52
14882	<i>púrum L.</i> <i>ültecébrum E. B. t. 2189</i>	pure	broad masses	7	spring		wo. and ban.	Eng. bot. t. 1599
14883	<i>flútans L.</i>	floating	aquatic	6	spr. and sum.	Var.	pools & stre.	Eng. bot. t. 1448
14884	<i>plumósum L.</i> <i>alpinum E. B. t. 1496</i>	feathered	dense mat	4	spr. and sum.	Y.G	moist rocks	Eng. bot. t. 2071
14885	<i>salebrósum Hoffm.</i>	smth.-stk. shi.	decumb. bran.	4	summer	Bt.G	roc. & groun.	Gre.v.cryp.fl.184
14886	<i>lutescens Huds.</i>	yellowish	patches	3	summer	Y.G	trun. of trees	Eng. bot. t. 1301
14887	<i>nitens Schreb.</i>	shining	branched	3	summer	Go.Y	bogs	Eng. bot. t. 1646
14888	<i>al'bicans Neck.</i>	whitened	patches	2	spring	W.G	hea. & bogs	Eng. bot. t. 1300
14889	<i>alopeúrum L.</i>	fox-tail	loose masses	3	spr. and sum.	D.G	moist woods	Eng. bot. t. 1182
14890	<i>curvátum Swz.</i>	curved	lax tufts	3	spr. and sum.	Bt.G	trees & roc.	Eng. bot. t. 1566
14891	<i>spléndens Hedw.</i>	glittering	lax tufts	9	all masses	Y.G	hea. & banks	Eng. bot. t. 1424
14892	<i>proliferum L.</i> <i>recognítum E. B. t. 1495</i>	proliferous	loose patches	6	all masses	Du.G	wo. and ban.	Eng. bot. t. 1494
14893	<i>prælongum L.</i> <i>Stokésii E. B. t. 2036</i> <i>Swártzii E. B. t. 2334</i>	very long	loose tufts	6	all masses	Du.G	woods	Eng. bot. t. 2035



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occasion to Hedwig to name this genus after him. It has entirely the habit of the next, with which it is frequently united.

- 14862 Leaves ovate obtuse concave entire : nerve reaching to the summit, Theca cylind. nearly erect, Lid conical
- 14863 Leaves closely imbricated rotundato-ovate obtuse very concave ventricose nerveless, Theca ov. nearly erect
- 14864 Leaves loosely imbricated : the upper ones subsecund ; all of them lanceolate acuminate entire nerveless, Theca ovato-cylindrical nearly erect, Lid conical
- 14865 Lvs. erecto-pat. lanc. acuminat. ent. striat. faintly 2-nerved at base, Theca ovate nearly erect, Lid conical
- 14866 Leaves erecto-patent lanceolate acuminate entire striated ; nerve running to three fourths of the length, Theca ovate cylindrical erect, Lid conical
- 14867 Stems erect below simple and naked fascicled above, Leaves ovate more or less lanceolate striated serrat. at the point : nerve reaching nearly to the summit, Theca erect ovate cylindrical, Lid rostrate
- 14868 Stems variously branched procumbent, Lvs. all of them slightly secund broadly ovate with an attenuated obtuse point : nerve running nearly to the summit, Theca ovate cernuous, Lid conical
- 14869 Leaves 1-sided imbricated erect spreading ovate lanceolate acum. entire obscurely 2 nerved at base, Fruitst. numerous, Theca erect ovate, Lid acutely conical
- * *Stems plane.*
- 14870 Lvs. ov.-lanc. acuminat. ent. : the nerve reaching nearly to summit, Theca oblong cernuous, Lid conical
- 14871 Lvs. ov. ac. transversely undulat. with two faint nerves at base, Theca obl. furrow. arcuato cern. Lid rostr.
- 14872 Leaves ovate sometimes approaching to lanceolate more or less acuminate having two short nerves at the base, Theca oblongo-cylindrical inclined, Lid conical
- α Leaves ovate lanceolate distant quite plane
- β Leaves ovate more or less obtuse slightly concave
- ** *Leaves spreading on all sides of the stem.*
- 14873 Lvs. fascicul. erect lanceolato-subul. ent. : nerve reaching to summit, Theca ovate cernuous, Lid rostrate
- 14874 Leaves ovato-lanceolate rather obtuse patent entire ; their nerve for the most part reaching to the summit, Theca cylindrical curved cernuous, Lid conical
- 14875 Leaves lanceolate acuminate serrated : margin slightly reflexed : nerve reaching to the point, Theca ovate nearly erect, Fruitstalks rough, Lid conical
- 14876 Leaves cordato-acuminate serrated : their nerve reaching to the point ; their margin slightly reflexed, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14877 Leaves loosely imbricated rotundato-ovate obtuse concave entire faintly two-nerved at the base or with one short nerve, Theca ovate cernuous, Lid conical
- 14878 Leaves closely imbricated nearly erect elliptical apiculate concave entire faintly two-nerved at the base, Theca ovate cernuous, Lid conical
- 14879 Leaves subpatent ovate subacuminated papillose on the back and margin with a very short nerve, Theca ovate inclined, Lid conical acuminate
- 14880 Leaves loosely imbricated erecto-patent oblongo-ovate obtuse entire : their nerve reaching half way, Theca oblongo-ovate curved cernuous, Lid conical
- 14881 Leaves nearly erect imbricated oval with a very short point concave entire : nerve reaching about half way up, Theca ovate cernuous, Lid rostrate
- 14882 Leaves closely imbricated oval with a very short point very concave : their nerve reaching half way up, Theca ovate cernuous, Lid conical
- 14883 Leaves loosely imbricated, the upper ones falcate secund ; all of them lanceol.-subul. scarcely serrated at their points : their nerve reaching more than half way, Theca ovate obl. curved cernuous, Lid conical
- 14884 Leaves erecto-patent : the upper ones sometimes secund ; all of them ovato-lanceolate acuminate subserrated : the nerve reaching above half way, Theca ovate cernuous, Lid conical
- 14885 Lvs. nearly erect lanc. acum. serrul. tow. end : nerve disappear. beyond end, Theca cern. Lid acute conical
- 14886 Leaves erecto-patent lanceolate acuminate entire striated : nerve disappearing below the point, Theca ovate cernuous, Fruitstalks rough, Lid conico-acuminate
- 14887 Leaves erecto-patent narrow lanceolate acuminate nearly entire striated : nerve running nearly to the summit, Theca oblongo-ovate curved cernuous, Fruitstalks smooth, Lid conical
- 14888 Leaves erecto-patent ovato-lanceolate acuminate striated entire : nerve reaching half way up, Theca ovate cernuous, Fruitstalks smooth, Lid conical
- 14889 Stems erect below simple and naked, fascicled above, Leaves concave ovate ellipt. acute serrated : nerve running nearly to the point ; marg. reflexed, Theca ovate cernuous, Lid rostrate
- 14890 Branches fascicled curved, Leaves ovato-elliptical concave serrated at the points : nerve disappearing beyond the middle, Theca ovate erect, Lid rostrate
- 14891 Stems tripinnate, Leaves ovate with a suddenly acuminate serrated point concave faintly two-nerved at the base : margin below recurved, Theca ovate cernuous, Lid rostrate
- 14892 Stems tripinnate, Leaves serrated papillose on the back : the cauline ones cordato-acuminate striated with a nerve running nearly to the point ; those of the branches more ov. with a sing. or double nerve at base
- 14893 Stems subbipinnate, Leaves distantly placed patent cordate or ovate acuminate serrated : nerve disappearing below the summit, Theca ovate cernuous, Lid rostrate



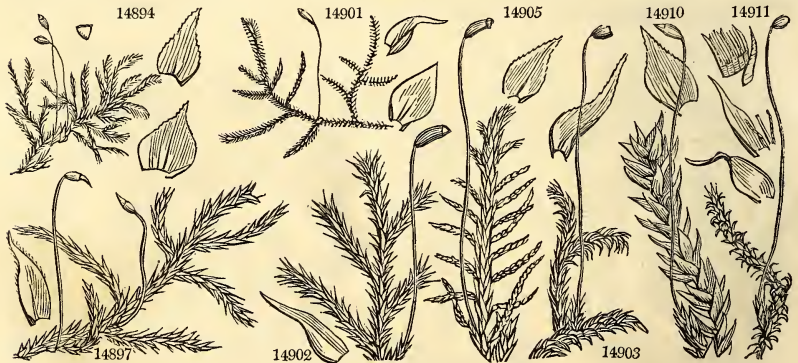
and Miscellaneous Particulars.

2251. *Hypnum*. One of the names of moss among the Greeks was *βρυον*. This is the most extensive genus among mosses, and is readily known by its prostrate pinnated bright green branches, which form a thick mat-

14894	<i>flagellare Dicks.</i>	shady	broad patches	6	summer	Bt.G	alpine rocks	E.b.t.2565 <i>H.umbrotum</i>
14895	<i>abietinum L.</i>	fir-leaved	straggling	6	summer	D.G	mountains	Eng. bot. t. 2037
14896	<i>Blandovii Web.</i>	Blandoff's	broad masses	5	spr. and sum.	Bt.G	alpine rocks	
14897	<i>piliferum Schreb.</i>	hair-pointed	straggling	7	summer	D.G	wo. & banks	Eng. bot. t. 1516
14898	<i>rutábulum L.</i>	poker	dense mats	3	all seasons	Bt.G	everywhere	E.b.t.1647 <i>H.brevirostre</i>
14899	<i>crenulatum E. B. t. 1261</i>							
14899	<i>velutinum L.</i>	velvety	dense patches	1½	all seasons	Y.G	hedge banks	Eng. bot. t. 1568
14900	<i>intricatum E. B. t. 2421</i>							
14900	<i>Halléri L.</i>	Haller's	creep. dense	2	summer	Y.Br	Scotch rocks	Eng. bot. t. 174
14901	<i>dimorphum Brid.</i>	two-formed	lax procumb.	3	summer	Pa.G	shady places	Eng. bot. t. 160
14902	<i>stellatum Schreb.</i>	stellate	broad tufts	3	spr. and sum.	Y.Br	marshes	Eng. bot. t. 1302
14902	<i>β squarrosulum E. B.</i>	<i>squarrose</i>	patches	1½	spr. and sum.	Dp.G	stone walls	Eng. bot. t. 1709
14903	<i>lobreum L.</i>	strap-shaped	broad masses	9	spring	Bt.G	wo. and hea.	Eng. bot. t. 2072
14904	<i>ruscifolium Neck.</i>	stiff-leaved	floating	6	spr. and sum.	D.Ol	in rivulets	Eng. bot. t. 1275
14905	<i>striatum Schreb.</i>	striated	loose tufts	6	spring	Bt.G	woods	Eng. bot. t. 1643
14906	<i>confertum Dicks.</i>	compact	small patches	1½	spring	Pa.G	trun. of trees	Eng. bot. t. 2407
14906	<i>H. serrulatum E. B. 1262</i>							
14907	<i>cuspidatum L.</i>	cuspidate	loose tufts	5	summer	Y.G	bogs	Eng. bot. t. 1425
14908	<i>cordifolium Hedw.</i>	heart-leaved	loose tufts	4	summer	Pa.G	bogs	Eng. bot. t. 1447
14909	<i>polymorphum Hedw.</i>	variable	latt. patches	5	win. and spr.	Bt.G	limest. rocks	Hed.sp.mus.t.66
14910	<i>triquetrum L.</i>	three-cornered	branch. tufts	9	all seasons	Y.G	wo. and ban.	Eng. bot. t. 1632
14911	<i>squarrosulum L.</i>	squarrose	patches	7	all seasons	Bt.G	wo. and hea.	Eng. bot. t. 1953
14912	<i>flicinum L.</i>	fern-leaved	small masses	3	spr. and sum.	Rsh.	bogs	Eng. bot. t. 1570
14912	<i>dábium E. B. 2126</i>							
14912	<i>fállax E. B.</i>							
14913	<i>palústre L.</i>	marsh	creeping tufts	2	spring	Li.G	ban. of stre.	Eng. bot. t. 1665
14913	<i>fluviatile E. B. t. 1303</i>							
14913	<i>adnatum E. B. t. 2406</i>							
14914	<i>aduncum L.</i>	hooked	broad patches	3	spr. and sum.	Var.	bogs	E.b.t.2073 <i>H.revolvens</i>
14914	<i>β rugosum E. B.</i>	<i>rugose</i>						
14915	<i>uncinatum Hedw.</i>	uncinate	broad patches	3	spr. and sum.	Var	bogs	Eng. bot. t. 2250
14916	<i>rugulosum Web.</i>	wrinkled	thick patches	3	spr. and sum.	Y.G	moist banks	Eng. bot. t. 1600
14917	<i>commutatum Hedw.</i>	changed	dense tufts	3	spr. and sum.	Y.G	heath. places	Musc. brit. t. 26
14917			droop. masses	9	all seasons	Dp.G	margin. of stre.	Eng. bot. t. 1569
14918	<i>scorpioides L.</i>	creeping	dense masses	9	summer	Rsh.	wet bogs	Eng. bot. t. 1039
14919	<i>silesianum Beauv.</i>	Silesian	broad patches	7	summer	Bt.G	mountains	Eng. bot. t. 2016
14920	<i>cupressiforme L.</i>	Cypress-leaved	thick mass	4	all seasons	Bt.G	trees & rocks	Eng. bot. t. 1860
14920	<i>nigroviride E. B. t. 1620</i>							
14921	<i>β polyanthes E. B.</i>	<i>many-flowered</i>	thick mass	4	all seasons	Bt.G	woods	Eng. bot. t. 1664
14921	<i>crista castrénsis L.</i>	crested	lax tufts	6	summer	Bt.G	woods	Eng. bot. t. 2103
14922	<i>molluscum Hedw.</i>	soft	entangl. tufts	2	summer	Y.G	rocks	Eng. bot. t. 1327

VAGINULATI SCHISTOCARPI.

2252, <i>ANDREEA Hedw.</i>	ANDREEA.			<i>Sp. 4.</i>				
14923 <i>alpina Hedw.</i>	alpine	loose tufts		summer	D.Br	rocks	Musc. brit. t. 8	
14924 <i>rupéstris Hedw.</i>	rock	dense tufts		¾ summer	D.Br	rocks & ston.	Musc. brit. t. 8	
14925 <i>Róthii Mohr.</i>	Roth's	dense tufts		¾ summer	D.Br	rocks & ston.	Musc. brit. t. 8	
14926 <i>nivalis Hooker</i>	snow	deep patches		1½ summer	D.Br	mountains	Musc. brit. t. 8	



History, Use, Propagation, Culture,

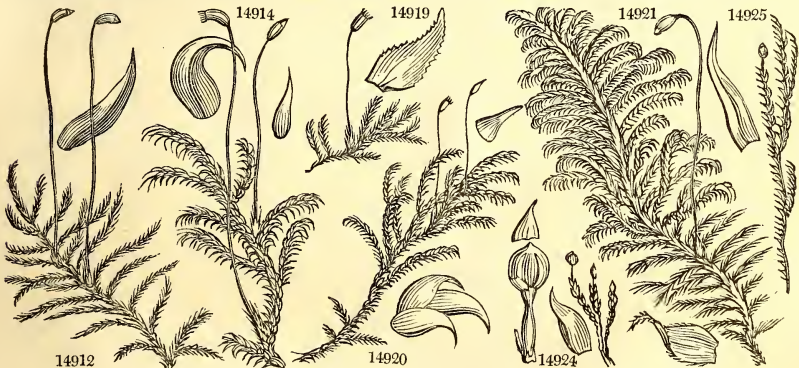
like covering to the surface on which they grow. *H. crista-castrénsis* is at once the most beautiful and most rare of British species.

2252. *Andreea*. Named by Hedwig, in honor of J. G. R. André, a German botanist, author of Letters upon Switzerland. There was also a Portuguese Andreas de Castro, who published in 1636, a work upon plants. He was physician to one of the dukes of Braganza. There was besides a celebrated physician of antiquity

- 14894 Stems pinnate (or irregularly bipinnate), Leaves thickly set cordato-acuminate serrated very faintly two-nerved at the base, Theca oblong cernuous, Lid conical
- 14895 Stems pinnate, Leaves serrated papillose on the back; the margins reflex.; nerve running nearly to the point; the cauline ones cordato-acuminate: those of branches cord. ac. Theca cylind. inclined, Lid rostr.
- 14896 Stems pinn. Lvs. serrated smooth on the back: marg. reflexed; cauline ones cordato-acute with a short nerve, those of branches ovate acum. with nerve disappear. bey. midd. Theca cylind. inclin. Lid conical
- 14897 Stems somewhat pinnate, Leaves ovate with a long narrow acumination serrated: nerve disappearing below the middle, Theca ovate cernuous, Lid rostrate
- 14898 Stems variously branched, Leaves patent ovate acuminated serrated at the points striated: their nerve reaching half way, Theca ovate cernuous, Fruitstalk rough, Lid conical
- 14899 Stems variously branched, Leaves erecto-patent ovate often approaching to lanceolate acuminat. serrated striated: nerve reaching half way, Theca ovate cernuous, Fruitstalks rough, Lid conical
- 14900 Stems pinn. Branches short erect, Lvs. all recurv. cord. acum. obsolet 2-nerv. at base, Lid obtusely conical
- 14901 Stems somewhat pinnate, Leaves serrulate two-nerved at base: primary cordate acuminate; of branches broad ovate, Theca ovate cernuous, Lid conical
- 14902 Leaves loosely set squarrose cord. much acuminated ent. nervel. Theca oblongo-ov. curv. cern. Lid conic.
- 14903 Leaves recurved squarrose lanceolate much acuminated concave serrated striated faintly two-nerved at the base, Theca globoso-ovate cernuous, Lid conical
- 14904 Leaves loosely imbricated spreading broadly ovate acute serrated concave with a nerve nearly as far as the middle, Theca ovate cernuous, Lid rostrate
- 14905 Lvs. spread. cord.-acum. serrat. striat.: nerve reach. beyond midd. Theca obl. ovate cernu. Fruitst. smooth
- 14906 Lvs. erect. spread. ov. acum. concave serrat.: their nerve reach. half way, Theca ov. cernu. Fruitst. smooth
- 14907 Leaves loosely set ovate concave nerveless entire: lower squarrose; upper imbricated in a cuspidate point, Theca oblong curved cernuous
- 14908 Lvs. loosely set squarr. cord.-ov. obt. concave ent.: nerve running nearly to point, Theca obl. curv. cernu.
- 14909 Lvs. loosely set squarr. cord. much acum. entire: nerve disappear. half way up, Theca obl. ov. curv. cernu.
- 14910 Lvs. squarr. cordato-acum. serrat. faintly striated with two nerves at base, Theca globoso-ov. Lid conical
- 14911 Leaves squarrose widely cordate very much acuminated and recurved serrated faintly two-nerved at the base, Theca ovato-globose cernuous, Lid conical
- *** *Leaves secund.*
- 14912 Stems subpinnate, Leaves especially the upper ones falcato-secund broadly ovate acuminated serrated: their nerve reaching to the point, Theca oblongo-ovate curved cernuous, Lid conical
- 14913 Leaves secund ovate somewhat acuminate concave entire: margins incurved above; nerve short often forked sometimes obsolete, Theca oblongo-ovate cernuous, Lid conical
- 14914 Leaves falcato-secund lanceolato-subulate concave or almost semicylind. entire: the nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- ♂ Leaves wider less falcate [cernuous, Lid conical]
- 14915 Lvs. falcato-secund lanceolato-subul. serrat. striat.: nerve disappearing below point, Theca cylind. curv.
- 14916 Lvs. sec. ovato-lanc. serrat. nearly plane crisp. transverse. when dry: marg. recurv.; nerve reach. half way
- 14917 Stems pinnated, Leaves falcato-secund cordate very much acuminated serrated: their margins reflexed; nerve disappearing below the summit, Theca oblongo-ovate curved cernuous, Lid conical
- 14918 Leaves secund broadly ovate ventricose obtuse ent. nervel. Theca oblongo-ovate curv. cernu. Lid conical
- 14919 Leaves loosely imbricated secund narrow-lanceolate acuminated serrated nerveless or very obscurely two-nerved, Theca subcylindrical erecto-cernuous, Lid conical obtuse
- 14920 Leaves closely imbricated more or less falcato-secund lanceolate acuminated entire, except at the points, which are usually serrated very faintly two-nerved at base, Theca cylind. erecto-cernuous, Lid conical
- 14921 Stems closely pectinated, Leaves falcato-secund ovato-lanceolate acuminated serrulate striated faintly two-nerved at the base, Theca oblongo-ovate curved cernuous, Lid conical
- 14922 Stems pectinated, Leaves falcate secund cordate acuminated serrated not striated faintly two-nerved at base, Theca oblong ovate curved cernuous, Lid conical

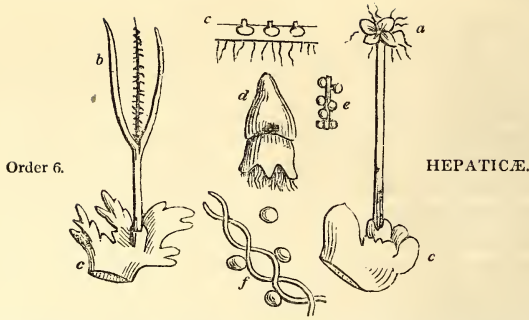
VAGINULATI SCHISTOCARPI.

- 14923 Stems branched, Leaves obovate suddenly acuminate straight imbricating the stem on every side
- 14924 Stems branched, Leaves ovate gradually acuminated: the upper ones falcate
- 14925 Stems almost simp. Lvs. lanc. subul. falcate secund fragile: perichetial obl. nervel.; their marg. involute
- 14926 Stems slightly branched, Leaves loosely imbricated lanc. subfalcate secund: perichetial similar to canline



and Miscellaneous Particulars.

named *Andreas*, who was cited honorably by Pliny. This remarkable genus differs from all other mosses, in having a theca which splits into four valves, cohering at their ends by means of the persistent lid; it agrees with *Sphagnum* in having no fruitstalk, but in its room an elongated receptacle, and appears to be a transition from Musci to Hepatica. This is, however, only apparent. All the species are natives of rocks or mountains, and are remarkable for their nearly black or dark brown color.



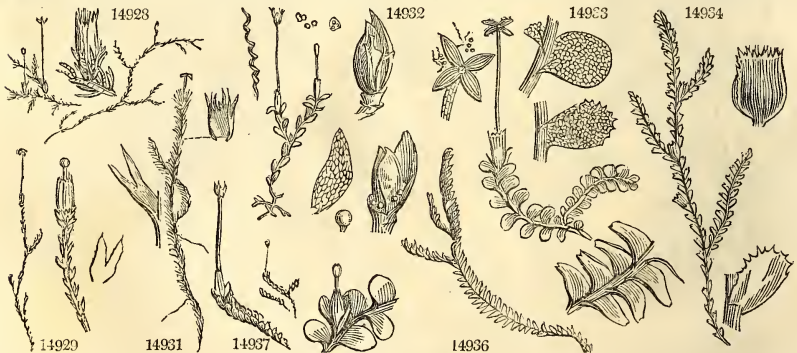
Order 6.

HEPATICÆ.

Reproductive organs of two kinds. 1. Thecæ without an operculum, either naked or sessile, or furnished with a veil through which they are more or less protruded. Sporules naked (e), or mixed with spiral threads (f). 2. Minute roundish or oblong bodies variously situated. Plants frondose of a cellulose structure not submersed.

This order is distinguished from Algæ, with which it was formerly united, by the nature of the theca (a, b), and of the foliaceous frond (c) which is never submersed, and which bears a greater affinity to that of Musci. From

2253. JUNGERMAN'NIA. L. JUNGERMANNIA.			Sp. 81—159.				
14927 trichophýlla Wahl.	hair-leaved	loose tufts	1½ summer	Br	turfy heaths	Hook. jung. t. 7	
14928 setácea E. B.	setaceous	dense tufts	2 spring	Pa.G	bogs	H.ju. t.8. sup. t.1	
14929 julácea Hook.	creeching	dense patches	½ summer	Pa.Ol	mountains	Hook. jung. t. 2	
14930 laxifólia Hook.	loose-leaved	cush.-like pat.	½ spr. and sum.	Pa.G	mountains	Hook. jung. t.59	
14931 juniperina Hook.	rigid	crowded tufts	½ summer	R.Br	mountains	Hook. jung. t. 4	
14932 Hookéri E. B.	Hooker's	small patches	½ wint. and spr.	G	ditches	Hook. jung. t.54	
14933 asplenioídes Hook.	Asplenium-like	loose patches	3 all seasons	Ol.G	moist woods	Hook. jung. t.13	
14934 spinulosa Hook.	spinulose	crowded tufts	3 all seasons	Y.G	mountains	Hook. jung. t.14	
14935 decipiens Hook.	deceitful	dense tufts	1 autumn	Ol.G	Irish heaths	Hook. jung. t.50	
14936 Doniána Hook.	Don's	entangl. tufts	2½ september	P.Br	Scot. mount.	Hook. jung. t.39	
14937 púmila Hook.	dwarf	small patches	½ wint. and spr.	Ol	rocks	Hook. jung. t.17	
14938 lanceolata Hook.	lanceolate	dense clusters	¼ autumn	Pa.G	damp woods	Hook. jung. t.18	
14939 coráifolia Hook.	heart-leaved	dense tufts	2 august	D.Ol	mountains	Hook. jung. t.32	
14940 Sphágni Hook.	Sphagnum	entangl. patc.	3 autumn	Y.G	marshy plac.	H.ju. t.33.su. t.2	
14941 crenuláta Hook.	crenulate	matted patch.	¾ oct., novemb.	R.G	bogs	Hook. jung. t.37	
14942 sphaerocárpa Hook.	round-fruited	dense tufts	½ early spring	Pa.G	Irish bogs	Hook. jung. t.74	
14943 hyalina Hook.	transparent	broad tufts	1 early spring	D.G	bogs	Hook. jung. t.63	
14944 compréssa Hook.	compressed	dense tufts	4 june	Pu	rivulets, Irel.	Hook. jung. t.58	
14945 emargináta Hook.	emarginate	large patches	¾ may, june	Br	wet pl. on m.	Hook. jung. t.27	
14946 concinnáta Hook.	notched	thick tufts	¾ may, june	Sil	wet pl. on m.	Hook. jung. t. 3	
14947 orcadénsis Hook.	Oreades	loose patches	1 may, june	Bt.G	mountains	Hook. jung. t.71	
14948 infláta Hook.	inflated	dense patches	½ jan. to july	Ol.G	boggy places	Hook. jung. t.38	
14949 excísa Hook.	bitten	scatter. patch.	¼ spring	D.G	shady woods	Hook. jung. t. 9	
14950 ventricósa Hook.	ventricose	dense patches	¾ aug., novem.	Pa.G	woods	Hook. jung. t.28	



History, Use, Propagation, Culture,

2258. *Jungermannia*. Named by Ruppis, to perpetuate the memory of Louis Jungermann, a German

these Hepaticæ differ in being destitute of an operculum or lid to the theca, and, with the exception of *Marchantia (d)* and *Jungermannia*, of a calyptra. The order is composed of seven genera, all very different from each other, and forming an assemblage which is only natural in regard to the organs of vegetation. It does not appear possible to reconcile those of reproduction. The herbage consists of a variously dilated frond lying flat upon the substance on which it grows, generally naked, but in many *Jungermannias* covered with small leaves, which are often divided, but never really nerved, so that, in fact, they should rather be considered dilations of the frond: the substance is generally loosely cellular, sometimes compact, as in *Marchantia*, in which *Hooker* asserts that pores of the epidermis exist.

2253. *Jungermannia*. Theca 4-valved, supported on a peduncle longer than the calyx. Valves free.

2254. *Marchantia*. Theca on the under surface of a common peltate pedunculate receptacle. Anthers imbedded in the disk of distinct peltate pedunculate or sessile receptacles.

2255. *Riccia*. Theca spherical, immersed in the frond (not opening), crowned with the style, which is alone protruded.

2256. *Anthoceros*. Theca stalked, linear, 2-valved, with a central columella to which the sporules are attached.

2257. *Targionia*. Perianth? globose, arising from the underside of the extremity of the frond, at length opening vertically into 2-valves. Theca globose, nearly sessile, included in the perianth, opening irregularly at the extremity, and filled with spiral filaments.

2258. *Sphaerocarpus*. Thecæ minute, spherical, seated upon obpyriform receptacles, and filled with minute sporules unmixed with filaments.

A. Leafy.

† *Stipules none.*

* *Leaves inserted many ways.*

14927 Stem creep. irregul. branch. Lvs. imbricated on all sides setace. joint. straight, Fr. term. : mouth contract.

14928 Stem creep. pinnated. branch. Lvs. imbricat. on all sides setace. joint. incurv. Fr. term. : mouth expanded

14929 Leaves quadrifarious ovate closely imbricated erect acutely bifid, Theca terminal plaited at end

14930 Stem erect nearly simple filif. Lvs. dist. quadrifar. ov. somew. keel. acutely bif. Fr. term. Cal. somew. plait.

14931 Lvs. quadrifarious falcato-secund lin.-lanc. bipart. : segments straight acum. Fr. terminal, Cal. ovate leafy

14932 Leaves imbricated on all sides ovate or oblong-ovate here and there lobed and angled, Fr. term. Cal. none

** *Leaves bifarious.*

a *Leaves undivided.*

14933 Leaves obovate roundish ciliate toothed subrecurved, Fruit term. and lateral, Cal. obl. compressed oblique

14934 Lvs. obl. recurv. with margin on one side and apex dentato-spinul. Fr. lat. and axill. Cal. round. compr.

14935 Stem erect flexuose nearly simple, Lower leaves smaller ovate entire : upper rounded-ovate or nearly square, with one or more spiniform teeth

14936 Stem erect nearly simple filiform flexuose, Leaves closely imbricated nearly horizontal oblong ovate concave 2-toothed at end falcate 1-sided

14937 Leaves elliptical ovate, Fruit terminal, Cal. oblong ovate acuminate : mouth contracted denticulated

14938 Leaves spreading ovate-rounded, Fruit terminal, Cal. oblong cylindrical depressed and flat at the extremity : mouth much contracted cut and toothed

14939 Lvs. erect concave cord. circumvol. Fr. term. and axill. Cal. obl. ov. subuplicate : mouth minute toothed

14940 Lvs. orbicul. Fr. upon short prop. branches, Cal. obl. attenuat. at each extrem. : mouth contracted toothed

14941 Lvs. orbicular margin. Fruit term. Cal. obov. compressed longitudin. quadrang. : mouth contract. toothed

14942 Stem ascending simple, Leaves orbicular, Fruit terminal, Cal. obl. ovate cylind. quadri. Theca spherical

14943 Stem ascending flexuose dichotomous, Leaves rounded somewhat wavy, Fruit terminal, Cal. ovate angul. with a contracted 4-toothed orifice

14944 Stem erect divided, Leaves orbicular : upper reniform appressed, Fruit terminal, Cal. immersed oblong fleshy with an open 4-toothed orifice

b *Leaves emarginate or bifid : segments equal.*

14945 Leaves loosely imbric. spreading obovate emarginate, Fruit term. Cal. ovate toothed immersed in lvs.

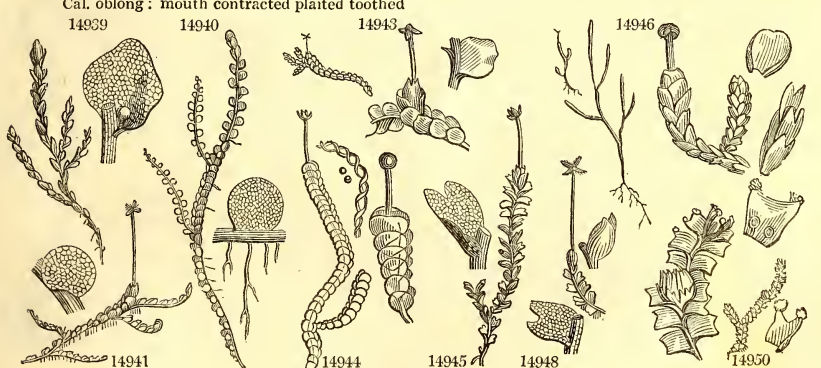
14946 Lvs. very closely imbricated erect concave ovate obtuse emarginate, Fruit terminal, Cal. O

14947 Leaves closely imbric. erect or spreading cordate ovate plane notched at extremity : their marg. recurv.

14948 Lvs. roundish concave acutely bifid : segm. straight obt. Fruit term. Cal. obpyrif. ; mouth contract. tooth.

14949 Leaves spreading subquadrate deeply emarginate, Fruit terminal, Cal. oblong : mouth plaited toothed

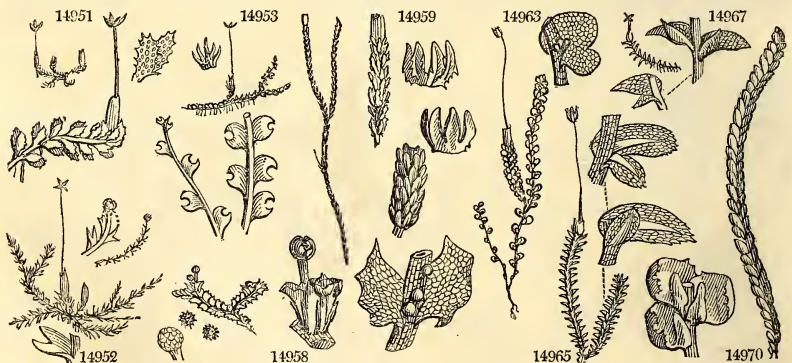
14950 Leaves spreading subquadrate obtusely and broadly emarginate : their sides incurved, Fruit terminal, Cal. oblong : mouth contracted plaited toothed



and *Miscellaneous Particulars.*

botanist, who was born in 1572, and died in 1653, after having published a catalogue of the plants of the neigh-

14951 <i>Turneri Hook.</i>	Turner's	small patches	$\frac{1}{2}$ march	Pa.G	Irish rivul.	Hook. jung. t.29
14952 <i>bicuspidata Hook.</i>	two-pointed	large tufts	1 march, april	Pa.G	damp banks	Hook. jung. t.11
14953 <i>byssea Hook.</i>	Byssus-like	dense tufts	$\frac{1}{2}$ march, april	Pa.Ol	heaths	Hook. jung. t.12
14954 <i>connivens Hook.</i>	connivent	loose patches	$\frac{1}{2}$ april, may	Y.G	wet places	Hook. jung. t.15
14955 <i>curvifolia Hook.</i>	curve-leaved	small patches	$\frac{2}{3}$ april, may	Dp.P	mountains	Hook. jung. t.16
14956 <i>capitata Hook.</i>	capitate	very smll. pat.	$\frac{1}{2}$ septem., jan.	Pa.G	bogs	Hook. jung. t.80
14957 <i>incisa Hook.</i>	cut	smf.dense pat.	$\frac{1}{2}$ july	Pa.G	heaths	Hook. jung. t.10
14958 <i>pusilla Hook.</i>	dwarf	sol. or thk.pat.	$\frac{1}{2}$ october, may	Bt.G	moist banks	Hook. jung. t.69
14959 <i>setiformis Hook.</i>	bristly	dense tufts	2 spring	G.Br	mountains	Hook. jung. t.20
14960 <i>memorosa Hook.</i>	grove	matted tufts	$2\frac{1}{2}$ july, october	Pu	woods	Hook. jung. t.21
14961 <i>planifolia Hook.</i>	flat-leaved	crowded patc.	2	Din.Br	mountains	Hook. jung. t.67
14962 <i>umbrosa Hook.</i>	shady	dense tufts	$\frac{1}{2}$ march, april	G.Br	shady places	Hook. jung. t.24
14963 <i>undulata Hook.</i>	wavy	large tufts	3 may, june	Bt.G	wet places	Hook. jung. t.22
14964 <i>resupinata Hook.</i>	resupinate	very smll. tufts	$1\frac{1}{2}$ may, june	Br.G	heaths	Hook. jung. t.23
14965 <i>albicans Hook.</i>	whitish	broad tufts	$1\frac{1}{2}$ april, july	Pa.G	hedge banks	Hook. jung. t.25
14966 <i>obtusifolia Hook.</i>	blunt-leaved	little tufts	$\frac{1}{2}$ march, april	Pa.G	damp places	Hook. jung. t.26
14967 <i>Dicksonii Hook.</i>	Dickson's	dens. mat. tuf.	$\frac{1}{2}$ august	Ol.Br	mountains	Hook. jung. t.48
14968 <i>minuta Hook.</i>	minute	loose patches	$\frac{2}{3}$ spr. and sum.	Ol.Br	mountains	Hook. jung. t.44
14969 <i>exsecta Hook.</i>	scooped out	small patches	$\frac{1}{2}$ summer	Pa.G	heaths	Hook. jung. t.19
14970 <i>cochleariformis Hook.</i>	cup-shaped	large patches	4 summer	R.Br	mount. bogs	Hook. jung. t.68
14971 <i>complanata Hook.</i>	flattened	cush.-like pat.	$1\frac{1}{2}$ summer	Pa.G	trun. of trees	Hook. jung. t.81
14972 <i>anomala Hook.</i>	anomalous	loose patches	2 oct., novem.	Br.G	bogs	Hook. jung. t.54
14973 <i>Taylori Hook.</i>	Taylor's	large patches	3 summer	Pk	mountains	Hook. jung. t.57
14974 <i>scalaris Hook.</i>	scaly	broad patches	$\frac{1}{2}$ summer	Pa.G	loamy soil	Hook. jung. t.61
14975 <i>polyanthos Hook.</i>	many-capsuled	loose patches	$1\frac{1}{2}$ april, may	Pa.G	wet places	Hook. jung. t.62
14976 <i>cuneifolia Hook.</i>	wedge-leaved	parasitical	$\frac{1}{2}$ summer	Br	inland	Hook. jung. t.64
14977 <i>viticulosa Hook.</i>	wiry	loose patches	$1\frac{1}{2}$ spring	Y.Br	ear. damp pl.	Hook. jung. t.60
14978 <i>trichomanis Hook.</i>	twisted	large patches	$1\frac{1}{2}$ summer	Bt.G	moist places	Hook. jung. t.79
14979 <i>bidentata Hook.</i>	two-toothed	crowded patc.	$1\frac{1}{2}$ oct., novem.	Pa.G	moist places	Hook. jung. t.30
14980 <i>heterophylla Hook.</i>	various-leaved	small tufts	$\frac{1}{2}$ april, novem.	Pa.G	stems of trees	Hook. jung. t.31
14981 <i>stipulacea Hook.</i>	large-stipuled	cush.-like tuf.	$\frac{1}{2}$ summer	Pa.Ol	shady places	Hook. jung. t.41
14982 <i>Francisci Hook.</i>	Francis's	crowded patc.	$1\frac{1}{2}$ april, july	Pk	moist places	Hook. jung. t.49
14983 <i>barbata Hook.</i>	bearded	crowded patc.	$1\frac{1}{2}$ spring	Ba.G	woods & hea.	Hook. jung. t.70
14984 <i>albescens Hook.</i>	whitened	loose patches	$\frac{1}{2}$ summer	Pa.G	Ben Nevis	H. jun. t.72. su. t.4
14985 <i>reptans Hook.</i>	creeping	dense tufts	1 summer	Pa.G	woods	Hook. jung. t.75
14986 <i>trilobata Hook.</i>	three-lobed	large patches	3 summer	Ol.G	rocks	Hook. jung. t.76
14987 <i>platyphylla Hook.</i>	broad-leaved	wide patches	2 march, aug.	Br.G	old walls	H. jun. t.40. su. t.3
14988 <i>laevigata Hook.</i>	polished	loose tufts	$2\frac{1}{2}$ summer	Br.Ol	woods	Hook. jung. t.35
14989 <i>ciliaris Hook.</i>	ciliated	dense patches	2 spr. and sum.	R.Br	rocks & hea.	Hook. jung. t.65
14990 <i>Woodsi Hook.</i>	Wood's	crowded tufts	5 spr. and sum.	R.Br	Irish mount.	Hook. jung. t.66
14991 <i>toментella Hook.</i>	downy	broad patches	3 march, oct.	Pa.G	moist places	Hook. jung. t.36
14992 <i>Mackayii Hook.</i>	Mackay's	dense patches	1 febr., novem.	Bk.G	trees & rocks	Hook. jung. t.53



History, Use, Propagation, Culture,

bourhood of Aitdorf, and a work called *Cornucopia Floræ Giessensis*. A genus of obscure plants, forming by their creeping stems little patches upon trees or rocks, or on the earth in damp places. The British

- 14951 Stem procumbent flexuose branched in a starry manner, Leaves broad-ovate acutely 2-parted : segments folded together with spiny teeth, Fruit terminal
 14952 Lvs. subquad. acutely bifid : segm. acute straight ent. Fruit terminal, Cal. obl. plaited : mouth toothed
 14953 Leaves subquadrate waved subtrifid : segments acute, Fruit terminal, Cal. oblong plaited : mouth toothed
 14954 Lvs. orbicul. concave at extrem. lunul. emarg. Fruit term. upon short prop. central branches. Cal. obl. ov.
 14955 Lvs. round. very conc. bif. : segm. long acum. incurv. Fr. term. upon short prop. branch. Cal. obl. subpicate

c Leaves 3-4-fid : segments equal.

- 14956 Stem prost. nearly simp. Lvs. round. square : lower bifid ; upp. 3-4-fid, Fr. term. Cal. obl. ov. somew. plait.
 14957 Leaves subquadrate waved subtrifid ; segm. equal here and there toothed, Fruit terminal, Cal. obovate
 14958 Leaves spreading horizontally quadrate waved obtusely bitricrenate, Fruit terminal, Cal. campanulate,
 Theca spherical bursting irregularly
 14959 Leaves bifarious closely imbricated erect quadrate quadrifid : their inferior angles here and there spinul.
 toothed, Fruit terminal and lateral, Cal. oblong plicate : the mouth open

d Leaves bifid : segments unequal folded together.

- 14960 Lvs. unequally 2-lobed $\frac{1}{2}$ -bifid tooth cili. Lobes fold. together : lower ones larger obov. ; upp. subcord. obt.
 14961 Stem erect nearly simple, Leaves unequally 2-lobed as deep as base : tooth ciliated, Lobes folded together
 14962 Lvs. uneq. 2-lob. Lobes folded together serrated at extrem. acute : lower ones larger ov. ; upp. round. ov.
 14963 Leaves unequally 2-lobed wavy entire, Lobes roundish folded together ; lower ones largest, Fruit term.
 Cal. oblong incurved compressed
 14964 Leaves roundish nearly equally 2-lobed entire, Lobes folded together, Fr. term. Cal. obl. incurv. compres.
 14965 Leaves unequally 2-lobed folded together with a pellucid line in the middle serrated at the extremity,
 Fruit terminal, Cal. obovate cylindrical
 14966 Lvs. unequally 2-lobed folded together obtuse entire, Fruit term. Cal. obov. : mouth contracted toothed
 14967 Lvs. unequally 2-lobed folded together narr. ov. acute, Fr. term. Cal. ov. plaited : mouth contract. toothed
 14968 Leaves horizontally spreading somewhat folded together : upper equally, lower unequally 2-lobed, All
 the lobes rather acute, Cal. obovate
 14969 Stem prostrate nearly simple, Leaves unequally 2-lobed, Lobes folded together : lower larger ovate
 concave acute ; upper minute tooth-like
 14970 Leaves imbricated on the upper side unequally 2-lobed folded together : upper lobes the larger convex bifid
 and toothed at the extremity
 14971 Lvs. distich. imbricat. above uneq. 2-lobed : upp. lobes larger orbicul. ; lower ov. appres. flat, Cal. truncat.

†† Furnished with stipules.

* Leaves entire or rarely emarginate.

- 14972 Leaves orbicular and ovate acuminate, Stipules broadly subulate
 14973 Lvs. all rounded, Stip. broadly subul. Fruit term. Cal. ovate compressed at the extremity truncate 2-lipped
 14974 Lvs. round concave entire and emarg. Stipules broadly subul. Fruit terminal, Cal. immersed in the leaves
 14975 Lvs. horizontal rounded quad. plane ent. and emarg. Stip. obl. bifid, Fr. upon very short proper branches
 14976 Stem creeping simple, Lvs. rather rem. cuneiform ent. or bluntly emarg. at end, Stip. minute ovate bifid
 14977 Leaves horizontal plane ovate entire, Stipules broadly ovate toothed lanc. Fr. lat. Cal. subterr. obl. fleshy
 14978 Leaves horizontal convex ovate ent. Stipules round lunate-emarg. Fruit lat. Cal. subterr. obl. fleshy hairy

** Leaves 2 or 3 cleft : segments equal.

- 14979 Leaves broadly ovate decurrent bifid at the apex : segm. very acute entire, Stipules bitrifid and laciniate
 14980 Stem creeping branched, Leaves round-ovate decurrent rarely acutely often obtusely emarginate or entire,
 Stipules bitrifid, Fruit terminal, Cal. ovate
 14981 Leaves round acutely emarginate : segments acute straight, Stipules large ovate acuminate with a single
 tooth at the base on each side
 14982 Stem nearly erect simple or branched, Leaves ovate concave acutely emarginate, Stipules minute ovate
 bifid, Fruit terminal, Cal. oblong cylindrical little plaited
 14983 Leaves rounded quadrate 3-4-fid, Stipules lanceolate acutely bifid : their margins lacerated
 14984 Lvs. very concave nearly hemispherical emarg. Stip. ovate lanc. obtuse, Fruit term. upon short branches
 14985 Leaves imbricated above subquadrate incurved acutely 4-toothed, Stip. broadly quad. 4-tooth. Fr. radical
 14986 Lvs. imbricat. above ov. convex obtusely trident. Stip. broadly subquad. cren. Fr. from lower part of stem

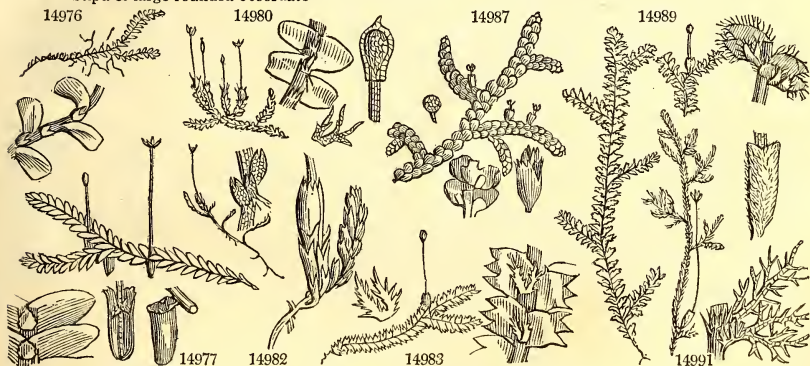
** Leaves bifid : segments unequal folded together.

a Lower segments or smaller ones flat.

- 14987 Lvs. unequal lob. : upper lobes round. ov. nearly ent. ; lower and stip. ligulate quite entire, Fruit lateral
 14988 Lvs. unequal. 2-lobed spinul.-toothed : upper lobes roundish ov. ; lower ligul. Stip. obl. quad. spinly toothed
 14989 Leaves very convex unequally 2-lobed : lobes and lobules ovate bipart. fringed with long and slender ciliæ
 14990 Stem procumbent bitripinnate, Leaves very convex unequally 2-lobed : upper lobes 2-parted spiny toothed ;
 lower very minute oblong entire
 14991 Leaves nearly flat unequally 2-lobed cut into numerous capillary segments : upper lobes 2-partite ; lower
 minute, Stipules subquadrate laciniate

b Lower segments or smaller ones involute.

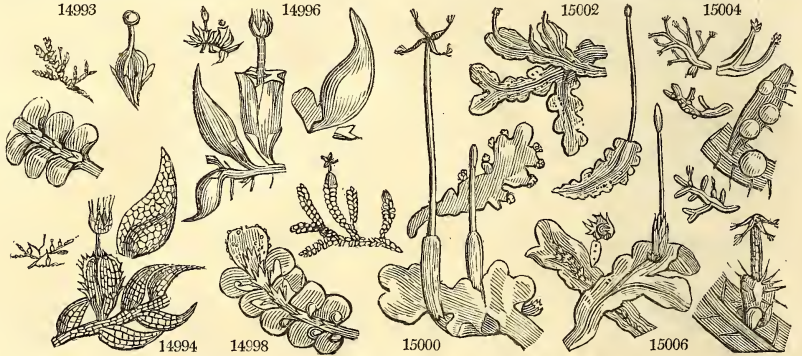
- 14992 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes rounded ; lower minute invol.
 Stipules large rounded orbiculate



and Miscellaneous Particulars.

species have been admirably illustrated by Hooker, to whose Monograph no other botanical work can be compared.

14993	<i>serpyllifolia</i> Hook.	thyme-leaved	imbric. masses	$\frac{3}{4}$ april, June	Pa. G	trun. of trees	Hook. jung. t. 42
14994	<i>hamatifolia</i> Hook.	hook-leaved	very small. pat.	$\frac{1}{2}$ spring	G	rocks	Hook. jung. t. 51
14995	<i>minutissima</i> Hook.	very minute	little patches	$\frac{3}{4}$ april, may	Y. G	bark of trees	Hook. jung. t. 52
14996	<i>calyptrifolia</i> Hook.	calyptra-leav.	little tufts	$\frac{1}{2}$ summer	Pa. G	on <i>Ulex</i> nan.	Hook. jung. t. 43
14997	<i>Hutchinsia</i> Hook.	Miss Hutchins's	loose patches	1 summer	D. OI	damp pl., Ir.	Hook. jung. t. 1
14998	<i>dilatata</i> Hook.	dilated	round patches	$\frac{3}{4}$ winter	Br. P	trun. of trees	Hook. jung. t. 5
14999	<i>Tamarisci</i> Hook.	Tamarisk	large patches	3 april, sept.	Br. G	on the earth	Hook. jung. t. 6
15000	<i>pinguis</i> Hook.	fat	loose patches	2 summer	Pa. G	moist sha. pl.	Hook. jung. t. 46
15001	<i>multifida</i> Hook.	many-cut	crowded tufts	1 spring	Pa. G	moist pl. hea.	Hook. jung. t. 45
15002	<i>Blasia</i> Hook.	Blasia	patches	1 spring	D. G	moist heaths	H. jun. t. 82, 83, 84
15003	<i>epiphylla</i> Hook.	epiphyllous	large patches	3 spr. and aut.	Pa. G	moist hedges	Hook. jung. t. 47
15004	<i>furcata</i> Hook.	forked	large patches	$\frac{3}{4}$ oct., march	Pa. G	trun. of trees	Ho. jung. t. 55, 56
15005	<i>pubescens</i> Hook.	downy	patches	1 spring	G1	rocks	Hook. jung. t. 73
15006	<i>Lyellii</i> Hook.	Mr. Lyell's	loose patches	1 may	Pa. G	bogs	Hook. jung. t. 77
15007	<i>hibernica</i> Hook.	Irish	loose patches	1 april	Pa. G	shores of Ir.	H. ju. t. 78. s. t. f. 1
2254.	MARCHANTIA. <i>Mich.</i>	MARCHANTIA.		Sp. 4-7.			
15008	<i>polymorpha</i> E. B.	variable	broad patches	2 winter	D. G	moist rocks	Eng. bot. t. 210
15009	<i>hemisphærica</i> E. B.	hemispherical	broad patches	1 $\frac{1}{2}$ winter	D. G	moist rocks	Eng. bot. t. 503
15010	<i>cónica</i> E. B.	conical	broad patches	2 winter	D. G	shady banks	Eng. bot. t. 504
15011	<i>androgyna</i> E. B.	androgynous	broad patches	1 $\frac{1}{2}$ winter	Pa. G	wet rocks	Eng. bot. t. 2545
2255.	RICCIA. E. B.	RICCIA.		Sp. 4.			
15012	<i>glauca</i> E. B.	glaucous	patches	$\frac{1}{2}$ spring	G1	rocks	Eng. bot. t. 2543
15013	<i>nátans</i> E. B.	floating	floating	$\frac{1}{2}$ spring	G	ditches	Eng. bot. t. 252
15014	<i>flútans</i> E. B.	floating	floating	$\frac{3}{4}$ spring	Pa. G	ditches	Eng. bot. t. 251
15015	<i>spúria</i> Dicks.	spurious	patches	$\frac{1}{2}$ spring	Pa. G	mount. mar.	Dick. cr. t. 11. f. 16
2256.	ANTHOCEROS. E. B.	ANTHOCEROS.		Sp. 3-5.			
15016	<i>multifidus</i> Dicks.	multifid	patches	$\frac{1}{2}$ summer	G	crev. in roc.	Dill. mus. t. 68. f. 4
15017	<i>punctatus</i> E. B.	dotted	patches	1 $\frac{1}{2}$ spring	Pa. G	damp places	Eng. bot. t. 1537
15018	<i>májor</i> E. B.	large	broad patches	$\frac{1}{2}$ spring	D. G	damp places	Eng. bot. t. 1538
2257.	TARGIONIA. E. B.	TARGIONIA.		Sp. 1-3.			
15019	<i>hypophylla</i> E. B.	flat-leaved	broad patches	$\frac{1}{2}$ wint. and spr.	D. G	wet places	Eng. bot. t. 287
2258.	SPHEROCARPUS. E. B.	SPHEROCARPUS.		Sp. 1-4.			
15020	<i>terrêtris</i> E. B.	earth	spots	$\frac{1}{2}$ winter	Bt. G	damp places	Eng. bot. t. 299



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2254. *Marchantia*. Named by Nicholas Marchant, in honor of his father John Marchant, the first botanist whom the Academy of Sciences of Paris admitted among its members, in 1666. Soft-leaved creeping plants, with green cellular fleshy fronds spreading over the surface of the ground in wet places. *M. hemisphærica* and *polymorpha* are often the pests of the florist, whose flower pots are overrun by them, and continually disfigured.

2255. *Riccia*. Pietro Francisco Ricci, was a Florentine botanist, who left some of his works to the academy of Florence. Little, generally floating, simple plants, of the nature of which very little is known. Only one kind has been observed in fructification, and that is of a very ambiguous character. The theca, or the organs so called, are little round bodies immersed in a cavity of the frond, and containing minute sporules.

2256. *Anthoceros*. From *an. Sog.*, a flower, and *zegeos*, a horn, on account of the horn-like form of the theca, which old botanists considered to be the flower. Minute frondose plants, with a linear 2-valved theca, containing a columella to which the sporules are attached. In habit they resemble *Jungernannia*.

- 14993 Lvs. unequal 2-lobed : upper lobes rounded ; lower minute invol. Stip. roundish acutely bifid, Fruit lateral
 14994 Lvs. unequally 2-lobed : upper lobes ovate-acum. mostly curved at extremity ; lower ovate acutely bifid
 14995 Stem creeping unequally branched, Leaves unequally 2-lobed : upper lobes hemispherical ; lower minute almost obsolete, Stipules ovate rounded bifid, Fruit lateral
 14996 Stem creeping branched, Leaves unequally 2-lobed : upper lobes larger calyptiform ; lower bluntly square circumvolute, Fruit lateral

c Lower segments or smaller ones saccate.

- 14997 Stem creeping branched, Leaves unequally 2-lobed : upper lobes ovate spiny-serrated : lower minute saccate generally 1-toothed at base, Fruit lateral
 14998 Lvs. unequally 2-lobed : upper lobes ovate rounded ; lower rounded saccate, Stip. rounded flat emarginate
 14999 Lvs. unequally 2-lobed : upper lobes ovate roundish ; lower minute obov. saccate, Stip. subquadrate emarg.

§ 2. Frondose.

† Nerveless.

- 15000 Frond obl. decumb. nervl. fleshy nearly plane above : swell. ben. ; irregularly branch. The margin sinuated
 15001 Frond lin. nerveless fleshy compressed branched in a pinnated manner, Fruit marginal, Cal. very short

†† Nerved.

- 15002 Frond obl. submemb. dichot. costate having scattered scales on the underside, Cal. and calyptra within frond
 15003 Frond obl. submembranous irregularly divided obsoletely ribbed : the margin entire or lobed and sinuated, Fruit from upper part of frond near the apex
 15004 Frond lin. dichotomous membranous costate glabr. above : more or less hairy beneath and on the margin, Fruit from the lower surface of the nerve
 15005 Frond lin. dichotomous membranous costate pubescent in every part [of the fronds
 15006 Frond obl. somew. branch. memb. costate : the margin nearly entire, Fruit arising from the superior surface
 15007 Frond obl. dichotomous membranous costate with the margin entire, Fruit arising from the upper surface of the frond

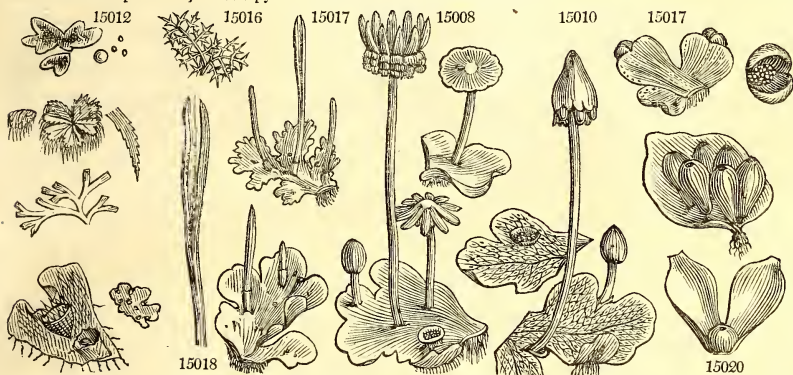
- 15008 Recept. of thecæ deeply cut in a stellated manner into about ten narr. segm. : that of the anthers pedunculat.
 15009 Recept. of thecæ hemispherical cloven into about 5 oval segments
 15010 Recept. of thecæ entire conical ovate somewhat angular : that of the anthers sessile
 15011 Recept. of thecæ hemispherical half 4-cleft of 4 cells

- 15012 Frond small obl. somew. divid. : the segments 2-lobed at the end fleshy glaucous dotted on the surface
 15013 Frond triangular cordate covered with long linear lanceolate segments on one side
 15014 Frond membranous dichotomous, Lobes retuse
 15015 Fronds membranous lobed pellucid, Theca beneath the sinuses of the lobes solit. exerted turbinate tooth.

- 15016 Fronds bipinnatifid linear
 15017 Fronds multifid lobed sinuated, Theca subulate half bifid
 15018 Fronds lobed rounded flat, Theca short

- 15019 Frond flat imbricated lobed, Lobes rounded retuse

- 15020 Frond simple ovate, Thecæ pyriform clustered at the base of frond

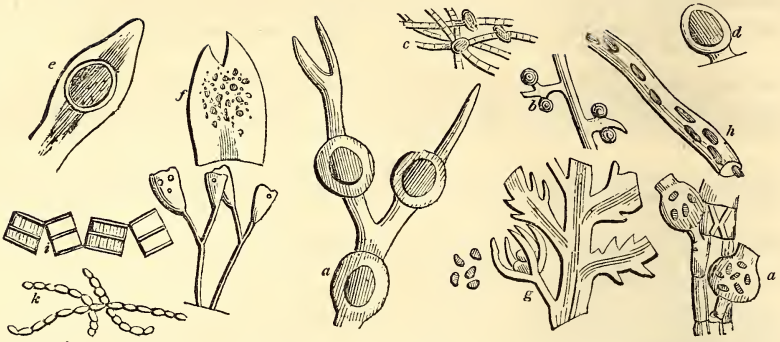


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2257. *Targionia*. So called in remembrance of John Anthony Targioni, a meritorious Florentine botanist, who published in 1734 a work for the purpose of shewing the importance of botanical lectures, with reference to a course of studies in medicine. There was also another Florentine physician called John Targioni Tozzetti, after whom Tozzettia has been named. This genus consists of only one species, which is frondose and lobed. The theca is concealed and almost sessile within the involucre, globose, bursting at the apex, and discharging its spores mixed with spiral filaments. This genus is very near *Jungermannia*.

2258. *Sphaerocarpus*. From *sphaera*, a globe, and *καρπος*, fruit, in allusion to the form of the fruit. The plant consists of a roundish delicate membranous frond, bearing on its disk a cluster of obpyriform receptacles, each of which has a globose transparent finely membranous seed-vessel, filled with minute spores unmixed with elastic filaments.

Order 7. ALGÆ.



Reproductive organs of two kinds. 1. Thecæ or tubercles variously situated. 2. Sporules or granules naked or immersed in the frond. Plants always aquatic and submersed.

This order is constituted of the sea-weeds of our ocean, and of the floating scum-like substances of our ditches and rivers. Little is known of the functions which what are called their reproductive organs perform. The nature and structure of those organs are so various as to render it improbable that they should all be destined for the same purposes. The bodies which are called sporules are variously situated; now filling distinct thecæ (a), or even tubercles (b), which are either free (b, c, d), or imbedded in the substance of the frond (e, f); now appearing to be naked and surrounded by an involucre (g); now scattered or arranged in some determinate manner in the interior of the frond. (h) The fronds are either cylindrical (h), or plane (i), sometimes little more than a mere membrane, sometimes hard and horny, and extended to the length of many feet. Many are articulated (i, k); their line of separation is then called a joint, and the space between two joints an articulation.

Professor Agardh, of Lund, one of the most celebrated of modern cryptogamists, and whose disposition of Algae is adopted here, in his latest work, called *Systema Algarum*, published at Lund, in 1824, defines the order thus:

“Aquatic plants destitute of cotyledons and of sexual organs; gelatinous, membranous, or coriaceous; filamentous, laminose, or even leafy; in color green, purple, or olivaceous; jointed or continuous; bearing sporidia” (little transparent bodies containing sporules), “either included in pericarps or scattered over the surface.”

The Algae form one of the three forms of the lowest order of vegetation, Lichens and Fungi the two other. Of the former, many are considered by some botanists to be animalcula, and others, to be the young seedling plants of mosses.

TRIBE I. DIATOMÆ.

Bodies of various forms, flat and crystalline, and separating into fragments.

2259. *Achnanthes*. Frond stalked, vexilliform. *Marine*.
 2260. *Diatoma*. Filaments jointed, hyaline, rigid, simple, united in pairs longitudinally, at length separating into articulations cohering by their alternate angles.
 2261. *Fragillaria*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
 2262. *Mclosira*. Filaments jointed, contracted at the joints, very fragile, and easily separating.
 2263. *Desmidiium*. Filaments transversely and densely striated, mucous, flexible, green, half separated into articulations, and in that state pinnatifid.
 2264. *Schizonæma*. Filaments bead-like, composed of narrower cohering filaments inclosing elliptical granules, into which they are finally dissolved. *Marine*.

TRIBE II. NOSTOCHINÆ.

Individuals numerous, globular or filiform, suspended in a gelatine of a definite form.

2265. *Palmella*. Minute or small, somewhat diaphanous gelatinous plants, filled with solitary granules unixed with filaments.
 2266. *Echinella*. A roundish gelatine crammed with elliptical radiant corpuscles. *Marshy*.
 2267. *Alcyonidium*. A spongy fleshy lobed frond filled with granules. *Marine*.
 2268. *Nostoc*. Plants roundish or shapeless, gelatinous. Substance composed of curved moniliform simple filaments, lying irregularly in a gelatinous nidus.
 2269. *Corynephora*. A gelatinous roundish puckered frond filled with jointed filaments, bearing here and there clavate processes.
 2270. *Rivularia*. A gelatinous subglobose frond filled with filaments, radiating from a common centre, continuous, placed on a globule, and marked with annulations inside.
 2271. *Chetophora*. Plant elongated or globose gelatinous. Substance composed of branched articulated filaments.
 2272. *Scythymenia*. A coriaceous tough stratum, formed of fibres and granules mingled together.

TRIBE III. CONFERVOIDÆ.

Filaments jointed either externally or internally, separate, and not combined in any definite form.

2273. *Byssocladium*. Filaments like cobwebs, scattered externally with sporidia. *Slightly inundated*.
 2274. *Mycinema*. Filaments membranous, opaque, tenacious, colored (usually tawny). *Slightly inundated*.
 2275. *Chroolepus*. Filaments rigid, nearly solid, opaque, crumbling into powder, torulose. *On rocks or bark*.
 2276. *Trentepohlia*. Filaments flexible, colored, bearing capsules, which generally proceed from the last articulation, which is inflated. *Inundated or fluviatile*.
 2277. *Scytonema*. Plant not gelatinous, coriaceous. Filaments short, forming dark dense tufts, beaded internally, or filled with annular transverse bodies. *On rocks or inundated, rarely marine*.
 2278. *Stigonema*. Filaments continuous, coriaceous, naked, marked inside with dots disposed in rings. *On rocks*.
 2279. *Protonema*. Filaments somewhat jointed, rooting very minute.
 2280. *Hygrocrocis*. Filaments hyaline, arachnoid, obsoletely articulated, floating in a shapeless gelatine or in a colored membrane.
 2281. *Leptomitus*. Filaments hyaline or slightly colored, arachnoid, obsoletely articulated, separate, erect, not entangled.

2282. *Mesogloia*. Frond filiform, cylindrical, cartilaginous, with compact somewhat moniliform branches radiating from a medullary pith, and bearing capsules.
2283. *Batrachospermum*. Frond filiform, gelatinous, sending out from the primary filament moniliform gemmiferous branches.
2284. *Draparnaldia*. Filaments green, jointed, very gelatinous. Ramuli penicillate fascicled. Fructification a granular mass in the articulations of the main filaments.
2285. *Oscillatoria*. Plants gelatinous. Filaments simple, continuous, membranaceous, filled internally with transverse parallel striæ.
2286. *Calothrix*. Filaments destitute of a mucous matrix, stiffish, straight, motionless, with a continuous tube annulated inside.
2287. *Lyngbya*. Filaments without a mucous matrix, freely floating, flexible, motionless, with a continuous tube annulated inside.
2288. *Bangia*. Filaments capillary, mostly simple, tubular, continuous. Fructification; granules disposed in regular transverse series or strata.
2289. *Zygnema*. Filaments jointed, simple, gelatinous, compressed, fragile, separating at the joints.
2290. *Mougeotia*. Filaments articulated, connected like a net, with irregularly placed granules, and these attached to the angles of the meshes.
2291. *Hydrodictyon*. Filaments articulated, connected like a net. Articulations viviparous, including young individuals.
2292. *Conferva*. Filaments uniform, jointed, membranaceous, simple or branched, mostly green. Fructification, granules scattered in the articulations. *Salt and fresh water.*
2293. *Bulbochaete*. First filament articulated, sending out from the apex of the articulations an accessory branchlet. These alternating with the accessory branches. *Marshy.*
2294. *Nitella*. Filaments consisting of a single tube, membranous, jointed, with whorled branches. Organs of fructification twofold and separate; first nucules spirally striated, without bractes, and not crowned; second, colored globules. *Sea and marshes.*
2295. *Chara*. Filaments spirally striated, jointed, with whorled branches. Organs of fructification twofold, and close together; first, nucules spirally striated, furnished with bractes, and crowned; second, colored globules. *Sea and marshes.*
2296. *Ceramium*. Filaments jointed, subdichotomous, red, articulations veined or diaphanous. Fructification; capsules with an involucre of short ramuli. *Marine.*
2297. *Griffithsia*. Filaments jointed, rose red, branched. Articulations marked with one broad tube-like line, the joints pellucid. Fructification; pedunculated capsules on the ramuli. *Marine.*
2298. *Chaetospira*. Filaments obsoletely articulated, rosy, covered by axillary articulated fruit-bearing branches, which either include in the middle a globe of sporules, or change to a lanceolate receptacle covered with setæ, among which the sporules nestle. *Marine.*
2299. *Polysiphonia*. Filaments jointed, longitudinally striated, with internal parallel tubes. Fructification; double ovate capsules, and granules in swollen branchlets. *Marine.*
2300. *Rytiphæa*. Frond flattened, distichous, transversely striated, becoming black when dry, with incurved ramenta. Fruit twofold; first, spherical capsules with pyriform sporidia; and second, lanceolate pods with roundish sporidia. *Marine.*
2301. *Ectocarpus*. Filaments jointed, much branched, fuscous. Fructification; lanceolate pods or ovate capsules solitary or racemose. *Marine.*
2302. *Sphacellaria*. Filaments jointed, branched, olivaceous, distichous or dichotomous; apex of the branches sphacellate or hyaline, abrupt. Fructification; granules in the sphacellate apex, or capsules. *Marine.*
2303. *Cladostephus*. Plant olivaceous. Main filaments opaque, inarticulate; branches jointed, mostly whorled with ramuli. Fructification; capsules. *Marine.*

TRIBE IV. ULVACEÆ.

Frond membranous, continuous, tubular or flattened, never ribbed, herbaceous, or very rarely purple. Fruit a heap of sporules, either naked, or forming scattered granules covered by coniocystas.

2304. *Vaucheria*. Filaments dichotomous or irregularly branched, somewhat rigid. Fructification; a granulated mass within the frond, and external dark vesicles variously situated.
2305. *Codium*. Frond spongy, of a determinate figure formed of filaments densely packed, which are tubular and continuous, and colored by a granular green powder. Coniocystas clustered at the surface of the frond.
2306. *Bryopsis*. Root minutely scutate. Filaments tubular, continuous, aggregated, branched, pinnate, or imbricated upwards with branchlets. Fructification a dark internal granular mass.
2307. *Solenia*. Frond tubular, membranous, with a striated areolated surface. Sporidia very minute and compact.
2308. *Ulva*. Root scutate. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification naked immersed; granules distributed in fours throughout the frond.
2309. *Porphyra*. Frond flat, purple, with the membrane of equal texture. Fruit twofold; first, sori of oval sporidia collected in a disorderly manner; second, two parallel lines marked on each side by a globeule.

TRIBE V. FLORIDEÆ.

Frond coriaceous or rarely membranous, flat or filiform, continuous, purple or pink. Sporidia purple, included in capsules or clustered in sori.

2310. *Polyides*. Frond filiform, fastigiate, cartilaginous, softish, composed of radiating fibres. Fruit, spongy warts composed of fibres supporting sporidia.
2311. *Ptilota*. Root scutate. Fronds compressed or plane, pinnate. Fructification; a cluster of naked granules surrounded by a linear cleft involucre.
2312. *Rhodomeia*. Frond either flat or foliaceous, and somewhat ribbed or filiform. Fruit twofold; first, lomenta filled longitudinally with globules of sporaceous matter; second, capsules with a few pyriform sporidia sessile in the capsule (blackish when dry).
2313. *Chondria*. Frond continous, gelatinoso-cartilaginous. Fructification double; naked granules immersed in the substance of the ramuli and external tubercles.
2314. *Sphaerococcus*. Root scutate. Frond submembranaceous or cartilaginous. Fructification uniform; tubercles or capsules.
2315. *Halymenia*. Frond flat or tubular, somewhat membranous. Fruit, dot-like tubercles half immersed in the lamina of the frond.
2316. *Bonnemaisonia*. Frond filiform, compressed, pectinate, ciliated. Fruit, capsules with pyriform sporidia fastened together in a chain-like manner.
2317. *Delesseria*. Root scutate. Frond plane, membranaceous, with or without ribs. Fructification double, tubercles and clusters of naked immersed granules.

TRIBE VI. FUCOIDEÆ.

Frond coriaceous, rarely membranous, continuous, olive-green, flat or filiform. Sporidia black, included in capsules, which are either ovate, and surrounded by a hyaline border, and nestling in a peculiar receptacle, or pyriform, and immersed in the frond.

2318. *Lemanea*. Frond filiform, torulose, tubular. Chains of sporæ adhering to the inner surface of the filament, pencilled moniliform. *In fresh water.*

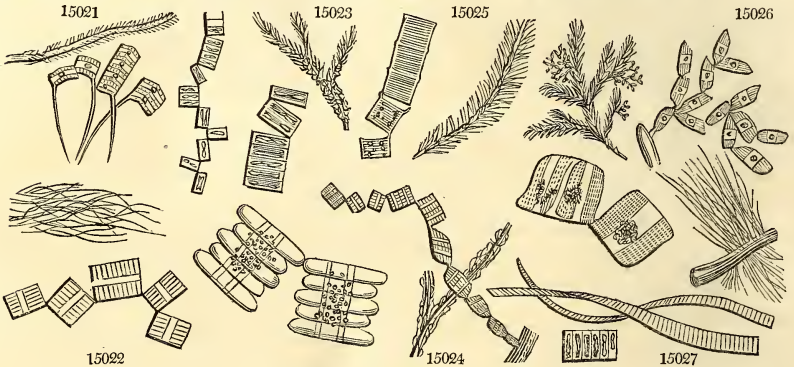
2319. *Chordaria*. Root scutate. Frond filiform of an olive color and cartilaginous substance. Fructification; clavate, pyriform, concentric filaments constituting the whole frond.
2320. *Scytosiphon*. Root scutate. Frond filiform, tubular, subcoriaceous. Fructification; naked pyriform granules covering the whole frond.
2321. *Sporochnus*. Root mostly scutate. Frond plane, with distichous branches, bearing, in most instances, delicate pencil-like deciduous tufts of confervoid filaments. ("Receptacles composed of concentric, clavate, articulated corpuscles.")
2322. *Haliseris*. Frond flat, linear, ribbed, membranous. Capsules heaped in sori.
2323. *Encelium*. Frond tubular or bladderly, dotted. Fruit, the tips of the frond filled with a black sporaceous matter.
2324. *Zonaria*. Root downy. Frond plane, ribless, flabelliform or wedge-shaped, or linear and dichotomous. Fructification, adnate tubercles collected into parallel lines on the frond.

DIATOMEÆ.

2259. ACHNANTHES. <i>Agh.</i> ACHNANTHES.	<i>Sp.</i> 1-2.			
15021 longipes <i>Ag.</i> long-stalked fine down	$\frac{1}{3}$ july	Gsh	dit., sea coast	E.b.t.2488. <i>Conf stipitata</i>
2260. DIATOMA. <i>Ag.</i> DIATOMA.	<i>Sp.</i> 5-16.			
15022 flocculosum <i>Ag.</i> floccose fine film	$\frac{1}{3}$ sum.	Y.Br	ditches	E. bot. t. 1761. <i>Confervae</i>
15023 marinum <i>Ag.</i> marine little tufts	$\frac{1}{3}$ febr.	Y.G	ocean	E.b. t. 1883. <i>Conf. teniaef.</i>
15024 Biddulphiænum <i>Ag.</i> Miss Biddulph's short down	$\frac{1}{3}$ nov.d.	G	sea coast	E. bot. t. 1762. <i>Confervae</i>
15025 striatulum <i>Ag.</i> striated short down	$\frac{1}{3}$ april	G	ocean	E. bot. t. 1928. <i>Confervae</i>
15026 obliquatum <i>Ag.</i> oblique minute branch.	$\frac{1}{3}$ sum.	Lt.Br	ocean	E. bot. t. 1869. <i>Confervae</i>
2261. FRAGILLARIA. <i>Ag.</i> FRAGILLARIA.	<i>Sp.</i> 2-3.			
15027 pectinælis <i>Ag.</i> silvery loose tufts	$\frac{1}{3}$ march	Y.G	on wat. plan.	E. bot. t. 1611. <i>Confervae</i>
15028 hymælis <i>Ag.</i> winter dense fl. tufts	3 april	O.Br	rivulets	Lyngb. phyt. dau. t. 63
2262. MELOSEIRA. <i>Ag.</i> MELOSEIRA.	<i>Sp.</i> 3-5.			
15029 nummuloides <i>Ag.</i> necklace down-like	$\frac{1}{3}$ march	Ysh	salt marshes	Eng. bot. t. 2287
15030 lineata <i>Ag.</i> striated short down	$\frac{1}{3}$ march	Ysh	rivulets	Dil.con.24. t. B. <i>Confervae</i>
15031 discigera <i>Ag.</i> cup-bearing short down	$\frac{1}{3}$ sum.	Brsh	lvs. of aquat.	Di.co.25. t. B. C. <i>nummul.</i>
2263. DESMIDIUM. <i>Ag.</i> DESMIDIUM.	<i>Sp.</i> 1-2.			
15032 Swartzii <i>Ag.</i> pinnatifid loose masses	$\frac{1}{3}$ sum.	G	still waters	E.b.t.2464. <i>Con. dissiliens</i>
2264. SCHIZONEMA. <i>Ag.</i> SCHIZONEMA.	<i>Sp.</i> 5-9.			
15033 Smithii <i>Ag.</i> Smith's slipp. threads	$\frac{3}{4}$ sum.	Brsh	sea coast	E. b. t. 2101. <i>Conf. fastida</i>
15034 lacustre <i>Ag.</i> lake shipp. threads	$\frac{3}{4}$ sum.	Brsh	lakes	
15035 Dillwynii <i>Ag.</i> Dillwyn's entangl. tufts	$\frac{1}{3}$ sp. su.	Ol.G	sea coast	Di.co. t. 104. <i>Conf. fastida</i>
15036 apiculatum <i>Ag.</i> pointed lax tufts	$\frac{1}{3}$ spring	Y.G	sea in basins	Gre. crypt. t. 30
15037 dichotomum <i>Grev.</i> dichotomous erect tufts	1 sum.	Y.G	sea in basins	

NOSTOCHINÆ.

2265. PALMELLA. <i>Ag.</i> PALMELLA.	<i>Sp.</i> 6-12.			
15038 protuberans <i>Ag.</i> lobed mass	$\frac{1}{3}$ sp aut.	G	rocks	Eng. bot. t. 2583. <i>Uva</i>
15039 botryoides <i>Ag.</i> bunched thin skin	... aut.	G	damp places	
15040 adnata <i>Ag.</i> adnate gregarious	$\frac{1}{3}$ aut.	Y.Br	mount. rocks	Lyngb. phyt. dan. t. 69



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2229. *Achnanthes*. From *αχνη*, the froth of the ocean, and *ανθος*, a flower. Marine productions, separating into fragments, but by degrees. In the middle of each articulation are one or two crystalline points.
2230. *Diatoma*. From *διατμω*, incision, in allusion to the curious manner in which the filaments are divided into joints cohering alternately by their angles.
2231. *Fragillaria*. So named on account of their fragile nature, which is more remarkable than that of other *Confervæ*. The filaments when complete are flat and composed of little fragments glued together crosswise. These are very narrow, and when once separated do not cohere again.
2232. *Meloseira*. From *μελος*, a membrane, and *σειρα*, a chain, with reference to the form of the filaments. This genus differs from the last, as *Confervæ* from *Oscillatoria*.
2263. *Desmidiium*. From *δεσμος*, a bond, in allusion to the singular manner in which the parts cohere when in a state of dissolution. At that period the articulations become half separated one from the other in such a way as to represent a pinnatifid appearance.
2264. *Schizonema*. From *σχιζω*, to divide, and *νημα*, a filament; the filaments are finally divided into compound granules. These plants have entirely the habit and flexible substance of *Confervæ*. When fresh they are sparkling and brown, when dry olive-green, and very shining. They are composed of many filiform individuals, which include nearly the same corpuscles as are visible in the foreign genera *Frustulia* and *Meridion*.

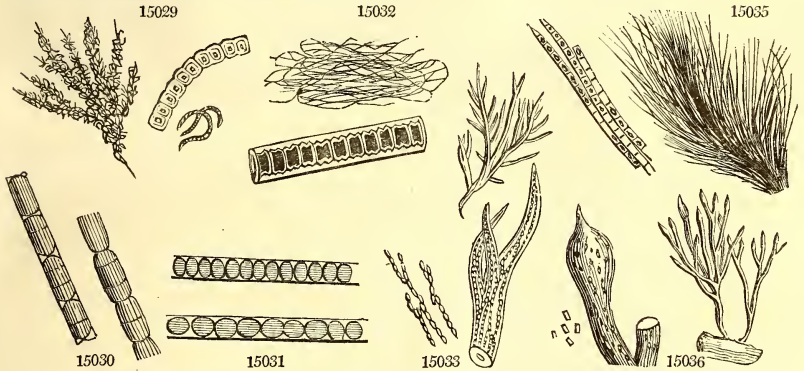
2325. *Laminaria*. Root fibrous. Stipes dilated into a plane frond. Fructification, naked granules immersed and forming irregular groups in the frond.
 2326. *Lichina*. Fronds minute, tufted, greenish-black when growing. Fructification solitary tubercles with a pore, at length scutelliform.
 2327. *Furcellaria*. Frond cylindrical. Fructification concealed in the swollen extremities of the frond, capsules in the centre, and pyriforme granules in the circumference.
 2328. *Fucus*. Root scutate. Frond plane or compressed, (rarely filiform) dichotomous. Fructification, tubercles contained in a common mucose receptacle, and filled with spores and filaments.
 2329. *Cystoseira*. Root scutate. Stipes cylindrical. Lower leaves plane, upper ones filiform, furnished with pinnate vesicles. Fructification, tubercles in common receptacles, the receptacles with several loculements.

DIATOMEÆ.

- 15021 Articulations with one dot, Stem long
 15022 Filaments striated, Articulations nearly equal in diameter with parallel striæ
 15023 Articulations half as long again as wide granular transversely
 15024 Filaments greenish, Articulations square striated
 15025 Filaments acute transversely striated, Articulations nearly square with pellucid joints
 15026 Articulations half as long again as wide oblique marked with a pellucid transverse band and a dot
 15027 Filaments tapering very rigid with parallel transverse dense striæ
 15028 Filaments tapering orange-colored, Articulations twice as short as their diameter
 15029 Filaments unequal containing nearly circular moniliform globules in rows
 15030 Joints contract. Articulations transversely striat. with 1 or 2 very fine lines about 3 times as long as wide
 15031 Articulations shorter than broad finally changed into somewhat oval close moniliform heaps
 15032 Filaments after copulation pinnatifid traversed by a longitudinal green streak, Articulations 2-toothed
 15033 Filaments somewhat branched cæspitose acute, Granules parallel clustered
 15034 Filam. somew. branched cæspitose acute, Granules clustered appressed, Membrane of filam. inconspicuous
 15035 Filaments densely branched virgate, Granules elliptical
 15036 Filaments minute continuous erect branched containing cylindrical oblong scattered granules
 15037 Filaments slender erect dichotomous, Branches swollen here and there into roundish knobs: interior gelatinous with numerous cylindrical oblong granules

NOSTOCHINÆ.

- 15038 Frond thick angular-lobed, Granules elliptical
 15039 Fronds aggregate minute globose, Granules globose
 15040 Frond deformed rugose, Granules globose brown



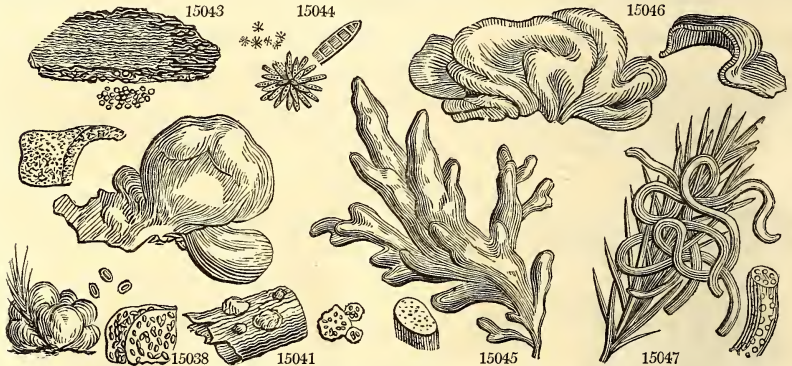
and Miscellaneous Particulars.

2326. *Palmella*. Apparently a diminutive of *Palma*, a little palm; but the application of the name is not obvious in that sense. The plants are found in marshy or inundated places, and consist of globules nestling in a gelatine; in which respect the genus differs from *Protococcus*, the Red Snow plant. It is supposed that many of the species are only the ova of animalcules.

The Red Snow plant, which, as we have just said, is nearly related to this genus, has not hitherto been noticed in this country, but as it has been found in many countries similar to our own regions of snow, it is so probable that it exists in Great Britain, that we insert some particulars of it here, especially as it may be considered to have been introduced at least in 1819, by Captain Ross's expedition to the North Pole. When viewed under the highest powers of a simple microscope, it appears to consist of globules containing a red fluid. We select the following observations upon its history, from a communication made to the *News of Literature and Science*, on the twenty-first of January, 1826.

"Our scientific readers will remember the interest which was excited on the subject of this natural production, upon the return of Captain Ross from his Polar expedition, some years since. At that time it was examined by three of the most acute observers in this country, especially of microscopical objects, Wollaston, Brown, and Bauer, who all formed a similar conclusion in one respect, that it was of vegetable origin, but were of different opinions as to its precise nature: Dr. Wollaston supposing it to be the seed of a moss; Mr. Brown, a substance belonging to Algæ, and nearly related to *Tremella cruenta*, a common British plant; and Mr.

15041	<i>rósea</i> Lyngb.	rosy	gregarious	...	sum.	Pk	on lichens	Grev. crypt. t. 51
15042	<i>montána</i> Ag.	mountain	leaf-like	1½	sum.	R. G	alpine rocks	Eng. bot. t. 2195. <i>Ulua</i>
15043	<i>crúenta</i> Ag.	bloody	thin crust	...	all sea.	R. Br	shady places	E. bot. t. 1800. <i>Tremella</i>
2266.	ECHINEL/LA. Ag.	ECHINELLA.			Sp. 1—3.			
15044	<i>articuláta</i> Ag.	jointed	thin film	...	jn. jl	G	lakes	E. b. t. 1378. <i>Cecchinulata</i>
2267.	ALCYONIDIUM. Ag.	ALCYONIDIUM.			Sp. 3—7.			
15045	<i>diáphanum</i> Ag.	transparent	fleshy mass	6	sum.	Y	ocean	Eng. bot. t. 263. <i>Ulua</i>
15046	<i>flavéscens</i> Ag.	yellowish	fleshy mass	3	sum.	Y	ocean	Fl. dan. t. 1245. <i>Ulua</i>
15047	<i>defráctum</i> Ag.	broken	vermicular	4	sum.	Y. Pk	ocean	Eng. bot. t. 1626. <i>Ulua</i>
2268.	NOSTOC. Ag.	NOSTOC.			Sp. 4—22.			
15048	<i>commúne</i> Ag.	common	lobed mass	2	sum.	OL. G	damp places	E. bot. t. 461. <i>Tremella</i>
15049	<i>prunifórmis</i> Ag.	plum-shaped	little balls	½	sum.	OL. G	lakes	
15050	<i>sphæricum</i> Ag.	spherical	little balls	½	sum.	OL. G	still waters	
15051	<i>verrucósum</i> Ag.	warted	gregarious	1	april	OL. G	rocks	
2269.	CORYNEPHORA. Ag.	CORYNEPHORA.			Sp. 1.			
15052	<i>marina</i> Ag.	marine	lobed mass	1½	aug.	Br	sea shore	Eng. bot. t. 1956
	<i>Rivularia tuberiformis</i> E. B.							
2270.	RIVULARIA. Ag.	RIVULARIA.			Sp. 3—11.			
15053	<i>átra</i> Ag.	dark	minute dots	1½	oct.	D. G	sea plants	Eng. bot. t. 1798
15054	<i>angulósa</i> Ag.	angular	little balls	1½	sum.	DI. G	ditches	Eng. bot. t. 968
15055	<i>calcárea</i> E. B.	calcareous	conflu. mass.	1½	all sea.	G	lakes & mar.	Eng. bot. t. 1799
	<i>Linckia dura</i> Lyngb.							
2271.	CHETOPHORA. Ag.	CHETOPHORA.			Sp. 2—12.			
15056	<i>tuberculósa</i> Ag.	warty	balls	½	sept.	G	ditches	E. bot. t. 2366. <i>Rivularia</i>
15057	<i>endiviæfólia</i> Ag.	endive-leaved	branched	2	sum.	G	still waters	Lyngb. phyt. dan. t. 65
	<i>β crassa</i> Ag.	thick-leaved	branched	2	sum.	G	lakes	E. b. t. 967. <i>U. incrassata</i>
2272.	SCYTHYMENIA. Ag.	SCYTHYMENIA.			Sp. 1.			
15058	<i>rupéstris</i> Ag.	rock	broad mass	24	sum.	Br	rocks	Eng. bot. t. 2194



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Bauer referring it to a genus of Fungi, called Uredo. We have lately seen a curious paper upon this subject, by Professor Agardh, of Lund, whose opinions upon all matters connected with the lower orders of vegetation demand deep attention.

"That snow occasionally assumed a red color, had long been a fact of which there could be no doubt; and that water was also under particular circumstances stained with red, we have the popular traditions of showers of blood, and water changed to blood, to attest. In the year 1608, a shower of blood fell near Aix, in France, which was examined by Peiresc, and found to be caused by insects; and to the same cause was undoubtedly to be ascribed the bloody rain that fell at Schonen, in 1711, which the learned Bishop Swedberg looked upon as a supernatural phenomenon, and a direct sign of the anger of the Divinity. The red pools which are occasionally met with, even in this country, are generally stained by the presence of an immense number of animalcules, called *Daphnia Pulex*, or *Cyclope quadricornis*. The red stains sometimes seen upon the seashore are occasioned by a particular sort of *Fucus*. Professor Agardh proceeds to observe, that the red snow is very common in all the alpine districts of Europe; where it is probably, for the most part, of the same nature as that brought from the North Pole by Captain Ross. Saussure saw it in abundance upon Mount Brevern, in Switzerland, and elsewhere; Ramond found it on the Pyrenees, and Sommerfeld in Norway. In March, 1808, the whole country about Cadore, Belluno, and Feltri, was in a single night covered to the depth of twenty centimetres with a rose-colored snow; at the same time a similar shower was witnessed on the mountains of Valtelin, Brescia, Carinthia, and Tyrol. But the most remarkable red-snow shower was that which fell on the night between the 14th and 15th of March, 1823, in Calabria Abruzzo, in Tuscany, and at Bologna, and upon the whole chain of the Appennines. We may add, that both snow and ice were seen stained with red, green, and blue, by the late expedition under Baron Wrangel to the Frozen Ocean.

"With this information before him, Professor Agardh proceeds to consider the nature of this remarkable substance, which he concludes, with Brown, to be referable to the lowest order of Algae, and to stand as a distinct genus, which he calls *Protococcus*, upon the very limits of the animal and vegetable kingdoms. Saussure, indeed, from finding that the red snow of the Alps gave out, when burnt, a smell like that of plants, concluded that it was of vegetable origin; but he supposed it to consist of the farina of some plant, although he could neither account for its having ascended to such elevated regions, nor mention a plant whose farina was of that color.

"Besides the plant called *Palmella cruenta*, which is similar in its structure to the red-snow plant, other low vegetable productions have been noticed by different authors, as possessing a similar color. Such are the *Lepraria Kermesina*, which, by the way, is considered only a particular state of the red-snow plant itself, and the *Bysus cobaltigena*. These are always found in situations in which they are exposed to the intense action of light, such as vast plains of snow, or masses of glittering limestone. Whence it is inferred, that the color of the red snow is attributable to the action of light, modified in some mysterious manner, by the nature of the body on which it strikes. In confirmation of which hypothesis, it is remarked, that when the *Lepraria*

15041 Minute roundish soft rose-colored containing extremely minute sporules
 15042 Frond deformed rugose, Granules ovate red
 15043 Frond crust-like crimson

15044 Corpuscles radiant lanceolate jointed

15045 Branches elongated
 15046 Branches short obtuse
 15047 Frond filiform simple

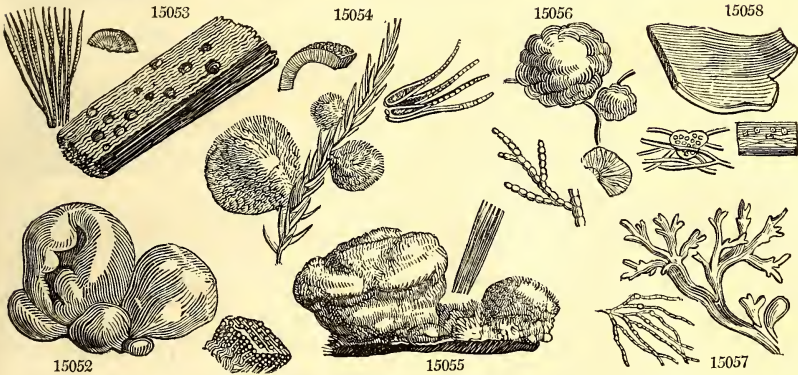
15048 Frond expanded deformed plaited wavy
 15049 Frond globose watery inside, Integument coriaceous very smooth
 15050 Frond globose solid smooth
 15051 Frond bladder subcoriaceous hollow plaited smooth

15052 The only species

15053 Frond hemispherical hard, Filaments very dense branched by apposition
 15054 Frond globose hollow, Filaments simple
 15055 Filaments intermingled with calcareous particles hard and crustaceous when dry

15056 Frond tubercular hollow, Filaments distributed in many little orbs
 15057 Frond linear flattish dichotomous at base much pinnated at end
 β Branches very short

15058 The only species



and Miscellaneous Particulars.

Kermesina is found under stems, stones, or in crevices of limestone, where light can scarcely gain admittance, its color gradually passes from red to green.

"The only difficulty in the way of this explanation of its nature is in the statements of so many observers, that the red snow falls from the air. But Professor Agardh shrewdly remarks, that all the persons agree that it fell in the night, which is as much as to say, that no one saw it fall. He is of opinion that the Protococcus, or Red Snow, is called into existence by the vivifying power of the sun's light, after its warmth has caused the snow to dissolve, and accompanied by that incomprehensible power in white snow, of producing a color; and, moreover, that it first attracts the eye when there is a considerable quantity, in the same way that we do not see the color of drops of water till they have accumulated in the ocean."

2266. *Echinella*. From *echinus*, an hedgehog, in allusion to the bristly appearance presented by its radiant particles. Many naturalists believe the bodies referred to this genus to be animalcula.

2267. *Alcyonidium*. So called, from *αλκυονειδης*, the foam of the sea, among which the plants referred to this genus are naturally produced. This also is supposed to be the nidus of animalcula. Lamouroux who originally fixed it here, afterwards referred it to Zoophytes; in which last opinion Gaillon agrees with him, declaring that he has actually seen the animalcula nesting in it. D'Orbigny and Ellis consider it the ova of a testaceous animal.

2268. *Nostoc*. A name first used by Paracelsus, without an explanation of its meaning. Agardh thinks this singular substance changes into the genus *Collema* among the Lichens.

2269. *Corynephora*. From *κορυνη*, a club, and *φωρα*, to bear, in allusion to the clavate filaments which are found on different parts of it. The species are found in the ocean."

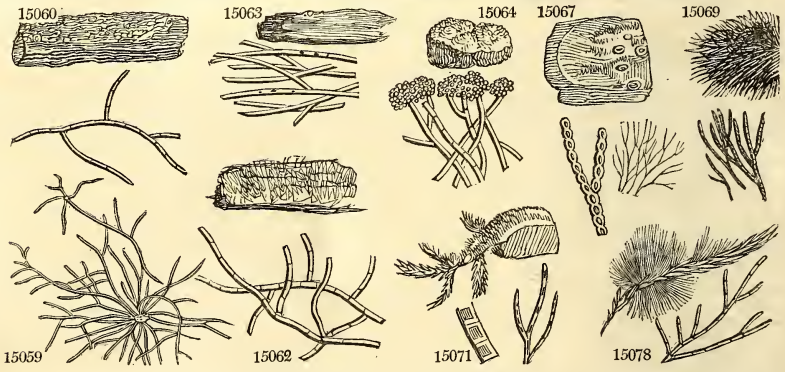
2270. *Rimularia*. So named on account of the places in which the species grow. They have a globose frond, of a gelatinous but toughish texture. Their color is dark-green, and not as in the next genus, pale-green. The filaments are very singular, seated on a globule, simple, cylindrical, and terminated by a very fine point; they are densely compact, continuous, and filled with a green annular matter.

2271. *Chatophora*. From *χατορα*, a bristle, and *φωρα*, to bear; the filaments are terminated by a bristle-like point. This genus is chiefly distinguished from *Confervoideæ* by its gelatine. The color is bright green, and the texture softer than in the preceding. The manner of propagation, which has been noticed in so small a number of Algae, has been observed by Agardh in two species of this genus. In *Chatophora pisiformis* little hard crystalline corpuscles, like grains of sand, may be seen, which separate from the mother plant and produce young filaments. But in *C. clavata*, the points of the filaments fall off and sink to the bottom of the water, where they unite by three, four, five, or by a greater number at a time, in a common point, which is first green, afterwards blackish, and apparently inorganic. From this beginning new individuals arise.

2272. *Scythymenia*. Derivation unknown. A very singular plant, formerly referred to *Ulva*. It has the habit of a fungus, and grows upon damp walls. It is supposed to be most nearly related to *Palmella*.

CONFEROVIOEÆ.

2273. BYSSOCLA'DIUM. <i>Ag.</i> BYSSOCLADIUM.	<i>Sp.</i> 1—3.			
15059 fenestræ <i>Ag.</i> window	fine tuft	$\frac{1}{2}$ all sea. G	on windows	Dillw. conf. t. 94
2274. MYCINE'MA. <i>Ag.</i> MYCINEMA.	<i>Sp.</i> 5—6.			
15060 arachnoideum <i>Ag.</i> cobweb	patch	$\frac{1}{2}$ all sea. Pa. G	dead trees	Dillw.conf.t.C. <i>Conferva</i>
15061 fálvum <i>Ag.</i> tawny	down-like	$\frac{1}{2}$ aut. Br	rotten wood	
15062 rubiginósum <i>Ag.</i> rusty	patch	$\frac{1}{2}$ all sea. Rust	rotten wood	Dillw. conf. t. 68. <i>Conf.</i>
15063 phosphóreum <i>Ag.</i> phosphoric	patches	$\frac{1}{2}$ all sea. V	rotten wood	Dillw. conf. t. 88. <i>Conf.</i>
15064 pulvéreum <i>Ag.</i> powdery	thin crust	$\frac{1}{2}$ all sea. G	rotten wood	Dillw.conf.78. t.D. <i>Conf</i>
2275. CHROOLE'PUS. <i>Ag.</i> CHROOLEPUS.	<i>Sp.</i> 5—6.			
15065 Jólithus <i>Ag.</i> purple	patches	$\frac{1}{2}$ all sea. Pu	rocks	Fl. dan. t. 899. f. 1
15066 odorátus <i>Ag.</i> sweet-scented	patches	$\frac{1}{2}$ wint. Br	rocks	Lyngb.hydrom.dan. t.57
15067 lichenicola <i>Ag.</i> Lichen	down	$\frac{1}{2}$ sum. R. O	on lichens	Eng. bot. t. 1609
15068 rubicóndus <i>Ag.</i> pink	patches	$\frac{1}{2}$ sum. R. Br	bark of ap.tr.	
15069 ebéneus <i>Ag.</i> ebony	patches	$\frac{1}{2}$ all sea. Bk	rocks	E. b. t. 702. <i>Byssus nigra</i>
2276. TRENTEPOH'LIA. <i>Ag.</i> TRENTEPOHLIA.	<i>Sp.</i> 3—4.			
15070 purpúrea <i>Ag.</i> purple	patches	$\frac{1}{2}$ all sea. Pu	sea coa., roc.	Eng. bot. t. 192. <i>Byssus</i>
15071 aúrea <i>Ag.</i> golden	patches	$\frac{1}{2}$ all sea. Y	roc. & sub.w.	Eng. bot. t. 212. <i>Byssus</i>
β lílicola <i>Ag.</i> Holly	branch. patc.	$\frac{1}{2}$ spring Y	holly bark	En.bot. t. 1639. <i>Conferva</i>
15072 pulchélla <i>Ag.</i> pretty	downy tufts	$\frac{1}{2}$ spring R.Br	on <i>Conferva</i>	Eng. bot. t. 2285. <i>C.nana</i>
β chalýbea <i>Ag.</i> iron	tufts	$\frac{1}{2}$ sept. D.OI	fresh water	Eng. bot. t. 1996
2277. SCYTONE'MA. <i>Ag.</i> SCYTONEMA.	<i>Sp.</i> 5—17.			
15073 compactum <i>Ag.</i> compact	tufts	1 sum. Bksh	mountains	Lyngb.hydrom.dan. t. 23
15074 byssodeum <i>Ag.</i> byssus-like	tufts	1 sum. B	rocks	Dillen. t. I. f. 18
15075 myochrósum <i>Ag.</i> mouse-skin	slimy coat	1 sum. D.Br	rocks	
β ocellátum <i>Ag.</i> mottled	slimy coat	1 sum. D.Br	aquat. plants	Eng. bot. t. 2590
γ inundátum <i>Ag.</i> inundated	slimy coat	1 sum. D.Br	inund. places	Eng. bot. t. 1555
15076 Bángii <i>Lyngb.</i> spiral	compact tufts	$\frac{1}{2}$ sum. Ærug	subalp.banks	Lyngb.hydrom.dan. t. 28
15077 Sowerbyánum <i>Ag.</i> Sowerby's	short down	$\frac{1}{2}$ sum. OI.Br	ocean	E. b. t. 2219. <i>C.mirabilis</i>
15078 comoides <i>Ag.</i> tufted	broad patches	$\frac{1}{2}$ oct. Rs.br	ocean	Eng. bot. t. 1700. <i>Conf.</i>
2278. STIGONE'MA. <i>Ag.</i> STIGONEMA.	<i>Sp.</i> 1—3.			
15079 atrovirens <i>Ag.</i> dark green	bushy tufts	$\frac{1}{2}$ sum. Bk.G	rocks	Dillw.conf. t. 25. <i>Conf.</i>
2279. PROTONE'MA. <i>Ag.</i> PROTONEMA.	<i>Sp.</i> 7—10.			
15080 répens <i>Ag.</i> creeping	patches	$\frac{1}{2}$ sum. G	pots in both.	
15081 umbrósum <i>Ag.</i> shady	patches	$\frac{1}{2}$ sum. G	on the earth	Dillw. conf. t. 61. <i>Conf.</i>
15082 velútinum <i>Ag.</i> velvety	patches	$\frac{1}{2}$ nov. G	on the earth	Dillw. conf. t. 77. <i>Conf.</i>
15083 frágrans <i>Ag.</i> fragrant	patches	$\frac{1}{2}$ nov. G	on the earth	Eng. bot. t. 1536. <i>Conf.</i>
15084 cryptárum <i>Ag.</i> vault	patches	$\frac{1}{2}$ sum. G	caverns	Eng. bot. t. 2588. <i>Conf.</i>
15085 Orthótrichi <i>Ag.</i> Orthotrichum	dense tufts	$\frac{1}{2}$ sum. Br	on Orthotr.	E. b. t. 1638. <i>C.muscicola</i>
15086 muscicola <i>Ag.</i> moss	minute down	$\frac{1}{2}$ april Br	on mosses	E.b.t.1701. <i>Con.castanea</i>
2280. HYGROCROC'IS. <i>Ag.</i> HYGROCROCIS.	<i>Sp.</i> 7—9.			
15087 barýtica <i>Ag.</i> Barytes	fine tufts	$\frac{1}{2}$ all sea. Tr	sol.of mur.B.	
15088 atraménti <i>Ag.</i> ink	fine tufts	$\frac{1}{2}$ all sea. G. Wh	surf. of ink	Lyngb. hydroph. t. 57
15089 typhlodérma <i>Ag.</i> Gum Arabic	fine tufts	$\frac{1}{2}$ all sea. Ol	in sol. g.arab.	Dillw.conf. t. 85. <i>Conf.</i>
15090 pállida <i>Ag.</i> pallid	fine tufts	$\frac{1}{2}$ all sea. Y	sol. of ochre	Dillw.conf. t. 78. <i>Conf.</i>
15091 Róse <i>Ag.</i> Rose-water	fine tufts	$\frac{1}{2}$ all sea. Tr	rose water	
15092 sanguinea <i>Ag.</i> blood-colored	fine tufts	$\frac{1}{2}$ all sea. C	isinglass size	
15093 vini <i>Ag.</i> Wine	fine tufts	$\frac{1}{2}$ all sea. Y	in Mad. wine	
2281. LEPTOMI'TUS. <i>Ag.</i> LEPTOMITUS.	<i>Sp.</i> 4—15.			
15094 minutissimus <i>Ag.</i> very minute	little tufts	$\frac{1}{2}$ all sea. Tr	on mar. algæ	
15095 lácteus <i>Ag.</i> milky	patches	$\frac{1}{2}$ wint. Tr	pools	Dillw.conf. t. 79. <i>Conf.</i>



History, Use, Propagation, Culture,

2273. *Byssocladium*. From *byssus*, a kind of fungus, and *κλαδος*, a branch; the filamentous branches of this plant being very similar to those of *Byssus*. These plants grow in places occasionally overflowed with water.
 2274. *Mycinema*. From *μυκη*, a kind of minute fungus, and *νημα*, a thread; in allusion to the resemblance of the filaments to those of some Fungi.
 2275. *Chroolepus*. So called on account of the change which is undergone by the exterior membrane, which changes to powder; from *χρως*, skin, and *λεπω*, to decorticate.
 2276. *Trentepohlia*. So named, in honor of an obscure German botanist. This is an ill-defined genus, which is much in need of reformation.
 2277. *Scytonema*. From *στυνος*, leather, and *νημα*, a filament; in allusion to the coriaceous nature of the filamentous frond. The species grow chiefly on stones in inundated places, and are rarely found in salt water.

CONFERVOIDÆ.

15059 Filaments appressed very minute short radiant cobweb-like branched sinuous wavy

15060 Filam. thin entangled in a cobweb-like membr. Branches scatter. rem. simp. Articulat. of various lengths
 15061 Filam. decumb. long membran. equal branched entangled in a soft layer, Articulat. thrice as long as broad
 15062 Filaments much branched rigid erect entangled in a nearly solid mass, Articulat. 4 times as long as broad
 15063 Filam. branch. ascend. very short entangled in a dense unif. crust, Articulat. about $\frac{1}{2}$ as long again as broad
 15064 Filam. branch. dichotom. creeping very minute having caps. at end and ærugin. Dissepiments nearly obsol.

15065 Filaments cæspitose erect very short dichotomous, Articulations half as long again as broad
 15066 Filaments cæspitose branched short erect, Branches spreading stiffish, Articulations as broad as long
 15067 Filaments erect fasciated alternately branched rigid, Articulations tumid as broad as long
 15068 Filam. cæspit. rig. short ascend. curved densely branched, Artic. as broad as long by a line except granules
 15069 Filaments cæspitose branched erect rigid somewhat cartilaginous obtuse, Articulations as broad as long

15070 Filam. dichotomous cæspitose entangled very minute, Artic. about twice as long as broad
 15071 Filam. flexu. collect. in a dense soft cushion-like tuft, Branch. long spread. rig. Artic. twice as long as broad
 β Much smaller, Articulations as broad as long
 15072 Filaments virgate cæspitose, Branches straight, Artic. twice as long as broad, Thecæ racemose

15073 Filaments decumbent rigid flexuose branched entangled in a crustaceous layer, Branches appressed
 15074 Filaments simple erect very short flexuose-crisp entangled in a black layer
 15075 Tuft with olive-yellow filaments, Branches double 1-sided

15076 Filaments simple erect flexuose spirally twisted into pointed masses greenish above brownish below
 15077 Tuft loose, Filaments netted branched, Branches divaricating
 15078 Tuft loose, Filaments flexuose, Branches solitary remote ascending

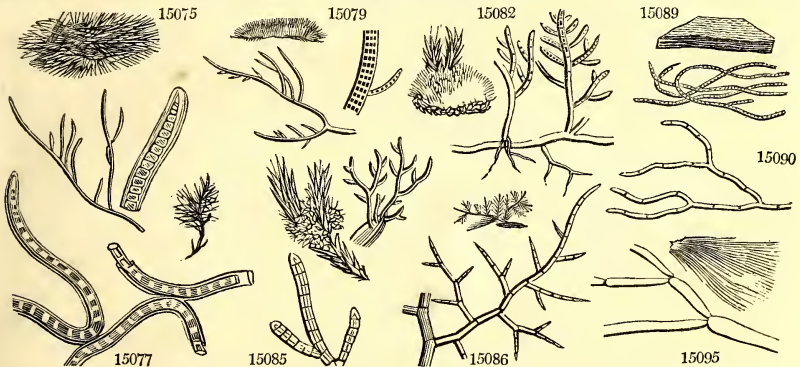
15079 Filaments rigid branched, Branches slender, Granules disposed in rings

15080 Runner creeping transparent emitting round green erect branches, Artic. cylindrical, Joints obsolete
 15081 Layer velvety, Filaments erect obtuse clustered brittle, Articulations gibbous
 15082 Layer velvety, Runner creeping rooting sending out erect obtuse branches, Artic. cylind Joints obsolete
 15083 Layer velvety, Filaments erect blunt rigid, Branches alternate, Articulations oval twice as long as broad
 15084 Filaments dichotomous, Branches divaricating acuminate, Artic. thrice as long as broad
 15085 Filaments olivaceous branched blunt erect in a cushion-like tuft, Artic. about as broad as long
 15086 Filaments branched, Branches alternate divaricating subulate, Artic. three times as long as broad

15087 Tuft globose, Filaments very fine like cobweb hyaline much entangled without joints wavy branched
 15088 Filam. dichot. branch. very min. decumb. very densely entang. in a whit. layer, Artic. twice as long as broad
 15089 Filam. somewhat branched densely entangled in an olive-green pellicle, Artic. as broad as long
 15090 Filam. dichot. curved flexuose entangled in a coriaceous gelatin. pellicle, Axillæ round, Artic. very long
 15091 Filam. hyali. somew. branch. entang. cobw.-like entang. in a pucker. cloud-like memb. or a comp. gelatine
 15092 Filam. branched densely entangled in a gelatin. pellicle, Branches divaric. Artic. half as long again as broad
 15093 Filaments hyaline entangled branched, Branches tapered acute, Artic. as long as broad

* Growing on vegetables.

15094 Filam. somew. branched minute hyaline, Branches scattered forked bluntish, Joints obsol. Artic. various
 15095 Filam. at every joint branched and clustered in a shapeless gelatinous mass, Articulations very long



and Miscellaneous Particulars.

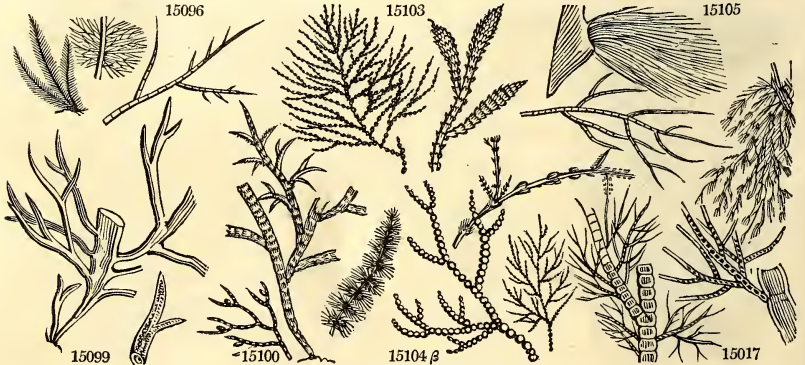
2278. *Stigonema*. So named in allusion to the regular annular dots of the filaments; from *στῖγον*, dotted, and *νημα*, a thread. This genus is similar in habit to the Lichens. The color is opaque and brown; the filaments are branched with spines, and marked internally with distinct dots.

2279. *Protonema*. It is uncertain whether this genus is not rather the young state of germinating mosses; it is named in allusion to the simplicity of its structure, from *πρωτος*, first, or primary, and *νημα*, a thread.

2280. *Hygrocrocis*. From *ὕγρος*, any thing belonging to water, and *κροκίς*, a little tuft. These plants are found in chemical solutions of vegetable matter, as in ink, &c.

2281. *Leptomitus*. Substances floating in the water, and produced by animal matter in a state of decay. They consist of exceedingly fine intertangled filaments, whence the name, *λεπτος*, slender, and *μιτος*, a thread.

15096 <i>nánus</i> Ag.	dwarf	like down	$\frac{1}{2}$ aut.	G	rotten algæ	Dillw. conf. t. 30. <i>Conf.</i>
15097 <i>clavátus</i> Ag.	clavate	minute	$\frac{1}{2}$ aut.	Tr	dead fishes	Lyngh. hydroph. t. 22
2282. MESOGLO'IA. Ag.	MESOGLOIA.		Sp. 5-8.			
15098 <i>multífida</i> Ag.	multifid	tufts	3 aut.	R	Germ. ocean	Lyn. hy. t. 1669. <i>Chordar.</i>
15099 <i>Hudsóni</i> Ag.	Hudson's	branched	6 aut.	R	ocean	E. b. t. 1627. <i>Ulvá rubra</i>
15100 <i>coccinea</i> Ag.	scarlet	bushy	4 sum.	R	ocean	Eng. bot. t. 2466
	<i>Rivularia verticillata</i> E. B.					
15101 <i>capilláris</i> Ag.	capillary	tufts	3 sum.	R	ocean	Lyngh. hydroph. t. 12
15102 <i>vermiculáris</i> Ag.	vermicular	bushy	5 august	Brsh	oc. an	Lyngh. hydroph. t. 65
	β <i>coriácea</i> Ag.	leathery	5 august	Brsh	ocean	Eng. bot. t. 1819
	<i>Rivularia vermiculata</i> E. B.					
2283. BATRACHOSPERMUM. Ag.	BATRACHOSPERMUM.		Sp. 2-6.			
15103 <i>vágum</i> Ag.	turfy	fine tufts	$\frac{1}{2}$ may	Bsh	ditches	Lyngh. hydroph. t. 64
	β <i>tenuis</i> <i>simum</i> Ag.	very slender	$\frac{1}{2}$ may	D. OI	ditches	E. bot. t. 690. <i>Conf. atra</i>
15104 <i>monilifórmis</i> Ag.	necklace	fine tufts	1 sum.	G	fresh waters	
	α <i>stagnáns</i> Ag.	pool	1 sum.	G	pools	Dillenius, t. 7. f. 44
	β <i>simplicius</i> Ag.	simple	1 sum.	B	pools	Dillenius, t. 7. f. 45
	γ <i>purpuráscens</i> Ag.	purple	1 sum.	Pk	sea shore	Dillenius, t. 7. f. 40
	δ <i>detersum</i> Ag.	knotted	1 sum.	D. OI	pools	Dill. con. t. 11. <i>Conf. atra</i>
2284. DRAPARNAL'DIA. Ag.	DRAPARNALDIA.		Sp. 3-6.			
15105 <i>ténuis</i> Ag.	fine	fine tufts	$\frac{3}{4}$ all sea.	Dt. G	pools	Dill. con. t. 67. <i>C. protensa</i>
15106 <i>plumósa</i> Ag.	feathery	broad tufts	6 sum.	Bt. G	rivulets	E. bot. t. 2087. <i>C. lubrica</i>
15107 <i>glomeráta</i> Ag.	heaped	gelatin. tufts	4 sp. su.	Bt. G	pools	E. b. t. 1746. <i>C. mutabilis</i>
2285. OSCILLATO'RIA. Ag.	OSCILLATORIA.		Sp. 11-47.			
15108 <i>tenuíssima</i> Ag.	very fine	patches	$\frac{1}{2}$ sum.	Pa. G	warm springs	Eng. bot. t. 2584. <i>Conf.</i>
15109 <i>autumnális</i> Ag.	autumnal	slimy mass.	$\frac{1}{2}$ sum.	OI. G	on the earth	
	β <i>vagináta</i> Ag.	sheathed	$\frac{1}{2}$ sum.	OI. G	on the earth	Dillw. conf. t. 99
15110 <i>nígra</i> Ag.	black	floating tufts	$\frac{1}{2}$ sum.	D. G	still waters	Dill. co. t. 64. <i>O. fontinali</i>
15111 <i>Córium</i> Ag.	leather-like	broad layer	$\frac{1}{2}$ spring	Ysh	rocks in wat.	
15112 <i>subfúscá</i> Ag.	brownish	tufts	1 all sea.	Br. V	stones in riv.	
15113 <i>spléndida</i> Grév.	splendid	thin masses	$\frac{1}{2}$ all sea.	Pa. B.	wat. in hoth.	
15114 <i>ténuis</i> Ag.	fine	slippery layer	$\frac{1}{2}$ spring	Pa. G	still waters	Dill. conf. t. 20. <i>C. limosa</i>
15115 <i>limósa</i> Ag.	mud	floating mass.	6 all sea.	Ærug	mud bot. po.	Fl. dan. t. 1549. f. 2
15116 <i>cyánea</i> Ag.	blue	thin film	... all sea.	B	church walls	E. bot. t. 2578. <i>Conferva</i>
15117 <i>decórticans</i> Ag.	unbarking	thin flakes	$\frac{1}{2}$ march	B. G	damp wood	Dillw. conf. t. 26
15118 <i>ochrácea</i> Lyngb.	ochre-colored	gelat. masses	$\frac{1}{2}$ all sea.	Och	pools	Dill. conf. t. 62. <i>Conferva</i>
2286. CALOTHRIX. Ag.	CALOTHRIX.		Sp. 7-12.			
15119 <i>nívea</i> Ag.	snowy	fine tufts	$\frac{1}{2}$ all sea.	Pa. Y	sulph. sprin.	Dill. conf. t. C. <i>Conferva</i>
15120 <i>confervicóla</i> Ag.	conferva	minute tufts	$\frac{1}{2}$ sum.	Gla	marine algæ	E. bot. t. 2576. <i>Conferva</i>
15121 <i>scopulórum</i> Ag.	rock	patches	$\frac{1}{2}$ sum.	Pa. G	marine algæ	E. bot. t. 2171. <i>Conferva</i>
15122 <i>fasciculáta</i> Ag.	fasciated	tufts	$\frac{1}{2}$ sum.	Y. G	roc. on sea c.	Dillw. conf.
15123 <i>mirábilis</i> Ag.	wonderful	little patches	$\frac{1}{2}$ sum.	Ærug	on H. fluitans	Dill. conf. t. 96. <i>Conferva</i>
15124 <i>distórtá</i> Ag.	distorted	floating patc.	$\frac{1}{2}$ sum.	B. G	lakes	E. bot. t. 2577. <i>Conferva</i>
15125 <i>lanáta</i> Ag.	woolly	floating patc.	$\frac{1}{2}$ sum.	G	springs on st.	
	β <i>fúscéscens</i> Ag.	fulvous	$\frac{1}{2}$ sum.	Taw	pools	E. bot. t. 2577. fig. sinistr.
2287. LYNGB'YA. Ag.	LYNGBYA.		Sp. 1-7.			
15126 <i>murális</i> Ag.	wall	patch	$\frac{1}{2}$ all sea.	G	damp earth	Eng. bot. t. 1554
2288. BAN'GIA. Ag.	BANGIA.		Sp. 2-5.			
15127 <i>lamináriá</i> Ag.	Laminaria	broad tufts	$\frac{1}{2}$ sum.	G	on L. escul.	Lyngh. hydroph. dan. t. 24
15128 <i>atropurpúrea</i> Ag.	dark-purple	silky tufts	2 sum.	D. Pu	marine rocks	Dill. con. t. 103. <i>Conferva</i>
	β <i>fúscó-purpúrea</i> Ag.	brown-purple	2 sum.	Br. pu	sea coast	Dill. conf. t. 22. <i>Conferva</i>



History, Use, Propagation, Culture,

2282. *Mesogloia*. From *μσρος*, the middle, and *γλοιοσ*, viscid: the spines of little branches radiating from a common centre, and forming what appears to be a solid mass. These plants were formerly referred to *Chaetophora*, from which they differ in the want of any fixed gelatine.

2283. *Batrachospermum*. From *βατραχος*, a frog, and *σπερμν*. So called in allusion to the places in which the species grow; they are mostly found in marshes, less frequently in the sea.

2284. *Draparnaldia*. James Philip Ralph Draparnaud, was a French botanist, who wrote some memoirs on the subject of botany in the beginning of this century. He is also known for his acquaintance with freshwater *Conferva*.

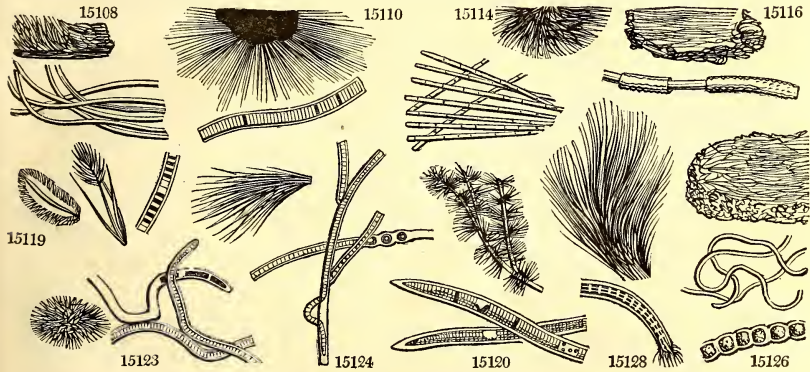
2285. *Oscillatoria*. The singular motion of these curious plants has suggested their generic name. The oscillation of the filaments seems almost of an animal nature, although it frequently arises from mechanical

- 15096 Filam. branched very minute, Branches and branchlets acuminate, Joints pellucid, Artic. cylindrical
 ** Growing on animals.
- 15097 Filaments simple hyaline clavate at end
- 15098 Frond dichotomous, Axillæ rounded: upper spreading
 15099 Frond virgate with all the branches divaricating
 15100 Frond somewhat moniliform virgate filiform, Branches scattered obtuse spreading
- 15101 Frond much branched, Branchlets tapering at each end divaricating
 15102 Frond yellowish-brown, Branches divaricating
- 15103 Frond dichotomous cylindrical equal, Branches thickened at end
 β Frond setaceous minute
- 15104 Frond moniliform much-branched, Branches rather acute, Cauline whorls nearly distinct globose
 α Filaments thick, Whorls of stem confluent: those of the branches distinct
 β Thinner bluish with distant whorls
- 15105 Branches simple clustered, First filament nearly homogeneous
 15106 Pencils of branches lanceolate acute erect
 15107 Pencils of branches ovate blunt spreading

- 15108 Filaments hyaline very fine tufted entangled in nearly parallel lines
 15109 Filaments rigid straight entangled in a gelatinous black layer which has short rays
 β Filaments twisted in bundles
- 15110 Filaments rigid straight entangled in a gelatinous black layer with long rays
 15111 Filaments stiffish curved entangled in a compact somewhat coriaceous layer
 15112 Filaments transparent rigid straight entangled in a compact brownish-violet layer with short rays
 15113 Filaments very minute densely entangled: transverse stria wholly invisible
 15114 Filaments stiffish straight entangled in a gelatinous green layer with short rays
 15115 Filaments rigid rapidly oscillating straight entangled in a gelatinous layer with long rays
 15116 Filaments covered with a deciduous crust entangled in a blue layer
 15117 Filaments very slender flexuose densely interwoven into thin masses
 15118 Filaments very slender simple greenish lying in a thick very tender fragile ochraceous stratum
- 15119 Filaments very fine rigid snow-white packed in a dull-yellow tuft
 15120 Filaments glaucous erect minute subulate fascicled at base separate at end
 15121 Filaments curved-wavy erect minute entangled in a dense layer
 15122 Filaments stiffish erect acuminate simple at the beginning finally branched
 15123 Filaments curved variously united entangled in a lax globule
 15124 Filaments mucous stiffish erect branched tufted
 15125 Filaments stiffish erect branched packed in a dark-green tuft

15126 Filaments stiffish curved wavy thickish with lax rings

- 15127 Filaments tufted fastigiate equal, Bands approximating in pairs many-dotted
 15128 Filaments dark-purple straight, Bands 5-dotted



and Miscellaneous Particulars.

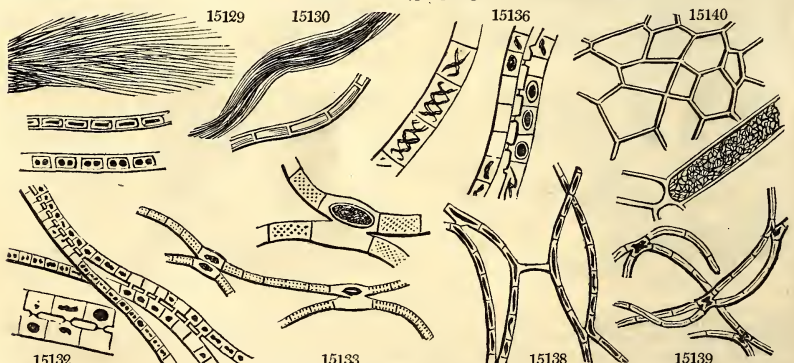
causes, as from the elasticity of the filaments, from the motion of minute animalcula. Agardh, however, declares that *O. curviceps* has naturally the motion of an animal, but of a creeping not oscillatory nature.

2286. *Calothrix*. From *καλος*, beautiful, and *τριξ*, hair, in allusion to the beauty of the entangled filaments; the latter appear as if branched, by the singular juxtaposition of small filaments.

2287. *Lyngbya*. H. C. Lyngbye, a Danish botanist, is the author of an excellent work on Algæ, which he calls *Hydrophytologiæ Danicæ* Tentamen, published at Copenhagen, in 1819, in one volume quarto. This genus differs from *Oscillatoria* in the absence of a mucous matrix, and from *Calothrix* in being curved and quite distinct. In habit it approaches *Conferva*.

2288. *Bangia*. So called in honor of Christian Frederick Bang, the author of a dissertation upon the plants of sacred history, published in 1767.

2289. ZYGNE'MA. Ag.	ZYGNE'MA.	entangl. mass.	Sp. 9—21.					
15129 cruciatum Ag.	crossed		1/4 april	Y.G	ditches		E.b.t.2463. <i>C. bipunctata</i>	
	<i>β longi-articulatum</i> Ag.	long jointed	1/4 april	Y.G	ditches		Dillw. conf. t. 2. f. A	
	<i>γ brevi-articulatum</i> Ag.	short jointed	1/4 april	Ysh	rivulets		Dillw. conf. t. 2. f. B	
15130 decussatum Ag.	decussate	floating tufts	1 1/2 sum.	G	ditches		Dillw. conf. No. 39	
15131 bicolor Ag.	two-colored	floating tufts	3 sum.	G	sto. in rivul.		E. b. t. 2288. <i>Conferva</i>	
15132 pectinatum Ag.	pectinate	patches	1 1/2 march	G	rivulets		E.b.t.2463.f.B. <i>Conferva</i>	
15133 curvatum Ag.	curved	patches	1 1/2 march	G	rivulets		E.b.t.2463. A. <i>C. stictica</i>	
15134 quinimum Ag.	quinate	large masses	1/4 sp. su.	DI.G	still waters		Vauch. conf. t. 5. f. 1	
15135 decimum Ag.	decimate	large masses	1/4 sum.	Bt.G	still waters		Dico.t.4.f.A.B. <i>C. nitida</i>	
15136 nitidum Ag.	shining	float. patches	2 sum.	Bt.G	ditches		E. b. t. 1656. <i>C. spiralis</i>	
15137 punctatum Ag.	dotted	floating cloud	3/4 sum.	Bt.G	pools.		Dill.conf.t.51. <i>Conferva</i>	
2290. MOUGEOT'IA. Ag.	MOUGEOT'IA.	entangl. mass.	Sp. 2—6.					
15138 genuflexa Ag.	knee-jointed		1/3 april	Y.G	ditches		Dill. conf. t. 6. <i>Conferva</i>	
15139 cærulæscens Ag.	blueish	pale patches	1 1/2 july	Pu.B	ditches		E. b. t. 2457. <i>Confervu</i>	
2291. HYDRODICTYON. Ag.	HYDRODICTYON.	floating web	Sp. 1—2.					
15140 utriculatum Ag.	bladdery		6 jn. sep.	G	riv. & lakes		E.b.t.1687. <i>C. reticulata</i>	
2292. CONFERVA. Ag.	CONFERVA.	fine web	Sp. 52—130.					
15141 ericetorum Roth.	heath	fine web	1/4 sp. su.	Br.Pu	dry bogs		E. b. t. 1553. <i>Conferva</i>	
15142 alpina Bory	alpine	fine web	1/4 sp. su.	Br	mountains		Lyngb. hydroph.dan.t.47	
15143 fasciata Dillw.	banded	fine web	1/4 spring	Pu.br	dit. on carr.		Dill.conf.t.B. <i>Conferva</i>	
15144 bombycina Ag.	silky	floating cloud	3 sum.	G	pools & dit.		Dill.conf.t.60. <i>C.sordida</i>	
15145 floccosa Ag.	floccose	float masses	1 1/4 spring	G	ditches		E. b. t. 2303. <i>C. sordida</i>	
15146 mucosa Mert.	mucous	float. masses	1 1/4 spring	G	bogs		Dill.conf.t.B. <i>Conferva</i>	
15147 zonata Web. & Mohr	zoned	long tuft	3 all sea.	G	sto. in rivul.		Dill. conf.t.47. <i>C. lucens</i>	
15148 dissiliens Dillw.	elastic	floating tufts	3 sum.	G	ditches		Eng. bot. t. 2461	
15149 impléxa Dillw.	entangled	broad mat	3 sum.	G	sea-shore		E. b. t. 2309. <i>C. implexa</i>	
15150 tumidula E. B.	tumid	fine film	1 march	G	pools		E. b. t. 1670. <i>C. inflata</i>	
15151 vesicata Ag.	blistered	float. masses	6 march	G	ditches		E. b.t.2304. <i>C. alternata</i>	
	<i>β fuscæscens</i> Ag.	brownish	6 march	G	ditches		Dillw. conf. t. B.	
15152 rivularis L.	rivulet	long tufts	24 sp. su.	G	rivers		Eng. bot. t. 1654	
	<i>α anglica</i> Ag.	English	24 sp. su.	G	ditches		Dillw. conf. t. 79	
15153 capillaris Ag.	capillary	long tufts	1/4 sp. su.	G	ditches		Dillenius, t. 5. f. 25. B.	
15154 linum Roth.	Flax	long tufts	1/4 sp. su.	G	ocean		Lyngb. hydroph. t. 50	
15155 intricata Grev.	matted	small tufts	1/4 spring	G	sea shore			
15156 tortuosa Dillw.	tortuous	crisp masses	2 1/2 april	G	sea shore		Eng. bot. t. 2220	
15157 crassa Ag.	thick	crisp masses	1 april	G	salt marshes		Dillw. conf. t. 9	
15158 melagónium Web.	black-jointed	tufts	4 sum.	G	ocean		Dillw. conf. t. B.	
15159 ærea Dillw.	verdigræse	long tufts	6 all sea.	G	ocean		Dillw. conf. t. 80	
15160 Youngiana Dillw.	Young's	minute tufts	1/2 sum.	G	sea shore		Dillw. conf. t. 102	
15161 hormoides Lyngb.	pencilled	minute tufts	1/2 sum.	G	sea shore		Lyngb. hydroph. t. 49	
15162 collabens Ag.	slippery	floating tufts	4 sum.	G	Germ. ocean		Eng.bot.t.1929. <i>C. ærea</i>	
15163 flaccida Dillw.	flaccid	tufts	2 all sea.	G	on Hutchins.		Dillw. conf. t. 49	
15164 isogona E. B.	equal-jointed	float. patches	1 spring	G	on F. vesicul.		E.b.t.1930. <i>C. youngana</i>	
15165 fucorum Roth.	Fucus	tufts	1/2 sum.	Brsh	on Fuci		Dill.conf.t.C. <i>C. flaccida</i>	
15166 flaccida Lyngb.	drooping	tufts	1/2 may	Brsh	on Fuci		Eng. bot. t. 2310	
15167 ferruginea Roth.	rusty	tufts	1 all sea.	Rus.	on Fuci		Dill.conf.t.66. <i>C. fucicola</i>	
15168 curta Dillw.	cropped	minute tufts	1/2 sum.	Ol.Br	on Fuci		Dillw. conf. t. 76	
15169 carnea Dillw.	pink	tufts	1 1/2 aut.	Pk	on Algæ		Dillw. conf. t. 84	
15170 æruginosa Huds.	copperas	tufts	1 1/2 sum.	Bt.G	sea shore		Dillw. conf. t. E.	
15171 Bröwnii Dillw.	Brown's	patches	1 1/2 spring	G	Irishcaverns		Dillw. conf. t. D.	



History, Use, Propagation, Culture,

2289. *Zygnema*. From *ζυγος*, a yoke, and *νημα*, a filament; in reference to the singular manner in which the filaments are jointed together in pairs.

2290. *Mougeotia*. Named in honor of J. B. Mougeot, the coadjutor of Nestler, in the publication of their useful work, the *Stirpes Cryptogamæ Vogeso-Rhenanæ*, which, we believe, is still continued.

* Two dotted.

- 15129 Articulations twice as long as broad, Stelle roundish, Fruit spherical
 β Articulations thrice as long with two approximated stelle in the middle
 γ Articulations about as long as broad
 15130 Articul. 4 times as long as broad: in fruit convolute, Sporeaceous matter continuous obscure on each side
 15131 Articulations about as broad as long, Stellæ transversely linear-oblong parallel, Rays obsolete
 15132 Filam. adnate, Articul. half as long again as broad, Stellæ transversely obl. pectinated, Fruit spherical

** Marked with spires.

- 15133 Filam. equal curved and flexuose conjugate at angles and twice as long as broad, Spires simple
 15134 Filam. equal, Spires simple contracted in beginning, at length arcuate, Artic. 3 times as long as broad
 15135 Artic. 4 times as long as broad: in fruit elliptical, Spires cruciate lax, Crosses about 4, Fruit elliptical
 15136 Articulations about as broad as long, Spires cruciate thin contracted, Fruit elliptical
 15137 Filaments simple slippery very fine, Dissepiments obscure, Articulations shortish cylindrical

- 15138 Filaments knee-jointed, Articulations six times as long as broad
 15139 Filaments purple-blue, Sporidia of the crosses of the filaments green

15140 Spots 5-cornered

A. Simple.

1. Floating, arachnoid, colored.

- 15141 Filaments simple creeping entangled in a brownish purple layer, Joints half as long again as broad
 15142 Filaments simple very fine adnate straight brown, Articulations four times as long as broad
 15143 Filam. simple fine mucous, Articulations about as long as broad marked in the middle with a narrow band

2. Floating, arachnoid, mucous, green.

- 15144 Filaments arachnoid simple very long in an uniform puckered layer, Artic. thrice as long as broad: when young dotted in the middle
 15145 Filam. arach. simp. very muc. entang. in a puckered layer, Artic. about as long as broad or $\frac{1}{2}$ as long again
 15146 Filam. simple mucous slippery capillary, when dry traversed by a longitudinal band, Artic. as long as broad
 15147 Filaments simple fine gelatinous tapered marked by a transverse band, Artic. about as long as broad
 15148 Filaments simple very fine gelatinous equal, Articulations twice as broad as long
 15149 Filaments simple fine curled entangled smooth, Artic. half as long again as broad

3. Capillary or setaceous. Articulations filled with globose granules, when dry alternately compressed.

- 15150 Filaments simple fine, Artic. 5 times as long as broad inflated elliptical
 15151 Filaments simple fine, Artic. half as long again as broad with globular inflations at intervals

- 15152 Filam. simp. capill. very long straight equal, Artic. grain-bear. 2 or 4 times as long as broad shin. when dry
 β Artic. half as long again as broad

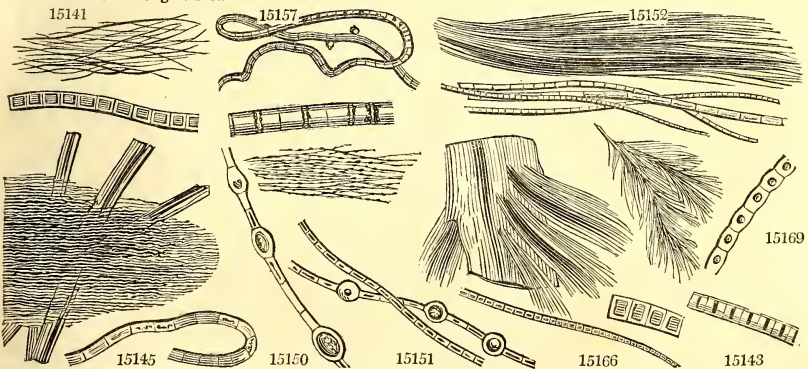
- 15153 Filam. simple variously bent and loosely entangled, Artic. about as long as broad, Granules scattered
 15154 Filam. simple filiform rigid crisp loosely entangled, when dry variegated, Artic. turgid dotted
 15155 Filam. simple very short and minute entangled tortuous, Artic. twice as long as broad
 15156 Filam. simple stiffish curled entangled fine, Artic. 3 times as long as broad [moniliform
 15157 Filam. simple filif. rigid crisp loosely entang. when dry variegated, Artic. about as long as broad, when dry
 15158 Filam. simple thicker than a bristle adnate straight rigid erect, Artic. elliptical when dry
 15159 Filam. simple thicker than a bristle adnate rigid erect, Artic. cylindrical 3 times as long as broad
 15160 Filam. simple very fine adnate stiffish curved, Artic. about as long as broad somewhat moniliform
 15161 Filam. simple very fine adnate straight pendulous, Artic. about as long as broad moniliform
 15162 Filam. simple fine adnate mucous, Artic. as long as broad and variable, Interstices pellucid
 15163 Filam. simple very fine, Artic. rather shorter than broad, Joints pellucid
 15164 Filam. simple very fine adnate mucous straight, Artic. as long as broad, Interstices pellucid
 15165 Filaments simple straight minute, Articulations oval half as long again as broad
 15166 Filaments simple very fine adnate rigid tapered, Lower artic. shorter than broad: upper as long as broad

4. Adnate, pencilled, fastigate, colored.

- 15167 Filaments simple rigid fastigate, Artic. twice as long as broad
 15168 Filaments simple fascicled rigid short attenuated at each end, Artic. somewhat longer than broad
 15169 Filam. simple fine short, Artic. torose about 3 times as long as broad, Sap contained in a central globule

B. Branched.

- 15170 Filam. branched flexuose short, Branches scattered spreading blunt, Artic. half as long again as broad
 15171 Filam. branched densely tufted rigid short, Branches 1-sided, Artic. generally thickest at the end about 3 times as long as broad

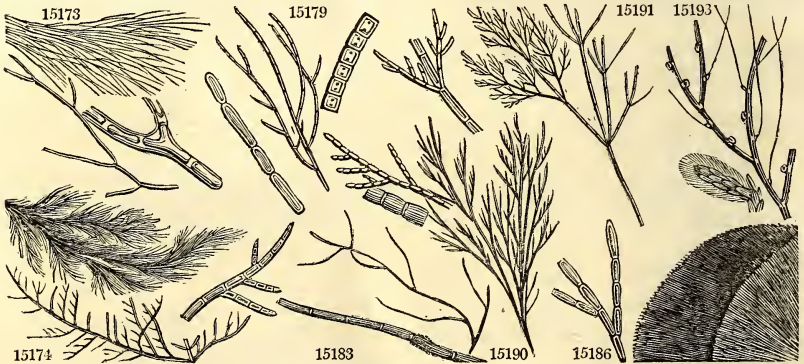


and Miscellaneous Particulars.

2291. *Hydrodictyon*. From *υδωσ*, water, and *διστροσ*, a net; water-net; so named on account of its singular reticulated structure.

2292. *Conferva*. A syncope of the Latin *conferruminare*, to consolidate. Plants of this kind were formerly

15172 stellaris Fl. Dan.	starry	floating tufts	2	sum.	G	ins.of.wa.ves.	Fl. Danica, t. 660. f. 1
15173 riparia Dillw.	bank	floating tufts	3	sum.	G	salt ditches	Eng. bot. t. 2100
15174 glomerata L.	clustered	bushy tufts	1	sum.	Bot. G	riv. on stones	E.b.t. 1854. <i>C.latevirens</i>
15175 crispata Roth.	curled	patches	2	sp. su.	G	lakes	Eng. bot. t. 2350
15176 fracta Dillw.	broken	large tufts	6	sp. su.	G	pools	Eng. bot. t. 2338
15177 patens Ag.	spreading	large tufts	3	sum.	G	ditches	
β prolifera Ag.	proliferous	large tufts	3	sum.	G	ditches	Dil.con.t.10. <i>C.flexuosa</i>
15178 congregata Ag.	heaped	tufts	1	sum.	G	roc. sea coa.	Ly.hy.d.t.56. <i>C.uncialis</i> .
15179 lanosa Ag.	woolly	tufts	1	sum.	G	on Algæ	Dillw. conf. t. E.
15180 flavescens Dillw.	yellowish	tufts	6	sum.	Y.G	salt ditches	Eng. bot. t. 2088
15181 sericea Huds.	silken	shining tufts	3	sum.	Y.G	sea shore	
15182 refracta Roth.	whitish	crispent tufts	4	in. jl.	Pa.G	ocean	E. b. t. 2327. <i>C. albida</i>
15183 aspera Ag.	rough	dense tufts	3	all sea.	D.G	ocean	Dil.con.t.E. <i>C.nigricans</i>
15184 heterochloa Ag.	rock	dense tufts	4	sum.	Gl	ocean	
15185 rupëstris L.	VegetableBalls	soft ball	3	sum.	G	lakes	Eng. bot. t. 1377
15186 areata E. B.	close	floating tuft	3	sum.	Tran.	ocean	Eng. bot. t. 2098
15188 Vaucheriaformis Ag.	mucous	branched	1½	sum.	G	ocean	Dillw.conf.t.E. <i>C. arcta</i>
15189 catenata L.	chain-like	patches	1	sum.	Br	ocean	Dillenius, t. 5. f. 27
15190 Hutchinsia: Dillw.	Miss Hutchins's	dense tufts	4	sum.	Gl	ocean	Dillw. conf. t. 109
15191 pellucida Huds.	pellucid	finely branch.	5	august	Pa.G	ocean	Eng. bot. t. 1716
15192 distans Ag.	distant	loose bundles	6	aut.	Pa.G	ocean	Dill.con.t. 21. <i>C. diffusa</i>
2293. BULBOCHÆTE. Ag.	BULBOCHÆTE.			Sp. 1.			
15193 setigera Ag.	setigerous	delicate tufts	6	aut.	DI.G	lakes & riv.	Dil.conf.t.59. <i>C.vivipara</i>
2294. NITELLA. Ag.	NITELLA.			Sp. 5—11.			
15194 translucens Ag.	transparent	branched	2	sum.	Y.OI	pools	Eng. bot. t. 1855. <i>Chara</i>
15195 flexilis Ag.	flexible	branched	1	sum.	Y.OI	pon. & rivul.	
15196 opaca Ag.	opaque	branched	1	jl. aug.	Y.OI	pools	E.b.t.1070. <i>Chara flexilis</i>
15197 nidifica Ag.	nest-like	branched	1	jl. aug.	Y.OI	pools	Eng. b. t. 1703. <i>Chara</i>
15198 gracilis Ag.	slender	much branch.	3	sept.	Y.OI	pools	Eng. b. t. 2140. <i>Chara</i>
2295. CHARA. L.	CHARA.			Sp. 2—16.			
15199 hispida L.	hispid	branched	1½	jl. aug.	Y.G	ponds	Eng. bot. t. 465
15200 vulgaris L.	common	branched	1½	july	Y.G	ponds	Eng. bot. t. 336
2296. CERAMIMUM. Ag.	CERAMIMUM.			Sp. 21—38.			
15201 lanuginosum Ag.	woolly	fine down	1½	all sea.	Br	on Algæ	Dill.conf.t.45. <i>Conserva</i>
15202 floridulum Ag.	flowering	little tufts	1	all sea.	Pa.G	roc. sea shor.	Dillw. conf. t. F
15203 repens Ag.	creeping	short down	1	july	Pk	on large Alg.	E. b. t. 1608. <i>Conserva</i>
15204 pluma Ag.	feather	fine tufts	8	sum.	R	on large Alg.	Dillw. conf. t. f.
15205 Daviesii Ag.	Davies's	small tufts	3	july	R	sea shore	Eng. bot. t. 2329
15206 Rothii Ag.	Roth's	broad tufts	4	sum.	Vi	sea shor. roc.	Eng. bot. t. 1702
15207 diaphanum Ag.	diaphanous	diffuse	5	sum.	Var.	ocean	Eng. bot. t. 1742
β pilosum Ag.	vilose	diffuse	5	sum.	Var.	ocean	E. b. t. 2428. <i>Conserva</i>
15208 rubrum Ag.	red	solitary weak	10	sum.	Pu	ocean	E. b. t. 1166. <i>Conserva</i>
15209 tetragonum Ag.	square	tufts	3	sum.	R	ocean	Eng. bot. t. 1690
15210 pedicellatum Ag.	stalked	dense tufts	4	sum.	Or	sea shore	Dillw. conf. t. 108
15211 Hookeri Ag.	Hooker's	fine tufts	1½	sum.	Pa.br	sea shore	Dill. conf. t. 106
15212 arbuscula Ag.	little tree	bushy tufts	3	all sea.	D.R	sea shore	Eng. bot. t. 1916



History, Use, Propagation, Culture,

held to be efficacious in healing fractured limbs. Pliny declares, he was witness to a cure of this kind. Some of the species of this genus are believed to be merely the young of mosses.

2293. *Bulbochæte*. From *βαλβος*, a club, and *χαίτην*, a bristle, in reference to the bristly end of the primary filaments.

2294. *Nitella*. From *nitelo*, to shine. A genus separated by Agardh from *Chara*, because the stem is composed of a simple tube, and not of one spirally striated. The plants have the habit of *Chara*.

2295. *Chara*. The origin of this word is unknown. It first occurs in *Cæsar's Commentaries*, where it is mentioned as the name of a plant, the root of which was used by the Roman soldiers as food. That plant could have had no relation to the plant of the moderns. Various opinions have been held with regard to the station of this genus. Linnaeus referred it to the perfect plants, and he has been followed by many botanists. Dr. Hooker and Mr. Lindley, in the former's *Flora Scotica*, formed it into a particular order, placed it between *Algæ* and *Hepaticæ*; and with this opinion Dr. Greville coincides. But Professor Agardh thinks it cannot even be separated from true *Algæ*, in the midst of which he has placed it. The nature of the fructification is so paradoxical, that it is scarcely possible to trace an analogy between it and the fructification of any other plant.

- 15172 Filam. branched very minute equal parallelly exerted from an orbicular base
 15173 Filam. branched remotely capillary very long, Branches short divaricating, Artic. twice as long as broad
 15174 Filam. branched capillary, Branches alternate: those at the end clustered one-sided erect, Artic. cylind. about twice as long as broad
 15175 Filam. branch. Branches altern. rem. Artic. cylind. 6-10 times as long as broad alternately compr. when dry
 15176 Filam. branch. capill. Branch. divaricat. 1-sid.: upp. numer. somew. recurv. Artic. 4 times as long as broad
 15177 Filam. branched capillary, Branches spreading somewhat alternate, Artic. 3 times as long as broad
 & Artic. elliptical proliferous, Punctulating filaments very fine

C. Heaped.

- 15178 Tufts fascic. clav. form. a hemisphere, Filam. intric. branch. Branch. ascend. Artic. about as long as broad
 15179 Filaments tufted, Branchlets long remote, Artic. oblong oval 3 times as long as broad
 15180 Filaments much branch. capillary, Branches spreading somew. alternate, Artic. 6 times as long as broad
 15181 Filaments much branch. capillary dichotom. at base, trichotom. in middle, Artic. 5 times as long as broad
 15182 Filam. much branch. capill. Branches divaricat. somew. recurv. very numer. Artic. twice as long as broad
 15183 Filam. dichotom. setac. rigid finally becoming blackish, Branch. erect rem. Artic. 3 times as long as broad
 15184 Filaments opposite much branched: first branches blackish; second greenish [as broad
 15185 Filam. much bran. setac. when dry dot. with black, Bran. erect, Joints pelluc. Artic. cylind. 3 times as long
 15186 Filam. from a common centre forming a globe rigid branched obtuse, Artic. 5 times as long as broad
 15187 Filam. branch. straight virg. capil. Branch. erect somew. hyal. and thicken. at end, Artic. of various lengths
 15188 Filam. branched straight virgate capillary mucous, Branches erect when dry black at the ends
 15189 Filam. more than bristly trichotom. shin. when dry dott. with black at joints, Artic. 3 times as long as broad
 15190 Filam. much branch. flexuose somew. cartilaginous fragile, Branches and branchl. scatter. Artic. torulose
 15191 Filam. much branched straight rigid, Branches generally in threes obtuse, Artic. very long
 15192 Filam. setac. dichotom. flexuose, Branch. rem. Branchl. short blunt, Artic. cylind. 4 times as long as broad

15193 The only species

- 15194 Stem long, Branchlets blunt, Nucules nearly naked in heaps at the joints of the stem
 15195 Stem trichotomous pellucid, Branchlets forked, Nucules axillary solitary
 15196 Stem 2-3-chotomous opaque, Branchlets forked or with broken joints, Globules solitary
 15197 Fruit branches filiform with other long jointed ones between, Nucules clustered axillary
 15198 Stem slender long, Branches acute forked, Fruit solitary

- 15199 Stem twisted furrowed strigose, Strigæ reflexed, Bractes aculeate
 15200 Stem twisted ash-colored, Branches not jointed, Bractes linear thin thrice as long as nucule

1. *Filaments short, fastigate.*

- 15201 Filam. somew. branch. minute ferrug. Branch. scatter. blunt, Artic. pelluc. in mid. 3 times as long as broad
 15202 Filam. branched fine tufted, Branches scattered simple remote, Artic. 3 times as long as broad
 15203 Filam. creeping rooting densely entangl. much branch. Joints somew. contract. Artic. narrowest in middle
 15204 Filam. creeping minute branched, Branches erect naked at base pinnat. upw. Artic. twice as long as broad
 15205 Filam. much branch. fastig. short, Branch. erect acute, Artic. thrice as long as broad, Caps. lateral clustered
 15206 Filam. short caespitose pulvinate, Branches and branchlets fastigate erect, Artic. twice as long as broad

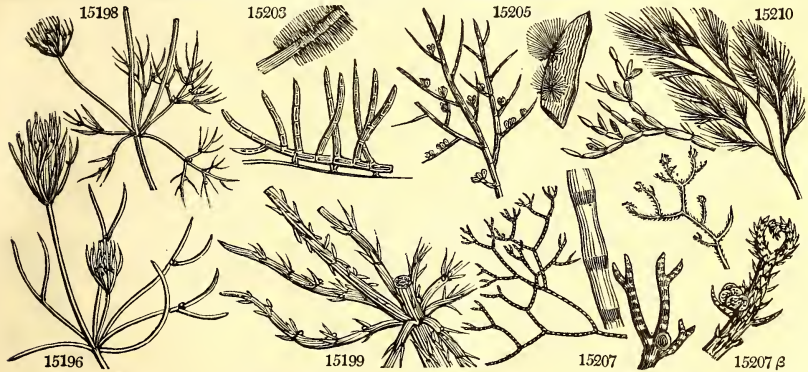
2. *Filaments dichotomous, Branchlets forked, Joints obscure, Theca involucred.*

- 15207 Filam. dichotom. much branched somewhat membranous variegated with purple and hyal. Joints elevated
 β Joints hairy

- 15208 Filam. dichotom. much branched somewhat cartilaginous, Branchlets forked, Artic. ovate opaque

3. *Branches furnished with branchlets, which are more or less dense and shortened.*

- 15209 Filam. branched virgate, Primary articulations twice as long as broad
 15210 Filam. setaceous dichotomous, Artic. thickened upwards about 5 times as long as broad
 15211 Filam. much branch.: prim. thick and contiguous, Altern. pinnules with artic. half as long again as broad
 15212 Filam. much branched: primary without joints, Artic. as long as broad

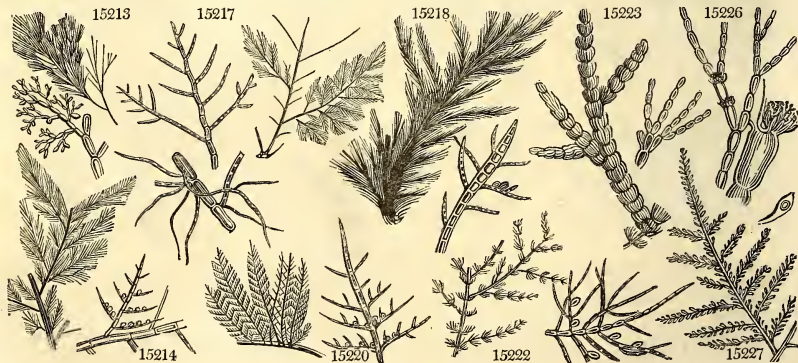
*and Miscellaneous Particulars.*

Greville observes, "This is a most curious tribe of plants, whose structure, I am convinced, is by no means well understood. At present, I have only minutely examined the fruit of *C. vulgaris*. Under a high power of the microscope, the globule is found to consist of seven triangular scales, which in maturity separate from each other, and produce the dehiscence of the globule. Each of these scales has a vacant portion in its centre, but the margin, which has a fluted appearance under a small magnifier, consists of a number of parallel, linear-oblong, hyaline, hollow tubes, placed at small intervals from each other, those forming the angles of the scale being branched. Within these tubes are a profusion of orange, globular, minute bodies (exactly similar to the sporules of many cryptogamic plants), arranged in no order, and escaping on the least injury to the tube. It is these little bodies which give the orange color to the globule. Within the globule is a mass of elastic white filaments, much convoluted, and distinctly either jointed or transversely rugose."

The calcareous matter of the stem and branches is not an adventitious incrustation, but is the result of some peculiar economy in the plant itself, as it evidently originates from within, and is covered with the cuticle. It is supposed to be analogous to the siliceous deposit beneath the cuticle of *Equisetum*.

2296. *Ceramium*. So called from *κεραμειος*, a little measure, in reference to the appearance of the capsules. All the species are found in the sea, and among the substances cast up upon the shore.

15213	<i>corymbosum Ag.</i>	corymbose rosy	little tufts	1½ july	R	sea shore	Eng. bot. t. 2352
15214	<i>roseum Ag.</i>	rosy	finely branch.	1½ sum.	R	ocean	Dillw. conf. t. 17
15215	<i>thujoides Ag.</i>	Arbor-Vitæ	finely branch.	6 july	R	ocean	E. b. t. 2465. <i>C. purpuras.</i>
15216	<i>versicolor Ag.</i>	changeable	fine tufts	3 sum.	Pu. R	on Fuci	Eng. bot. t. 966. <i>C. rosea</i>
15217	<i>Borréri Ag.</i>	Borrer's	little patches	1½ oct.	Or. R	ocean	Eng. bot. t. 1741
15218	<i>tétricum Ag.</i>	livid	tufts	6 spring	DI. pu	sea shore	Eng. bot. t. 1915
15219	<i>interrúptum Ag.</i>	interrupted	little tufts	½ july	DI. pu	sea shore	Eng. bot. t. 1838
15120	<i>Turnéri Ag.</i>	Turner's	delicate bran.	2 sp. su.	Pk	sea shore	Eng. bot. t. 2339
15211	<i>plámula Ag.</i>	feather-like	delicate bran.	2 sp. su.	Pk	sea shore	E. bot. t. 1637. <i>C. Turneri</i>
9297.	<i>GRIFFITH'SIA. Ag. GRIFFITHSIA.</i>			<i>Sp. 5—7.</i>			
15222	<i>multífida Ag.</i>	multifid	fine tufts	3 july	R	sea shore	E. bot. t. 1816. <i>Conferva</i>
15223	<i>equisétifolia Ag.</i>	equisetum-lv'd	sponge-lik. tuf.	6 sum.	R	sea shore	Eng. bot. t. 1479
15224	<i>setácea Ag.</i>	bristly	lax tufts	4 all sea.	R	sea shore	Eng. bot. t. 1689
15225	<i>barbáta Ag.</i>	bearded	flocculent	1½ july	C	sea shore	Eng. bot. t. 1814
15226	<i>corállina Ag.</i>	coralline	branch. tufts	3 july	Or. R	sea shore	Eng. bot. t. 1815
9298.	<i>CHÆTOSPO'RA. Ag. CHÆTOSPO'RA.</i>			<i>Sp. 1.</i>			
15227	<i>Wig'gii Ag.</i>	Wigg's	finely branch.	5 sum.	R. Br	sea shore	Eng. bot. t. 1165. <i>Fucus</i>
9299.	<i>POLYSIPHON'IA. Grev. POLYSIPHONIA.</i>			<i>Sp. 18—49.</i>			
15228	<i>parastíca Ag.</i>	parasitical	small patches	1½ sum.	R. Br	on Fuci	E. bot. t. 1429. <i>Conferva</i>
15229	<i>spinulósa Grev.</i>	rough-stemm.	small patches	1½ sum.	R. Br	sea shore	Grev. crypt. 90
15230	<i>coccínea Ag.</i>	scarlet	bushy tufts	4 all sea.	S	ocean	E. bot. t. 1055. <i>Conferva</i>
15231	<i>divaricáta Ag.</i>	divaricating	tufts	3 sum.	R	ocean	Lyngh. hydroph. t. 34
15232	<i>grácilis Ag.</i>	slender	long tufts	4 all sea.	Pu	ocean	Dill. conf. t. 40. <i>C. stricta</i>
15233	<i>violácea Ag.</i>	violet	little bushes	9 sum.	Vi	ocean	Lyngh. hydroph. dan. t. 35
	<i>β májor Ag.</i>	large	bushy tufts	6 sum.	D. Pu	sea shore	Eng. bot. t. 2340. <i>C. nigra</i>
15234	<i>nigréscens Ag.</i>	blackish	fine tufts	6 sum.	D. Pu	ocean	E. bot. t. 1717. <i>Conferva</i>
	<i>β pectináta Ag.</i>	pectinate	little tufts	1½ sum.	D. Pu	ocean	E. bot. t. 1239. <i>C. fibrata</i>
15235	<i>urceoláta Ag.</i>	urceolate	long branches	8 all sea.	R. Br	ocean	Dill. con. t. G. <i>Conferva</i>
15236	<i>elongáta Ag.</i>	elongated	shrubby	8 all sea.	R. Br	ocean	Dill. con. t. 33. <i>Conferva</i>
15237	<i>allochíra Ag.</i>	various	small tufts	1½ all sea.	Vi	ocean	Dill. con. t. G. <i>C. fibrata</i>
15238	<i>Brodie'si Ag.</i>	Brodie's	large tufts	15 all sea.	D. R	ocean	Dill. con. t. 107. <i>Conferva</i>
15239	<i>atrórubescens Ag.</i>	dark red	long tufts	6 sum.	Bl. R	marine roc.	Dill. con. t. 70. <i>Conferva</i>
15240	<i>fastigiáta Ag.</i>	fastigiate	little bushes	2 sum.	D. Br	ocean	E. b. t. 1764. <i>C. polymorp.</i>
15241	<i>bádia Ag.</i>	brown	fine tufts	3 sum.	D. Br	ocean	Dill. con. t. G. <i>Conferva</i>
15242	<i>recúrva Ag.</i>	recurved	fine tufts	3 sum.	D. Br	sea shore	Dill. con. t. G. <i>C. patens</i>
15243	<i>byssoides Ag.</i>	byssus-like	slender tufts	6 spring	R	sea shore	Eng. bot. t. 597. <i>Conferva</i>
15244	<i>fruticulósa Ag.</i>	shrubby	finely branch.	4 sum.	Br	ocean	Eng. bot. t. 1686. <i>Fucus</i>
15245	<i>filamentósa Ag.</i>	filamentous	branch. tufts	4 march	R	ocean	E. b. t. 2312. <i>C. Griffith.</i>
9300.	<i>RYTIPHLE'A. Ag. RYTIPHLEA.</i>			<i>Sp. 1—3.</i>			
15246	<i>tinctória Ag.</i>	dyer's	masses	6 all sea.	Ol. G	ocean	Turn. fuci, t. 224. <i>Fucus</i>
9301.	<i>ECTO CAR'PUS. Ag. ECTOCARPUS.</i>			<i>Sp. 4—8.</i>			
15247	<i>siliculósus Ag.</i>	podded	bushy	6 spring	D. G	ocean	Dillw. conf. t. E. <i>Conf.</i>
	<i>β atrovirens Ag.</i>	dark-green	bushy	6 spring	Rus.	ocean	E. b. t. 2319. <i>C. siliculosa</i>
	<i>γ ferrugíneus Ag.</i>	ferruginous	bushy	6 spring	Rus.	ocean	E. b. t. 2290. <i>C. littoralis</i>
15248	<i>brachiátus Ag.</i>	brachiate	floating tufts	3 april	Pa. br	ocean	E. bot. t. 2571. <i>Conferva</i>
15249	<i>granulósus Ag.</i>	granular	flocculent	3 july	OLG	on Fuci	E. bot. t. 2351. <i>Conferva</i>
15250	<i>tomentósus Ag.</i>	downy	fine down	½ july	Br	ocean	Dillw. conf. t. 56. <i>Conf.</i>



History, Use, Propagation, Culture,

2297. *Griffithsia*. Named after Mrs. Griffiths, of Devonshire, whose many discoveries in marine vegetation truly entitle her to this distinction: the highest which one botanist can bestow upon another.
 2228. *Chaetospora*. From *χαίτα*, a bristle, and *σπορα*, a spore: the latter are placed upon fine capillary divisions of the filaments.
 2299. *Polysiphonia*. From *πολυς*, many, and *σιφων*, a siphon, in reference to the numerous little canals by which the colored matter is carried from one end of the plant to the other. Agardh calls these plants

4. *Branches pinnulate, Pinnule alternate.*

- 15213 Filam. branch. Branches virg. surround. by short corymbose fastig. branchl. Artic. 3 times as long as broad
- 15214 Filam. branched, Branchlets alternate rigid spreading subulate, Artic. 3 times as long as broad
- 15215 Filam. branched, Branchlets scattered decompound-pinnate, Artic. 3 times as long as broad
- 15216 Filam. branched, Branchlets scattered virgate, Artic. 8 times as long as broad
- 15217 Filam. virgate with many simple or multifid pencilled ramuli, Artic. 3 times as long as broad
- 15218 Primary filaments downy, Branches straight decompound pinnate, Artic. 3 times as long as broad
- 15219 Filam. much branch. Artic. 4 times as long as broad by degrees becoming thickened, Caps. stalked ellipt.

5. *Filaments pinnated, Pinnæ opposite.*

- 15220 Filam. pinnated, Pinnæ opposite nearly simple, Artic. many times longer than broad
- 15221 Filam. with irregular branches, having at each joint short slender opposite spreading recurved branchlets

1. *Branches fascicled.*

- 15222 Filam. branched, Branchlets subternate distant short multifid, Artic. much longer than broad [broad
- 15223 Filam. branch. cover. all over with somew. whorl. imbricat. short multif. branchl. Artic. much longer than

2. *Dichotomous, chained.*

- 15224 Filam. dichotom. straight, Branches erect long, Articulations cylindrical about 5 times as long as broad
- 15225 Filam. dichotom. Fibres multifid very fine, Articulations thickened upwards about 5 times as long as broad
- 15226 Filaments dichotomous slippery, Articulations thickened 2-4 times as long as broad

15227 The only species

a. *Purple or scarlet, flat, somewhat pinnated.*

- 15228 Filaments bipinnate veiny rigid, Pinnæ and pinnules alternate, Articulations rather shorter than long
- 15229 Dark-red, Branches divaricate rigid, Articulations 3-tubed as long as broad, Stem rough with tubercles
- 15230 Filam. very much branch. Primary not jointed, Branches decomp.-pinn. Pinnules heterogen. multif. fascic.

b. *Creeping, Branches divaricating, often one-sided.*

- 15231 Filaments entangled with scattered branches, Branches divaricating, Articulations twice as long as broad

c. *Purple, whole-colored, adhering to paper.*

- 15232 Filaments nearly equal branched virgate, Branches erect, Lower articulations 5 times as long as broad

d. *Pencilled, black above, generally rose-colored above, adhering to paper.*

- 15233 Filam. much branched diffuse, Branches virgate spread. Lower artic. obsol. Artic. much longer than broad

- 15234 Filaments much branched at end diffuse, Lower articulations very short when dry nodulose: upper about as long as broad with 3 veins

β *Filaments short somewhat pectinated, Branches nearly simple*

- 15235 Filaments much branched diffuse, Branchlets spreading short, Articulations half as long again as broad
- 15236 Filam. dichotom. pencilled much branched, Articulations shorter than long netted veiny: lower obsolete
- 15237 Filam. much branched diffuse, Lower artic. 5-veined 4 times as long as broad: upp. 3-veined twice as long
- 15238 First filament not jointed spirally veiny, Articulations as long as broad, Capsules axillary
- 15239 Filaments branched veiny, Branches long, Artic. of stem long, of the branches thrice as short

e. *Black or blackish-brown when dry, rigid, scarcely adhering to paper.*

- 15240 Filam. dichotomous nearly equal fastigiate, Artic. shorter than broad with a black point in the middle
- 15241 Filaments dichotomous irregularly branched at end, Branches and branchlets very straight: upper artic. 3 times as long as broad
- 15242 Filam. much branched long diff. Branchl. short spread squarr. recurved, Lower artic. long: upper short

f. *Branchlets lateral, short, fascicled.*

- 15243 Filaments decompound pinnated, Branchlets very short and fine, Articulations 3 times as long as broad
- 15244 Filaments branched virgate, Branch. alternately pinnated, Branchlets short multifid, Theca sessile ovate
- 15245 Filam. much branched covered with heterogeneous hair-like simple branchlets, Artic. very short obsolete

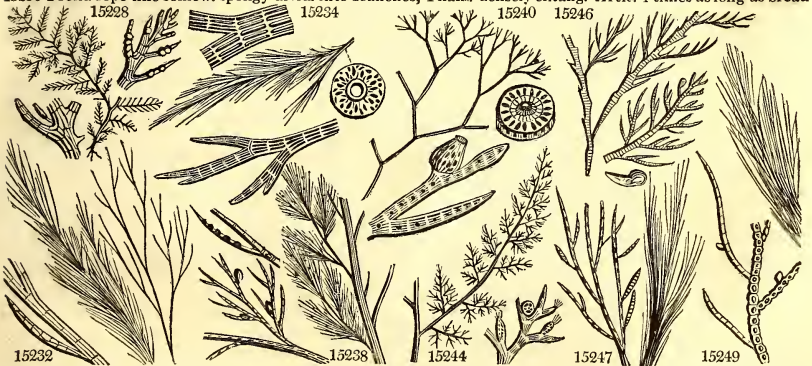
15246 Frond somewhat cartilaginous compressed transversely rugose bipinnated, Pinnules in fruit incurved

15247 Filam. nearly separate, Branches erect subulate, Artic. rather longer than broad, Pods linear subulate

15248 Filam. much branched very fine, Branches and branchlets opposite spreading attenuated acute, Artic. half as long again as broad

15249 Filam. much branch. Branches scatt. spread. taper. ac.: at tips hyal. Artic. as long as broad finally tumid

15250 Frond rope-like somew. spongy divid. into branches, Filam. densely entang. Artic. 4 times as long as broad



and Miscellaneous Particulars.

Hutchinsia, not being aware that the name of Miss Hutchins had previously been applied to a genus of Crucifera, by Mr. Brown. The species of this genus are, perhaps, the most beautiful of all the tribes of Confervæ.

2300. *Rythiphlea*. So called, it is presumed, from *εῤῥῖς*, a wrinkle, and *φλέω*, to be filled with any thing. The filaments are essentially characterized by their numerous transverse rugosities.

2301. *Ectocarpus*. From *εἶπος*, outside, and *καρπός*, fruit, because the thecæ are not included in the substance of the frond, as in the next genus, but placed on the outside. Marine plants.

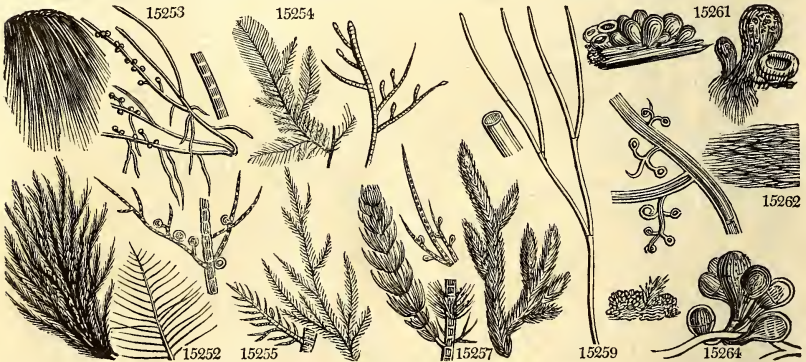
2302. SPHACELLA'RIA. <i>Ag.</i>	SPHACELLARIA.		<i>Sp.</i> 6—14.			
15251 <i>racemosa</i> <i>Grev.</i>	racemose	tufts	1 febr.	Ol.G	sea shore	
15252 <i>cirrhosa</i> <i>Ag.</i>	cirrhous	dense tufts	1 sum.	Ol.G	ocean	Dillw. conf. t. 86. <i>Conf.</i>
15253 <i>radicans</i> <i>Ag.</i>	rooting	fine tufts	$\frac{3}{4}$ sum.	Br.Ol	marine roc.	Dillw. conf. t. C. <i>Conf.</i>
15254 <i>plumosa</i> <i>Ag.</i>	plumose	flaccid	3 spring	G.Br	ocean	E.bot. t.2330. <i>C.pinnata</i>
15255 <i>Mertensii</i> <i>Ag.</i>	Mertens's	elegant tufts	4 sum.	Ol.Br	sea shore	E. bot. t. 999. <i>Conferva</i>
15256 <i>scoparia</i> <i>Ag.</i>	rock	dense tuft	3 sum.	Br	ocean	E. bot. t. 1552. <i>Conferva</i>
2303. CLADOSTEPHUS. <i>Ag.</i>	CLADOSTEPHUS.		<i>Sp.</i> 2—7.			
15257 <i>spongiosus</i> <i>Ag.</i>	spongy	rigid tuft	3 sum.	G	ocean	E. b. t. 2427. f. 1. <i>Conferva</i>
15258 <i>myriophyllum</i> <i>Ag.</i>	many-leaved	rigid tuft	5 sum.	G	ocean	E. b. t. 1718. <i>C. verticillata</i>

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2304. VAUCHERIA. <i>Ag.</i>	VAUCHERIA.		<i>Sp.</i> 6—29.			
15259 <i>dichotoma</i> <i>Ag.</i>	dichotomous	large tufts	12 sum.	D.G	ditches	E. bot. t. 932. <i>Conferva</i>
β <i>submarina</i> <i>Ag.</i>	submarine	large tufts	12 sum.	D.G	submar. dicit.	Lyng. hydrop. dan. t. 20
15260 <i>Dillwynii</i> <i>Ag.</i>	Dillwyn's	thin mat	1 sp. su.	D.G	on the earth	Dill. conf. t. 16. <i>C. frigida</i>
15261 <i>radicata</i> <i>Ag.</i>	rooting	patches	$\frac{1}{2}$ sept.	D.G	dry ditches	E. b. t. 324. <i>Trem. granul.</i>
15262 <i>geminata</i> <i>Ag.</i>	double	large masses	6 sum.	D.G	still waters	Eng. bot. t. 1766
15263 <i>racemosa</i> <i>Ag.</i>	racemose	large masses	4 su. au.	D.G	ditches	Lyng. hydrop. dan. t. 23
15264 <i>multicapsularis</i> <i>Ag.</i>	many-fruited	patches	$7\frac{1}{2}$ su. au.	D.G	dry banks	Dill. conf. t. 71. <i>Conferva</i>
2305. CODIUM. <i>Ag.</i>	CODIUM.		<i>Sp.</i> 2—7.			
15265 <i>tomentosum</i> <i>Ag.</i>	downy	coralloid	6 june	G	ocean	Eng. bot. t. 712. <i>Fucus</i>
15266 <i>Eur'sa</i> <i>Ag.</i>	purse	spongy mass	3 all sea.	G	ocean	Eng. bot. t. 2183. <i>Fucus</i>
2306. BRYOPSIS. <i>Ag.</i>	BRYOPSIS.		<i>Sp.</i> 1—7.			
15267 <i>plumosa</i> <i>Ag.</i>	feathery	fine tufts	2 sept.	Dp.G	ocean	E. b. t. 2375. <i>Ulv. plumosa</i>
2307. SOLENIA. <i>Ag.</i>	SOLENIA.		<i>Sp.</i> 4—18.			
15268 <i>intestinalis</i> <i>Ag.</i>	intestinal	simple	24 sum.	G	ditches	Dillenius, t. 9. f. 7
β <i>maxima</i> <i>Ag.</i>	very large	simple	24 sum.	G	ditches	Dillenius, t. 9. f. 6
15269 <i>Linn'za</i> <i>Ag.</i>	crisp	simple	18 sum.	G	ocean	Dillenius, t. 9. f. 5
β <i>lanceolata</i> <i>Ag.</i>	lanceolate	simple	18 sum.	G	ocean	Dillenius, t. 9. f. 6
15270 <i>compressa</i> <i>Ag.</i>	compressed	simple	12 sum.	G	ocean	Eng. bot. t. 1739. <i>Uva</i>
β <i>crinita</i> <i>Ag.</i>	crinite	compound	12 sum.	G	ocean	Dillenius, t. 2. f. 7
15271 <i>clathrata</i> <i>Ag.</i>	grated	branched	3 sum.	Ysh	fresh water	Dil. con. t. F. <i>C. paradoxa</i>
β <i>uncinata</i> <i>Ag.</i>	hooked	irregul. branc.	3 sum.	Ysh	ocean	E. b. t. 2137. <i>Ulv. ramul.</i>
2308. ULVA. <i>L.</i>	ULVA.		<i>Sp.</i> 3—12.			
15272 <i>lactuca</i> <i>L.</i>	Green Laver	soft leaves	12 su. au.	G	ocean	Eng. bot. 1551
15273 <i>bullosa</i> <i>Roth.</i>	puckered	soft leaves	6 su. au.	G	ditches	Eng. bot. 2320
15274 <i>crispa</i> <i>Lightf.</i>	crisp	broad mass	$\frac{1}{2}$ sum.	G	on the earth	Dillenius, t. 10. f. 12
2309. PORPHYRA. <i>Ag.</i>	PORPHYRA.		<i>Sp.</i> 2—3.			
15275 <i>laciniata</i> <i>Ag.</i>	torn	soft leaves	2 sum.	Pu	sea shore	Lightf. fl. scot. t. 83
15276 <i>purpurea</i> <i>Ag.</i>	purple	soft leaves	2 sum.	Pu	sea shore	

FLORIDEÆ.

2310. POLYIDES. <i>Ag.</i>	POLYIDES.		<i>Sp.</i> 1.			
15277 <i>lumbicalis</i> <i>Ag.</i>	Worm-like	coralloid	6 nov.	Br	ocean	E. b. t. 1738. <i>Fuc. rotund.</i>
2311. Ptilota. <i>Ag.</i>	Ptilota.		<i>Sp.</i> 1—4.			
15278 <i>plumosa</i> <i>Ag.</i>	feathery	fine tufts	4 su. au.	R	ocean sea shore	Eng. bot. t. 1308. <i>Fucus</i>
β <i>tenuis'sima</i> <i>Ag.</i>	delicate	fine tufts	4	R	ocean sea shore	



History, Use, Propagation, Culture,

2302. *Sphacellaria*. This name has been suggested by the *sphacelated* appearance of the truncated extremities of the shoots, in which the reproductive organs are immersed.

2303. *Cladostephus*. From *κλαδος*, a branch, and *στος*, a crown, in allusion to the manner in which the first stem is crowned as it were by the little compound whorled branches.

2304. *Vaucheria*. So named, in honor of M. Vaucher, of Geneva, an indefatigable collector of submersed Algae.

2305. *Codium*. From *καδινον*, a skin, with reference to the appearance of the second species.

2306. *Bryopsis*. The filaments of this genus form little pinnated or imbricated branches, resembling bits of moss; whence the name has been formed, from *βρυον*, a moss, and *οψις*, resemblance.

- 15251 Filam. twice or thrice dichotom. Artic. as long as broad, Tubercles ovate racemose on branched peduncles
 15252 Filam. much branched fine striated, Branches alternate somew. pinnated, Articulations as long as broad
 15253 Filaments branched rooting straight rigid, Branches scattered simple erect obtuse tapering at the base, Artic. about twice as broad as long
 15254 Primary filaments branched not jointed surrounded by pectinated spreading branchlets
 15255 Filaments bipinnate very fine, Pinnæ and pinnules opposite, Artic. very short, Theca ovate stalked
 15256 Stem covered with confervoid filam. Branches somew. bipinnate, Pinnæ pectinate, Altern. pinnules subul.
 15257 Setæ simple densely imbricated
 15258 Setæ incurved forked or crested imbricated

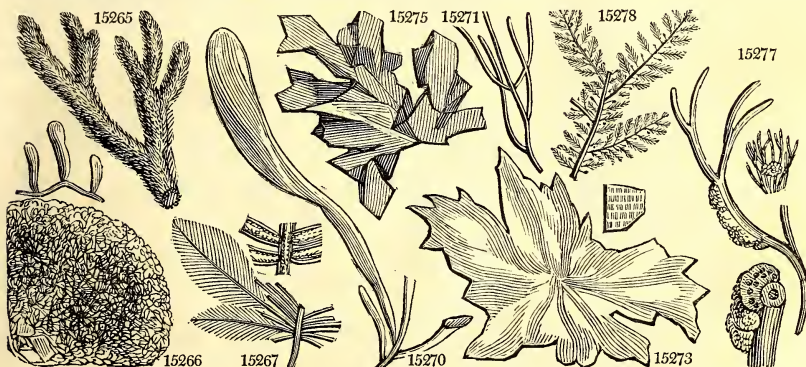
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- 15259 Filaments setaceous dichotomous fastigate, Thecæ globose sessile solitary
 β Filaments finer, Thecæ lanceolate and ovate
 15260 Filaments flexuose, Thecæ sessile lateral globose
 15261 Filaments descending rooting, Thecæ solitary terminal globose
 15262 Filaments dichotomous, Thecæ obovate stalked opposite on a common cornute pedic
 15263 Filaments branched cæspitose, Thecæ racemose
 15264 Filaments branched creeping, Branches erect nearly simple, Thecæ heaped towards the tips
 15265 Frond dichotomous fastigate cylindrical
 15266 Frond globose hollow
 15267 Filam. branched naked below, pinnated in the middle, Branchlets opp. nearly simple approximating
 15268 Frond tubular inflated simple
 15269 Frond lanceolate ensiform much tapered at each end wavy crisp
 15270 Frond tubular lined clathrate branched filiform compressed, Branches simple tapering at base
 15271 Frond tubular irregularly clathrate filiform, Branches tapered
 15272 Fronds obovate or lanceolate flat wavy lacinate-crisp
 15273 Frond obovate slippery sinuous blistered finally expanded
 15274 Fronds blistered plaited-crisp rugose heaped in an expanded layer
 15275 Frond flat with numerous dilated segments
 15276 Frond flat ovate lanceolate flat wavy crisp at the edge

FLORIDEÆ.

15277 The only species

15278 Jugament filiform compressed, Pinnules opposite pectinate-cut



and Miscellaneous Particulars.

2307. *Solenia*. So called, from *σωλην*, a tube, in allusion to the tubular nature of the frond.
 2308. *Ulua*. This was the common name applied by the Latins to all kinds of marine plants. The word is said to have been derived from the Celtic *ul*, water. The green laver which, stewed with lemon juice, is so much esteemed in England, is the *U. lactuca*.
 2309. *Porphyra*. This genus has received its name from *πορφυρος*, purple, on account of its being remarkable among Ulvaceæ for possessing that color.
 2310. *Polyides*. From *πολυιδής*, multifarious, in allusion to the diversity of appearance of the single species.
 2311. *Ptilota*. Named in allusion to the form of the frond: from *πτελωτος*, pennated.

2212. RHODOMELA. <i>Ag.</i> RHODOMELA.					Sp. 5—21.	
15279 dentata <i>Ag.</i>	toothed	flat branched	4	sum.	Ol.Br sea shore	Eng. bot. t. 1241. <i>Fucus</i>
15280 lycopodioides <i>Ag.</i>	lycopodium-like	coralloid	6	sum.	Ol.Br ocean	Eng. bot. t. 1163. <i>Fucus</i>
15281 subfusca <i>Ag.</i>	brownish	finely branch.	6	sum.	Ol.Br ocean	Eng. bot. t. 1164. <i>Fucus</i>
15282 scorpioides <i>Ag.</i>	amphibious	feathery	4	sum.	R.Pu ocean	Eng. bot. t. 1428. <i>Fucus</i>
15283 pinastroides <i>Ag.</i>	Pine-like	acicular	3	sum.	Br ocean	Eng. bot. t. 1042. <i>Fucus</i>
2313. CHONDRIA. <i>Ag.</i> CHONDRIA.					Sp. 9—38.	
15284 pusilla <i>Hook.</i>	dwarf	entangled	$\frac{3}{4}$	sum.	Psh marine roc.	Greville crypt. t. 79
15285 pinnatifida <i>Ag.</i>	Pepper dulse	bushy	6	sum.	Psh ocean	Eng. bot. t. 1202. <i>Fucus</i>
15286 obtusa <i>Ag.</i>	oval	bushy	4	sum.	Y.Pk ocean	Eng. bot. t. 1201. <i>Fucus</i>
15287 ovalis <i>Ag.</i>	rigid branch.	rigid branch.	4	sum.	Br ocean	Eng. bot. t. 711. <i>Fucus</i>
15288 dasphylla <i>Ag.</i>	thick-leaved	Sedum-like	4	all sea.	Pu ocean	Eng. bot. t. 847. <i>Fucus</i>
15289 tenuissima <i>Ag.</i>	slender	asparagoid	6	all sea.	Pa.Ol ocean	Eng. bot. t. 1882. <i>Fucus</i>
15290 clavellosa <i>Ag.</i>	clavellose	gelatinous	9	jl. aug.	Pa.pk ocean	Eng. bot. t. 1203. <i>Fucus</i>
15291 Kaliformis <i>Ag.</i>	Kaliform	coralloid	5	june	DI.P ocean	Eng. bot. t. 640. <i>Fucus</i>
15292 articulata <i>Ag.</i>	jointed	much brach.	6	sum.	R.Pk ocean	Eng. bot. t. 1374. <i>Fucus</i>
2314. SPHEROCOCCUS. <i>Ag.</i> SPHEROCOCCUS.					Sp. 17—128.	
15293 rüber <i>Ag.</i>	red	tufts	4	wint.	Psh ocean	Eng. bot. t. 1053. <i>Fucus</i>
15294 Brodiaei <i>Ag.</i>	Brodie's	proliferous	4	su. au.	Psh ocean	Lyngb. hydrop. dan. t.3
15295 membranifolius <i>Ag.</i>	membranous	branched	6	oc. jan.	R.Pu ocean	Turn. fuci, t. 74. <i>Fucus</i>
15296 palmetta <i>Ag.</i>	Palmetto	flat branched	3	sum.	DI.P sea shore	Eng. bot. t. 1120. <i>Fucus</i>
15297 crispus <i>Ag.</i>	crisp	branched	4	s. my.	R.Br ocean	Turn. fuci, t. 216. <i>Fucus</i>
15298 mammillosus <i>Ag.</i>	teated	branched	4	all sea.	R.Br ocean	Eng. bot. t. 1054. <i>Fucus</i>
15299 ciliatus <i>Ag.</i>	ciliated	flat lobed	6	wint.	R.Br ocean	Eng. bot. t. 1069. <i>Fucus</i>
β palmatus <i>Ag.</i>	palmetted	flat lobed	6	wint.	R.Br sea shore	
γ jubatus <i>Ag.</i>	maned	finely cut	6	wint.	R.Br sea shore	Lin. trans. 3. t. 17. f. 2. <i>Fuc.</i>
δ angustus <i>Ag.</i>	narrow	finely cut	6	wint.	R.Br sea shore	
ϵ spinosus <i>Ag.</i>	spiny	finely cut	6	wint.	R.Br sea shore	
15300 gigartinus <i>Ag.</i>	branched	coralloid	3	all sea.	R.Br sea shore	Eng. bot. t. 908. <i>Fucus</i>
15301 corneus <i>Ag.</i>	corneous	finely pinnat.	3	sum.	dp.pk ocean	Eng. bot. t. 1970. <i>Fucus</i>
β pinnatus <i>Ag.</i>	pinnated	finely pinnat.	3	sum.	dp.pk sea shore	Turn. fuci, t. 257. f. d.
γ pulchellus <i>Ag.</i>	pretty	finely pinnat.	3	sum.	dp.pk sea shore	Turn. fuci, t. 257. f. p.
δ Nericidus <i>Ag.</i>	graceful	finely pinnat.	3	sum.	dp.pk sea shore	
ϵ clavifer <i>Ag.</i>	club-bearing	finely pinnat.	3	sum.	dp.pk sea shore	Turn. fuci, t. 257. f. 9
15302 cartilagineus <i>Ag.</i>	cartilaginous	finely pinnat.	8	all sea.	dl. Br ocean	Eng. bot. t. 1477. <i>Fucus</i>
15303 coronopifolius <i>Ag.</i>	buckshorn-lvd.	rigid bushy	6	sum.	DI. P ocean	Eng. bot. t. 1478. <i>Fucus</i>
15304 laciniatus <i>Ag.</i>	jagged	flat lobed	3	f. may	Pk ocean	Eng. bot. t. 1068. <i>Fucus</i>
15305 bifidus <i>Ag.</i>	bifid	bushy lobed	2	f. may	pu.pk sea shore	Eng. bot. t. 773. <i>Fucus</i>
15306 cristatus <i>Ag.</i>	crested	small tuft	1 $\frac{1}{2}$	sum.	Pk ocean	Greville crypt. t. 85
15307 confervoides <i>Ag.</i>	conferva-like	much branch.	6	aut. wi.	Ol. G ocean	Eng. bot. t. 1668. <i>Fucus</i>
15308 plicatus <i>Ag.</i>	plaited	coarse bush	3	all sea.	Ol. Br ocean	Eng. bot. t. 1089. <i>Fucus</i>
15309 purpurascens <i>Ag.</i>	purplish	thinly branc.	6	all sea.	Pa. Y ocean	Eng. bot. t. 1243. <i>Fucus</i>
2315. HALYME'NIA. <i>Ag.</i> DULSE.					Sp. 7—21.	
15310 reniformis <i>Ag.</i>	reniform	broad leaves	8	aut.	R sea shore	Turn. fuci, t. 113. <i>Fucus</i>
15311 edulis <i>Ag.</i>	true	broad leaves	8	aut.	DI. R ocean	Eng. bot. t. 1307. <i>Fucus</i>
β media <i>Ag.</i>	intermediate	broad leaves	8	aut.	R sea shore	Turn. fuci, t. 113. f. g.
15312 palmata <i>Ag.</i>	common	broad leaves	8	oc. ap.	psH. R ocean	E. t. 1306. <i>F. palmatus</i>
β marginifera <i>Ag.</i>	margined	broad leaves	8	wint.	Pu ocean	Stackhouse, fuci, t. 12
γ sarniensis <i>Ag.</i>	Guernsey	broad leaves	8	wint.	Pu sea shore	Turn. fuci, t. 44. <i>Fucus</i>
15313 ligulata <i>Ag.</i>	strap-shaped	lobed fronds	4	wint.	Pu ocean	Eng. bot. t. 421. <i>Ulva</i>
15314 furcellata <i>Ag.</i>	forked	much lobed	3	wint.	Pu ocean	Eng. bot. t. 481. <i>Ulva</i>
15315 opuntia <i>Ag.</i>	Indian Fig	matted	1	sp. aut.	Pa. pu ocean	E. bot. t. 1868. <i>Rivularia</i>
15316 purpurascens <i>Ag.</i>	purple	much branch.	6	sum.	Psh ocean	Eng. bot. t. 641. <i>Ulva</i>
2316. BONNEMAISSONIA. <i>Ag.</i> BONNEMAISSONIA.					Sp. 1—3.	
15317 asparagoides <i>Ag.</i>	Asparag.-like	finely branch.	4	jl. to n.	DI. pu sea shore	Eng. bot. t. 571. <i>Fucus</i>



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2312. *Rhodomela*. From *rhodos*, red, and *melos*, a limb; in allusion to the color of the fronds.
 2313. *Chondria*. The fronds of this genus are particularly cartilaginous, on which account its name has been formed from *χονδρος*, cartilage. *C. pinnatifida* is eaten in Scotland; it has a pungent flavor.
 2314. *Sphaerococcus*. From *σφαιρα*, an orb, and *κοκκος*, fruit. The thecae of the genus are round, and contain a globose nucleus full of round sporida.

- 15279 Frond flat obsolete ribb. alternately bipinnatifid, Pinnae linear cuneate, Pinnules cut, Thecæ urceolate
 15280 Stem filiform covered with setaceous densely imbricated ramenta
 15281 Frond filiform much branched, Branchlets setaceous subulate pinnate fascicled
 15282 Frond filiform attenuate flexuose branched, Branches bipinnate : upper involute
 15283 Frond filiform equal, Ramenta simple about one-sided clustered involute

- 15284 Frond compres. filif. somew. contract. here and there, Fructif. either min. tuberc. or scatter. spor. in ramuli
 15285 Frond compressed 2-3-pinnate, Pinnae alternate, Pinnules obtuse callous
 15286 Frond round filiform many-times pinnated, Pinnae opposite cylindrical clavate short horizontal
 15287 Stem roundish filiform dichotomous, Ramenta elliptical scattered much attenuated at base
 15288 Stem round filiform much branched, Ramenta clavate much attenuated at base
 15289 Stem round filiform irregularly branched, Ramenta setaceous much tapered at base
 15290 Stem filiform much pinnated, Ramenta linear-lanceolate distichous tapering at base
 15291 Frond filiform contracted in joints tubular, Branches whorled
 15292 Frond filiform chain-like in joints tubular, Branches fastigiate dichotomous and whorled

- 15293 Stem scarcely any, Laminae chained obsolete ribbed cuneate 2-forked or lanceolate, Thecæ rugose sessile in the disk of the frond
 15294 Stem filiform somewhat dichotomous, Branches terminating in oblong 2-forked somewhat proliferous laminae, Thecæ spherical subulate terminal
 15295 Stem filiform dichotom. Branches expanded in cuneiform multifid laminae, Thecæ stalked ovate cauline
 15296 Stem filif. nearly simple expanded into a cuneif. palm. laminae : segm. ligulate, Thecæ hemisph. sess. in disk
 15297 Frond flat dichotomous, Segments linear-cuneiform, Thecæ hemispherical sess. on the disk of the frond
 15298 Frond somew. channel. dichotom. Segm. lin. cuneif. Thecæ spheric. scatter. on short stalks on disk of frond
 15299 Frond membran. leathery flat somew. lanc. somew. branched ciliat. Ciliæ subulate bearing thecæ at end

- 15300 Frond cartilagin. compressed lin. somew. dichotom. Segm. ciliated, Ciliæ bear. thecæ either at sides or ends
 15301 Frond cartilagin. corneous distich. branched, Segm. compressed flat linear bipinn. Pinnae opp. spread. obt.

- 15302 Frond cartilagin. filif. compress. decomp. pinnated, Pinnae horizontal altern. Pinnules bearing thecæ at end
 15303 Frond cartilaginous much branched dichotomous pinnated, Segments tapered at base : lower compressed 2-edged ; the last furcate acute
 15304 Frond cartilaginous membranaceous dichotomous or palmate, Segments obtuse somewhat proliferous, Theca immersed in minute unequal processes
 15305 Frond membranous dichotomous, Theca spherical marginal sessile
 15306 Frond membranous dichotomous, Segm. linear : upper palmate crested entire, Theca margin. immersed
 15307 Frond cartilagin. round filif. Branch. long simp. surround. by little branch. Theca hemispher. sess. scatter.
 15308 Frond filif. corneous rigid equal with entang. branches, Branches horizontal 1-sided cluster. forked at end
 15309 Fronds filif. much branch. Branchl. setaceous tapered at each end setac. Theca spheric. attach. to branchl.

- 15310 Stem filiform dilated into a cartilaginous reniform or orbicular entire frond
 15311 Frond fleshy flat simple cuneiform tapered at base into the footstalk rounded at end

- 15312 Frond coriaceous flat palmate entire, Segments cuneate oblong nearly simple

- 15313 Frond membranous tubular flat dichotomous, Axillæ rounded, Segments linear narrow by degrees sending out from the margin many simple ramenta
 15314 Frond gelatinous coriaceous dichotomous, Segments filiform : end membranous dilated elliptical lanceol.
 15315 Frond filiform with contracted articulations
 15316 Frond subgelatinous filiform, Branches remote long, Sporules naked in the substance of the branches

- 15317 Frond filiform compressed much branched, Branchlets setaceous distichous simple pectinate on each side



and Miscellaneous Particulars.

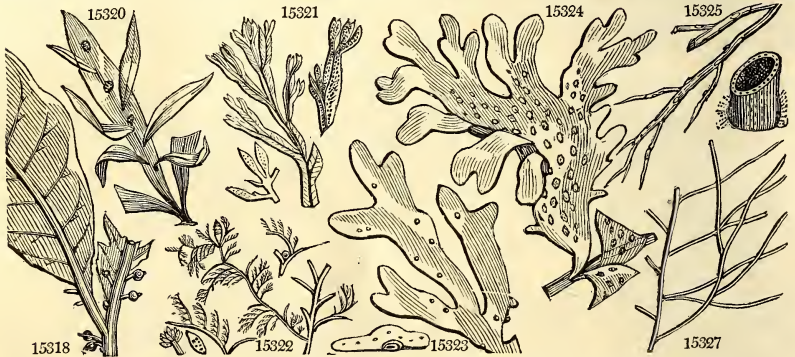
2315. *Halymenia*. From *ἅλς*, the sea, and *ἕμνη*, a membrane. Marine plants with flat or tubular membranous fronds. *H. edulis* is the true Dulse, and *H. palmata* the common Dulse, both of which are eaten in Scotland.

2316. *Bonnemaisonia*. So called in honor of M. Bonnemaison, a French cryptogamic botanist, who particularly attended to *Conferveæ*.

15317. DELESSE'RIA. Ag.	DELESSE'RIA.	Sp. 7—24.	
15318 sanguinea Ag.	blood-colored bushy	6 ja. my. Fl.pk ocean	Eng. bot. t. 1041. <i>Fucus</i>
15319 ruscifolia Ag.	ruscus-leaved flat lobed	4 ja. feb. Ri.pu ocean	Eng. bot. t. 1395. <i>Fucus</i>
15320 hypoglossum Ag.	proliferous tufts	3 jn. sep. Ri.pk ocean	Eng. bot. t. 1396. <i>Fucus</i>
15321 alata Ag.	winged finely branch.	6 jan.au. dp.pk ocean	Eng. bot. t. 1387. <i>Fucus</i>
β dilatata Ag.	dilated	6 jan.au. dp.pk sea shore	
γ angustissima Ag.	very narrow finely branch.	6 jan.au. dp.pk sea shore	
15322 placium Ag.	scarlet finely branch.	4 su.aug. dp.pk ocean	E. b.t.1242. <i>F. coccineus</i>
15323 lacerata Ag.	torn nearly simple	6 jl. oct. Pa.R ocean	Eng. bot. t. 1375. <i>Fucus</i>
15324 punctata Ag.	dotted very tender	4 sum. Bt.pk sea shore	Eng. bot. t. 1573. <i>Fucus</i>

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2318. LEMANE'IA. Ag.	LEMANE'IA.	Sp. 2—5.	
15325 fluviatilis Ag.	fluviatile lax tufts	6 sum. Dl.G stones in riv.	E. bot. t. 1763. <i>Conferva</i>
β media Ag.	intermediate lax tufts	6 sum. Dl.G rivers	Act. holm. 1814. t. 2. f 1
15326 torulosa Ag.	torulose tufts	4 aut. Dl.G rivers	
2319. CHORDA'RIA. Ag.	CHORDARIA.	Sp. 1—5.	
15327 flagelliformis Ag.	flagelliform long masses	24 sum. Ol.G ocean	Eng. bot. t. 1222. <i>Fucus</i>
2320. SCYTOSIPHON. Ag.	SCYTOSIPHON.	Sp. 2.	
15328 flum Ag.	cord simple	240 sum. Br.Ol ocean	Turn. fuci, t. 86. <i>Fucus</i>
β Thrix Ag.	hair simple	24 sum. Br.Ol ocean	Stackh. fuci, t. 12. <i>Fucus</i>
γ tomentosus Ag.	downy simple	60 sum. Br.Ol sea shore	J.yng. hydroph. dan. t. 19
δ fistulosus Ag.	fistular simple	120 sum. Br.Ol ocean	Eng. bot. t. 642. <i>Ulva</i>
15329 feniculaceus Ag.	fennel-leaved		Tu. fuci, t. 234. <i>F. subtilis</i>
2321. SPOROCHYNUS. Ag.	SPOROCHYNUS.	Sp. 6—14.	
15330 pedunculatus Ag.	stalked downy	6 sum. Lt.G sea shore	Eng. bot. t. 545. <i>Fucus</i>
15331 aculeatus Ag.	aculeate much branch.	24 sp. su. Ol.G ocean	Turn. fuci, t. 187. <i>Fucus</i>
15332 viridis Ag.	green very finely br.	18 sum. Ol.G ocean	Eng. bot. t. 1669. <i>Fucus</i>
15333 villösus Ag.	villous downy	6 sum. Pa.Y sea shore	Eng. bot. t. 546. <i>Conferva</i>
15334 rhizodes Ag.	warted smth. branch.	2 sum. Y.Br ocean	Lyngh. hydroph. dan. t. 13
β major Ag.	large smth. branch.	3 sum. Y.Br ocean	E. b. t. 1688. <i>C. verrucosa</i>
15335 ligulatus Ag.	ligulate much branch.	48 sum. Ol.G ocean	Eng. bot. t. 1636. <i>Fucus</i>
2322. HALI'SERIS. Ag.	HALISERIS.	Sp. 1—5.	
15336 polyodioides Ag.	polyodi.-like flat branched	6 all sea. Ol.G ocean	E. b. t. 1758. <i>F. membran.</i>
2323. ENCÆLIUM. Ag.	ENCÆLIUM.	Sp. 1—4.	
15337 bullösus Ag.	blistered simple tubul.	6 sum. Ol.G sea coast	E. b. t. 2570. <i>U. Turneri</i>
2324. ZONA'RIA. Ag.	ZONARIA.	Sp. 3—34.	
15338 pavonia Ag.	Turkey feath. flat lobed	3 sum. Br.G ocean	Eng. bot. t. 1276. <i>Ulva</i>
15339 dichotoma Ag.	dichotomous branched	4 sum. Ol.G ocean	Eng. bot. t. 774. <i>Ulva</i>
15340 multifida Ag.	multifid flat cut	3 aug. Pa.Ol ocean	Eng. bot. t. 1913. <i>Ulva</i>
2325. LAMINA'RIA. Ag.	LAMINARIA.	Sp. 6—25.	
15341 agarum Ag.	perforated large masses	60 sum. Br ocean	Turn. fuci, t. 75. <i>Fucus</i>
15342 esculenta Ag.	esulent large masses	60 sum. Br ocean	Eng. bot. t. 1759. <i>Fucus</i>
15343 digitata Ag.	digitate large masses	60 all sea. Ol.G ocean	Eng. bot. t. 2274. <i>Fucus</i>
15344 bulbosa Ag.	bulbous large masses	60 all sea. Ol.G ocean	Eng. bot. t. 1760. <i>Fucus</i>
15345 saccharina Ag.	saccharine large masses	48 all sea. Ol.G ocean	Turn. fuci, t. 163. <i>Fucus</i>
β bullata Ag.	blistered large masses	48 all sea. Ol.G ocean	E. b. t. 1376. <i>F. sacchari.</i>
15346 phyllitis Ag.	tender simple	12 sum. Bt.G ocean	Eng. bot. t. 1331. <i>Fucus</i>



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2317. *Delesseria*. The most beautiful of the *Fucus* tribe, so named in honor of M. Benjamin Delessert, a distinguished French patron of botany; and now holding the same station among the scientific men of Paris, as was lately occupied in London by Sir Joseph Banks.

2318. *Lemanea*. Named in honor of M. Leman, a French botanist, who possessed a considerable knowledge of Algæ. This genus is the puzzle of writers upon Algæ. It differs from all the *Nostochinæ* in its substance, being in no way gelatinous, and in its compound structure, and separate fruit; for *Confervoidæ*; it is distinguished by its continuous frond, olivaceous color, and leathery texture. To *Fucoideæ* it is most nearly related in color, substance, and structure, but it is akin to no other genus, and its habits are entirely different from those of *Fucoideæ*; the species being all found floating in fresh water.

2319. *Chordaria*. So called from the cord-like appearance of the species.

2320. *Scytosiphon*. The fronds of this genus are tubular and coriaceous; whence the name has been contrived, from *σκυρος*, leather, and *σiphων*, a siphon.

- 15318 Stem distinct, Leaves ovate stalked entire costate, Nerves transverse parallel
 15319 Stem winged, Leaves linear oblong subsessile proliferous from the costa, Veins diaphanous nearly parallel
 15320 Stem winged, Leaves linear-lanceolate costate veinless proliferous from the midrib netted
 15321 Frond ribbed obsolete nerved linear dichotomous alternately pinnatifid towards end, Pinnæ rather lingul.

- 15322 Frond pinnated dichotomous much branched, Last branches falcate inwards and pectinate
 15323 Frond very fine linear irregularly split entire at end, Segments rounded at end not veined, Sori marginal
 15324 Frond very thin veinless roundish irregularly split at the end, Sori on the disk of the frond

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- 15325 Filaments simple papillose, Papillæ usually ternate, Articulations 5 times as long as broad
 β Branched torulose in a moniliform manner here and there
 15326 Filaments simple moniliform incurved l-colored

- 15327 Frond much branched, Branchlets virgate somewhat distichous spreading at base

- 15328 Frond quite simple

- 15329 Frond setaceous branched in an irregular manner

- 15330 Recept. elliptical lateral as long as peduncle
 15331 Branches spiny alternate
 15332 Frond many times pinnated, Pinnæ opposite capillary
 15333 Frond many times pinnated nodose, Pinnæ opposite, Nodi villous
 15334 Frond irregularly branched, torulose and rugose in every direction

- 15335 Frond flat membranous scarcely nerved bipinnate, Pinnæ and pinnules opp. lin.-lanc. tapering at base

- 15336 Frond linear dichotomous entire, Sori heaped about the costa

- 15337 Frond inflated clavate

- 15338 Fronds reniform flabelliform smooth membranous, Zones concentric
 15339 Dichotomous entire, Segments erect linear rounded blunt, Thecæ scattered on the disk
 15340 Frond dichotomous entire, Segments long slender acute

- 15341 Stalk running through the lamina which is riddled with holes
 15342 Stalk winged with pinnæ and running through the ensiform lamina
 15343 Stalk round expanded into a roundish digitate split entire lamina
 15344 Root inflated-bulbous, Stalk flat expanded into a digitate split entire lamina
 15345 Stalk compressed expanded into an entire linear-oblong lamina

- 15346 Stalk compressed expanded into a thin linear-lanceolate entire lamina



and Miscellaneous Particulars.

2321. *Sporochnus*. The meaning of this word is not explained. The genus is remarkable for the nature of the reproductive organs, which consist of a minute receptacle formed by some clavate corpuscles, which are jointed and arranged in a concentrical manner, and crowned with tufts of hair.

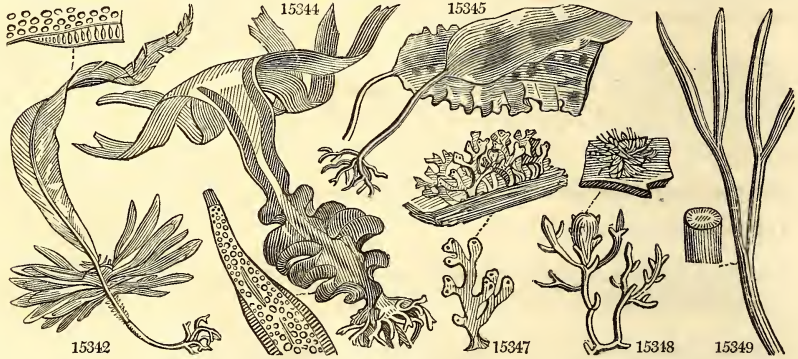
2322. *Haliseris*. This name literally signifies sea-cabbage; from ἅλς, the sea, and σεις, a sort of cabbage. The broad membranous fronds are not unlike the leaves of cabbage.

2323. *Encellium*. From ἐν, within, and κελος, hollow. The fronds are all tubular and bladdery.

2324. *Zonaria*. Beautiful marine plants marked with transverse zones of lines, in which the organs of reproduction are supposed to exist.

2325. *Laminaria*. The reproductive organs of this genus are situated in the form of large sori upon the lamina of the frond. *L. esculenta* is eaten in Scotland, where it is called *Badderlocks*. From *L. saccharina*, when dried in the sun, exudes a dry white sweetish substance, which is eaten as sugar by the poor inhabitants of Iceland. *L. buccinalis* furnishes the singular vegetable production called the sea-trumpet.

2326. LICHINA. Ag.	LICHINA.		Sp. 2.			
15347 pygmaea Ag.	pygmy	small patches	$\frac{1}{2}$ sum.	G. Bl	roc. on se. co.	Eng. bot. t. 1332. <i>Fucus</i>
15348 confinis Ag.	allied	small patches	$\frac{1}{2}$ sum.	G. Bl	roc. on se. co.	Eng. bot. t. 2575. <i>Lichen</i>
2327. FURCELLA'RIA. Ag.	FURCELLARIA.		Sp. 1.			
15349 fastigiata Ag.	fastigiata	much branch.	9	aut. sp.	R. Ol ocean	E.b.t. 824. <i>F. lumbricalis</i>
2328. FUCUS. L.	FUCUS.		Sp. 8—18.			
15350 nodosus L.	knotty	leathery bran.	36	dec.	Ol. G ocean	Eng. bot. t. 570
β Mackay's	Mackay's	leathery bran.	24	dec.	D. Br ocean	Eng. bot. t. 1927
15351 vesiculatus L.	bladdery	loose masses	24	sp. su.	Ol. G ocean	Eng. bot. t. 1056
β longifractus Ag.	long-fruited	loose masses	24	sp. su.	Ol. G ocean	
γ linearis Ag.	linear	loose masses	24	sp. su.	Ol. G ocean	Esper fuci, t. 146
15352 ceranoides L.	horn-like	bushy	12	sp. su.	Ol. G ocean	Eng. bot. t. 2115
15353 distichus L.	distichous	bushy	12	sp. su.	Ol. G ocean	Turner fuci, t. 4
15354 serratus L.	serrated	masses	36	sp. au.	D. Ol ocean	Eng. bot. t. 1221
15355 canaliculatus L.	channelled	small masses	6	sp. au.	Y. Ol ocean	Eng. bot. t. 823
15356 tuberculatus Esp.	warted	branch. wart.	6	june	Y. Ol ocean	Eng. bot. t. 726
15357 lorus L.	strap-like	masses	36	sum.	D. Ol ocean	Eng. bot. t. 569
2329. CYSTOSEIRA. Ag.	CYSTOSEIRA.		Sp. 5—45.			
15358 ericoides Ag.	heath-like	coralloid	6	su. au.	Ol. Br ocean	Eng. bot. t. 1968. <i>Fucus</i>
15359 barbata Ag.	bearded	much branch.	6	su. au.	Ol. Br ocean	Eng. bot. t. 2179. <i>Fucus</i>
15360 discors Ag.	variable	bushy	6	su. wi.	Ol. Br ocean	Eng. bot. t. 2131. <i>Fucus</i>
15361 fibrosa Ag.	fibrous	bush. deform.	6	su. wi.	Ol. Br ocean	Eng. bot. t. 1909. <i>Fucus</i>
15362 siliquosa Ag.	podded	loose masses	24	au. sp.	D. Ol ocean	Turn. fuci, t. 159. <i>Fucus</i>
β minor Ag.	small	loose masses	8	au. sp.	D. Ol ocean	Stackh. fuci, t. 11. <i>Fucus</i>
γ denudata Ag.	naked	loose masses	24	au. sp.	D. Ol ocean	



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2326. *Lichina*. So called in allusion to its supposed convertibility into some one of the Lichen tribe. Sir James Smith has made one species a Lichen and the other a *Fucus*.
 2327. *Furcellaria*. Named on account of the dichotomous forked or *furcellate* arrangement of the fronds.
 2328. *Fucus*. So called by the Greeks. In Latin, the word signifies paint of any kind; a pigment staining red is afforded by certain species of *Fucus*. *Fucus vesiculosus* is much employed in the manufacture of kelp. It is common in great variety upon all the sea-coasts of these islands. It is known at first sight by its spherical vesicles filled with air. When the plant is dried, it becomes brittle, and of a dull black color, and sometimes it is covered with a saline efflorescence. Medically it is considered deobstruent, and has been found efficacious in scrofulous swellings. (*Thom. Lond. Disp.* 308.)

15347 Frond flat with spherical tubercles
 15348 Frond roundish with elliptical tubercles

15349 The only species

15350 Stem compressed here and there inflated with internal vesicles, Receptacles lateral distic. stalk. pyriform

15351 Frond flat ribbed lin. dichotom. entire, Vesicles spherical innate upon frond in pairs, Recept. term. elliptical

15352 Frond lin. costate ent. somew. dichotom. without vesicles, Lateral segm. narrowest multif. fruit-bearing

15353 Frond linear entire dichotomous without vesicles ribbed, Receptacles linear-elliptical

15354 Frond dichotomous ribbed serrated, Recept. solitary flat serrated

15355 Frond linear nerveless channelled dichotomous, Recept. terminal

15356 Frond filiform somewhat dichotomous, Recept. terminal cylindrical

15357 Cup radic. circular plano-convex emit. from its centre a frond terminat. in a very long dichotom. recept.

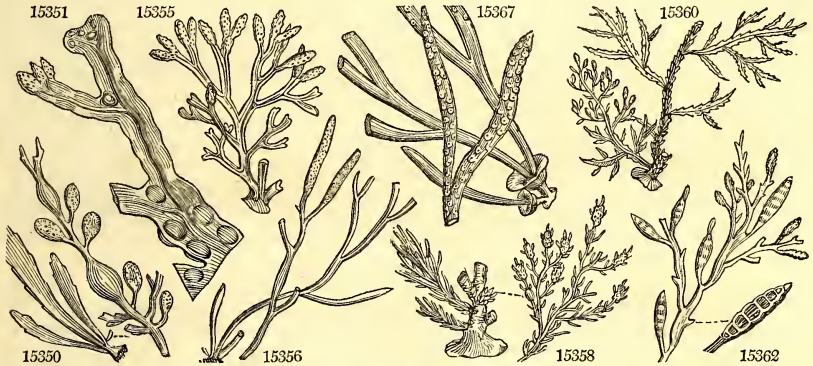
15358 Lvs. densely spiny all over, Vesic. ellipt. somew. term. crown. solit. Recept. warty from inflat. base of spines

15359 Lvs. filiform dichotom. unarmed, Vesicles lanceolate chained, Recept. terminal ovate ellipt. mucronate

15360 Lower leaves thin costate pinnate, Pinna lanceolate crenulate, Vesicles lanceolate somewhat solitary

15361 Lvs. unarmed filif. much branched, Vesicles innate ovate-elliptical somew. chained, Recept. filif. terminal

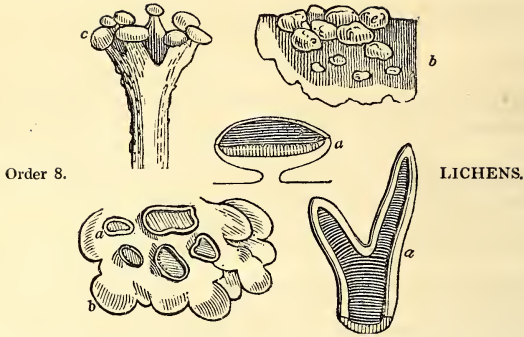
15362 Stem compressed pinnated, Leaves distichous flat linear entire, some bearing vesicles, others receptacles



and Miscellaneous Particulars.

For rural economy, this and other species of *Fucus* are burned for their ashes, which produce the kelp or potash of commerce. On those shores of the sea where these plants do not abound, and where the water is sufficiently saline, the different species of fuci are raised artificially, by depositing stones at regular distances, on which the fuci spring up of themselves, and in four years yield a crop fit for cutting. Those who are interested on this subject will find ample information in the Transactions of the Highland Society of Scotland (vol. viii.), and in Headrick's Survey of Forfarshire. A condensed view of what is known on the subject will be found in the Encyclopædia of Agriculture *in loco*.

2329. *Cystoseira*. From *κυστις*, a bladder, and *σειρα*, a chain. The upper parts of the frond have the appearance of little bladders chained together.



Order 8.

LICHENS.

Reproductive organs uniform. Sporules deposited in receptacles of various forms, distinct in substance from the thallus or frond, which is either pulverulent, crustaceous, membranous, foliaceous, or branched and shrub-like.

This, Algæ, and the collateral order Fungi, may be said to exhibit the lowest stage of vegetable development, and to contain the simplest forms of which plants are susceptible. Indeed it seems that each is resolved into the other when in the least stage of composition. Of this order, the lowest tribe, Pseudo-Lichenes, are considered Fungi by some authors, and have been formed into a distinct order by others, under the name of Hypoxyla. Here it seems best to consider them Lichens.

The fructification is usually in the form of shields or cup-like receptacles (a), dispersed over the surface of the frond or thallus (b), and bearing various names according to their nature. *Apothecia* is the common term used to designate the fructification. *Podetia* are the stalk-like processes of the frond (c), which bear the apothecia on their summit. *Scyphæ* are cup-like apothecia. *Cyphellæ* are pale tubercular spots on the under side of the frond. *Lacunæ* are small hollows or pits on the upper surface of the frond. *Soredia* are little heaps of free, pulverulent bodies, mostly of a whitish color, placed on various parts of the frond (c). *Pulvinuli* are spongy, excrecence-like bodies arising from the frond, and often resembling minute trees. *Nucleus proligerus*, or kernel, is a distinct cartilaginous body coming out entire from the apothecia, and containing sporules. *Lamina proligera* is a distinct body containing the sporules, separating from the apothecia, often very convex and variable in form, and mostly dissolving into a gelatinous mass. The arrangement of Acharius, which is the most celebrated, is here followed.

TRIBE I. IDIOTHALAMI.

Apothecia differing in color from the rest of the plant, and formed of a distinct substance.

§ 1. *Apothecia simple, entirely formed of a sub-uniform, pulverulent, or cartilaginous substance.* HOMOGENII.

* *Apothecia destitute of a raised margin.*

2330. *Spiloma.* Plant crustaceous, spreading, plane, adnate, uniform. Apothecia composed of minute bodies, collected into a compact, homogeneous, subpulverulent, naked, and shapeless colored mass.

2331. *Solorina.* Plant foliaceous, lobed, separate beneath, and veiny or fibrous with down. Recept. adnate, roundish, not edged, covered by a colored membrane, and containing a solid, cellular, bladdery parenchyma.

** *Apothecia with a raised border.*

2332. *Lecidea.* Plant various, crustaceous, spreading, plane, adnate, and uniform or foliaceous. Apothecia scutelliform, sessile, surrounded by a cartilaginous membrane; the disk of the same nature as the raised border.

2333. *Calicium.* Plant crustaceous, plane, spreading, adnate, uniform. Apothecia cup-shaped, sessile, or stipitate, cartilaginous, containing a compact pulverulent mass, plane or convex, and forming a naked disk.

2334. *Gyrophora.* Plant foliaceous, coriaceous, or cartilaginous, peltate, mostly monophyllous, free beneath. Apothecia subscutelliform, sessile, or adnate, covered with a black cartilaginous membrane; the disk warty or plicated in circles, and bordered.

§ 2. *Apothecia subsimple, included, formed of a single covering, containing a capsular body or nucleus.*

HETEROGENII.

2335. *Endocarpon.* Plant crustaceous, adnate, of some determinate figure, or foliaceous and peltate. Apothecia globose, concealed in the substance of the plant, surrounded by a thin membrane, furnished with a slightly prominent orifice, and containing a nucleus.

TRIBE II. CENOTHALAMI.

Apothecia partly formed from the substance of the plant.

§ 1. *Apothecia included in wart-like processes, formed from the substance of the plant.* PHYMATOIDEI.

2336. *Thelotrema.* Plant crustaceous, cartilaginous, plane, spreading, adnate, uniform, with wart-like receptacles, furnished with a wide pore, and bordered. Apothecia included, and containing a nucleus within a double covering.

2337. *Pyrenula.* Plant crustaceous, plano-expanded, adnate, uniform. Recept. wart-like, formed of the thallus, enclosing or surrounding at the base a solitary thalamium, with a simple, thick, papillose perithecium, containing a globose cellular nut.

2338. *Variolaria.* Plant crustaceous, plane, spreading, adnate, uniform. Apothecia wart-like, formed from the crust (resembling soredia), submarginate, white, including a naked nucleus.

§ 2. *Apothecia scutelliform, subsessile, the disk of a peculiar color different from the border, which is formed from the crust.* DISCOIDEI.

2339. *Urceolaria.* Plant crustaceous, spreading, adnate, uniform. Apothecia shield-like, the disk concave, colored, immersed in the crust; border formed from the crust, and the same color.

2340. *Lecanora.* Plant crustaceous, spreading, adnate, plane, uniform. Apothecia shield-like, thick, adnate, and sessile, the disk plano-convex, colored; border thickish, somewhat free, formed from the crust, and the same color.

2341. *Parmelia.* Plant foliaceous, between coriaceous and membranaceous, spreading, appressed, orbicular, lobed, and stellate, variously divided, fibrous beneath. Apothecia shield-like, attached by a central point; the disk concave, colored, with a border formed from the crust.

2342. *Borreria*. Plant cartilaginous, branched, and lacinate, the segments free, channelled beneath, and ciliate at the margin. Apothecia shield-like, with a colored disk; the border formed from the frond.
2343. *Cetraria*. Plant cartilagino-membranaceous, ascending or spreading, lobed, smooth, and naked on both sides. Apothecia shield-like, obliquely adnate with the margin, the disk colored, plano-concave; border inflexed, derived from the frond.
2344. *Sticta*. Plant foliaceous, coriaceous-cartilaginous, spreading, lobed, free and pubescent beneath, with little cavities or hollow spots. Apothecia shield-like, fixed by a central point, the disk colored, plane; border formed from the crust.
2345. *Peltidea*. Plant foliaceous, coriaceous, spreading, subadnate, lobed, with woolly veins beneath. Apothecia orbicular, adnate, on produced portions of the frond, the disk colored; border very thin, formed from the frond.
2346. *Nephroma*. Plant foliaceous, coriaceous, membranous, expanded, lobed, beneath separate, and naked or villous. Recept. resupinate, formed of the ascending lengthened lobes of the thallus. Fertile lamina reniform, entirely attached to the thallus and its lower side, and surrounded by an elevated inflexed margin.
2347. *Roccella*. Plant coriaceous, cartilaginous, branched, lacinated, round or flat, erect or pendulous, woolly inside. Recept. shield-like, thick, growing into the thallus. Fertile lamina forming a disk, plano-convex, colored, and cartilaginous, in the inside hyaline, and of a similar nature, surrounded by a margin, which is elevated, sessile, and as deep as the disk, and which contains a compact black powdery mass, which is hidden within the substance of the thallus.
2348. *Evernia*. Plant branched, lacinate, angular, or compressed, suberect or pendulous, with a central filament within. Apothecia shield-like, sessile, the disk concave, colored; border formed the frond.

§ 3. *Apothecia subglobose, terminating the branches or podetia, or scattered, sessile, and emarginate.*
CEPHALOIDEI.

* *Apothecia covered by the mass of the fructification.*

2349. *Cenomyce*. General receptacle subcartilaginous, foliaceous, lacinate, subimbricated, free (rarely adnate, uniform, or wanting). Apothecia on podetia, orbicular, immarginate at length, capituliform, bearing thick colored masses of fructification.
2350. *Beomyces*. Plant crustaceous, spreading, plane, adnate. Apothecia on short, soft, solid, simple podetia, capituliform, solid, immarginate, colored, convex, reflexed at the margin.
2351. *Isidium*. Plant crustaceous, plane, spreading, adnate, uniform. Apothecia on very short solid podetia, orbicular, convex, solid, terminal; the disk subimmersed, having a border formed from the substance of the podetia.
2352. *Stereocaulon*. Plant shrubby, cartilaginous, branched. Apothecia turbinate, sessile, solid, plane above, at length subglobose, with a border formed from the frond.
- ** *Apothecia clothed with the substance of the frond, and containing a pulverulent mass.*
2353. *Sphaerophoron*. Plant cartilaginous, fibrous within, solid, shrubby, branched. Apothecia sessile, terminal, subglobose, bursting irregularly, and containing a black, globular, pulverulent mass.

TRIBE III. HOMOTHALAMI.

Apothecia entirely formed of the substance of the frond, and of a similar color.

2354. *Alectoria*. Plant cartilaginous, subfiliform, fibrous, and somewhat fistulose within, branched, prostrate, or pendulous. Apothecia shield-like, thick, sessile, bordered, wholly formed from the frond.
2355. *Ramalina*. Plant cartilaginous, fibrous, and nearly solid within, branched, somewhat shrubby, mostly sorediferous. Apothecia shield-like, thick, subpedicellate and subpeltate, plane, bordered, wholly formed from the substance of the frond.
2356. *Cornicularia*. Plant cartilaginous, fibrous, and nearly solid within, branched, shrubby. Apothecia orbicular, terminal, obliquely peltate, at length convex, somewhat inflated; the border dentate.
2357. *Usnea*. Plant much branched, filiform, mostly pendulous, furnished within with a bundle of elastic fibres. Apothecia orbicular, terminal, peltate, often ciliate at the border.
2358. *Collema*. Plant subgelatinous, homogeneous, crustiform, foliaceous, or somewhat branched, membranaceous or cartilaginous when dry. Apothecia shield-like, bordered, formed from the substance of the frond; the disk sometimes differing in color when dried.

TRIBE IV. ATHALAMI.

Lichens destitute of apothecia, and whose fructification is unknown.

2359. *Lepraria*. Whole plant crustaceo-pulverulent, spreading, adnate, uniform. Apothecia unknown.

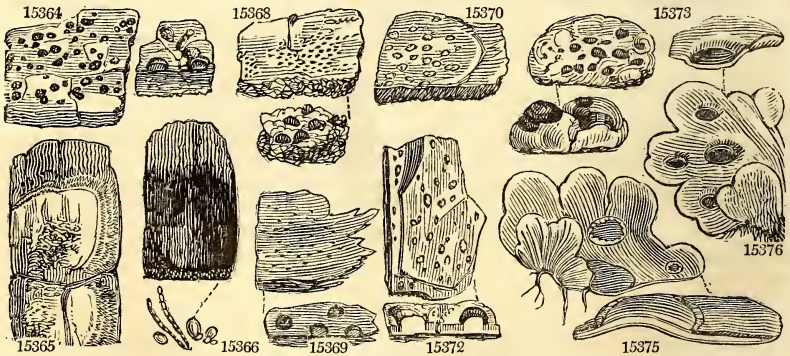
TRIBE V. PSEUDO-LICHENES.

Apothecia black, corneous, imbedded in a receptacle. Sporules in slender tubular cells, lying in a pulp, not spontaneously emitted.

2360. *Opegrapha*. Plant crustaceous, flat, expanded, adnate, uniform. Receptacle oblong and elongated, sessile, covered with a cartilaginous dark membrane, enclosing a solid parenchyma. Disk linear, edged on each side.
2361. *Verrucaria*. Plant crustaceous, plane, expanded, adnate, uniform. Recept. hemispherical, roundish at the base, growing into the thallus, with a double perithecium; exterior somewhat cartilaginous and thick, having above a little pimple or perforation; inner very fine, and membranous. Kernel cellular.
2362. *Porina*. Plant crustaceous, cartilaginous, plano-expanded, adnate, uniform. Recept. wart-like, formed out of the thallus, and not margined. Thalamium imbedded in the substance of the wart, with a simple very thin perithecium, and a colored orifice thicker at the surface of the wart. Kernel roundish, cellular.
2363. *Arthonia*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. innate, sessile, of an irregular roundish figure, without an edge, covered by a somewhat cartilaginous membrane, and containing a solid uniform kernel.
2364. *Graphis*. Plant crustaceous, plano-expanded, adnate, uniform. Recept. long, immersed in the thallus, with a simple cartilaginous perithecium, which forms an edge all round the linear kernel, which is naked at top and bottom, and cellular inside.

IDIOTHALAMI.

2330. <i>SPILOMA</i> . <i>Ach.</i>	<i>SPILOMA</i> .		<i>Sp.</i> 12—20.		
15363 <i>tumidulum</i> <i>Ach.</i>	tumid	thin skin	4 all sea. O	bark of trees	Eng. bot. 2151
15364 <i>versicolor</i> <i>Ach.</i>	changeable	spotted crust	3 all sea. Gr	bark of trees	Eng. bot. 2070
15365 <i>microclonum</i> <i>Ach.</i>	fine-branched	cloudy	1½ all sea. Wsh	aged oaks	Eng. bot. 2150
15366 <i>melanopum</i> <i>E. B.</i>	sooty	sooty spots	2 all sea. Bl	apple trees	Eng. bot. 2358
15367 <i>microscopicum</i> <i>E. B.</i>	microscopic	obl. patches	1½ all sea. Sea G	old boards	Eng. bot. 2396
15368 <i>murale</i> <i>E. B.</i>	golden wall	crust	3 all sea. Ysh	old mortar	Eng. bot. 2297
15369 <i>dispersum</i> <i>E. B.</i>	scattered	even crust	1 all sea. Gr	old rails	Eng. bot. 2398
15370 <i>decolorans</i> <i>E. B.</i>	staining	lobed patches	1½ all sea. Gr	old wood	Eng. bot. 2399
15371 <i>punctatum</i> <i>E. B.</i>	dotted	crust	2 all sea. Gr	old oaks	Eng. bot. 2472
15372 <i>variolosum</i> <i>E. B.</i>	speckled	cracked crust	2 all sea. Wsh	old trees	Eng. bot. 2077
15373 <i>auratum</i> <i>E. B.</i>	golden	tumid crowd.	1½ all sea. Wsh	old walls	Eng. bot. 2078
15374 <i>tuberculosum</i> <i>E. B.</i>	warted	even patch	3 all sea. Cas.	sandst. rocks	Eng. bot. 2556
2331. <i>SOLORINA</i> . <i>Ach.</i>	<i>SOLORINA</i> .		<i>Sp.</i> 2—10.		
15375 <i>crœcea</i> <i>Ach.</i>	yellow	leafy frond	1½ sp. su. Ol G	tops of mou.	Eng. bot. t. 498
15376 <i>saccata</i> <i>Ach.</i>	bagged	leafy frond	2 sum. Grsh	on the earth	Eng. bot. t. 288
2332. <i>LECIDEA</i> . <i>Ach.</i>	<i>LECIDEA</i> .		<i>Sp.</i> 66—183.		
15377 <i>atro-cinœrea</i> <i>E. B.</i>	dark-grey	close patches	1½ all sea. Bl	rocks	Eng. bot. 2096
15378 <i>coracina</i> <i>Ach.</i>	raven	tessellated	2 all sea. Gr. Bl	granite rocks	E. b. t. 2335 <i>L. coracinus</i>
15379 <i>atro-âlba</i> <i>Ach.</i>	black & white	cracked crust	3 all sea. Bl	rocks	Eng. bot. t. 2336
15380 <i>fusco-âtra</i> <i>Ach.</i>	dark-brown	thin crust	2 all sea. Bl	rocks	E. b. t. 1734. <i>L. dendritic.</i>
15381 <i>fumôsa</i> <i>Ach.</i>	smoky	tessellated	3 sum. Br. Gr	alpine rocks	E. b. t. 1830. <i>L. cœchumen.</i>
15382 <i>Lichen athrocarpus</i>	<i>E. B.</i> 1829.				
15382 <i>lapicida</i> <i>Ach.</i>	stone-splitting	broad patches	3 all sea. G	brick walls	E. bot. 821. <i>L. contiguus</i>
15383 <i>petrœa</i> <i>Ach.</i>	rock	thin crust	1½ all sea. W	roc. & stones	Eng. bot. 245
15384 <i>cônfluens</i> <i>Ach.</i>	confluent	tartareous	2 aut. Gr. Br	rocks	Eng. bot. 1964
15385 <i>parasœma</i> <i>Ach.</i>	black-fruited	membranous	3 aut. Wsh	bark of trees	Eng. bot. 1450
15386 <i>sanguinária</i> <i>Ach.</i>	red-fruited	rugose crust	2 all sea. Wsh	rocks	Eng. bot. 155
15387 <i>sabuletorum</i> <i>Ach.</i>	heath	thin cuticle	1½ all sea. Wsh	bark of trees	
<i>β geochrœa</i> <i>Ach.</i>	<i>earth-skin</i>	thin cuticle	1½ all sea. Gr	bark of trees	E. b. 1450. <i>L. parasœmus</i>
15388 <i>miscœlla</i> <i>Ach.</i>	mixed	lobed crust	2 all sea. Pa. Ol	whinst. rocks	Eng. bot. 1831
15389 <i>escharoides</i> <i>E. B.</i>	scarred	granul. crust	1½ june D. Br	earth & rocks	Eng. bot. 1247
15390 <i>aromática</i> <i>Ach.</i>	aromatic	lobed crust	1½ all sea. Ol	old walls	Eng. bot. 1777
15391 <i>dolœsa</i> <i>Ach.</i>	rusty spongy-crust.	broad cuticle	4 all sea. Cas.	rocks	Eng. bot. 2581
15392 <i>atro-virens</i> <i>Ach.</i>	dark-green	thin coat	2 all sea. Bl	rocks	
<i>β geographica</i> <i>Ach.</i>	<i>geographical</i>	figured crust	3 all sea. Y. Ol	rocks	Eng. bot. 245
15393 <i>silœcea</i> <i>Ach.</i>	flint	tessellated	2 all sea. Y. R	rocks	Eng. bot. 1118
15394 <i>Cœdœri</i> <i>Ach.</i>	<i>Cœder's</i>	tessellat. powd.	2 all sea. Rsh	rocks	Eng. bot. 1117



History, Use, Propagation, Culture,

2330. *Spiloma*. This word signifies in Greek, a spreading discoloration of the cuticle, and well expresses the general character of the genus.

IDIOTHALAMI.

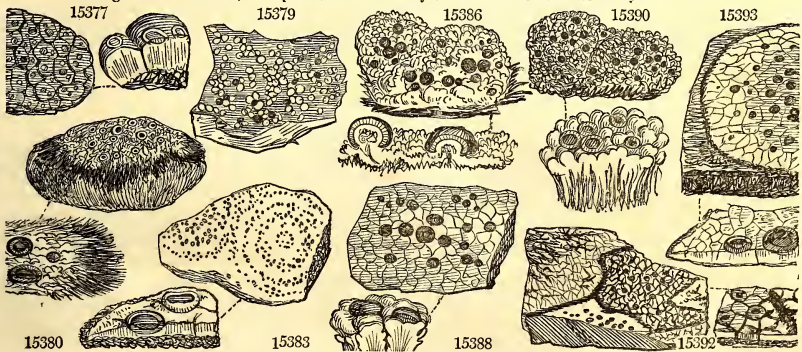
- 15363 Crust somewhat cartilaginous whitish, Apothecia crowded tumid oblong varying in figure roughish reddish at length brownish black and somewhat pruinose
- 15364 Crust somewhat cartilaginous powdery cracked variegated with cinereous and yellow, Apothecia immersed superficial roundish finally confluent
- 15365 Crust very thin glauc. Apothecia burst. forth min. convex cluster. and confu. somew. branch. dark-color.
- 15366 Crust very thin greyish, Apothecia flat diluted irregular somewhat confluent black
- 15367 Crust spread. widely very thin membran. greyish, Apothecia dot-like very min. black lead-color. when dry
- 15368 Crust obsolete or white, Apothecia very minute black confluent without bristles
- 15369 Crust filmy very thin green. grey, Apothecia mostly dispers. hemispher. sooty : internally yellowish green
- 15370 Crust spreading widely very thin; for the most part membranous greyish white, yellowish green when rubbed, Apothecia minute flat confluent blueish grey
- 15371 Crust thin somew. powd. white, Apoth. scatter. min. dot-like solid black with superfic. dark-brown powder
- 15372 Crust tartar. rugg. greyish-white cracked, Apothecia convex round. very black; their centers often decid.
- 15373 Crust tartar. rugged greyish or greenish-white, Apothecia convex rounded black orange-colored within
- 15374 Crust calcareous greenish-white, Apothecia scattered somew. confluent unequal elevated granulat. black

- 15375 Thallus green. (brown when dry) lobed : ben. veiny and of a fine saffron-col. Apothecia somew. tum. brown
- 15376 Thallus lobed grey.-green whiter and fibrous ben. Apothecia at length sunk into deep pits or hollows brown

† Thallus crustaceous reniform.

* Apothecia constantly black, naked, (not pruinose).

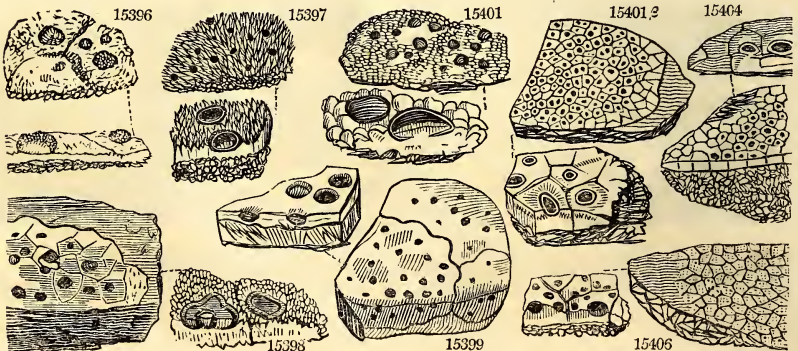
- 15377 Crust tessellated greyish-black smooth, Apothecia several together depressed brownish-black with a paler border, at length crowded elevated the border being obliterated
- 15378 Crust continued tessellat. greyish-black, Apothecia immersed between the areolæ plane at length convex somewhat angular black of the same color within
- 15379 Crust spreading very thin cracked black with swelling whitish scattered areolæ, Apothecia plane or slightly convex often in the interstices black, of the same color within
- 15380 Crust very thin black cracked and tessellated areolæ chestnut-brown plane margined shining scattered, Apothecia rather convex black margined white within
- 15381 Crust subcartilaginous tessellat. smoothish brownish grey, Apothecia buried in the crust plane margined at length convex clustered and losing their margin black within greyish-black
- 15382 Crust tartareous cracked whitish ash-color, Apothecia within the spaces of the crust depressed flat finally convex somewhat confluent dark with a thin edge
- 15383 Crust thin roundish very finely cracked somewhat powdery white, Apothecia grown into the crust thick protuberant somewhat concentric dark-colored with a tumid elevated contracted margin
- 15384 Crust tartareous somew. spreading tessellated nearly even greyish-brown, Apothecia sessile at length irregular convex subglobose confluent black emarginate within having a thin greyish stratum ben. disk
- 15385 Crust thin submembranaceous greyish-white bordered with black at length spreading somew. granulated, Apothecia nearly plane sessile margined black blackish within
- 15386 Crust rugose and warted greyish-white, Apothecia at length convex hemispherical somew. tuberculated black horny and black within having beneath a powdery bright red stratum
- 15387 Crust scattered granular irregularly lobed cinereous whitish, Apothecia clustered convex sessile plano-convex hemispherical somewhat confluent dark powdery inside
- β Crust scattered granular somewhat cohering white caesious or cinereous brown, Apothecia hemispherical somewhat globose often clustered shining
- 15388 Crust tartareous broken into cracks with wart-like smooth cracked cinereous areolæ, Apothecia deeply immersed convex aggregate scarcely edged dark-colored
- 15389 Crust tartareous brownish ash-colored composed of granulated warts, Tubercles convex irregular black with an obsolete black border
- 15390 Crust somewhat cartilaginous scaly granular glaucous cinereous, Granules flattish crenulated, Apothecia sessile plano-concave edged finally wavy
- 15391 Crust rugose somewhat granular ferruginous ash-colored, Apothecia superficial flat edged finally flexuose and convex, Edge finally obliterated
- 15392 Crust spreading thin black scattered with plane-ish subcontiguous bright-yellow areolæ, Apothecia plane or slightly concave black of the same color within
- β Areolæ bright-yellow plane angular black between and with a black margin
- 15393 Crust tartareous tessellated yellowish-red, Apothecia sessile plane at length convex irregular confluent black internally ceruuous and black
- 15394 Crust granulated and tessellated somewhat pulverulent ochraceous red, Apothecia minute elevated with the margin tumid : the disk depressed black nearly of the same color internally



and Miscellaneous Particulars.

2331. *Solorina*. From *σολος*, solid, and *ειρος*, a skin, in allusion to the firm texture of the fond.
 2332. *Lecidea*. An unexplained name contrived by Acharius for the *Lichenes tuberculati* of Linnaeus, whose shields have no border from the substance of the frond or crust.

15395	<i>alba Ach.</i>	white	membranous	3 aut.	W	bark of trees	E. bot. 1349. <i>Lepraria</i>
15396	<i>citrinella Ach.</i>	lemon-peel-crust.	cracked coat	3 spring	Y.G	sand, ground	Eng. bot. 1877
15397	<i>uliginosa Ach.</i>	marsh	whole colored	3 spring	Bl	sandy heaths	Eng. bot. 1466
15398	<i>scabrōsa Ach.</i>	rugged-shield.	lobed patches	2 all sea.	Pa.G	tiled roofs	Eng. bot. 1878
15399	<i>immersa Ach.</i>	immersed	even crust	4 all sea.	Pa.Y	calcar. rocks	Eng. bot. 193
15400	<i>rivulosa Ach.</i>	rivulet	broad incrust.	6 all sea.	Br.Ol	rocks	Eng. bot. 1737
15401	<i>albo-cærulēscens Ach.</i>	whitish-blue	tartare. crust	3 sum.	Wsh	Scotch alps	E. b. t. 2244. <i>L. pruinosus</i>
	<i>β turgida Ach.</i>	<i>turgid</i>	sinuated crust	3 sum.	W	stone walls	E. b. t. 820. <i>L. multipunct.</i>
15402	<i>abietina Ach.</i>	pine-tree	pruinose	2 all sea.	Gl	trunks, Abies	
15403	<i>speirea Ach.</i>	wavy	sinuated crust	4 spring	W.Y	flint, pebbles	Eng. bot. 1864
15404	<i>epipolia Ach.</i>	thick	tartare. crust	2 sum.	W	Scotch alps	Eng. bot. 1137
15405	<i>corticola Ach.</i>	black & white bark	small verruc.	1 aut.	Cæs.	old trees	Eng. bot. 1892
15406	<i>conspurcata E. B.</i>	dusty	rimose crust	1½ aut.	Cæs.	old walls	Eng. bot. 964
15407	<i>Lightfoötii Ach.</i>	Lightfoot's	sinuat. patch.	¾ all sea.	Pa.G	smooth bark	Eng. bot. 1451
15408	<i>quërnea Ach.</i>	oak	thin crust	3 all sea.	Y.G	clefts of bark	Eng. bot. 485
15409	<i>viridescens Ach.</i>	greenish	thin crust	1½ all sea.	Pa.G	dead trees	
15410	<i>incana Ach.</i>	hoary	leprous	2 aut.	Gl	trun. of trees	Eng. bot. t. 1683
15411	<i>sulphurea Ach.</i>	sulphur	cracked crust	2 aut.	Sul	rocks	Eng. bot. t. 1186
15412	<i>orosthea Ach.</i>	downy	toment. crust	3 all sea.	Lt.G	trees & pales	Eng. bot. t. 1549
15413	<i>decolorans Ach.</i>	discoloring	granular	2 sum.	Grsh	on earth	
	<i>β granulosa Ach.</i>	<i>granular</i>	granular	2 sum.	Grsh	on earth	E. b. t. 1185. <i>L. quadricol.</i>
	<i>Lichen escharoides E. B. 1247</i>						
15414	<i>anomala Ach.</i>	anomalous	spotted patch.	3 aut.	Pa.Ol	on earth	E. b. t. 2155. <i>L. cyrtellus</i>
15415	<i>rupēstris Ach.</i>	rock	tartareous	2 sum.	Grsh	rocks	Eng. bot. 2345
	<i>Lichen calvus E. B. 948</i>						
15416	<i>lutēola Ach.</i>	yellowish	thin crust	3 all sea.	Wsh	bark of trees	Eng. bot. 845. <i>L. vernalis</i>
15417	<i>carneola Ach.</i>	horny-cupped	papillose crust	3 all sea.	Wsh	on oaks	Eng. bot. 965. <i>L. corneus</i>
	<i>β arceutina Ach.</i>	<i>Griffithian</i>	smooth coat	2 all sea.	W.Br	bark of trees	E. bot. 1735. <i>L. Griffithii</i>
15418	<i>fusco-lutea Ach.</i>	yellow-brown	thin crust	3 sum.	Grsh	mountains	Eng. bot. 1007
15419	<i>cinereo-fusca Ach.</i>	cinereo-brown	cracked crust	3 all sea.	Grsh	trun. of trees	
15420	<i>anthracina Ach.</i>	dark	scaly crust	2 sum.	D.Br	rocks & trees	E. bot. t. 432. <i>L. byssinus</i>
15421	<i>cæsio-rufa Ach.</i>	bluish-brown	tessellat. crust	3 sum.	D.Gr	rocks & trees	E. b. 1650. <i>L. ferrugineus</i>
15422	<i>icmadophila Ach.</i>	Heath	leprous crust	2 all sea.	G.W	on ear. in he.	E. b. t. 372. <i>L. evictorum</i>
15423	<i>marmorea Ach.</i>	marbled	thin crust	3 all sea.	Gr.W	bark of trees	Eng. bot. t. 739
15424	<i>alabastrina Ach.</i>	Alabaster	thin crust	2 sum.	Gr.W	Scotland	E. bot. t. 1651. <i>L. rosellus</i>
15425	<i>melizea Ach.</i>	yellow-shield.	cracked crust	1½ spring	Y.Ol	moss, trunks	Eng. bot. 1263. <i>L. luteus</i>
15426	<i>Ehrhartiana Ach.</i>	Ehrhart's	cartilag. crust	2 all sea.	Gsh	rocks	Eng. bot. 1136
15427	<i>polytropa Ach.</i>	variable	tessellated	2 all sea.	Pale	rocks	Eng. bot. 1264



- 15395 Crust membranaceous white with a greyish or whitish-grey powdery substance scattered over it in small clusters, Apothecia minute appressed plane black
- 15396 Crust leprous granul. powdery green.-yell. Apothecia sess. margin. finally convex dark : of same col. inside
- 15397 Crust granular somewhat gelatinous greenish-brown, Apothecia appressed margined finally hemispherical clustered dark : of the same color inside
- 15398 Crust globose warted powdery cinereous yellowish, Apothecia convex scabrous

**** Apothecia black, naked : when moistened becoming-red or brown.**

- 15399 Crust thin whitish, Apothecia plano-convex immersed in the stone margined dark : disk pruinose ; when moistened crimson, white inside
- 15400 Crust cracked into areolae brownish ash-color edged with dark lines, Apothecia sessile flat becoming convex edged irregular black

***** Apothecia black with a grey bloom.**

- 15401 Crust tartareous contiguous even at length somewhat tessellated and whitish, Apothecia sessile and elevated plane black with a grey bloom and a black smooth border
- 15402 Crust of a regular figure contiguous whitish casious, Apothecia immersed : disk depressed hollowish border raised and swelling
- 15403 Crust tartareous contiguous very white, Apothecia sessile thick black powdery margined becoming convex with an ash-colored layer under the disk
- 15404 Crust tartareous defined tessellated white areolae swelling, Apothecia sessile hemispherical with a grey bloom black within with a thin persistent margin
- 15405 Crust somewhat tartareous granular areolated uneven very white, Apothecia minute somew. immersed casious becoming subglobose not margined dark cinereous inside
- 15406 Crust thick greyish-white cracked rugose at length mealy very white within, Apothecia numerous scattered minute : at first prominent and pale-brown ; then concave and black

****** Apothecia black-brown, brownish, or deadened by some other color.**

- 15407 Crust somewhat effuse granular cinereous greenish, Apothecia appressed flat dark-brown : inside dirty-white with a thin flexuose edge paler than the disk
- 15408 Crust lep. granul. pale yellow.-brown, Apoth. somew. immers. becom. conv. not margin. brown and black
- 15409 Crust thin granulat. somew. farin. green or green.-brown : fructific. conv. rug. irregul. confu. black.-brown
- 15410 Crust spread. leproso-farin. soft uneven glauc. green, Apothecia scatter. sess. brown with marg. ent. paler
- 15411 Crust tartareous cracked and broken uneven smoothish pale sulphur-color, Apothecia adnate plane scarcely margined brown and scarcely paler in the margin, at length irregular and convex
- 15412 Crust cracked areolated uneven somewhat powdery sulphureous, Apothecia minute sessile convex not margined whole-colored becoming hemispherical
- 15413 Crust granulated greyish-white, Granules becoming pulverulent, Apothecia nearly plane red flesh-colored livid or brown with the elevated margin paler, at length flexuose

- 15414 Crust firmer granulat. and subpapill. Apothecia at length hemispheric. rug. brown.-black and black confu.
- 15415 Crust thin tartareous contiguous greyish-white, Apothecia immersed plane margined, at length convex : the margin persistent glabrous reddish-brown ; of the same color within
- 15416 Crust thin whit. cover. with somew. globul. pale gran. at length grey. Apoth. sess. becom. conv. yel.-brown
- 15417 Crust thin membranous hoary finally granular powdery, Apothecia sessile concave thick tumid brown flesh-colored with an edge of the same color
- 15418 Crust very thin naked whitish, Apothecia flattish scarcely margined waxy purple brown and black
- 15419 Crust spreading very thin membranaceous white or greyish somew. shining subgranulose, Apothecia plane yellow-brown, at length red-brown with the margin paler elevated, at length flexuose
- 15420 Crust thin somewhat cracked uneven greyish-white : fructification plane, at length angular and irregular yellowish or reddish-brown ; the border narrow persistent
- 15420 Crust spreading somewhat scaly uneven roughish darkish-brown, Apothecia minute plane reddish yellow with the margin paler, at length somewhat convex and brownish

******* Apothecia dark-red, or whitish flesh-color.**

- 15421 Crust tessellated rugose darkish-grey, Apothecia plane rusty orange : the margin sometimes crenulate, at length convex with the margin obsolete blackish-red
- 15422 Crust leprose uneven somewhat granulated greenish-white, Apothecia nearly sessile plane flesh-colored, at length waved roughish in the disk : margin scarcely any
- 15423 Crust thin grey.-white, Apothecia somew. glob. at length urceol. white : disk flesh-color ; marg. tum. ent.
- 15424 Crust thin smoothish minutely granulated greyish-white, Apothecia slightly convex entire whitish rose-color paler at the margin

******* Apothecia pale, yellowish, waxy or orange-colored.**

- 15425 Crust thin white powdery, Apothecia plano-convex smooth edged pale-yellow
- 15426 Crust cartilaginous cracked rugoso-plicate granulated white or greenish, Apothecia nearly sessile plane at length slightly convex waved unequal clustered pale yellowish
- 15427 Crust subtartareous tessellated pale, Apothecia nearly plane with the margin lobed waved clustered, at length subglobose destitute of margin yellowish flesh-color



15428 <i>lúcida Ach.</i>	shining	soft crust	2	sum.	G.Y	rocks	Eng. bot. 1550
15429 <i>atro-fláva Ach.</i>	black & yellow	ragged crust	2	all sea.	Br	expos. flints	Eng. bot. 2009
15430 <i>luteo-álba Ach.</i>	yellow-white	smooth crust	1½	all sea.	W	rocks	Eng. bot. 1426
15431 <i>cándida Ach.</i>	hoary	sinuous	3	all sea.	Wsh	old walls	Eng. bot. 1138
15432 <i>vesiculáris Ach.</i>	blistered	imbricated	3	sum.	Br.Bl	Highl. rocks	E.b.1139. <i>L.cæruleo-nig.</i>
15433 <i>lúrida Ach.</i>	lurid	imbricated	3	sum.	G.Br	Scotch alps	Eng. bot. 1329
15434 <i>atro-rúfa Ach.</i>	red-brown	imbricated	4	sum.	Br	red san. gro.	Eng. bot. 1102
15435 <i>scaláris Ach.</i>	scaly	imbricated	3	aut.wi.	Pa.Ol	rocks & earth	Eng. bot. 1501
15436 <i>verruculósa E. B.</i>	warted	irregul. patch.	1	aut.wi.	Bl	hard rocks	Eng. bot. 2317
15437 <i>rubifórmis Ach.</i>	blackberry	patches	¾	wint.	Pa.G	turfy earth	Eng. bot. 2112
15438 <i>decepiens Ach.</i>	deceitful	imbricated	2	spring	F	earth	Eng. bot. 870
15439 <i>pholidióta Ach.</i>	scaly	leafy crust	4	spring	Cæs.	quartz. rocks	E. b. 1955. <i>L. glebulosus</i>
15440 <i>microphýlla Ach.</i>	small-leaved	broken patch.	2	spring	Gr.G	trees	Eng. bot. 2128
15441 <i>canéscens Ach.</i>	hoary	round. patch.	1½	spring	W	bark of trees	Eng. bot. 582
15442 <i>dædálea E. B.</i>	intricate	leafy lobed	¾	spring	Y.G	rocks	Eng. bot. 2129
2333. CALYCIUM Ach. CALICIUM.							
15443 <i>tigilláre Ach.</i>	rail	soft crust	2	aut.	Gl.	trees	Eng. bot. 1530
15444 <i>stigenéllum Ach.</i>	black sessile	pimpled	3	aut.	Pa.Ol	on Lichens	Eng. bot. 2520. <i>C. sessile</i>
15445 <i>microcéphalum Ach.</i>	small-headed	cloudy streaks	¾	dec.	Ol.G	oak rails	Eng. bot. 1865
15446 <i>claviculáre Ach.</i>	club-headed	granul. crust	¾	aut.	Grsh	naked wood	
15447 <i>sphaerocéphalum Ach.</i>	pin-headed	thin crust	¾	spring	Grsh	old pales	Eng. bot. 414
15448 <i>hyperéllum Ach.</i>	convex	irregular coat	2	spring	Bt.G	old oak	Eng. bot. 1832
15449 <i>chrysocéphalum Ach.</i>	yellow-head.	patches	3	aut.	Lem	trun. of trees	Eng. bot. 2501
15450 <i>trabinéllum Ach.</i>	brown	dense granul.	4	aut.	Br.Ol	boards	Eng. bot. 1540
15451 <i>cantheréllum Ach.</i>	cinnamon	obscure crust	½	aut.	Wsh	decay. wood	Eng. bot. 2557
15452 <i>capitellátum Ach.</i>	sulphureous	regular patch.	½	july	G.Y	sandy soil	Eng. bot. 1539
15453 <i>aciculáre Ach.</i>	acicular	irreg. incrust.	3	sum.	Ol	Scotch firs	Eng. bot. 2285
15454 <i>ferrugíneum E. B.</i>	rusty	lobed crust	4	aut.	Pa.Ol	pales	Eng. bot. 2473
15455 <i>in'quinans E. B.</i>	sooty-knobbed	tessellat. crust	4	wint.	W.Br	dead wood	Eng. bot. 810
15456 <i>róscidum E. B.</i>	grained	mealy coat	4	all sea.	G	old boards	Eng. bot. 1464
15457 <i>débile E. B.</i>	weak	close-set patc.	½	aut.	Br	old timber	Eng. bot. 2462
15458 <i>ærugínósum E. B.</i>	verdigrease	granular	1½	wint.	DLG	old boards	Eng. bot. 2502
15459 <i>cúrturn E. B.</i>	short-stalked	crowd. patch.	1½	wint.	DLG	decay. wood	Eng. bot. 2503
2334. GYROPHORA Ach. GYROPHORA.							
15460 <i>glábra Ach.</i>	smooth	leafy thallus	2	sum.	D.Ol	rocks	Eng. bot. t. 1282
β <i>polyphýlla Wahl.</i>	many-leaved	leafy thallus	2	sum.	D.Ol	rocks	Eng. bot. t. 2483
15461 <i>proboscidea Ach.</i>	snouted	netted frond	3	spring	Sino.	rocks	
β <i>arctica Ach.</i>	arctic	smooth lobed	1½	wint.	Br	rocks	Eng. bot. 2485
15462 <i>cylíndrica Ach.</i>	cylindrical	folded frond	2	spring	Gr.Ol	rocks	Eng. bot. 522



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2333. *Calicium*. From *καλικιον*, a little cup, well expressing the appearance of the organs of reproduction. All the species form grey, white, or yellow patches, on old wrought wood, or boards exposed to the weather.

2334. *Gyrophora*. So named, from *γυρος*, a circle, and *φερω*, in allusion to the concentric circles, more or less

- 15428 Crust thin leprose powdery soft pale green.-yellow, Apothecia slightly convex pale yellowish: marg. obsol.
 15429 Crust thin effuse somew. granul. black, Apothecia min. cluster. flat yellow. with an elevat. ent. paler marg.
 15430 Crust thin smooth, white, Apoth. crowd. at length convex hemispher. margin, orange-color. white within
 †† *Thallus crustaceous, of a regular figure or leaf.* LEPIDOMA.
 15431 Crust somewhat imbricated white hoary, Lobes crenate reflexed tumid, Apothecia appressed black glaucous; edge finally wavy
 15432 Crust somewhat imbricated brownish-black covered with a greyish powder, Lobes entire swelling, Apothecia black naked, at length hemispherical with the margin obsolete
 15433 Crust imbricat. green.-brown, Lobes round. cren. paler ben. Apothecia plane, at length somew. conv. black
 15434 Crust somewhat contiguous lobed areolate and imbricated cinereous brownish-lurid, Lobes becoming flexuose cut-crenate, Apothecia appressed not edged flattish finally confluent
 15435 Crust imbricated pale olive-green, Lobes distinct reniform nearly erect beneath and the margin powdery, Apothecia plane margined glaucous black
 15436 Crust indeterminate very thin fibrous black with white convex crowded smooth warts, Apothecia solitary in each wart depressed coal-black with a border of the same color
 15437 Crust somewhat imbricated, Lobes rounded crenate livid-brownish white beneath surrounding the apothecia, which are hemispherical clustered reddish not margined
 15438 Crust subimbricated, Lobes distinct subpetalate roundish flesh-colored and red brown whitish beneath, Apothecia in their border convex and subglobose black: margin obsolete
 15439 Crust imbricated glaucous white, Lobes minute rounded convex, Apothecia convex rufous brown becoming blackish: margin thin entire
 15440 Thallus slightly imbricated fragmentary grey.-green on a dense black fibrous cushion: its segm. somewhat linear lobed crenate and granular at the margin, Apothecia scattered tawny paler at the marg. at length convex brown obliterating the margin
 15441 Crust orbicul. rugose plait. hoary lobed-plait. in circumfer. Apothecia central plano-convex dark-colored
 15442 Closely imbricated radiated membranous very smooth brownish-grey pale with black fibres below: its segments linear obtuse undulated, Apothecia black with a black border of their own substance
 15443 Crust areolate-warted smoothish wavy, Apothecia sessile dark opaque, Disk flat tumid at edge
 15444 Crust somewhat contiguous unequal whitish or none, Apothecia sessile subglobose dark smooth: disk dot-like becoming flattish with a thin shining margin
 15445 Crust somewhat tartareous contiguous wrinkled olive-green, Apothecia roundish dark shining: disk depressed opaque, and stalks short whole-colored
 15446 Crust effused greyish somewhat pulverulent: fructification subglobose, at length flattened greyish-black with a cylindrical thickish-black peduncle
 15447 Crust very thin grey. smooth, Apothecia subglob.: disk dark-brown; margin greyish, Stripes filif. black
 15448 Crust cartilaginous areolate rugose smooth yellow-green, Apothecia lentiform ferruginous powdery, Stems short cylindrical dark-pitch color thicker at base
 15449 Crust lemon-yellow granulated and conglomerated: fructification subturbinate; disk brown convex, the border yellow and pulverulent, Peduncle filiform blackish and shining at the base
 15450 Crust thin white ash-color. Apoth. becom. lentif.: disk black.-brown ciner. pruin. with a yell.-green marg.
 15451 Crust thin whitish powdery, Apothecia lentiform: disk flesh-colored becoming brown powdered, Stalks filiform naked pale becoming brownish or black
 15452 Crust effuse powdery greenish-yellow, Apothecia globose, and stalks filif. very long flexuose yellow.-green
 15453 Crust leprous powdery pale yellowish-green, Apothecia hemispherical globose and stalks tapering upwards straight powdered with fulvous
 15454 Crust thin granulated tartareous rusty white, Apothecia on short stalks thick black often compound with a pale rusty disk
 15455 Crust white granulat. Tuber. a little prominent round flatt. gray.-black powdery with a smooth black edge
 15456 Crust granulated smooth greyish-white, Tubercles scattered roundish black polished wrinkled irregular without a border mostly sessile
 15457 Crust membran. very thin white, Tuber. black convex with recurv. marg. on long slender. wavy black stalks
 15458 Crust thin tartareous somewhat granulated of a verdigrase-grey, Apothecia on slender black stalks black hemispherical with a convex brownish-black disk
 15459 Crust filmy very thin whitish, Apothecia on thickish black stalks obovate or hemispherical black with black prominent loose powder
 15460 Thallus smooth blackish-green: ben. smooth black and naked, Apothecia at length conv. rough and plait.
 β Thallus of many lvs. or lobes variously fold. black.-green quite black ben. on each side naked and smooth.
 15461 Thallus membranaceous with elevated reticulations, at length of a smoky ash-color rough smoother paler and subfibrillose beneath, Apothecia turbinate, at length convex variously plaited
 β Thallus thick hard rigid with elevated dots rugose olive-brown becoming black naked smooth pale-yellow beneath, Apothecia globose
 15462 Thallus somewhat naked dark greenish-grey folded and lobed strongly ciliated beneath smooth pale with branching fibres, Apothecia elevated nearly plane with concentric and plaited lines



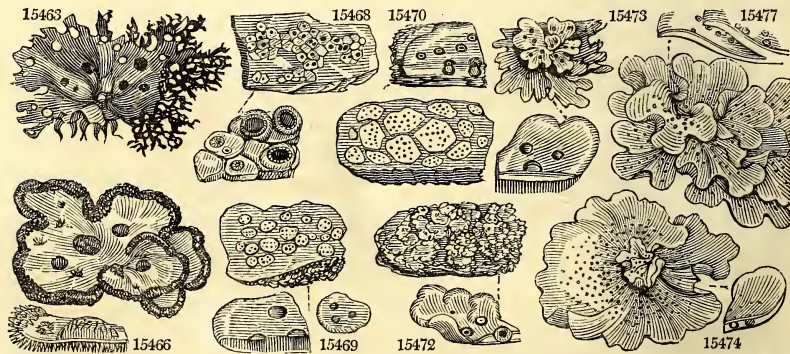
and Miscellaneous Particulars.

complicated, observable in the disk of the receptacles of the shields. The species grow chiefly upon exposed alpine rocks, chiefly on granite or volcanic stones. The vitrified forts in the Highlands of Scotland produce some of them.

15463 <i>erósa Ach.</i>	knawed	ragged	3	all sea.	Ol.Br	rocks	Eng. bot. 2066
15464 <i>deústa Ach.</i>	scorched	rough leafy	3	all sea.	Ol.Br	rocks	Eng. bot. 2483
15465 <i>pustuláta Ach.</i>	pimpled	blister'd frond	2	spring	Cin.G	rocks	Eng. bot. 1283
15466 <i>pellíta Ach.</i>	furred	sinuated	2	all sea.	G.Br	rocks	Eng. bot. 931
15467 <i>murina Ach.</i>	mouse-skin	irregular lob.	1	all sea.	Br	rocks	Eng. bot. 2486
2335. <i>ENDOCARPON. Ach.</i>	<i>ENDOCARPON.</i>			<i>Sp.</i> 10—22.			
15468 <i>sinópicum Ach.</i>	cracked	tessellat. mass.	1	sum.	Or	schist	Eng. bot. 177
15469 <i>smarágdulum Ach.</i>	yellow	little patches	$\frac{3}{4}$	sum.	Y.G	rocks	Eng. bot. 1512
15470 <i>tephroides Ach.</i>	brownish	little patches	1	sum.	Gl.	earth	Eng. bot. 2013
<i>Lichen fuscellus E. B.</i>	1500						
15471 <i>Hedwigii Ach.</i>	Hedwig's	crowd. patch.	$\frac{1}{2}$	sum.	Ol	on the earth	E. b. t. 595. <i>L. trapezifor.</i>
<i>β lach'neum Ach.</i>	<i>black-woolled</i>	crowd. patch.	$\frac{1}{2}$	sum.	D.G	on the earth	Eng. bot. 1698
15472 <i>pállidum Ach.</i>	pallid	finely lobed	$\frac{3}{4}$	all sea.	Pa.Ol	rocks	Eng. bot. 2541
15473 <i>parasiticum Ach.</i>	parasitical	round. patch.	$\frac{1}{2}$	sum.	Cop.	on Lichens	Eng. bot. 1866
15474 <i>miniátum Ach.</i>	vermilioned	thick crust	1	all sea.	Grsh	rocks	Eng. bot. 593
15475 <i>leptophýllum Ach.</i>	fine-leaved	round patches	$\frac{3}{4}$	spring	Br	rocks	Eng. bot. 2012
15476 <i>complicátum Ach.</i>	entangled	coriaceous	$\frac{3}{4}$	all sea.	Grsh	rocks	E. b. 593. f. 2. <i>L. amphibius</i>
15477 <i>Webéri Ach.</i>	Weber's	cartilaginous		win. sp.	G.Br	wet rocks	E. bot. 594. <i>L. aquaticus</i>

CÆNOTHALAMI.

2336. <i>THELOTREMA. Ach.</i>	<i>THELOTREMA.</i>			<i>Sp.</i> 5—19.			
15478 <i>lepadinum Ach.</i>	enclosed	smooth crust	1 $\frac{1}{2}$	all sea.	Wsh	holly bark	Eng. bot. 678. <i>L. inclusus</i>
15479 <i>exanthemáticum Ach.</i>	pallid	tartareous	2	all sea.	Grsh	calcar. rocks	Eng. bot. 1184
15480 <i>variolarióides Ach.</i>	Variolaria-like	tessellated	2	all sea.	Pa.Ol	bar. of trees	
<i>β agelæ'um Ach.</i>	<i>inelegant</i>	tessellated	2	all sea.	Pa.Ol	bar. of trees	Eng. bot. 1730
15481 <i>melaleúticum E. B.</i>	brownish	obscure crust	3	all sea.	Y	young oaks	Eng. bot. 2461
15482 <i>hyménium E. B.</i>	wrinkled	granular	4	all sea.	G.	old oaks	Eng. bot. 1731
2337. <i>PYRENULA. Ach.</i>	<i>PYRENULA.</i>			<i>Sp.</i> 4—34.			
15483 <i>nitída Ach.</i>	shining	cartilaginous	1 $\frac{1}{2}$	all sea.		bar. of beech	Weig. obs. t. 2. f. 14
15484 <i>nigréscens Ach.</i>	blackish	tartareous	1 $\frac{1}{2}$	all sea.	Br.BI	rocks	E. b. 1499. <i>Ver. umbrina</i>
15485 <i>tesselláta Ach.</i>	tessellated	circular dots	2	all sea.	Ol.G	slate rocks	E. b. 2455. <i>L. viridulus</i>
15486 <i>umbonáta Ach.</i>	nipple shielded	even coat	1 $\frac{1}{2}$	all sea.	Br	rocks	E. b. 2153. <i>L. thelostomus</i>
2338. <i>VARIOLARIA. Ach.</i>	<i>VARIOLARIA.</i>			<i>Sp.</i> 9—46.			
15487 <i>veláta Ach.</i>	veiled	sinuous surf.	1 $\frac{1}{2}$	aut.	Gl.	ash trees	Eng. bot. 2062
15488 <i>multipúncta Ach.</i>	much dotted	granular	2	win.	Gl.	beech trees	Eng. bot. 2061
15489 <i>globulífera Ach.</i>	globuliferous	uneven crust	1 $\frac{1}{2}$	all sea.	Grsh	trees & rocks	Eng. bot. 2008



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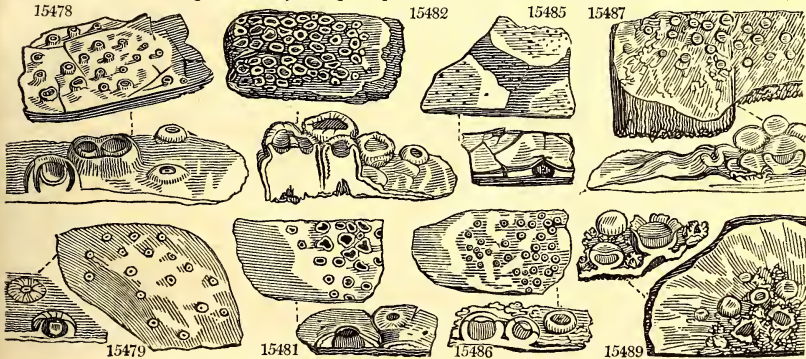
2335. *Endocarpon.* From *εδον*, within, and *καρος*, fruit, because the receptacles of the sporules are deeply imbedded in the substance of the frond. The species form small roundish or angular plants, commonly closely sessile upon earth or stone; of a grey or olive hue; their fructification appearing like little black dots over the surface.

2336. *Thelotrema.* From *θηλον*, a nipple, and *τρημα*, an orifice. The protuberances of the thallus are perforated. This genus has been reduced to *Endocarpon* by Sir James Smith.

- 15463 Thallus rugged olivaceous brown, its circumference perforated and lacinated dark-grey : beneath glabrous somewhat granulated and fibrous, Apothecia somewhat convex variously plaited
- 15464 Thallus roughish olivaceous brown with a brown scattered dust smooth beneath with pits and reticulations naked of the same color, Apothecia plane with circular plait, at length convex
- 15465 Thallus blistered and warty greenish ash-color ben. deeply pitted smooth palish-brown naked, Apothecia few plane margined : disk somewhat even papillose and plaited
- 15466 Thallus smooth sinuato-lobate of a greenish coppery-brown : beneath black with dense pulvinate fibres, Apothecia sessile, at length somewhat globose variously plaited intricate
- 15467 Thallus very rig. mouse-col. ben. black.-brown rough with elevat. paler spots, Apoth. conv. various. plait.
- 15468 Thallus crustaceous cracked into areolæ figured somewhat lobed greenish rubiginous depressed at the circumference, Orifices depressed black
- 15469 Thallus crustaceo-cartilaginous somewhat foliaceous minute subpeltate appressed plane roundish entire yellow-green, Orifices of the apothecia depressed reddish-brown
- 15470 Thallus crustaceous submembranaceous spreading and subfoliaceous contiguous wavy cracked glaucous ash-col. irregul. lob. and crenat. at marg. ben. black somev. spongy, Orifi. elevat. conv. black perforat.
- 15471 Plant subcartilaginous roundish or somewhat angular lobed of an olive-green : beneath pale at margin ; the rest blackish and fibrillose, Orifice of the fructification subprominent dark-brown
- β Lobes of thallus aggregat. somev. imbricat. : margin elevated repand-lobed wavy with black wool beneath
- 15472 Thallus coriaceo-membranous pallid leafy greenish crenate-lobed becoming irregularly ragged, Orifices hemispherical pale with a black dot
- 15473 Thallus coriaceo-convex rounded lobed copper-colored, at length rugged black and shaggy beneath, Orifices thickened sunk minute coal black, at length convex
- 15474 Thallus thicker crustaceo-cartilaginous foliaceous orbicular peltate greyish spread at marg. somewhat lobed and waved beneath smooth, at length rugose and tawny, Orifices minute slightly prominent brownish
- 15475 Thallus cartilaginous foliaceous orbicular peltate brown or greyish : the border spread and wavy smooth naked rough and black beneath, Orifices of the apothecia very minute slightly prominent black
- 15476 Thallus coriaceo-cartilaginous lobed greyish : beneath brownish-black ; the lobes nearly erect rounded plicate and convolute, Orifices of the apothecia numerous convex black
- 15477 Thallus cartilaginoo-coriaceo lobed greenish-brown olivaceous : beneath rather tawny or blackish on both sides smooth ; the lobes lacinated wavy plaited and crisped crowd. Orifices rather convex black

CÆNOTHALAMI.

- 15478 Crust smooth whitish, Warts of the apothecia smooth somewhat cone-shaped with the margin of the aperture thin simple somev. inflexed and contracted covered at bottom with a membrane which bursts
- 15479 Crust subtartareous thin contiguous greyish, Warts of the apothecia convex half immersed whiter, Orifices much contracted radiated with fissures concealing the flesh-colored apothecia
- 15480 Crust nearly regular smooth rugulose cinereous, Warts of apothecia clustered irregular whitish with a large black aperture and a thick somewhat angular lacerated edge
- β Crust white powdery with granul. and min. soredia, Warts of apothecia appres. few and immers. in crust
- 15481 Crustaceous cream-colored with scattered rather convex warts opening by an irregular inflexed orifice, Apothecia immersed depressed brown
- 15482 Crust cartilaginous uneven somewhat polished greenish-grey, at length extremely tumid and uneven, Apothecia elevated crowded hollow very irregular
- 15483 Crust cartilaginous membranous polished pale brownish cinereous, Warts of apothecia closed closing surrounding the upper projecting part of the thalamium
- 15484 Crust tartareous somewhat tessellated unequal brownish-black, Warts of the apothecia spreading at the base depressed somewhat rugose surrounding the greater part of the prominent apothecia
- 15485 Crust tartareous unequal cracked into areolæ cinereous yellowish, Warts of apothecia enlarged at their base depressed closed clustered about the edged orifice
- 15486 Crust tartareous regular finely cracked cinereous rufous, Warts of apothecia smooth reddish depressed above forming a margin to the papilla-like prominent orifice
- 15487 Crust determined somewhat cartilaginous smooth very white plaited in rays, Warts of apothecia polished compressed tumid : kernel covered with a thin powdery skin
- 15488 Crust subcartilaginous cracked into areolæ granular cinereous, Warts of apothecia convex clustered granular : kernel lentiform enclosed
- 15489 Crust subcartilaginous greyish uneven with granules and soredia scattered in an irregular manner, Warts of fructificat. subglob. smooth, at length depressed above and soredifer. and contain. a concave nucleus

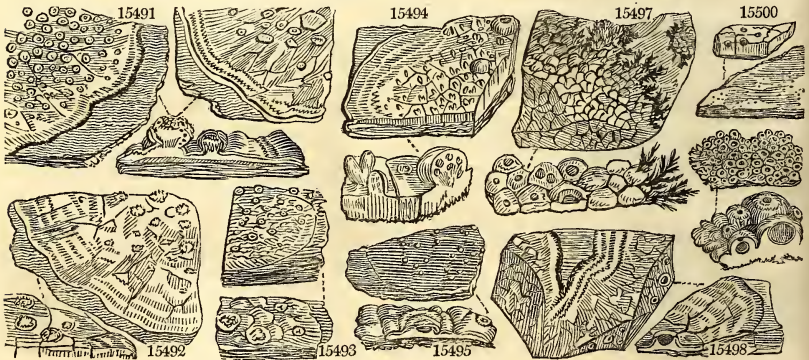


and Miscellaneous Particulars.

2337. *Pyrenula*. A diminutive of *pyrenis*, a kernel; in allusion to the manner in which the receptacle is enclosed in the thalamium, as a kernel within its shell. Crustaceous plants, found chiefly upon the bark of trees.

2338. *Variolaria*. The shields of these plants resemble the eruptive spots of the variolæ or measles. The whole genus was referred by Linnæus to his Lichen fagineus and lacteus. The species are of a crustaceous nature, found upon the trunks of trees, rocks, walls, or the ground.

15490	<i>communis</i> Ach.	common	radiated	1½	all sea.	DI.W	trees	
	β <i>aspergilla</i> Ach.	<i>sprinkled</i>	radiated	1½	all sea.	Y.OI	rails	Eng. bot. 2401
15491	<i>amára</i> Ach.	bitter	cracked crust	2	all sea.	Grsh	bark of trees	Eng. b. 1713. <i>L. fagineus</i>
	β <i>discoidea</i> Ach.	<i>discoïd</i>	pulverulent	2	all sea.	W	bark of trees	Eng. bot. 1714
15492	<i>láctea</i> Ach.	milky	tartar. crack.	1½	wint.	W	rocks	Eng. bot. 2410
15493	<i>griseo-virens</i> E. B.	greyish green	tubercular	1½	aut.	D.OI	smooth bark	Eng. bot. 2400
15494	<i>dealbáta</i> E. B.	whitened	cracked crust	3	all sea.	Lt.Br	hard rocks	Eng. bot. 2519
15495	<i>cinérea</i> E. B.	cinereous	tubercular	2	all sea.	Ol.G	whinstone	Eng. bot. 2411
2339.	URCEOLA'RIA. Ach.	URCEOLARIA.						
15495	<i>Achárii</i> Ach.	Acharius's	cracked crust	2	all sea.	Pa.R	rocks	Eng. bot. 1087
	β <i>cyrtáspis</i> Ach.	<i>red</i>	tessellat. crust	2	all sea.	Rsh	rocks	Eng. b. 450. <i>L. punctatus</i>
15497	<i>gibbósa</i> Ach.	gibbous	fringed patch.	3	all sea.	Br	flints	Eng. b. 1732. <i>L. fibrosus</i>
15498	<i>cinérea</i> Ach.	cinereous	concent. zones	3	all sea.	G.Br	flints	Eng. bot. 1751
15499	<i>scrupósa</i> Ach.	rock	solid crust	1	all sea.	Grsh	rocks	Eng. bot. 266
15500	<i>Gágii</i> E. B.	Gage's	obscure crust	1½	all sea.	Pa.Y	rocks	Eng. bot. 2580
15501	<i>calcárea</i> Ach.	calcareous	crowd. warts	1½	all sea.	W	roc. & stones	
	β <i>Hoffmánni</i> Ach.	<i>Hoffmann's</i>	sinuous patc.	1½	all sea.	Cæs.	roc. & stone	Eng. bot. 1940
2340.	LECANO'RA. Ach.	LECANORA.						
15502	<i>átra</i> Ach.	dark	granulated	1½	all sea.	Grsh	bark of trees	Eng. bot. 949
15503	<i>argópholis</i> Ach.	pallid	warted crust	2	sum.	Pale	rocks	
15504	<i>oculáta</i> Ach.	mottled	smooth. crust	2	spring	W	roc. & earth	Eng. bot. 1833
15505	<i>coarctáta</i> Ach.	contracted	broad patches	4	all sea.	Br	brick walls	Eng. bot. 534
15506	<i>pericléa</i> Ach.	rough	little spots	½	all sea.	Wsh	old posts	Eng. bot. 1850
	β <i>exigua</i> Ach.	diminutive	little spots	½	all sea.	Br	old pales	Eng. bot. 1849
15507	<i>sophódes</i> Ach.	obscure	mealy crust	1½	aut.	G	on trees	Eng. bot. 1791
15508	<i>subfúscá</i> Ach.	brownish	cartilaginous	2	all sea.	Grsh	trun. of trees	Eng. bot. 2109
15509	<i>ventósa</i> Ach.	exposed	warted	2	all sea.	Y.G	rocks	Eng. bot. 906
15510	<i>frustulósa</i> Ach.	broken	tartareous	¾	all sea.	Var.	rocks	Eng. bot. 2273
15511	<i>effúsa</i> Ach.	scattered	thin coat	3	aut.	G	bark of firs	Eng. bot. 1863
15512	<i>chloroleúca</i> Ach.	whitish green	Leprous	1½	sum.	W	mountains	Eng. bot. 1373
15513	<i>vária</i> Ach.	variab. shield.	crowded	¾	all sea.	Lt.G	old walls	Eng. bot. 1696
15514	<i>apocræ'a</i> Ach.	leprous	cloudy crust	1½	wint.	Lt.G	old posts	Eng. b. 2075. <i>Sp. Vitiligo</i>



History, Use, Propagation, Culture,

2339. *Urceolaria*. From *urceolus*, a little pitcher, with reference to the form of the shields, which are sunken in the crust. Natives of hard stones occasionally inundated, or upon naked exposed rocks; occasionally upon the trunks of trees. The crust of *U. esculenta*, a native of Tartary, is eatable.

2340. *Lecanora*. An unexplained name. *Lecanora perellus* affords a purple dye, and is called in the south of France, where it is employed in lieu of the *L. tartarea*, *Perelle d'Auvergne*, whence the specific name, as Smith

- 15490 Crust cartilaginous polished whitish becoming unequal and ash-colored scattered with white soredia having no margin, Warts of apothecia spheroidal powdery
 β Crust tartareous cartilaginous determined glaucous with a polished radiated cracked circumference, Soredia scattered superficial flat not margined
- 15491 Crust rugose cracked uneven subpulverulent white or greyish, Warts of the apothecia appressed plano-concave margined bearing soredia of the same color as the crust
 β Crust pulverulent white, at length greyish naked, Soredia crowded, at length spreading waved plano-concave with the margin raised swollen
- 15492 Crust tartareous distinctly bordered cracked smooth white: the circumference somewhat zoned crenatolobate, Warts of the apothecia crowded margined very white and pulverulent
- 15493 Crust elliptical thin slightly tartareous rugged grey scarcely limited, Apothecia rounded with a narrow border, Powder greenish
- 15494 Crust tartareous thickish greyish-white cracked tumid papillary and rugged obscurely zoned at the circumference, Apothecia orbicular prominent white
- 15495 Crust orbicular tartareous thin ash-colored cracked: its circumference indeterminate, Apothecia orbicular very small white with an elevated margin and flesh-colored disk
- 15496 Crust with a rather decided edge smooth with narrow cracks pale brick-colored: disk redd.; marg. tum. β Crust bordered smooth tessellated reddish, at length white, Apothecia becoming elevated with the disk rather convex reddish-brown reaching the margin of the crust
- 15497 Crust papillose warted polished white ash-color: disk concave black immersed in the tip of the warts, Border contracted protuberant crenated entire
- 15498 Crust cracked areolate warted cinereous bordered with black: disk somewhat concave dark immersed among the warts becoming elevated, Border thickish projecting
- 15499 Crust rugoso-plicate granulated white or greyish: fructification urceolate; the disk black, the border swelling inflexed subrugose covering the disk
- 15500 Crust continued calcareous smooth brownish-white irregularly cracked when dry, Apothecia very minute blackish sunk in the crust
- 15501 Crust determined finely cracked somewhat powdery very white becoming cinereous: disk minute concave black powdered with white, Border prominent discoid thin
 β Crust thin cracked into areolae equal dull ash-colored, Fertile areolae raised in the middle whitish lead-color: disk somewhat concave dark castous powdery

† *Thallus adnate uniform.* RINODINA.

* *Disk of apothecia constantly dark and black.*

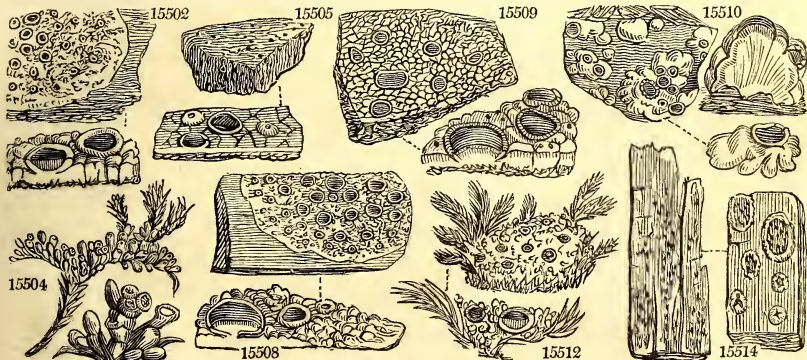
- 15502 Crust with a somewhat decided edge granulated and cracked greyish-white, Disk of the apothecia plane at length swelling and black: the margin free raised, at length waved and crenulate
- 15503 Crust smooth uneven warted pale, Warts at length subimbricated somewhat lobed and deformed, Disk of the fructification concave brownish-black: the border sharp crenulate contracted
- 15504 Crust glab. papill. and branch. white, Apothecia sess. scattered; disk slightly concave black; marg. tumid
- 15505 Crust effuse thin cracked rugose unequal cinereous, Disk of apothecia somewhat immersed finally elevated flat dark with an elevated inflexed powdery border
- 15506 Crust thin somewhat leprous and dispersed whitish, Disk of apothecia plano-convex dark dotted rough. Border obscure powdery
 β Crust uneq. obscure. ciner. black. Apothecia min. aggreg. flat with a white cren. border and brown. edge

** *Disk of apothecia black, naked, brownish when moistened.*

- 15507 Crust verrucose-granular from cinereous brownish-green, Apothecia heaped with a flat coarse dark disk brown when moistened, Border tumid inflexed entire

*** *Disk of apothecia black, brown, brownish, or clouded with other colors, naked.*

- 15508 Crust cartilaginous smooth, at length granulated unequal white or greyish, Disk of the apothecia plano-convex brown or almost black: margin tumid entire, at length waved and crenate
- 15509 Crust tessellated with tumid warts yellow green or grey, Apothecia appressed, at length irregular with the disk plane or swelling red brown, at length rising above the entire margin
- 15510 Crust tartareous very much cracked variegated with black and white (yellowish-white in dispersed tumid warts), Apothecia pale-brown, at length convex dark-brown: margin white
- 15511 Crust effuse thin powdery cinereous æruginous, Apothecia minute appressed: disk flat becoming convex pale-brown, Border thin obscure
- 15512 Crust thin leprose white, Apothecia crowded elevated: disk plane olive; the margin waved
- 15513 Crust unequal granular somewhat warted pale-green, Apothecia clustered: disk flat pale-brown and variegated, Border raised inflexed finally crenulate
- 15514 Crust effuse very thin polished whitish sometimes bearing soredia, Apothecia sessile; disk flattish pale livid-brown, Border pale becoming crenulate



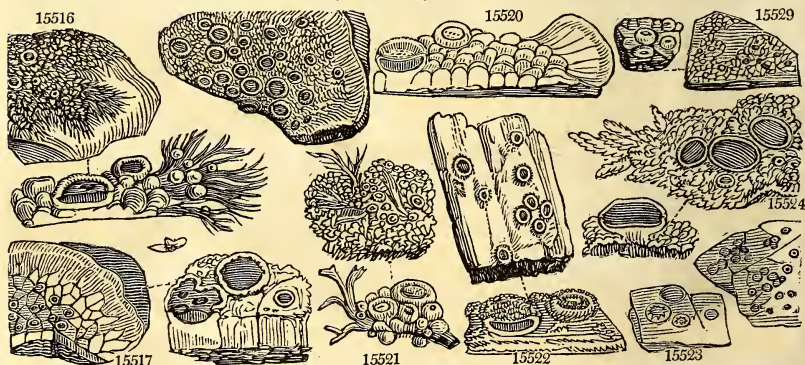
and Miscellaneous Particulars.

tells us, though generally spelled *Parellus*. L. Turner is probably only a variety growing upon the bark of trees.

Lecanora candelaria derives its name from the circumstance of the Swedes employing it to stain the candles that are used in their religious ceremonies.

Lecanora tartarea is the famous Cudbear (so called after a Mr. Cuthbert, who first brought it into use)

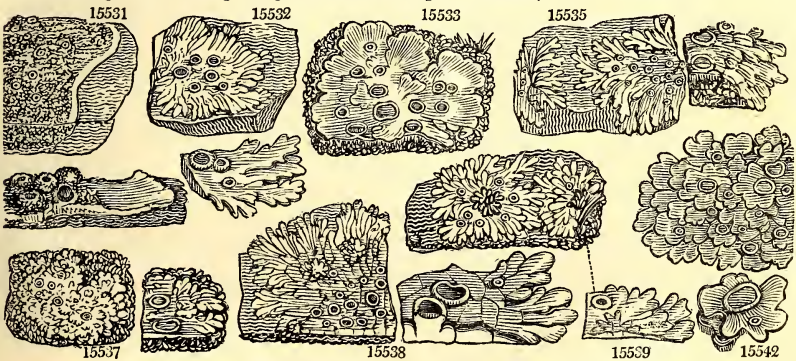
15515 rubricósa Ach.	red shielded	round patch.	1	all sea.	Grey	old walls	E.b.1040. <i>L. cæsiu-rufus</i>
15516 tuberculósa Ach.	warted	warted fring.	3	all sea.	D.OI	rocks	Eng. bot. 1733
15517 glaucóma Ach.	glaucous	tessellated	2	all sea.	D.OI	rocks	Eng. bot. 2156
15518 Hagéni Ach.	Hagen's	spotted	$\frac{1}{2}$	wint.	D.OI	bark of trees	Hagen. hist. lich. t.1.f.5
β crenuláta Ach.	crenulated	small spots	$\frac{1}{2}$	wint.	DI.G	limest. rocks	Eng. bot. 930
15519 albélla E. B.	cream-colored	obscure crust	$1\frac{1}{2}$	wint.	Wsh	smooth bark	Eng. bot. 2154
15520 parélla Ach.	equal	warted	2	all sea.	W	rocks	Eng. bot. 727
15521 upsaliénsis Ach.	Upsal	membranous	2	all sea.	GI.W	rocks	Eng. bot. 1634
15522 Turnéri Ach.	Turner's	mealy crust	3	aut.	DI.G	old trees	Eng. bot. 857
15523 carneo-lútea Ach.	yell.-flesh-col.	cracked crust	1	sum.	Wsh	trun. of elms	Eng. bot. 2010
15524 tartárea Ach.	Cudbear	tartareous	2	all sea.	Grsh	rocks	Eng. bot. 156
β Frígida Ach.	northern	thin crust	2	aut.	GI.	earth	Eng. bot. 1879
15525 cerína Ach.	waxen	oblong patch	2	wint.	G	trun. of trees	Eng. bot. 627
15526 Stónei Ach.	Stone's	oblong patch	$1\frac{1}{2}$	wint.	G	trun. of trees	
15527 vitellína Ach.	yolk of egg	granular	$1\frac{1}{2}$	all sea.	Y	pales	Eng. bot. 1792
15528 salicína Ach.	Willow	granular	$1\frac{1}{2}$	spring	Br	on trees	Eng. bot. 1305
15529 erythrélla Ach.	reddish	crack. rugose	2	all sea.	Gsh	stone walls	Eng. bot. 1993
15530 rúbra Ach.	red	membranous	$1\frac{1}{2}$	sum.	W	trun. of trees	Eng. bot. t.2218. <i>L. Ulmi</i>
15531 hæmatom'ma Ach.	bloody spotted	powdery	2	sum.	Wsh	rocks	Eng. bot. 486
β porphýria Ach.	smooth	thin crust	2	sum.	GI.	rocks	Eng. b.223. <i>L. coccineus</i>
15532 epigéa Ach.	earth	plaited	$1\frac{1}{2}$	all sea.	W	earth	E. b. 1778. <i>L. candicans</i>
15533 lentigera Ach.	white	round. patch.	$1\frac{1}{2}$	all sea.	Wsh	dry heaths	Eng. bot. 871
15534 saxícola Ach.	rock	scaly crust	2	all sea.	Pa.G	roc. & walls	Eng. bot. 1695
15535 murórum Ach.	wall	cracked crust	$1\frac{1}{2}$	all sea.	Y.Or	rocks	Eng. bot. 2157
15536 élegans Ach.	elegant	imbricated	1	all sea.	Tawn.	rocks	Eng. bot. 2181
15537 ful'gens Ach.	refulgent	small patches	$\frac{1}{2}$	sum.	Y	rocks	Eng. bot. 1667
15538 circináta Ach.	circled	cracked crust	$\frac{1}{2}$	aut.	Grsh	flat stones	Eng. bot. 1941
15539 géilda Ach.	frozen	cracked crust	1	all sea.	R.Gr	rocks	Eng. bot. 699
15540 galáctina Ach.	milky	rugose crust	$1\frac{1}{2}$	all sea.	Wsh	roc. & walls	
15541 cervína Ach.	grey	lobed scales	$\frac{1}{2}$	sum.	Ciner.	roc. & stones	E.b.t.2011. <i>L.squamulo</i> .
15542 crássa Ach.	thick	scaly crust	$\frac{3}{4}$	sum.	Gsh	earth on roc.	Eng. bot. 1893



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employed to produce a purple for dyeing woollen yarn; and no where, perhaps, used to so great an extent as in the manufactory of Mr. Mackintosh, at Glasgow. The manufacturers import it largely from Norway, where

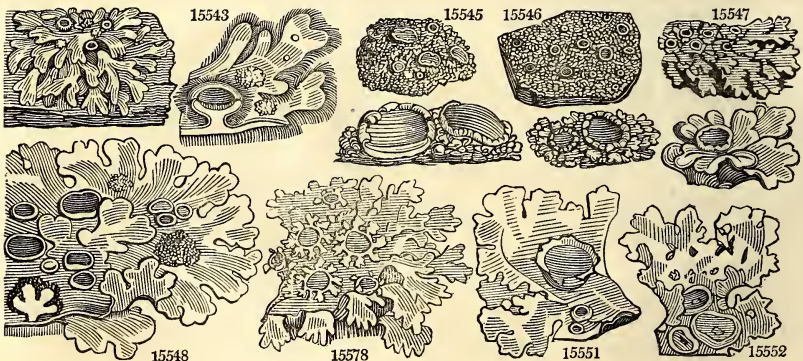
- 15515 Crust cracked and areolate somewhat granular whitish, Disk of apothecia rufous becoming brown, Border white or yellowish becoming flexuose
 **** Disk of apothecia black, castious, glaucous, or variously colored, always pruinose.
- 15516 Crust greenish ash-color with roundish warts, Circumference fibrous, Apothecia mixed: disk concave becoming flat blackish-glaucous; border elevated thick
- 15517 Crust tartareous tessellated even greyish-white, Apothecia immersed in the crust: the disk plane, at length convex subglobose glaucous and powdery; margin entire afterwards obliterated
- 15518 Crust cartilaginous membranous whitish ash-color, Apothecia clustered minute: disk flat becoming convex variegated with brown and black; border entire naked persistent
 β Crust becoming unequal somewhat granular ash-colored or blackish, Apothecia much clustered: disk flat brown and black; border crenulate powdery
- 15519 Crust thin leprous continuous cream-colored somewhat polished, Apothecia sessile whitish-buff uneven with a thin white wavy border
 ***** Disk of apothecia somewhat flesh-colored, pale, testaceous, waxen, or orange-colored.
- 15520 Crust granulated or somewhat warted white, Apothecia thick crowded by pressure angular: the disk concave, and as well as the tumid entire margin of the same color as the crust
- 15521 Crust very thin membranaceous smooth hoary glaucous white bearing awl-shaped bristles, Disk of the apothecia at length spreading plane pale-yellowish
- 15522 Crust leprous granular powdery whitish-grey, Apothecia scattered thick powdery: disk concave pale flesh-colored; border tumid entire and flexuose
- 15523 Crust thin polish. hoary, Apothecia somew. inn.: disk flat fleshy-yell.; border thin somew. inflex. crenat.
- 15524 Crust tartareous with clustered granules greyish white, Apothecia scattered: disk plano-convex a little wrinkled flesh-color; the margin inflexed, at length waved
 β Crust thin glaucous white running out into papillæ and spinuliferous branches [becoming black
- 15525 Crust granul. ciner. Disk of apothecia flat convex yellowish wax-colored; border elevated inflexed hoary
- 15526 Crust leprous-tartareous granular powdery dirty-white, Apothecia scattered: disk waxen covered by the powdery inflexed border becoming convex and dilated
- 15527 Crust granulated bright-yellow, Apothecia crowded: the disk plane of the color as the crust, at length convex deeper colored and powdery; the margin elevated thin, at length waved pulverulent
- 15528 Crust granular unequal dirty-yellow, Disk of apothecia flat becoming convex somewhat orange-colored; border thin crenulated becoming entire and flexuose
- 15529 Crust cracked subrugose greenish-yellow, Apothecia at length subglobose deep orange shining when the entire margin becomes obliterated
 ***** Disk of apothecia red, scarlet, or purple, and sanguine.
- 15530 Crust submembranaceous smooth, at length unequal pulverul. and granular white, Apothecia crowded: the disk concave red; margin tumid inflexed crenulate
- 15531 Crust tartareous pulverulent whitish, Apothecia imbedded scattered subconfluent: the disk scarlet rather convex; the margin sometimes obliterated
 β Crust tartar. granul. powd. whit. Apothecia sess.: disk flat deep sanguine; bord. elevat. thick rug. persist.
- †† *Thallus adnate, radiate, stellate, and lobed in the circumference.* PLACODIUM.
- 15532 Crust plaited and wrinkled white: the circumference smooth lobed, Disk of the apothecia at length rather convex brownish-black: the margin thin entire
- 15533 Crust somewhat imbricated white, Lobes somewhat concave flexuose cut-crenate, Disk of apothecia flat yellowish-brown: border elevated tumid
- 15534 Crust subimbricated scaly somew. rugose uneven pallid-green radiated and lobed in the circumference: fructification extremely crowded; the disk plane yellowish-brown or subochraceous with a border, at length crenate waved
- 15535 Crust plaited and lobed cracked bright-yellow orange pulverulent: the circumference plicate and rayed; segm. lin. convex cut, Apothecia crowd.: disk at length convex of a deeper orange; marg. ent. waved
- 15536 Crust somew. imbricated plaited and rugose tawny orange naked, Lobes lin. lanc. waved convex somew. distant radiating, Disk of the apothecia concave of the same color with the crust marg. somew. inflex. ent.
- 15537 Crust somew. contiguous pale yellow with a plaited lobed edge, Lobes flexuose flat, Apothecia scattered, Disk very red plano-convex
- 15538 Crust cracked greyish plaited and rayed in the circumference lin.-lacinate, Apothecia much crowded at length angular: disk plane brownish black even with the margin of the crust
- 15539 Crust cracked pale reddish grey the circumference rayed and lobed having brown warts in the centre cracked and rayed: disk of the apothecia depressed reddish margin thick elevated entire
- 15540 Crust subimbricat. rugulose whitish lobed and cren. at the circumference: fructification crowd. angular; the disk plane brownish flesh-color pruinose with a raised and at length crenate flexuose border
 ††† *Thallus imbricated throughout.*
- 15541 Crust with lobed scales of a brownish ash-color: disk of the apothecia immersed nearly plane blackish brown with the margin at length prominent
- 15542 Crust scaly greenish, Lobes imbricated inciso-crenate waved irregular, Disk of the apothecia slightly swelling brownish orange margin thin entire at length obliterated.



and Miscellaneous Particulars.

it grows more abundantly than with us; yet, in the Highland districts, many an industrious peasant gets a living by scraping this Lichen with an iron hoop, and sending it to the Glasgow market. When I was in the

15543	<i>virëlla Ach.</i>	greenish	multifid patc.	1	all sea.	Bt.G	trees & pales	Eng. bot.	1696
15544	<i>candelária Ach.</i>	Candle-dyeing	scaly crust	1	all sea.	Y	trees & pales	Eng. bot.	1794
	<i>β polycárpa Ach.</i>	<i>many-shielded</i>	toothed lobed	$\frac{1}{2}$	all sea.	Gr.Y	old posts	Eng. bot. t.	1795
15545	<i>hypnórum Ach.</i>	Hypnum	scaly crust	1	wint.	Gr.Br	woods	Eng. bot. t.	740
15546	<i>brun'nea Ach.</i>	brown	lobed crust	1	spring	Ci.Br	on the grou.	Eng. bot. t.	1246
15547	Hookéri	Hooker's	imbricated	1	spring	Grsh	wet rocks	Eng. bot.	2283
2341. PARME'LIA. <i>Ach.</i> PARMELIA.									
15548	<i>glomulifera Ach.</i>	warted	round patch.	$1\frac{1}{2}$	spring	Gl	trun. of trees	Eng. bot. t.	293
				<i>Sp. 38—77.</i>					
15549	<i>caperáta Ach.</i>	wrinkled	round patch.	$\frac{2}{3}$	spring	Y.G	trun. of trees	Eng. bot. t.	654
15550	<i>scórtea Ach.</i>	leathery	lobed patches	$1\frac{1}{2}$	all sea.	Br	trees & pales	Eng. bot.	2065
15551	<i>perláta Ach.</i>	grey	round patch.	2	all sea.	Grsh	trun. of trees	Eng. bot.	341
15552	<i>perforáta Ach.</i>	perforated	crisp patches	3	all sea.	Y.G	old trees	Eng. bot.	2423
15553	<i>herbácea Ach.</i>	herbaceous	round patch.	$1\frac{1}{2}$	all sea.	Bt.G	trun. of trees	Eng. bot.	294
15554	<i>corrugáta Ach.</i>	rugose	imbricated	3	all sea.	D.G	on trees	Eng. bot.	1652
15555	<i>olivácea Ach.</i>	olive	round patch.	2	all sea.	Ol.Br	rocks & trees	Eng. bot.	2180
15556	<i>parietína Ach.</i>	wall	round patch.	2	all sea.	Bt.Y	trees & walls	Eng. bot.	194
15557	<i>elæína Ach.</i>	orbicular olive	small patches	$\frac{1}{2}$	all sea.	Ol	bark of trees	Eng. bot.	2158
15558	<i>pitýrea Ach.</i>	scurfy	flat-warted	$1\frac{1}{2}$	july	Gl.	walls	Eng. bot.	2064
15559	<i>clementiána Ach.</i>	Clementi's	flat radiated	$1\frac{1}{2}$	all sea.	W.Gr	trees	Eng. bot.	1779
15560	<i>tiliácea Ach.</i>	Linden	flat imbricat.	6	sum.	G	rocks	Eng. bot.	700
15561	<i>Borréri Ach.</i>	Borrer's	foliaceous	4	aut.	Ol.G	trun. of trees	Eng. bot.	1780
15562	<i>lanuginósa Ach.</i>	woolly	round patch.	3	all sea.	Y.W	rocks		
15563	<i>plúmbea Ach.</i>	leaden	round patch.	2	aut.	Bl.Gr	trun. of trees	Eng. bot. t.	353
15564	<i>rubiginósa Ach.</i>	rusty	round patch.	3	sum.	Br.Gr	trun. of trees	Eng. bot. t.	983
15565	<i>omphalódes Ach.</i>	navel	shining dott.	4	all sea.	Pu.Br	rocks	Eng. bot. t.	604
15566	<i>saxátilis Ach.</i>	rock	rough & pitt.	$2\frac{1}{2}$	all sea.	Grsh	stones	Eng. bot. t.	603
15567	<i>fahlunénsis Ach.</i>	Iron mine	smth. thallus	3	all sea.	Pitch.	rocks	Eng. bot. t.	653
15568	<i>stýgia Ach.</i>	pitchy	starry	2	sum.	Bl	mountains	Eng. bot. t.	2048
15569	<i>áquila Ach.</i>	lacerated	multifid lobes	4	sum.	Br	rocks	Eng. bot. t.	982
15570	<i>encaústa Ach.</i>	griesly	stellated dott.	3	sum.	Pa.Gr	rocks	Eng. bot. t.	2049
15571	<i>recúrva Ach.</i>	recurved	warted	2	sum.	Pa.G	rocks	Eng. bot. t.	1375



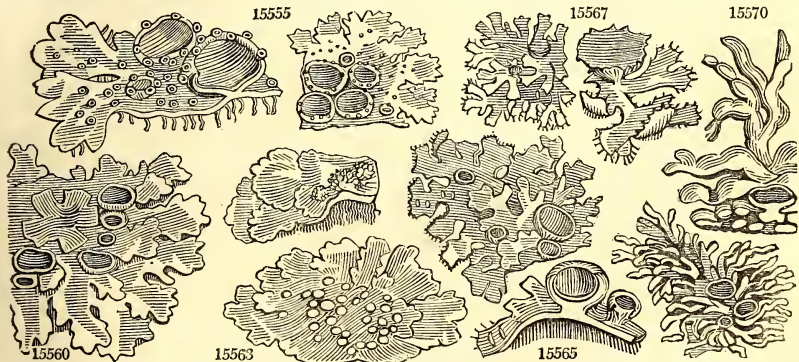
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neighbourhood of Fort Augustus, in 1807, a person could earn fourteen shillings per week at this work, selling the material at three shillings and fourpence the stone of twenty-two pounds. The fructified specimens are reckoned the best.

- 15543 Crust somewhat scaly greenish ash-colored becoming powdery, Lobes repand cut wavy with irregular margins, Disk of apothecia flat brownish black
 15544 Crust scaly yellow, Lobes very much crowded cut and lacinated imbricated their margins minutely granular, Apothecia nearly of the same color as the crust margin elevated entire
 β Crust formed of lobes with many crowded teeth and segments greyish yellow, Apothecia crowded waved : disk plane dilated of the same color as the crust at length fulvous and the margin crenulated
 15545 Crust scaly greenish-brown, Lobes minute somew. rounded with margin granular and crenulat. Apothecia submembran. : the disk concave at length dilated plane reddish brown the marg. elevated inflex. crenate
 15546 Crust imbricated greyish lobed and granulated ash-colored brown, Apothecia imbedded in the crust crowded irregular : disk rather convex red-brown the margin elevated crenulated persistent
 15547 Crust imbricated greyish, Lobes minute appressed blunt, Disk of the apothecia plane black margin elevated and crenate

† All the divisions of the thallus equal at end.

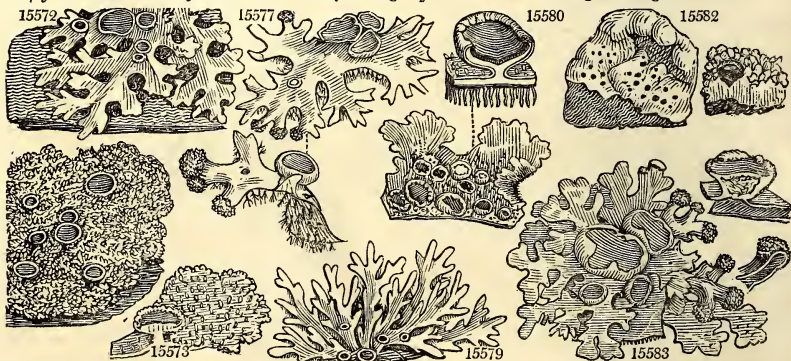
- 15548 Thallus cartilaginous rigid obicular livid and glaucous smooth bearing dark green scattered tufted excrescences : tawny beneath and downy, the lobes waved and lacinated angular, Apothecia reddish brown rugose at the margin
 15549 Thallus orbicular pale yellowish green rugose at length granulated black and hispid beneath the lobes waved lacinated round, nearly entire, Apoth. scatter. brown their margin incur. entire at length pulverulent
 15550 Thallus roundish suborbicaceous white smooth finely dotted with black : hispid beneath, Lobes longish sinuate-crenate cut, Apothecia rufous brown
 15551 Thallus orbicular greyish white smooth blackish brown and hairy beneath, Lobes rounded cut plane their margin waved entire, Apothecia brown their margin thin entire
 15552 Thallus orbicular glaucous green naked with black fibres on the under side, Lobes rounded cut flat somewhat plaited at the edge, Apothecia rufous
 15553 Thallus orbicular membranaceous bright green above, beneath pale brown almost white and downy, Lobes waved and cut, the segments rounded subcrenate, Apothecia red, the margin inflex. rugose and crenate
 15554 Thallus orbicular membranaceous finely rugose glaucous green, beneath blackish brown fibrous, Lobes cut rounded lax plaited entire
 15555 Thallus orbicular olive brown rugged with elevated points paler beneath and fibrous, Lobes radiating appressed plane dilated rounded and crenate, Apothecia dark-brown : the margin crenulated
 15556 Thallus orbicular bright yellow : beneath paler and fibrillose ; the lobes radiating appressed plane dilated round, crenate and crisped at the extremity, Apoth. of the same colour as the crust their margin entire
 15557 Thallus orbicular somewhat membranous contiguous plaited umber-olive colored cut crenate in the circumference with flat somewhat truncate lobules
 15558 Thallus orbicular cinereous powdery : beneath white with black fibres, Central segments plaited eroded crisp powdery at edge, Apothecia concave blackish brown
 15559 Thallus orbicular white hoary granular powdery : beneath of the same color with obsolete blackish fibres, Segments of the circumference flat cut crenate, Apothecia appressed flat brownish black
 15560 Thallus orbicular membranous glaucous ash-colored : blackish brown beneath, Lobes sinuate-cut ; the end ones rounded crenated, Apothecia brownish with an entire edge
 15561 Thallus orbicular cinereous, Soredia grey margined, beneath brownish spongy and fibrous, Lobes concrete plaited : those of the circumference rounded cut crenate, Apothecia red with a tumid edge
 15562 Thallus orbicular yellowish white pulverulent greyish black and downy beneath, Lobes imbricated plane rounded slightly crenated, Apothecia reddish ("of the same color as crust") their margin pulverulent
 15563 Thallus orbicular blueish-grey, beneath having a very thick spongy down, Lobes of circumference rounded and crenate, Apothec. scattered at length convex rusty-brown, their margin of same color and entire
 15564 Thall. orbic. brownish-grey, ben. having a blueish-grey spongy down, Lobes of circumf. obtusely notched elevated pale, Apothecia plane crowded central reddish-brown with tumid incurv. crenul. whit. margins
 15565 Thallus orbicular dark purplish-brown shining dotted with black, beneath black and fibrillose : the segments sinuato-multifid linear plane truncated crenate in the circumference, Apothecia dark-brown, the margin slightly crenulate
 15566 Thallus orbicular greyish rough and pitted beneath black and fibrillose : the segments imbricated sinuated plane subretuse, Apothecia bright chestnut-brown, their margin subcrenulated
 15567 Thallus orbicular pitchy-brown smooth beneath black and scarcely fibrillose : the segm. sinuated multifid divergent plane or slightly grooved, margins elevat. lacerat. Apothec. dark-brown, margin granulated
 15568 Thallus stellated shining pitchy-black, beneath black and almost naked : the segments nearly linear multifid and somewhat palmate convex, the margins and extremity recurved, Apothec. of the same color at length black with the margin crenated
 15569 Thallus orbic. tawny-brown paler beneath with blackish fibres : the segment multipartite nearly lin. convex, those of the circumf. dilated nearly plane and crenate, Apothecia dark-brown, their margin crenated
 15570 Thallus stellat. pale-grey, beneath black uneq. naked : the segments often uniting convex and almost round. lin. multifid roughish dotted with black, Apothecia reddish-brown, their margin somewhat crenulated
 15571 Thallus stellat. pale-greenish bear. powdery warts, beneath black with spongy fibres : segments of circumference multifid very narrow convex and almost rounded, Apothecia reddish-brown, marg. nearly ent.



and Miscellaneous Particulars.

2341. *Parmelia*. Named from *παρμη*, a sort of small shield, and *εισα*, to enclose. On the thallus of these plants scattered powdery warts are commonly found. These Hedwig has determined to be anthers, apparently for no other reason than that they are powdery, and that he could fix the title to nothing better.

15572	<i>sinuosa Ach.</i>	sinuous	starry	2	all sea.	Pa.Y	moorstones	Eng. bot. t. 2050
15573	<i>aleuritica Ach.</i>	rugose	round patch.	3	aut. wi.	Pa.Gr	trun. of trees	Eng. bot. t. 858
15574	<i>ambigua Ach.</i>	ambiguous	starry warted	2	aut. wi.	Pa.G	trun. of trees	
15575	<i>conspersa Ach.</i>	sprinkled	smth. dotted	1½	all sea.	Y	rocks	Eng. bot. t. 2097
15576	<i>speciosa Ach.</i>	shewy	starry glabr.	2	spring	G.W	woods	Eng. bot. t. 1979
15577	<i>lævigata Ach.</i>	polished	starry	3	spring	Grsh	on trees	Eng. bot. t. 1852
15578	<i>pulverulenta Ach.</i>	powdery	pruinose mul.	2	spring	Dp.G	trun. of trees	Eng. bot. t. 2063
15579	<i>stellaris Ach.</i>	stellate	rugged frond	2	spring	Grsh	trun. of trees	Eng. bot. t. 1697
15580	<i>cæ'sia Ach.</i>	cæsius	sorediferous	¾	all sea.	Grsh	roc. & stones	Eng. bot. t. 1052
	β <i>dubia Ach.</i>	dubious	granular	½	spring	Pa.Br	boards	Eng. bot. 2547
15581	<i>cycloselis Ach.</i>	circular	round patch.	1	all sea.	Li.Gr	trees & pales	Eng. bot. 1942
15582	<i>diacapsis E. B.</i>	twofold-shield.	tumid crust	1½	all sea.	Wsh	stones	Eng. bot. 1954
15583	<i>physodes Ach.</i>	bladdery	multif. smth.	2	all sea.	Wsh	rocks	Eng. bot. t. 126
15584	<i>diatrypa Ach.</i>	warted	multif. smth.	2	all sea.	Gr.G	wet rocks	Eng. bot. t. 1248
2342.	<i>BORRE'RA Ach.</i>	BORRERA.						<i>Sp. 7—23.</i>
15585	<i>tenella Ach.</i>	slender	branch. segm.	1½	all sea.	Gl.	bran. of trees	Eng. bot. 1351
15586	<i>leucomela Ach.</i>	black & white	dense tufts	1½	feb.	Wsh	on the earth	Eng. bot. 2548
15587	<i>furfuracea Ach.</i>	mealy	farinaceous	1½	all sea.	G.Gr	trun. of trees	Eng. bot. 984
15588	<i>chrysoptalma Ach.</i>	yellow-eyed	bushy	1	all sea.	Or	apple trees	Eng. bot. 1088
15589	<i>flavicans Ach.</i>	yellowish	branched	1	all sea.	Y	trun. of trees	Eng. bot. 2113
15590	<i>ciliaris Ach.</i>	ciliated	bushy	1½	all sea.	Gl.	trun. of trees	Eng. bot. 1352
15591	<i>atlantica Ach.</i>	Barbary	bushy tufts	1½	april	G.OI	elms	Eng. bot. 1715
2343.	<i>CETRA'RIA Ach.</i>	CETRARIA.						<i>Sp. 5—14.</i>
15592	<i>juniperina Ach.</i>	juniper	bushy	1½	all sea.	Pa.Y	trun. of trees	
	β <i>pinastri Ach.</i>	<i>Pinaster</i>	bushy	1½	all sea.	Pa.Y	trun. of trees	Eng. bot. t. 2111
15593	<i>sepincola Ach.</i>	hedge	bushy waved	1½	all sea.	Ol.Br	ston. & trees	Eng. bot. t. 2386
15594	<i>glauca Ach.</i>	glaucous	bushy shining	2	all sea.	Gl.	on the grou.	Eng. bot. t. 1606
	β <i>fallax Ach.</i>	<i>fallacious</i>	bushy shining	1½	all sea.	W	on the grou.	Eng. bot. t. 2373

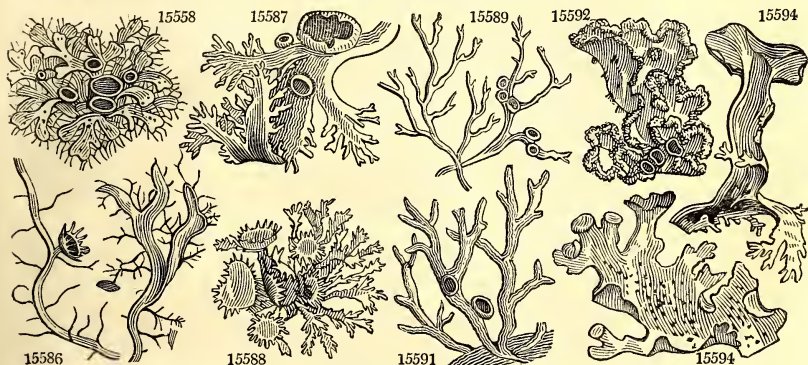


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2342. *Borrera*. Dedicated by Acharius, to Mr. William Borrer, F. L. S., one of our most eminent British cryptogamic botanists. This genus is very natural in habit, including the Linnean genus *Lichen* and its allies.

2343. *Cetraria*. An unexplained name. *C. islandica* is common in Iceland and in the north of Germany, and is also found in the mountains of Asturias. It grows to the height of two or three inches only, and has a rugged bushy aspect. In Iceland and Lapland it is used as an article of diet; being boiled in broth or milk, after being freed from its bitter by repeated maceration in water, or dried and made into bread. It has of late years been brought in considerable quantities to this country for medicinal purposes. The dried plant differs very little from its appearance in a recent state. Medicinally it is tonic and demulcent; it has also been found useful in debilities after acute diseases, and in emaciations, particularly those arising from the great discharge

- 15572 Thallus stellat. pale-yellowish grey smooth, black and fibrous beneath : segments broadly lin. sinuato-pinnatifid, their sinuses broad and circular, Apothecia nearly plane dark-brown, their margin thin entire
- 15573 Thallus orbicular continuous rugose pale-grey pulverulent, beneath of the same color with blackish fibres : segments in the circumference distinct plane rounded waved inciso-crenate, Apothecia plane reddish-brown, their margin at length crenulate and pulverulent
- 15574 Thallus stellated pale-yellow green smooth bearing powdery warts, beneath brownish-black and fibrillose : the segments linear appressed plane dichotomous somewhat truncated, Apothecia subcentral small nearly plane brown, their margin entire
- 15575 Thallus orbicul. greenish-yell. smooth with blackish dots, brown and fibrillose beneath : segments sinuato-lobate rounded crenate nearly plane, Apothecia central chesnut-brown with the margin nearly entire
- 15576 Thallus stellated glabrous greenish-white, beneath snowy-white with greyish fibres : the segments imbricated linear plane cut and branched crenate, their extremities ascending and powdery, Apothecia central brown with a tumid singularly rough and crenate border
- 15577 Thallus stell. smooth greyish-white, beneath black and fibrillose : segm. multif. lin. broader upwards cut divaricated acute in the circumference frequently bearing powdery warts, Apothecia concave chesnut color with the margin entire
- 15578 Thallus stellated deep glaucous green caesious and pruinose when dry, beneath black and downy and hispid : the segment linear multifid in the circumference plane appress. waved retuse at the extremities, Apothecia glaucous black, the margin entire and waved at length leafy
- 15579 Thallus stellat. at length rugged and granulat. greyish-green, beneath with grey fibres : the segm. sublin. rather convex cut multifid, Apothecia glauc. black, their margin entire, at length waved and crenate
- 15580 Stellate greyish-white and glaucous sorediferous, ash-colored beneath with black fibres : segments linear cut multif. convex but plane at extremities ; fructification subconcave black with a subinflexed border
 α Thallus stellate cinereous : segments branched separate recurved at edge roundish, some broader than the rest and powdery at the edge
- 15581 Orbicular greenish-grey, fibrous and black beneath, Lacinæ imbricated nearly plane multif. erosa-crenate somewhat ciliate : the margin sometimes raised ; fructification very dark, the border raised entire
- 15582 Crust blueish-white tartareous minutely undulated, Apothecia clustered somewhat sunk : disk flat black or brown ; margin thick externally black
- 15583 Thallus substellated glaucous white : beneath brownish black ; the segm. sinuato-multifid convex glabrous inflated and ascending at the extremity, Apothecia red brown, their margin entire
- 15584 Thallus substellate greyish-green : beneath rugose blackish and white ; segments sinuato-multifid nearly plane smooth bearing powdery warts and perforated ; the extrem. inflated, Apoth. redd. : marg. entire
- 15585 Thallus greyish-white naked on both sides and of the same col. substellat. : segm. pinnatif. ascend. dilat. arched and ciliated at the extremity, Apothecia scattered : disk plane caesious black ; its marg. entire
- 15586 Thallus palish : segments erect linear multifid attenuated ciliated : beneath very white powdery and channelled, Apothecia with a flat black caesious disk
- 15587 Thallus greenish-grey farinaceous : the segments linear attenuated branched grooved naked rugose and blackish beneath, Apothecia somewhat marginal cup-shaped with their margin thin inflexed
- 15588 Thallus yellow naked and of the same color on both sides : segments linear flattish pinnatifid branched fibrous at end, Apothecia somewhat terminal with an orange-colored disk
- 15589 Thallus yellow naked : segments dichotomously branched slightly compressed atten. divaricated complicated, Apothecia scattered : their disk plane orange-red ; their margin entire naked
- 15590 Thallus greenish : segments linear branched attenuated ciliated at end whitish and channelled beneath, Apothecia somewhat terminal : disk concave becoming flat with a fringed border
- 15591 Thallus pale rufous downy : segm. divaricating tortuous linear tapering channelled on the under surface, Apothecia scattered : disk flattish brownish-black with a thin entire border
- 15592 Thallus pale-yellow very yellow beneath : the segments plane ascending erose crenate and crisped, Apothecia elevated : their disk brown ; the margin crenulated
 β Thallus with segm. depressed : the lobes rounded crenate ; margins crisped pulverulent and very yellow
- 15593 Thallus olive-brown paler beneath ; the segments plane ascending lobed waved subcrenate, Apothecia elevated of the same color : their margin rugose and crenulate
- 15594 Thallus glaucous somewhat shining sinuated and lobed brown beneath : the segments cut and jagged curled ascending, Apothecia elevated chesnut-brown : their margin wrinkled
 β Thallus white on each side or with occasional black spots beneath

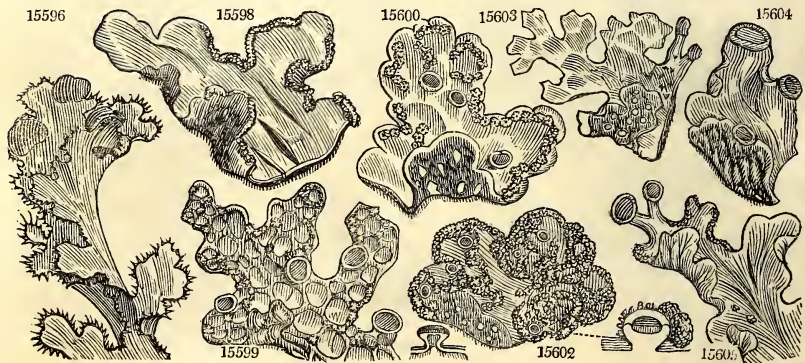


and Miscellaneous Particulars.

of ulcers ; and diarrhœas, dysentery, and hooping cough. Its virtues, however, have been greatly overrated. (*Thom. Lond. Disp.* 365.)

Though plentiful with us, it is scarcely sufficiently so to form an article of commerce. A great proportion of what comes to our shops, where it is in great request as a medicine in coughs, consumptions, &c. is procured from Norway or from Iceland. Immense quantities are gathered in the latter country, not only for sale, but for home consumption, as an article of common food. The bitter and purgative quality being extracted by steeping in water, the lichen is dried, reduced to powder, and made into a cake, or boiled and eaten with milk ; and eaten with thankfulness, too, by the poor natives, who confess "that a bountiful Providence sends them bread out of the very stones." An ample account of the nutritive qualities of this plant may be found in the Memoir of Professor Proust, inserted in the *Journal de Physique*, for August, 1806.

15595 nivális Ach.	snow	bushy tufts	2	all sea. Sul.	rocks	Eng. bot. t. 1994
15596 islándica Ach.	Iceland Moss	bushy	2	all sea. Ol.Br	rocky places	Eng. bot. t. 1330
2344. STICTA Ach.	STICTA.			Sp. 7—18.		
15597 crocáta Ach.	orange	yellow warts	3	all sea. Gl.Br	rocks	Eng. bot. 2110
15598 auráta Ach.	golden	foliaceous	6	all sea. Br	trun. of trees	Eng. bot. 2359
15599 pulmonácea Ach.	liverwort	reticulated	2	all sea. Oliva.	trun. of trees	Eng. bot. 572
15600 scrobiculáta Ach.	pitted	roundish pat.	3	all sea. Grsh	trun. of trees	Eng. bot. 497
15601 limbáta Ach.	bordered	smooth lobed	4	all sea. Gl.Br	rocks	Eng. bot. 1104
15602 fuliginósa Ach.	smutty	round patch.	3	all sea. Lu.gr	moist rocks	Eng. bot. 1103
15603 sylvática Ach.	wood	pitted fronds	3	all sea. Ru.Br	shady woods	Eng. bot. 2298
2345. PELTIDEA Ach.	PELTIDEA.			Sp. 9—21.		
15604 venósa Ach.	veiny	much veined	2	sum. Gsh	on the earth	Eng. bot. 887
15605 scutáta Ach.	shielded	crisp	1½	all sea. Cin.	bark of trees	Eng. bot. 1834
15606 horizontális Ach.	horizontal	shining, cren.	2	all sea. Br.G	shady rocks	Eng. bot. 888
15607 aphthósa Ach.	Thrush	warted	2	aut. G	among moss	Eng. bot. 1119
15608 rufescens E. B.	brownish	incurved	2	all sea. R.Br	on the earth	Eng. bot. 2300
15609 canina Ach.	dog	broad-lobed	2	all sea. Grsh	on the earth	Eng. bot. 2299
15610 membranácea Ach.	membranous	broad-lobed	1½	all sea. Grsh	thatch	
15611 spúria E. B.	imperfectly veined	lobed frond	1½	july Ol.Br	thatch	Eng. bot. 1542
15612 polydáctyla Ach.	multifid	smooth-hood.	1½	july Gl.	on the earth	Jaqc. coll. t. 14. f. 2
2346. NEPHROMA Ach.	NEPHROMA.			Sp. 2—8.		
15613 resupináta Ach.	resupinate	short-lobed	3	all sea. Gr.Br	among moss	Eng. bot. t. 305
15614 párilis Ach.	chocolate	foliaceous	3	all sea. Br	stone quarr.	Eng. bot. 2360
2347. ROCCEL'LA Ach.	ORCHALL.			Sp. 2—7.		
15615 tinctória Ach.	true dyer's	bushy tufts	1½	all sea. Y.Br	marit. rocks	Eng. bot. 211
15616 fucifórmis Ach.	flat-leaved	bushy tufts	4	all sea. Gl.	granite rocks	Eng. bot. 728
2348. EVER'NIA Ach.	EVERNIA.			Sp. 1—6.		
15617 prunástri Ach.	Stag's Horn	multif. segm.	2	all sea. G.W	heaths	Eng. bot. t. 859
	L. stictoceros E. B. t. 1353					
2349. CENOMY'CE Ach.	CENOMYCE.			Sp. 20—43.		
15618 papilária Ach.	pimpled	granul. crust	½	wint. Grsh	damp earth	Eng. bot. 907



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2344. *Sticta*. From *σικτος*, dotted, on account of the numerous little pits on the under surface of the fronds. One of the most handsome genera of Lichens, growing almost wholly upon trees. *Sticta pulmonacea* is supposed to possess the same qualities as the famous Iceland moss, *Cetraria islandica*.

2345. *Peltidea*. So called in allusion to the form of the shields, from *πλτυν*, a target. *Peltidea apthosa*, a large handsome species, has its name from the circumstance related by Linnæus, that the Swedish peasants boil it in milk as a cure for the apthæ, or thrush, in children.

2346. *Nephroma*. From *νεφρος*, a kidney; the apothecia are of a reniform figurè. *N. polaris* is remarkable for being common to both the arctic and antarctic circles.

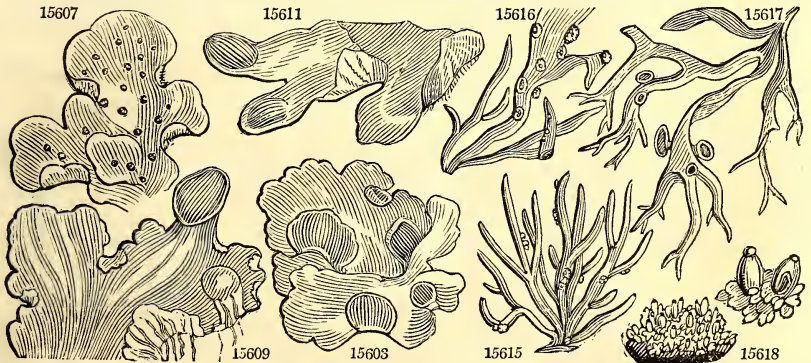
2347. *Roccella*. This is a slight alteration of the Portuguese *Roccha*, signifying a rock, in allusion to the

- 15595 Thallus sulphur-colored orange at the base pitted and reticulated erect nearly plane lacinated : its segm. multifid crisped crenato-dentate and often warty at points, Apothecia plane flesh-col. : marg. crenulat.
- 15596 Thallus olive-brown paler beneath : the segments erect sublinear multifid channelled smooth denticulate; fert. branches spreading, Apothecia appressed plane of the same color : margins elevated entire
- 15597 Thallus dark glaucous brown pitted with broad rounded spreading entire lobes, having bright lemon-colored powdery spots upon the margin and on the elevated parts between the pits : downy and tawny beneath with min. lemon-colored little hollows, Apothecia scattered black.-brown : their margin entire
- 15598 Thallus glaucous shining very broad woolly beneath, Soredia minute yellow : segments rounded sinuated cut; margin wavy crisp inflexed yellow-powdery
- 15599 Thallus olivaceous pitted and reticulated downy beneath with smooth prominences : the segm. sinuato-lobate truncated, Apothecia submarginal plane reddish : their margin rugose
- 15600 Thallus suborbicular glaucous greyish-green very broad somew. pitted and having mealy warts : beneath downy tawny with white naked spots; the segments rounded and lobed irregular, Apothecia scattered nearly plane reddish-brown : their margin somewhat crenate
- 15601 Thallus orbicular glaucous brown roundly lobed smooth grey and powdery at the margin : downy beneath with white hollow spots, Apothecia brown
- 15602 Thallus orbicular dark lurid-grey rough with brown granules : beneath grey.-brown with white concave spots; the segments roundly lobed nearly entire, Apothecia scattered dark-brown : their marg. entire
- 15603 Thallus wide rusty brown naked and pitted : brown and downy beneath with small pale excavations; segments lobed and obtusely cut unequal, Apothecia marginal dark-brown
- 15604 Thallus greenish ash-color white beneath having dark brown prominent branched veins, Lobes rounded cut somewhat entire, Apothecia marginal plane rounded swelling brown scarcely crenulate at the margin
- 15605 Thallus ash-colored whitish and veiny beneath : the lobes rounded sinuated and cut crenate and crisped; fertile lobules very short, Apothecia orbicular ascending nearly plane brown somewhat entire
- 15606 Thallus glaucous and brownish green lobed cren. and shining pale ben. with numerous brown branching reticulated veins : fertile lobules abbreviated, Apothecia terminal plane horizontal transversely oblong reddish brown with a nearly entire margin
- 15607 Thallus green smooth roundly lobed sprinkled with brown warts whitish beneath with brown branching veins : fertile lobules very long contracted in the middle their sides reflexed, Apothecia terminal large ascending red brown with a lacerated margin
- 15608 Thallus coriaceous concave even dark reddish-brown pale downy with obsolete veins beneath, Lobes rounded with numerous fruit-bearing processes
- 15609 Thallus greyish green with broad rounded lobes white beneath with brownish branching veins : fertile lobules rather long with their sides reflexed, Apothecia terminal nearly erect revolute reddish-brown with a subcrenulated border
- 15610 Thallus thin membranous somewhat downy with rounded lobes beneath whitish and netted with veins of the same color, Fertile lobes short, Apothecia minute
- 15611 Leathery ash-colored and even above : whitish smooth with indistinct pale veins beneath, Apothecia ascending roundish dark reddish brown
- 15612 Thallus glaucous green naked glabrous with brown reticulated veins beneath : fertile lobules very numerous elongate and as well as the brown terminal, Apothecia cucullato-revolute
- 15613 Thallus greyish brown pale pubescent and granulated beneath : fertile lobules very short, Apothecia large numerous reddish
- 15914 Thallus livid brown beneath naked wrinkled blackish, Fertile lobes short, Face of the apothecia brownish
- 15615 Thallus rounded glaucous green somew. branched nearly erect, Apothecia scattered elevated : disk flat caesious pruinose as broad as the border
- 15616 Thallus flat cinereous greenish with dichotomous divisions, Segments attenuated, Apothecia marginal

15617 Thallus greenish white segments dichotomous multifid ascending linear-attenuate plane pitted grooved and white beneath, Apothecia bright brown concave

† *Thallus subrustaceous uniform. Podetia hollow. PYCNOTHELIA.*

15618 Subrustaceous uniform granulated greyish, Podetia ventricose glabrous white simple or branched, the branches very short confluent and subfastigate, Fructification minute reddish-brown



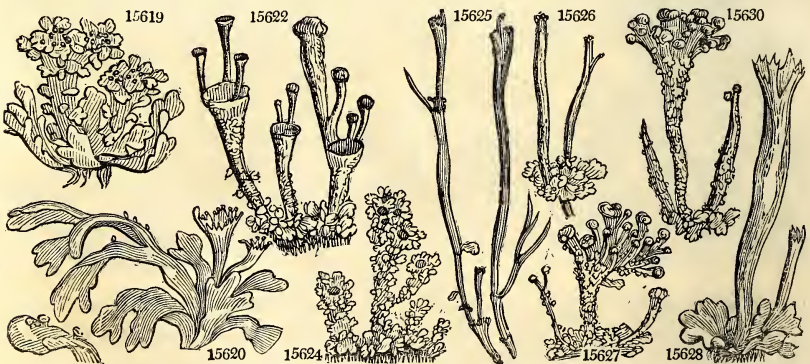
and Miscellaneous Particulars.

places where this plant is commonly found. This plant is the Orchall or Argol of the dyers, so celebrated for yielding a fine purple color, for which Cudbear is but a poor substitute.

2348. *Evernia*. *Eusevius* signifies tall, or well branched. The name has been well contrived to express the habit of the species, which all form bushy, erect, or pendulous tufts.

2349. *Cenomyce*. From *κενός*, empty, and *μυκης*, a minute fungus, alluding to the hollowness of the little fungus-like receptacles. *Cenomyce rangeferina* : this is the Lichen which, for the greater part of the year, and especially in winter, is the support of the vast herds of rein-deer, in which consists all the wealth of the Laplanders. No vegetable, Linnaeus tells us, grows throughout Lapland in such abundance as this, especially in woods of scattered pines, where, for very many miles together, the surface of the sterile soil is covered with it as with

15619	<i>alcicórnis Ach.</i>	buckshorn	tufts	$\frac{1}{2}$ wint.	Gl.	heaths	Eng. bot. t. 1392
15620	<i>endiviæfólia Ach.</i>	endive-leaved	multifid tufts	$\frac{2}{3}$ wint.	Y.G	dry places	Eng. bot. t. 2361
15621	<i>cervicórnis Ach.</i>	Stag's Horn	multifid tufts	$1\frac{1}{2}$ wint.	Gl.	Pentlan.hills	Eng. bot. t. 2574
15622	<i>pyxidáta Ach.</i>	cupped	tufts	$\frac{2}{3}$ spring	Gl.	banks	Eng. bot. t. 1393
15623	<i>fimbriáta Ach.</i>	fringed	coralloid tufts	$1\frac{1}{2}$ spring	Gl.	moors & hea.	Eng. bot. t. 2438
	β <i>radiáta Ach.</i>	<i>radiated</i>	coralloid tufts	2 spring	Gl.	on the grou.	Eng. bot. 1835
	γ <i>cornúta Ach.</i>	<i>cornute</i>	coralloid tufts	$1\frac{1}{2}$ spring	Gl.	moors & hea.	Eng. bot. 1836
15624	<i>gonoréga Ach.</i>	degenerating	tufts	1 sum.	Cin.	mountains	
	β <i>anomæ'a Ach.</i>	variable	brittle tufts	1 spring	Cin.	hills	Eng. bot. 1867
15625	<i>ecmocýna Ach.</i>	leafy	fine tufts	$\frac{2}{3}$ spring	Gr	hea.& moun.	
	β <i>gráclis Ach.</i>	<i>slender</i>	fine tufts	$\frac{2}{3}$ spring	Gr	hea.& moun.	Eng. bot. 1284
15626	<i>bacilláris Ach.</i>	rod-like	branched	2 all sea.	Wsh	woods	E. b. t. 2028. <i>L.fliiformis</i>
15627	<i>digitáta Ach.</i>	fingered	powdery	$1\frac{1}{2}$ all sea.	Y.G	woods	Eng. bot. 2439
15628	<i>defórmis Ach.</i>	deformed	branch. tufts	3 all sea.	Sul.	roots of trees	Eng. bot. 1394
15629	<i>coccifera Ach.</i>	coccus-bearing	long tufts	3 wint.	Gr.G	moors & hea.	Eng. bot. 2051
	β <i>cornucopioides Ach.</i>	<i>cornucopia-like</i>	short tufts	$1\frac{1}{2}$ wint.	Gr.G	moors & hea.	
15630	<i>bellidiflóra Ach.</i>	daisy-flowered	stiff scaly	2 wint.	Pale	lofty mount.	Eng. bot. 1894
15631	<i>sparássa Ach.</i>	ventricose	branch. tufts	2 all sea.	Gl.	in woods	Eng. bot. 2362
15632	<i>delicáta Ach.</i>	delicate	mealy patch	$\frac{1}{2}$ wint.	G	rotten rails	Eng. bot. 2052
15633	<i>racemósa Ach.</i>	racemose	loosely branc.	$1\frac{1}{2}$ all sea.	Gsh	heaths	Dill. musc. t. 16. f. 25
15634	<i>furcáta Ach.</i>	forked	smooth tufts	$2\frac{1}{2}$ all sea.	Liv.br	woods	Dil.musc. t. 16. f. 27. A.-D
	β <i>subuláta Ach.</i>	<i>subulate</i>	slightly bran.	2 all sea.	Liv.br	woods	Dil. musc. t. 16. f. 21. A. B
15635	<i>unciális Ach.</i>	stiff	rigid smooth	$1\frac{1}{2}$ wint.	Pa.G	moors	Eng. bot. t. 174
15636	<i>rangiferina Ach.</i>	rein-deer	much branch.	2 all sea.	Ho.	woods	Eng. bot. t. 173
	β <i>pun'gens Ach.</i>	<i>pungent</i>	branched tuft	2 all sea.	Gr	commons	Eng. bot. 2444
15637	<i>vermiculáris Ach.</i>	vermicular	little tufts	1 sum.	W	high mount.	Eng. bot. t. 2029



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snow. On the destruction of forests by fire, when no other plant will find nutriment, this Lichen springs up and flourishes, and, after a few years, acquires its greatest size. Here the rein-deer are pastured, and whatever may be the depth of snow during the long winters of that climate, they have the power of penetrating it, and

†† *Thallus foliaceus. Podetia fistular dilated upwards and fertile, or sterile and subulate. Apothecia closed with a membrane. SCYPHOPHORA.*
* *Apothecia fuscous or pallid.*

15619 *Thallus foliaceus* s very pale glaucous green the segments subpalmated ascending obtuse and incurved, *Podetia* elongated turbinate all cup-bearing smooth the cups regular crenate with the margin at length leafy and proliferous, *Apothecia* brown

15620 *Thallus foliaceus* large glaucous yellow green white beneath the segments multifid waved crenate crisped, *Podetia* turbinate elongate mostly simple, *Apothecia* marginal reddish-brown

15621 *Thallus foliaceus* glaucous green: segments erect multifid narrow repando-subdentate, *Podetia* cylindrical short glabrous dingy at length black all of them cup-bearing: cups small regular dilated entire nearly plane proliferous from the centre, *Apothecia* marginal sessile brownish-black

15622 *Thallus foliaceus*: segments crenulated ascending, *Podetia* all turbinate elongate cup-shaped glabrous at length granulat warty rough grey green: cups regular; the margin at length prolifer. *Apoth.* brown

15623 *Thallus foliaceus*: the segments small crenate, *Podetia* elongate cylindrical cup-bearing sometimes subulate slightly pulverul. white: cups regular their margins ent. and crenat. at length prolifer. *Apoth.* brown
β *Podetia* elongated powdery white, *Scyphe* radiat at edge

γ *Podetia* elongate subulate simple or branched pulverulent white sterile or with reddish apothecia

15624 *Thallus foliaceus*, Segments broadish crenulate cut, *Podetia* longish smooth somewhat warted glaucous or whitish green, *Apothecia* irregular torn into rays proliferous at edge

β *Thallus foliaceus* ash-colored brittle: segments imbricated minute crenate, *Podetia* cylindrical rough and foliaceous: cups turbinate closed at length dilated and radiated, *Apothecia* marginal sessile or stalked brownish-black

15625 *Thallus foliaceus*, Segments small crenate, *Podetia* long subulate sterile and fertile smooth livid-brown, *Apothecia* cup-shaped toothed at edge occasionally proliferous

β *Thallus foliaceus* very minute, *Podetia* elongate subulate sterile and cup-bearing smth. greenish brown: cups toothed at the margin at length proliferous, *Apothecia* brown

** *Apothecia scarlet or deep red.*

15626 *Thallus foliaceus* small: segm. inciso-lobate crenate, *Podetia* cylindr. simple and somew. branch. at the extremity greenish white granulated rarely cup-bear.; cups narr. at length radiat. *Apoth.* minute scarlet

15627 *Thallus foliaceus* small: segments expanded rounded crenate beneath as well as on the cylindrical yellow green cup-bearing, *Podetia* pulverulent: cups narrow small at length large with the often branched numerous digitate or rayed proliferations tipped with the bright scarlet apothecia

15628 *Thallus foliaceus* minute: segments broadish cut crenate naked beneath, *Podetia* long thick subventricose sulphur-colored slightly pulverulent cup-bearing: cups narrow crenato-dentate at length dilated and jagged, *Apothecia* sessile and pedunculate scarlet

15629 *Thallus foliaceus* minute: segm. rounded crenate nak. beneath, *Podetia* elongated turbinate naked nearly pale yellow or greyish green all cup-bearing, cups with their margins spreading fertile, *Apothecia* large at length stalked scarlet

β *Pod.* rather short cup-bearing: cups dilat. crisp. and foliac. term. by the scarlet stalk. *Apoth.* at leng. prolif.

15630 *Thallus foliaceus* minute: the segm. inciso-crenate naked beneath, *Podetia* elongate cylindr. rigid glabr. foliaceo-squamose pale all cup-bear.: cups narr. their margins fertile and prolifer. *Apoth.* crowd. scarlet

††† *Thallus foliaceus. Podetia fistular dilated upwards and fertile. Apothecia pervious. SCHASMARIA.*
15631 *Thallus foliac.* minute lobed and crenated, *Podetia* elongated branch. subventr. granulat. rough with leafy scales cup-bearing: cups irregular pervious dentato-radiate proliferous, *Apothecia* stalked pale brown

†††† *Thallus foliaceus. Podetia somewhat fistular, cylindrical, simple, split at end or digitate. Rays all fertile. HELOPODIA.*
15632 *Thallus foliaceus* with minute granular lobes, *Podetia* smooth granular pallid divided at end: divisions very short, *Apothecia* clustered brownish black

††††† *Thallus foliaceus, scarcely any. Podetia cartilaginous, rigid, fistular, all tapering subulate branched. Axillæ generally bored through. CLADONIA.*
15633 *Podetia* elongated smooth at length scaly greenish white inflated curved branched, Branches lax subsecund their extremities divergent spinulose, *Apothecia* pale brown

15634 *Podetia* elongated smooth livid brown dichotomous, Axils not perforated, Branches narr. subulate curved the extremities forked divergent: fertile ones with brown apothecia

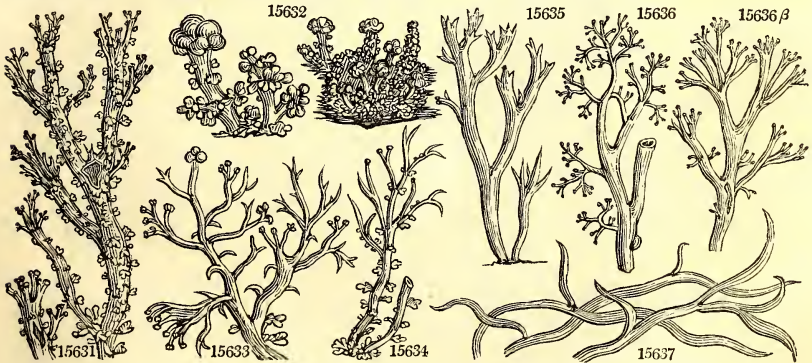
β *Podetia* elong. slender sparingly branch. Branches nearly erect: fertile bran. with brown capitate apoth.

15635 *Podetia* elongate glabr. pale dichotomous: the axils perforated open; extremities of the branches patent short acute and rigid, *Apothecia* small terminal brown

15636 *Podetia* elongate cylindr. erect roughish hoary branched: axils often perforated, Branches scattered very much divided spreading the ultimate ones subradiate or drooping, *Apothecia* subglobose clustered brown

β *Podetia* cinereous dichotomously branched rigid forming a cushion-like tuft, Axillæ not bored through, End of branches mucronate diverging brownish

†††††† *Thallus none. Podetia soft, subsolid, subulate, somewhat branched. Axillæ not bored through. CERANIA.*
15637 *Podetia* subulate nearly simple smooth very white subsistulose flexuose prostrate



and Miscellaneous Particulars.

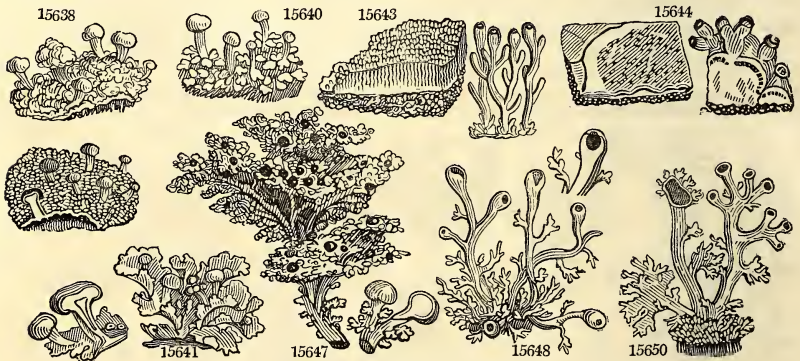
obtaining their necessary food. Linnæus has given a beautiful description of this Lichen, and of the animals whose support it is, in the *Flora Lapponica*, p. 332.

C. pyxidata is sometimes employed by the poor in the cure of the whooping-cough.

2850. BÆOMYCES. <i>Ach.</i> BÆOMYCES.				<i>Sp.</i> 4—10.			
15638 <i>roseus Ach.</i>	rosy	granulated	$\frac{1}{2}$ sum.	Gsh		Eng. bot. t. 374	
15639 <i>rufus Ach.</i>	rufous	powdery	$\frac{1}{2}$ sum.	Gsh		E. bot. t. 373. <i>L. byssoides</i>	
15640 <i>microphyllus E. B.</i>	small-leaved	imbric. patch	3	wint. D.G	wet heaths	Eng. bot. 1782	
15641 <i>caespitosus E. B.</i>	turfy	leafy tuft	3	aut. Pa.G	oaks	Eng. bot. 1796	
2351. ISIDIUM. <i>Ach.</i> ISIDIUM.				<i>Sp.</i> 5—11.			
15642 <i>microsticticum Hoo.</i>	small	tartareous	$\frac{1}{2}$ aut.	Brsh	rocks	Eng. bot. 2243	
15643 <i>corallinum Ach.</i>	coralloid	crowded patc.	$\frac{1}{2}$ aut.	Gsh	rocks	Eng. bot. 1541	
15644 <i>Westrin'gii Ach.</i>	Westring's	cracked crust	$\frac{1}{2}$ aut.	Gsh	rocks	Eng. bot. 2204	
15645 <i>phymatodes Ach.</i>	bladdery	powderycrust	3	wint. Pa.Su.	stems, old tr.		
β <i>phragmæ'um Ach.</i>	buff	powderycrust	3	wint. Y.OI	stems, old tr.	E. b. 1529. <i>Lepr. lutescens</i>	
15646 <i>coccodes Ach.</i>	cracked	powderycrust	2	aut. Pa.OI	park pales	Eng. bot. 1511	
2352. STEREOCAU' LON. <i>Ach.</i> STEREOCAULON.				<i>Sp.</i> 1—6.			
15647 <i>paschale Ach.</i>	Easter	branch. tufts	2	all sea. Grsh	mountains	Eng. bot. 282	
2353. SPHEROPHORON. <i>Ach.</i> SPHEROPHERON.				<i>Sp.</i> 3—14.			
15648 <i>coralloides Ach.</i>	coralloid	bushy	1 $\frac{1}{2}$	all sea. Pa.Br	rocks	Eng. bot. t. 115	
15649 <i>fragile Ach.</i>	brittle	bushy	1	all sea. Grsh	rocks	Eng. bot. t. 2474	
15650 <i>compressum Ach.</i>	compressed	bushy	1	all sea. Wsh	rocks	E. bot. t. 114. <i>L. fragilis</i>	

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2354. ALECTO'RIA. <i>Ach.</i> ALECTORIA.				<i>Sp.</i> 2—7.			
15651 <i>jubata Ach.</i>	mane-like	long tufts	3	wint. Br	on fir trees	Eng. bot. t. 1880	
β <i>chalybiformis Ach.</i>		long tufts	3	wint. Gr. Bl	on fir trees		
15652 <i>sarmentosa Ach.</i>	sarmentose	much branch.	2 $\frac{1}{2}$	wint. Pa.Y	mountains	Eng. bot. t. 2040	
2355. RAMALI'NA. <i>Ach.</i> RAMALINA.				<i>Sp.</i> 5—19.			
15653 <i>fraxinea Ach.</i>	ashen	loose tufts	2	all sea. Grsh	bran. of trees	Eng. bot. t. 1781	
15654 <i>fastigiata Ach.</i>	clustered	loose tufts	2	all sea. Gl.	rocks & trees	Eng. bot. t. 890	
β <i>calicaris Ach.</i>	<i>calyx-like</i>	loose tufts	1 $\frac{1}{2}$	all sea. Gl.	rocks & trees		
15655 <i>scopolorum Ach.</i>	ivory	loose tufts	1 $\frac{1}{2}$	all sea. Y.Gr	marinerocks	Eng. bot. t. 688	
15656 <i>farinacea Ach.</i>	mealy	bushy tufts	2	all sea. Grsh	trun. of trees	Eng. bot. t. 889	
15657 <i>pollinaria Ach.</i>	powdery	bushy patch	3	all sea. Bt.G	old oaks	Eng. bot. 1607	
2356. CORNICULA'RIA. <i>Ach.</i> CORNICULARIA.				<i>Sp.</i> 7—16.			
15658 <i>trisétis Ach.</i>	dinky	shrubby	1 $\frac{1}{2}$	all sea. Dp.Br	alpine rocks	Eng. bot. t. 720	
15659 <i>aculeata Ach.</i>	prickly	shrubby	1	all sea. Ches.	Highl. mou.		
β <i>spadicea Ach.</i>	brown	shrubby	1	all sea. Ches.	Highl. mou.	E. bot. t. 452. <i>L. hispidus</i>	
15660 <i>bicolor Ach.</i>	two-colored	shrubby	1	all sea. Bl	Highl. mou.	Eng. bot. t. 1853	
15661 <i>ochroleuca Ach.</i>	pale-yellow	shrubby	1 $\frac{1}{2}$	all sea. Pa.Y	Highl. mou.	Eng. bot. t. 2374	



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2350. *Bæomyces*. From *βασιος*, small, and *μυκης*, a fungus, a name well applied to this genus, which much resembles some minute kinds of *Agaricus* or *Helvella*.

2351. *Isidium*. From *ισος*, equal, in allusion, we presume, to the small difference which exists in size between the podetia and the substance of the frond.

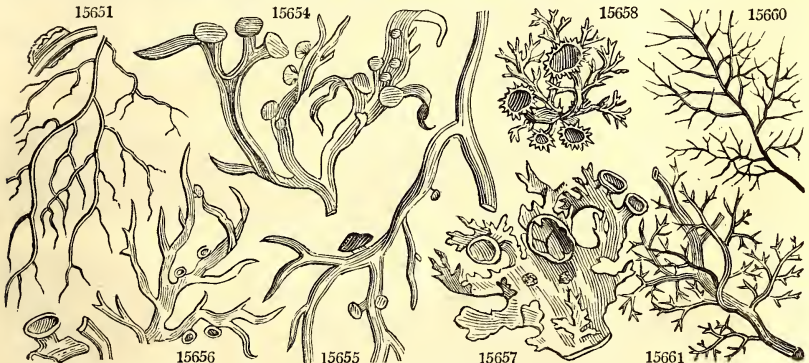
2352. *Stereocaulon*. From *στερεος*, hard, and *καυλον*, a stem, a name well adapted to express the peculiarities of this genus. Its firm branching frond is fitted to occupying the interstices of crumbling granite, and the cells of volcanic scoria. It is the first of its tribe which clothes the lava of volcanoes in a state of decay.

2353. *Sphaerophoron*. From *σφαιρα*, a globe, and *φερω*, to bear, in reference to the globular fructification. The most elegant genus of Lichens, at once known by its branching bushy smooth habit, like that of a coralline.

- 15638 Crust unif. granulat. greenish white, Podetia very short cylindr. Apoth. subglob. wrinkl. pale flesh-color
 15639 Crust uniform rugose granulat. and pulverulent greenish white, Podetia very short somewhat compressed, Apothecia flattish at the top sometimes conglomerate reddish brown
 15640 Leaves minute somewhat imbricated rounded nearly entire, Podetia simple tubular smooth
 15641 Thallus clustered ascending leafy pinnatif. cut and crisped : bright green above ; white beneath, Tubercles from the disk of leaves convex reddish brown
 15642 Crust tartareous cracked smoothish nearly even of a brownish cream-color thinner towards the edges, Podetia scattered short hemispherical simple of the same color as the crust, Apothecia brownish
 15643 Crust tartareous greyish white, Podetia at length elongat. round. simple or branch. Apoth. brownish-grey
 15644 Crust tartareous thin unequal cracked and greyish, Podetia subglobose at length cylindrical simple and branched, Apothecia dark-brown
 15645 Crust cracked areolate warty a little powdery unequal pale sulphur-color, Podetia becoming cylindrical simple and branched, Apothecia yellowish brown
 β Crust powdery sulphureous-green, Podetia roundish of the same color, Apothecia pale yellow
 15646 Crust somewhat cracked powdery and hoary, Podetia subglobose papillæform very close together, Apothecia brown hoary
 15647 Thallus greyish branch. and rough with granulat. excrescences, Branches crowded and very much divided, Apothecia scattered and terminal at length convex conglomerate blackish brown
 15648 Thallus palish-brown, Branches lateral elongate lax divaricat. and forked acumi. Apoth. subglobose smth.
 15649 Thallus greyish branched, Branches dichotomous short crowded fastigiatae naked rounded rather obtuse, Apothecia globoso-turbinate somewhat warty
 15650 Thallus whit branch. Branc. compress. ramulose subfibrill. naked, Apoth. subglob. depress. and smth. above

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- 15651 Thallus rounded somewhat shining livid-brown very much branched, Branches filiform compressed at the axils, Apothecia of the same color, at length convex entire at the margin
 β Thallus and subsimple branches flexuose or tortuose complicated rather rigid greyish-black decumbent
 15652 Thallus roundish angular somewhat pitted dichotomous pale-yellowish : the extremities much branched lax and slender, Apothecia rather concave livid pruinose, at length flattened
 15653 Thallus plane linear lacinated greyish-white glabrous but rugose and pitted subreticulated : the ultimate branches attenuated, Apothecia mostly marginal plane pale flesh-colored
 15654 Thallus compressed glabrous pitted branched glauc. white, Branches thickened and fastigiatae upwards, Apothecia numerous terminal peltate subsessile white
 β Thallus and branches elongated, Branchlets cylindrical attenuated pitted and channelled, Apothecia subterminal appendiculated beneath
 15655 Thallus compressed glabrous somewhat pitted branched yellowish-grey, Branches linear attenuated, Apothecia scattered on short stalks of the same color as the thallus
 15656 Thallus compressed glabrous somewhat pitted bearing powdery warts rigid branched greyish or greenish-white, Branches linear attenuated, Apothecia scattered on short stalks plane somew. margin. whitish
 15657 Thallus flat somewhat membranous smooth a little pitted white torn, occasionally powdery with dilated flat soredia, Apothecia nearly terminal very large
 15658 Thallus deep pitchy-brown rounded or subcompressed smoothish distichously dichotomous, Branches fastigiatae black above, Apothecia plano-convex blackish-brown somew. marginated entire and toothed
 15659 Thallus glabrous chesnut-brown round. angular pitted and subcompressed naked, Branches and branchl. divaricated flexuose aculeated, Apothecia reddish-brown : the circumference somewhat toothed
 β Thallus glabrous chesnut-colored plano-compressed somewhat pitted with the margins denticulate, Branches and branchlets short patent attenuated, Apothecia spinose-radiate reddish-brown
 15660 Thallus black rounded capill. suberect branched, Branches fine short. scatter. pat. : extrem. curved grey
 15661 Thallus glabrous pale yellowish-white roundish suberect branched, Branches short attenuated blackish at the points, Apothecia brownish pale in the circumference



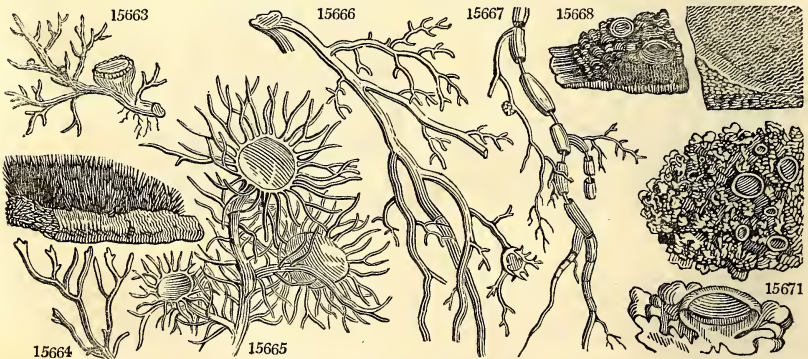
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2354. *Alectoria*, seems to derive its name from *αλεξτρος*, unmarried, because nothing has been made out respecting the male flowers. *A. usneoides* is a species which grow on trees in warm countries, such as Asia, Africa, and America, hanging down in branches from six to eighteen inches long : it was used by the Arabian physicians as a cordial, and also for the purpose of procuring sleep. *A. juvata* occasionally supplies the reindeer with food ; for which purpose the Laplanders cut down the trees, that the Lichen may be devoured from the topmost branches.

2355. *Ramalina*. This name does not appear to have any obvious meaning. The species are little bushy tufts generally covered with soredia. They are found in all parts of the world upon trees and rocks ; but chiefly upon the former.

2356. *Cornicularia*. So called in allusion to the multitude of little horn-like divisions into which the thallus is divided. Crustaceous branched tufts, with a solid axis.

15662 lanáta Ach.	woolly	shrubby	$\frac{2}{3}$	all sea.	Gr. Bl	rocks	Eng. bot. t. 846
15663 pubéscens Ach.	pubescent	entangl. tufts	3	aut.	Bl	rocks	Eng. bot. t. 2318
15664 heteromálla E. B.	variable	rough patch	3	aut.	Bl	bark of trees	Eng. bot. 2246
2357. US'NEA. Ach.	USNEA.					Sp. 3—10.	
15665 flórida Ach.	flowering	erect	2 $\frac{1}{2}$	wint.	Gsh	old trees	Eng. bot. t. 872
15666 plicáta Ach.	plaited	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 257
β hírtá Ach.	hairy	nearly erect	2	wint.	Gsh	old trees	Eng. bot. t. 1354
15667 barbáta Ach.	bearded	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 2
β articuláta Ach.	jointed	pendulous	4	wint.	Gsh	old trees	Eng. bot. t. 258. f. 1
2358. COLLEMA. Ach.	COLLEMA.					Sp. 27—41.	
15668 nígrum Ach.	black	regular patch	3	wet w.	Bl. G	calcar. rocks	Eng. bot. 1161
15669 cheileum Ach.	lipped	round. patch	1 $\frac{1}{2}$	wet w.	Bl. G	roots of trees	
15670 frágrans Ach.	fragrant	small patches	$\frac{1}{2}$	wet w.	D. Ol	trun. of clms	Eng. bot. 1912
15671 críspum Ach.	crisp	round. patch.	$\frac{1}{2}$	wet w.	Gl.	on the grou.	Eng. bot. 834
15672 ténax Ach.	tough	lobed tuft	1	wet w.	G	moist places	Eng. bot. 2349
15673 plicátile Ach.	plaited	lobed tuft	1	wet w.	Ol. G	wet rocks	Eng. bot. 2348
15674 fluviále Ach.	floating	many-parted	$\frac{1}{2}$	wet w.	Br	calcar. rocks	Eng. bot. 2039
15675 melænum Ach.	blackish	starry	$\frac{1}{2}$	wet w.	Br		
β margináte Ach.	marginal	imbric. lobes	1	sum.	Ol	Highlands	Eng. bot. 1924
15676 fasciculáre Ach.	fascicled	roundish	2	aut. wi.	Br	trun. of trees	Eng. bot. 1162
15677 cretáceum Ach.	cretaceous	minute dots	$\frac{7}{8}$	wint.	Br	chalk stones	Eng. bot. 738
15678 corrugátum Ach.	wrinkled	small patches	$\frac{1}{2}$	wint.	D. G	rocks, sea co.	Dillenius, t. 19. f. 19
15679 palmátum Ach.	palmated	lobed patch	1	spr. su.	Br	sand. ground	Eng. bot. 1635
15680 granulátum E. B.	granular	imbric. patch	1 $\frac{1}{2}$	wet w.	Br	gravel walks	
15681 multipartítum E. B.	many-parted	lobed patch	3	sum.	Ol. G	rocks & walls	Eng. bot. 2582
15682 saturnínium Ach.	dingy	leafy	2	all sea.	Bl. G	trun. of trees	Eng. bot. 1980
15683 Burgéssii Ach.	Burgess's	leafy	2	all sea.	Gl.	trun. of trees	Eng. bot. 300
15684 nígréscens Ach.	blackish	leafy	2	all sea.	D. G	trun. of trees	Eng. bot. t. 345
15685 fláccidum Ach.	flaccid	leafy smooth	2	all sea.	D. G	Scotland	Eng. bot. t. 1653
15686 fúrvm Ach.	rough	rugose memb.	2	all sea.	D. G	trun. of trees	Eng. bot. t. 1757
15687 scotínium Ach.	naked	flat patches	1 $\frac{1}{2}$	sum.	Ol	old walls	
β sinuátum Ach.	sinuous	flat patches	1 $\frac{1}{2}$	sum.	Ol	old walls	Eng. bot. 772



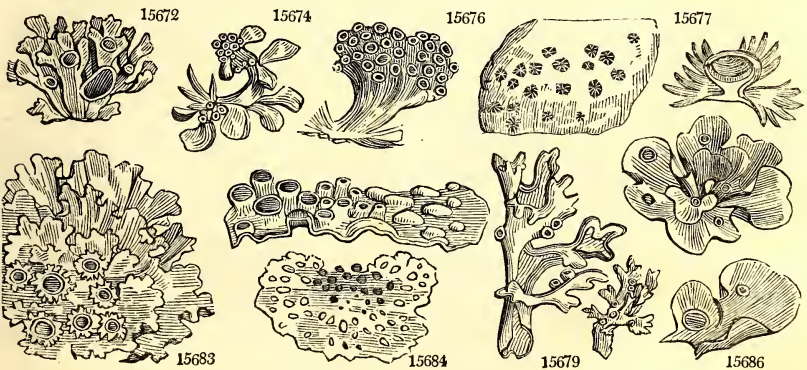
History, Use, Propagation, Culture.

2357. *Usnea*. This word is said to have originated in the Arabic *áchneh* or *áchnén*, which is, according to Golius, the name by which the Arabian physicians designate Lichens in general. Crustaceous branched tufts, usually hanging down from the substances on which they grow

- 15662 Thallus decumbent rounded smoothish dichotomous greyish-black, Branches and branchl. flexuose intricate forked at the extremity, Apothecia somew. margined plane : circumference naked and granulated
- 15663 Thallus decumbent rounded roughish black, Branches intricate capillaceous : the ultimate ones simple, Apothecia of the same color entire in the circumference
- 15664 Minutely shrubby densely tufted erect entangled cylindrical corymbose black with palish notched tips
- 15665 Thallus nearly erect roughish greenish-grey with very numerous fine horizontal fibres, Branches patent subsimple, Apothecia plane very broad whitish ciliated : the ciliae radiating long
- 15666 Thallus pendulous smooth pale, Branches lax much divided subfibrillose : the ultimate ones capillaceous, Apothecia plane broad ciliated, Ciliae slender very long
- β Thallus nearly erect somewhat shrubby pale greenish-white very much branched subpulverulent and roughish, Branches very much divided flexuose intricate attenuated subfibrillose
- 15667 Thallus pendulous smoothish rounded thickish pale greenish-grey, Branches divergent here and there fibrillose capillary at their extremity articulated below
- β Thallus glabrous greenish-grey glabrous, Branches elongate dichotomously divided articulated, Articulations swelling distinct : ultimate branches capillary fibrillose
- † Thallus crust-like, irregular, or uniform. PLACYNTHIUM.
- 15668 Thallus crustaceous roundish brown-black : lobes of the circumference cut crenate ; central granular a little branched, Apothecia becoming convex black-edged
- †† Thallus imbricated, plaited, roundish, composed of minute lobes, becoming very turgid when wet. ENCHYLIMUM.
- 15669 Thallus suborbicular imbricated : lobes thick ; all minute rounded crenulated ascending, Apothecia nearly plane aggregated of the same color as the thallus : the margin crenulated subevanescent
- 15670 Thallus roundish : lobes rounded expanded naked thickened at edge crenate ascending, Apothecia scattered minute concave dull yellow-brown : exterior margin tumid and unequal
- 15671 Suborbicular : the central lobes somewhat erect granulated ; those of circumference depressed larger obt. crenulate, Fructification scattered rather crenate reddish with a granulated margin
- 15672 Suborbicular imbricated : lobes thickish flat incumbent roundish cut lobed and crenulate, Apothecia scattered immersed in the lobes and concave rufous with an entire edge
- 15673 Suborbicular imbricated : lobes all thick rounded lobed plaited in circles wavy suberect entire, Apothecia scattered concave whole-colored
- 15674 Thallus cushion-like formed of thick close blunt complicated lobes, Apothecia somew. marginal roundish whole-colored : disk urceolate with a double edge
- 15675 Thallus orbicular somewhat stellated imbricated : lobes cut and laciniated ; margins elevat. waved crisp, and crenulated, Apothecia marginal nearly plane of same color as thallus : their margin granulated
- β Lobes of the thallus deeply laciniated narrow multifid spreading flexuose nearly plane crenate and lobed, Apothecia marginal and scattered dark-brown their margin entire
- 15676 Thallus suborbicular imbricato-plicate : plaits central erect flexuose, Lobes of the circumference rounded inciso-crenate, Apothecia marginal turbinate fasciculate : disk rather convex reddish
- 15677 Thallus lobed starry dark green, Apothecium central elevated brownish pink with a paler entire margin
- 15678 Thallus thick dark-green with elevated intestine-like convolutions

- ††† Thallus somewhat foliaceous irregular, formed of naked, expanded, thick, turgid, naked lobes. SCYTIUM.
- 15679 Thallus subfoliaceous green-brown-glaucous : lobes thick close palmate cut ; segments somewhat linear round, Apothecia rufous brown
- 15680 Leafy gelatinous fleshy granulated on both sides of a blackish-olive color, its lobes crowded rounded plaited crisp and cut, Apothecia scattered dark brown
- 15681 Frond radiating fleshy : segments repeatedly forked fan-shaped crenate convex above concave beneath, Shields prominent at length blackish and flat

- †††† Thallus foliaceous : lobes rounded, downy or fibrous beneath. MALLOTIUM.
- 15682 Thallus foliaceous blackish-green glaucous and downy beneath, Lobes rounded waved entire, Apothecia scattered elevated plane reddish : their margin entire
- 15683 Thallus foliaceous somew. imbricated glauc. greenish-brown pubescent and somew. spongy beneath, Lobes rounded sinuated crenulat. and crisped, Apoth. depressed planish brown : their margin foliaceous crisp
- ††††† Thallus foliaceous : lobes somewhat membranous, lax, naked, dark-green. LATHAGRIUM.
- 15684 Thallus foliaceous membranous submono-phylous orbicular depressed plaited rounded and lobed black-green, Apothecia central crowded at length convex reddish brown their margin entire
- 15685 Thallus foliaceous membranaceous smooth blackish-green : lobes distinct rounded entire lax waved, Apothecia scattered nearly plane reddish : their margin thin entire
- 15686 Thallus foliaceous membranaceous somew. wrinkled complicate blackish-green granulated on both sides : lobes round. unequal waved and crisp. ent. Apoth. scattered plane dark-brown : their margin entire
- 15687 Thallus foliaceous membr. imbr. naked black : lobes small roundish cut nearly entire suberect plaited, Apoth. scattered sessile whole-colored with an entire edge
- β Lobes sinuate cut crisp toothletted



and Miscellaneous Particulars.

2358. *Collema*. A Greek word signifying a glutinous substance. All the species are gelatinous, and are supposed by Fries to be Algæ in a Licheniform state. *Nostoc caruleum* has been positively stated to be convertible into *Collema limosum*.

15688 tremelloides <i>Ach.</i>	tremella-like	half transpar.	1 spring	Lead rocks	Eng. bot. t. 1981
15689 lácerum <i>Ach.</i>	lacerated	half transpar.	1½ spring	Gl. earth	Eng. bot. t. 1982
15690 súbtile <i>Ach.</i>	subtle	starry	1½ sum.	D.G earth	Eng. bot. t. 1008
15691 tenuíssimum <i>Ach.</i>	very fine	flat patch	2 jul. au.	D.Ol dry banks	Eng. bot. 1427
15692 Schradéri <i>Ach.</i>	Schrader's	small tufts	½ june	Y.G old walls	Eng. bot. 2284
15693 muscícola <i>Ach.</i>	moss-covering	cushion-like	¾ spring	Br among moss	Eng. bot. 2264
15694 spongiósum <i>Ach.</i>	spongy	large fruit	3 all sea.	Ol.Br rocks	Eng. bot. 1374

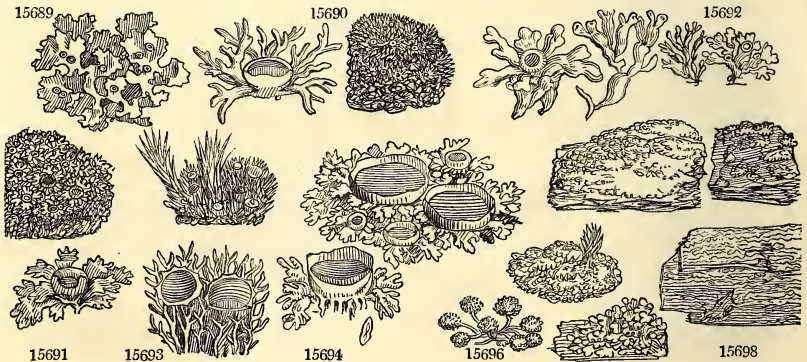
ATHALAMI.

2359. LEPRÁ'RIA. <i>Ach.</i>	LEPRARIA.		Sp. 4—13.		
15695 chlorína <i>Ach.</i>	brimstone	cushion-like	2 wint.	Sul. rocks	Eng. bot. 2038
15696 fláva <i>Ach.</i>	yellow	thin coat	2 wint.	Bt.Y old pales	Eng. bot. 1350
15697 ochrácea <i>E. B.</i>	ochre-colored	scatter. warts	½ wint.	G.Y old trees	Eng. bot. 2408
15698 viréscens <i>E. B.</i>	greenish	granular	¾ wint.	Y.G elm trees	Eng. bot. 2149

PSEUDO-LICHENES.

2360. OPE'GRAPHÁ. <i>Ach.</i>	OPEGRAPHÁ.		Sp. 10—35.		
15699 nimbósa <i>Ach.</i>	cloudy	variegated	1½ all sea.	Pa.Y old trees	Eng. bot. 2346
15700 venósa <i>E. B.</i>	veiny	flat patch	1½ all sea.	pa.Oc. beeches	Eng. bot. 2454
15701 Persóonii <i>Ach.</i>	Persoon's	tartareous	2 all sea.	Wsh stones	
β apórea <i>Ach.</i>	rough	leprous	2 all sea.	Wsh slate & stones	
15702 calcárea <i>Ach.</i>	limestone	angular dots	½ all sea.	Bl mort., old w.	Eng. bot. 1790
15703 maculáris <i>Ach.</i>	spotted	largish spots	½ all sea.	Brsh bark of trees	E. bot. 2282. <i>O. epiphega</i>
15704 herpética <i>Ach.</i>	eruptive	dotted crust	1 all sea.	Pa.Ol bark of trees	Eng. bot. 1789
β disparáta <i>Ach.</i>	reddish	mealy crust	1 all sea.	Pa.Ol bark of trees	E. bot. 2247. <i>O. rubicla</i>
15705 vulgáta <i>Ach.</i>	common	scaly	1½ all sea.	G.W bark of trees	Eng. bot. 1811
15706 epípásta <i>Ach.</i>	dotted	smooth skin	3 all sea.	Gr smooth bark	Eng. bot. 1828
β microscópica <i>Ach.</i>	microscopical	smooth skin	3 all sea.	Ol smooth bark	Eng. bot. 1911
15707 steno cárpa <i>Ach.</i>	narrow-fruited	smooth patch.	1½ all sea.	Ol smooth bark	
β denigráta <i>Ach.</i>	black	smooth patch.	1½ all sea.	Pa.G smooth bark	Eng. bot. 1753
15708 nótha <i>Ach.</i>	spurious	dotted crust	3 all sea.	Wsh old trees	Eng. bot. 1896
β diáphora <i>Ach.</i>	various-fruited	dotted crust	3 all sea.	Gr trun. of trees	Eng. bot. 2280

2361. VERRUCA'RIA. <i>Ach.</i>	VERRUCARIA.		Sp. 11—56.		
15709 maúra <i>Ach.</i>	blackmoor	cracked crust	2 aut.	Bl rocks	Eng. bot. t. 2456



History, Use, Propagation, Culture,

2359. *Lepraria*. Because the plants upon which these substances grow have the appearance of being diseased with leprosy.

2360. *Opegrapha*. From *σπη*, a chink, and *γραφο*, to write. The shields or apothecia are cracks upon the surface of the thallus resembling Hebrew or oriental characters upon a pale ground.

+++++ *Thallus foliaceus* : lobes rounded, membranous, thin, naked, cinereous, glaucous, somewhat transparent. Apothecia slightly stalked. LEPTOGIUM.

15688 *Thallus foliaceus* membranaceous thin subdiaphanous lead-color obsolete rugose and dotted : lobes rounded somewhat cut, Apothecia scattered subpedicellate plane reddish-brown : their margin pale

15689 *Thallus* nearly erect foliac. membr. subdiaphan. subrugose with obscure reticulations glauc. : lobes small subimbr. cut and laciniat. and somew. fringed, Apoth. scattered rather concave red : their margins pale

+++++++ *Thallus* very finely laciniated and branchletted.

15690 *Thallus* substellate : the segments very narrow linear appressed very much branched obtuse, Apothecia central nearly plane of the same color as the crust : their margin thin entire

15691 *Thallus* subimbricated : segm. minute linear multifid unequal granular acute much clustered, Apothecia scattered fleshy rufous margined

15692 *Thallus* subsessilose : segm. linear flat irregularly subdivided rugose obtuse ; margins repand obsolete crenated, Apothecia scattered of the same color

15693 *Thallus* pulvinate brown, Branches rounded nearly erect flexuose uneven subfastigiate rather obtuse, Apothecia nearly terminal plane brown margined

15694 *Thallus* dull-green : segm. aggregate branched granular cylindrical obtuse, Apothecia scattered concave brown : externally spongy and pale with an erect thin margin

ATHALAMI.

15695 Crust thick pulvin. bright sulphur-color composed of a dust-like substance collect. into somew. hairy glob.

15696 Crust spreading equal thin somewhat cracked bright-yellow composed of subglobose granules

15697 Crust not discernible, Fructification of an ochrey-yellow collected into thin scattered patches

15698 Crustac. granulated continuous somewhat gelatin. : greyish dull-green when dry ; bright-green when wet

PSEUDO-LICHENES.

+ *Disk of apothecia very narrow, crack-like, somewhat covered in by the conniving tumid margins.* HYSTERINA.

15699 Crust somew. cracked unequal very white, Apothecia clustered minute oval-oblong turgid : disk closed

15700 Crust tartareous determined reddish-white, Clefts immersed convex without any elevated border repeatedly branched curved parallel and equidistant

15701 Crust tartareous smoothish cohering uneven whitish, Apothecia innate oblong : disk resembling a cleft, at length rugose waved plaited dissimilar rather confluent with the disk irregular somewhat dehiscent

β Crust tartareous or leprose uneven pulverulent, Apothecia roundish dissimilar waved plaited tortuose and variously expanded in the disk

15702 Crust tartareous powdery very white, Apothecia longish straight swelling opaque collected in a stellate manner : disk like a crack

15703 Crust very thin brownish-black, Apothecia minute much crowded roundish elliptical, at length rugose irregular : disk very narrow

15704 Crust somewhat membranous very finely cracked rugose roughish cinereous-brown, Apothecia minute innate clustered convex elliptical oblong straight with a crack-like disk

β Crust membranous smoothish pale-olive or green and rufous-brown, Apothecia variable roundish oblong straight and curved

15705 Crust between cartilaginous and membranaceous somewhat scaly smoothish greyish-white, Apothecia sessile long or roundish waved somewhat shining with the disk very narrow

15706 Crust very thin of a regular figure polished cinereous, Apothecia innate minute convex rugulose opaque various : smaller dot-like ; longer very slender flexuose somewhat branched

β Crust very thin shin. pale-olive, Apothecia subellipt. simp. somew. parallel becoming stellate and angular

15707 Crust membranous polished somewhat bordered whitish, Apothecia sessile various : the smaller globose or oblong ; larger very long narrow roundish flexuose

β Crust regular membranous whitish, Apothecia sessile close together somewhat shining longish flexuose simple and branched : disk somewhat channelled

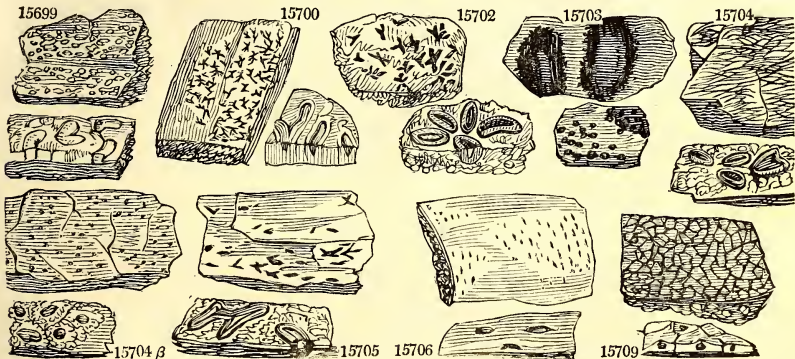
++ *Disk of apothecia concave, channelled, or flat, appearing between the separated margins.* ALYXORIA.

15708 Crust cartilagin. lep. white, Apothecia scatter. sess. round. and oval deform. : disk flat becoming convex

β Crust cartilaginous membranous dirty-white ash-color, Apothecia variable sessile oblong and tapering at each end opaque : disk flat

+++ *Thallus cartilaginous, membranous, contiguous, polished.* LICHPHEA.

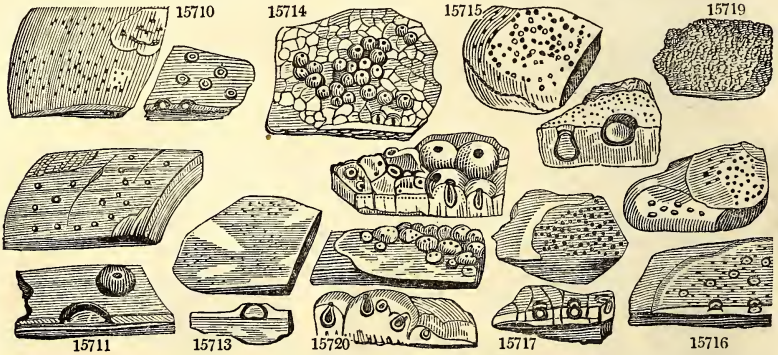
15709 Crust very thin smooth much cracked very black, Apothecia very minute subglobose immersed : the extremity prominent umbilicated ; nucleus blackish



and Miscellaneous Particulars.

2361. *Verrucaria*. Thus called, from *verruca*, a wart, on account of the verrucose nature of the shields. Schrader says, this genus differs from the similar *Eudocarpon* in having the shields always closed, while the latter explodes its contents by a small but distinct orifice.

15710 punctifórmis Ach.	dot-like	thin coat	2	all sea. Br	sm. ash bark	Eng. bot. 2412
15711 analépta Ach.	little-dotted	thin coat	3	all sea. Br	sm. oak bark	Eng. bot. 1848
15712 epidérmidis Ach.	Epidermis	thin coat	1	all sea. W	birch bark	
15713 stigmatélla Ach.	cinereous	thin coat	3	all sea. Pa.Br	smooth bark	Eng. bot. 1891
15714 ceuthocárpa Ach.	cracked	tessellated	4	all sea. Pa.Ol	slate rocks	Eng. bot. 2372
15715 Schradéri Ach.	Schrader's	dotted crust	4	all sea. Wsh	calca. stones	Eng. bot. 1711
15716 Harrimánni Ach.	Harrimann's	small patches	1	all sea. Br.Ol	hard rocks	Eng. bot. 2539
15717 plúmbea Ach.	lead-colored	lobed patches	1½	all sea. Ol	limest. rocks	Eng. bot. 2540
15718 striátula Ach.	striated	cloudy spots	¾	all sea. Pa.G	flints	
β acrotélla Ach.	dinky	cloudy spots	¾	all sea. Pa.G	flints	Eng. bot. 1712
15719 epigéa Ach.	ground	mealy tessell.	1½	all sea. G	dry banks	E. b. 1681. <i>L. terrestris</i>
2362. PORINA, Ach.	PORINA.					
15720 pertúsa Ach.	bored	crust	½	aut. Cin.	bark of trees	Eng. bot. 677
2363. ARTHO'NIA, Ach.	ARTHONIA.					
15721 impolita E. B.	dull	spotted patch.	½	all sea. Rsh	trun. of trees	Eng. bot. 981
15722 Swartziána Ach.	Swartz's	cracked crust	1½	all sea. Wsh	smooth bark	Eng. bot. 2079
15723 astroídea Ach.	astroid	membranous	½	all sea. Cin.	smooth bark	Eng. bot. 1847
15724 olscúra Ach.	obscure	warty	3	all sea. D.Ol	bar. of old tr.	Eng. bot. 1752
15725 lýncea Ach.	speckled	broad masses	3	all sea. Wsh	bar. of old tr.	Eng. bot. 809
2364. GRA'PHIS, Ach.	GRAPHIS.					
15726 scripta Ach.	written	shining crust	1½	all sea. Grsh	smooth bark	Eng. bot. 1813
β pulverulénta Ach.	powdery	thin crust	2	all sea. Pa.Y	trees	Eng. bot. 1754
γ Cérasi Ach.	Cherry-tree	thin crust	3	all sea. Y	old cher. tre.	Eng. bot. 2301
15727 dendrítica Ach.	Tree-like	smooth patch.	1½	all sea. Y	smooth bark	Eng. bot. 1756
15728 serpentina Ach.	serpentine	even crust	3	all sea. Pa.Ol	smooth bark	Eng. bot. 1755
15729 Lyélli Ach.	Lyell's	cracked crust	4	all sea. Pa.Ol	rugged bark	Eng. bot. 1876
15730 élegans Ach.	elegant	uneven crust	3	all sea. Pa.Y	smooth bark	Eng. bot. 1812



History, Use, Propagation, Culture,

2362. *Porina*. From *poros*, any thing that crumbles away, a name applied in consequence of the nature of the crust of these plants, which, indeed, is common to them with other Lichens.

2363 *Arthonia*. A name, the meaning of which is unexplained. The species are similar in habit to *Sphoma* and *Opegrapha*.

- 15710 Crust very thin determined polished brown. Apothecia min. hemisph. glob. without orifices : kernel white
 15711 Crust membranous determined shining somewhat olive-colored, Apothecia subsessile scattered hemispherical conoid papillose : kernel compressed somewhat membranous white
 15712 Crust exceedingly thin spreading quite white, Fructification minute roundish subelliptical, Tubercles semi-immersed : the interior white
 15713 Crust thin cartilaginous membranous polished becoming cracked whitish, Apothecia minute hemispherical clustered subconfluent with scarcely any orifice

†† *Thallus nearly solid, somewhat gelatinous.* BLENNORINA.

- 15714 Crust somewhat gelatinous roundish broken dark crenate cut radiated in the circumference, Apothecia subglobose immersed papillose at end

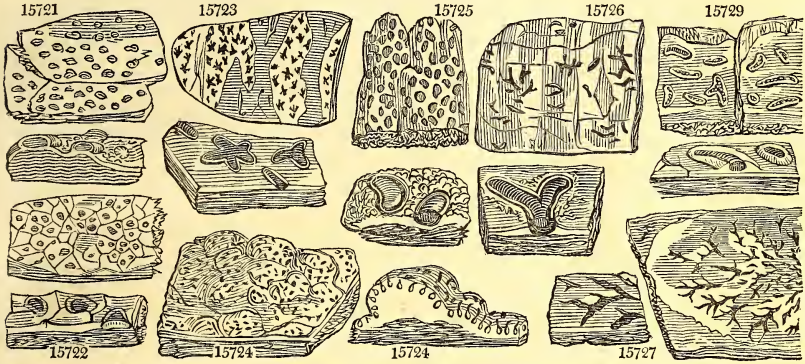
††† *Thallus subtartareous, crustaceous, contiguous, cracked into areolæ, or powdery.* LITHOCIA.

- 15715 Crust tartar. contig. whitish, Apothecia minute clustered immersed subglobose dirty transparent inside
 15716 Crust tartareous contiguous bordered finely dotted mouse-color, Apothecia minute subglobose immersed with a prominent papilla : dirty-white inside
 15717 Crust tartareous contiguous finely cracked subrugose lead-color, Apothecia subglobose innate finely becoming depressed and scutelliform
 15718 Crust with the figure of a tree greenish-black bordered, Areolæ nearly separate somewhat branched radiating, Apothecia conoid becoming concave above
 β Areolæ of the crust dispersed deformed brownish-black

†††† *Thallus soft, cottony, somewhat spongy, or thin and arachnoid.* INODERMA.

- 15719 Thallus thin somew. fibrous uneq. pale-yell. Apothecia minute globose immersed with a prominent orifice
 15720 Crust equal polished whitish ash-colored, Warts of apothecia subglobose, Orifices several depressed black

- 15721 Crust white powdery and cracked, Tubercles numerous depressed oblong irregular obtuse yellowish-brown clothed with deciduous meanness
 15722 Crust cartilagin. membr. white, Apoth. sess. broad. tum. round. rep. irreg. and confl. dark with elevat. dots
 15723 Crust membr. pale cinereous and glaucescent, Apoth. flatten. upon the crust plane angular substell. black
 15724 Crust membr. somew. olive-col. Apoth. min. flat concav. somew. membr. oval-ellipt. and renif. wrink. dark
 15725 Crust thin subtartareous equal somewhat cracked white, Apoth. clustered flat somewhat immersed round oblong and curved black cæsious
 15726 Crust membranac. smooth somew. shining white or greyish-brown bordered with black, Apothecia half immersed naked flexu. simple or branch. : disk very narr. marg. formed of the thallus raised membranac.
 β Crust effuse membr. whitish, Apoth. emerging flexuose with a channelled dehiscent cæsious disk with an elevated tumid margin
 γ Crust very thin hoary glaucous shining, Apothecia emerging straight long nearly simple acuminate somewhat parallel : disk channelled
 15727 Crust somewhat cartilaginous unequal very white, Apothecia immersed flexuose branched black : branches divergent forked acute, Disk broad flat naked
 15728 Crust cartilaginous membranous unequal rugulose of a regular figure white and cinereous, Apothecia immersed long clustered flexuose nearly simple and branched
 15729 Crust membranous polished pale-olive, Apothecia clustered nearly simple curved turgid obtuse : disk broad convex cinereous pruinose with a thick powdery white margin
 15730 Crust orbicular granular smooth white, Apothecia immersed scattered short straight nearly simple : margin of the perithecium with a longitudinal furrow



and Miscellaneous Particulars.

2364. *Graphis*. From *γραφω*, to write. The apothecia are extremely similar in form to the characters of some strange language. It is very near *Opegrapha* from which it does not at all differ in habit.



Reproductive organs uniform. Sporules (e) arranged in tubular cells (f) placed in some parts of the external surface. Substance various (g), mostly thick and fleshy, sometimes vesicular. Frond none.

IN speaking of the eighth order, Lichens, it has been observed, that they, Algæ and Fungi, might be considered collateral. But perhaps Fungi should be estimated as still lower in the scale of creation than Lichens. From some passages in the writings of a celebrated Swedish author upon Fungi, Mr. Fries, whose mode of arrangement is almost entirely adopted here, it would seem as if he considered the three orders to consist of the same beings altered by the material on which they grow, and organized according to the different elements upon which they depend for support. Algæ, he observes, which are much extended in their native element, water, when exposed to the air, contract and become Lichens. Thus *Nostoc muscorum* becomes *Collema limosum*, &c.; and Sir James Smith has even decided, that *Lichina pygmæa* when growing under water is an Algæ, and when above water a Lichen. But the differences between Fungi and Algæ, or Lichens, are greater, and arise out of their essence; that of Fungi being always reproductive, of Algæ primitive. In Algæ, the thallus is the most essential part, and the reproductive organs of secondary importance; in Fungi, the whole plant is generally a mass of reproductive matter, and the thallus always accidental. Fungi always grow upon dead vegetable matter; Lichens always upon living vegetation. The bark which, when living, bears Lichens, produces Fungi as soon as it begins to decay; and even on the same half-dead branch, the living side will be found occupied by Lichens, and the dead by minute Fungi. The lowest Fungi are considered by Fries, to bear the same relation to plants as Entozoa to animals; for which reason, he is of opinion, that all infusorial plants are Fungi, and not Algæ. But this may be doubted. The number of Fungi which may be conceived to exist is incalculable. Multitudes have been discovered by the researches of modern observers, and multitudes still remain to be detected, especially in extra-European countries. In Sweden, in the small space of a square furlong, where the number of Phænogamous plants was 420, and of Lichens and Algæ 430, Fries discovered more than 2000 species of Fungi.

The most celebrated writers on Fungi are Micheli, Schæffer, Bulliard, Bolton, Sowerby, and Greville, for figures; and Persoon, Link, Nees von Esenbeck, Fries, and Greville, as systematists.

Link defines the essence of a Fungus to be sporules disposed in a series, in elongated tubular cells; the cells situated in some part of the external surface. The part in which the reproductive organs are placed is called the *hymenium* (*a*), the hollow base from which the stem or *stipes* (*a*) arises is named the *volva* (*b*) or *wrapper*; the upper part is the cap or *pileus* (*c*), which is provided on the inferior surface with thin radiating expansions, which are termed *gills* or *lamellæ*, among which the sporules are situated. Many Agarics have a delicate fringe connecting the margin of the pileus at a certain age with the stem; this is called the *veil* (*d*), and is either general (*universalis*), when adnate with the surface of the pileus, but becoming obsolete with age; or it is partial when it extends only from the margin of the pileus to the stipes. The *annulus* (*d*) is a kind of veil, which is sometimes fixed to the stem, at others free and capable of being moved upwards and downwards. The Peridium, Perithecium, or Perisporium, are different names for the envelope immediately enwrapping the sporules.

TRIBE I. HYMENOMYCETES.

Hymenium naked.

Class I. HYMENINI v. AGARICINÆ.

Hymenium distinct. Receptacle long or expanded, superior.

Division I. Pileati.

Receptacle dilated, occasionally branched, having a tendency to an orbicular form. Hymenium inferior. Asci fixed.

2365. *Agaricus*. Hymenium in lamellæ. Lamellæ simple, parallel.

* *Stem central, with a veil. Gills unchangeable. Sporidia white.*

- § 1. *Amanita*. Veil double, universal separate, partial annular somewhat persistent.
- § 2. *Lepiota*. Veil simple, universal, concrete, annular, somewhat persistent.

Observations.

Tribe I. *Hymenomyces*. This tribe is readily distinguished from the others by its hymenium containing sporules within the surface, and not naked; from the *Pyrenomycetes* by the want of a perithecium and a reproductive nucleus; from *Gasteromyces* by the want of a peridium inclosing the sporules, which constitute the mass of the fungus, and from the *Hypomyces* and *Coniomyces* by the sporidia not being exposed.

Division I. *Pileati*. This constitutes the most extensive division in Fungi, and includes almost every thing which was known to the ancients. Dioscorides mentions one or two species distinctly, comprehending the remainder among his eatable and unwholesome kinds. Pliny talks of the very numerous kinds of fungi, but describes very few. C. Bauhin knew about sixty, which he chiefly obtained from Clusius; Tournefort had two genera and eighty-seven species; Micheli six genera and about 800 species; Linnæus three genera and fifty species; Persoon, in his Synopsis, mentions nine genera and 683 species; finally, Fries describes more than a 1000 species arranged under many genera and subgenera.

The species are widely scattered over all Europe, but the extra European fungi, with the exception of those

- § 3. *Armillaria*. Veil simple, partial, separate, annular, somewhat persistent.
 § 4. *Linacium*. Veil very fugacious, viscid. Lamellæ adnate, decurrent.
 § 5. *Trichotoma*. Veil very fugacious, flocculose, marginal. Lamellæ emarginate or rounded.

** *Stem central, naked. Gills unchangeable. Sporida white.*

- § 6. *Russula*. Pileus fleshy, becoming depressed. Lamellæ equal, juiceless.
 § 7. *Galerheus*. Pileus fleshy, becoming depressed. Lamellæ unequal, milky.
 § 8. *Citocybe*. Pileus fleshy, when young convex. Lamellæ unequal, juiceless.
 § 9. *Collybia*. Pileus fleshy-membranous, flattish. *Small, dry.*
 § 10. *Myceca*. Pileus membranous, campanulate. *Slender. Stipes hollow.*
 § 11. *Omphalia*. Pileus membranous or fleshy-membranous, when young umbilicated.

*** *Stem out of the centre, none. Gills unchangeable. Sporida white.*

- § 12. *Pleurotus*. Pileus out of the centre or lateral.

**** *Stem always central. Veil 0. Gills changing color. Sporida rose-colored.*

- § 13. *Mouceron*. Pileus fleshy, becoming depressed. Lamellæ long, decurrent. *Odor of new flour.*
 § 14. *Clitopilus*. Pileus fleshy, convex.
 § 15. *Leptonia*. Pileus fleshy, membranous, from convex becoming plane. *Small.*
 § 16. *Nolanea*. Pileus membranous, campanulate. *Slender. Stipes hollow.*
 § 17. *Eccilia*. Pileus umbilicate. *Lamellæ adnate.*

***** *Stem always central. Veil like cobweb. Gills changing color, becoming dry. Sporida ochre-colored.*

- § 18. *Telamonia*. Veil annular, woven, somewhat persistent. Lamellæ distant.
 § 19. *Inoloma*. Veil fugacious. Lamellæ emarginate. Stipes bulbous. *Color something of violet.*
 § 20. *Dermocybe*. Veil fugacious. Lamellæ closely packed. Stipes equal.

***** *Veil distinct, not like a cobweb. Gills discolored, somewhat persistent. Sporida ferruginous.*

- § 21. *Pholiota*. Veil dry, annular.
 § 22. *Myxaciium*. Veil viscid, fugacious. Lamellæ affixed.
 § 23. *Hebeloma*. Veil marginal, fugacious. Lamellæ emarginate.

***** *Veil very fugacious or spurious, not like a cobweb. Gills discolored, somewhat persistent. Sporida ferruginous.*

- § 24. *Flammula*. Pileus fleshy, convex, smooth, somewhat viscid. *Lamellæ not emarginate.*
 § 25. *Inocybe*. Veil formed of the longitudinal fibres of the fleshy convex pileus. *Lamellæ whitish.*
 § 26. *Naucoria*. Pileus fleshy, membranous, flattish, squamulose. *Small. Lamellæ cinnamon-colored.*
 § 27. *Galera*. Pileus membranous, campanulate. *Slender. Stipes hollow.*
 § 28. *Tapinea*. Pileus umbilicate, villous at edge.
 § 29. *Crepidotus*. Pileus out of the centre or sessile.

***** *Veil present, not unlike a cobweb. Gills becoming discolored, cloudy, dissolving. Sporida brownish-purple.*

- § 30. *Volvaria*. Veil universal, separate. *A volva.*
 § 31. *Psalliota*. Veil annular.
 § 32. *Hypophotoma*. Veil marginal, fugacious. Lamellæ emarginate. *Stipes bulbous.*
 § 33. *Psilocybe*. Veil very fugacious. Pileus somewhat fleshy, and stipes equal, tenacious.
 § 34. *Psatyra*. Pileus somewhat membranous, and stipes brittle.
 § 35. *Coprinaria*. Lamellæ with a tendency to deliquesce. Veil partial. *Sporida black.*

2366. *Coprinus*. Hymenium in lamellæ, which finally become deliquescent. Asci separate with sporida in four rows.

2367. *Gomphus*. Hymenium in lamellæ, which are long branched and decurrent. Pileus turbinate, umbonate.

2368. *Cantharellus*. Hymenium veined. Veins dichotomous, subparallel, sometimes anastomosing.

2369. *Merulius*. Hymenium veined. Veins flexuose, or forming very irregular pores. Plants sessile, resupinate or effused.

2370. *Schizophyllum*. Hymenium in lamellæ. Lamellæ bifid, lengthwise revolute.

2371. *Dædalea*. Hymenium sinuous, composed of anastomosing lamellæ or flexuose elongated pores.

2372. *Polyporus*. Hymenium porous, not separable from the substance of the pileus nor the pores from each other. Pores sometimes lacerating in age. Pileus very rarely with a central stipes.

§ 1. *Pavolus*. Pores ample, with four or six angles resembling an honeycomb.

§ 2. *Microporus*. Pores minute, roundish.

§ 3. *Polystricta*. Dots superficial only.

2373. *Boletus*. Hymenium tubular. Tubes separable from the pileus and from each other. Pileus always with a central stipes.

2374. *Fistulina*. Hymenium tubular. Tubes loose, the young ones closed.

2375. *Hydnum*. Hymenium subulate. Subulæ loose.

2376. *Sistotrema*. Pileus carnosæ, irregularly stipitate. Hymenium composed of dentate, interrupted lamellæ.

2377. *Phlebia*. Hymenium rugose, formed of long or confluent papillæ.

2378. *Thelphora*. Plant with very few exceptions more or less adnate, thin, coriaceous, very rarely infundibuliform. Hymenium covering the outer surface.

2. *Phylacteria*. Sporida four in a row. *Resupinate and growing on the earth.*

3. *Himantia*. Effuse resupinate, when young hyssoid. Sporida few, innate in the hymenium, which is smooth and naked in the middle.

4. *Leiostroma*. Resupinate, somewhat contiguous, smooth, or with spuric papillæ. Asci none.

Observations.

on the coasts of Barbary, and a few from North America, are almost universally distinct from the European kinds. They are found growing on the earth, or in decayed wood, or similar substances; never upon rocks. Those which have been described as natives of vaults and places underground, are believed to be mere monstrous formations. They are in greatest perfection in warm rainy weather, being chiefly the creations of summer and autumn; a few only appear in the spring, and scarcely any in the winter. The duration of the pileate fungi is often only ephemeral; some last from a week to a fortnight; and a few for a longer time. The *Dædaleæ* and *Polypori* are often called perennial, but it is the opinion of Fries, that their substance decays, and is only covered yearly by a fresh layer of pores. The roots of many of those which grow upon trees is perennial; of others merely annual.

When crude they are mostly poisonous, with a mucilaginous taste, which is often acrid, but they become less dangerous by cooking. The dangerous qualities of some of the kinds is attributable to the larvæ with which they are infested.

Division II. *Clavati*.

Receptacle long, simple, or branched, with a tendency to a cylindrical form, not margined. Hymenium superior. Asci fixed.

* Hymenium occupying the whole surface. Asci distinct. No distinct stem.

2379. *Clavaria*. Plant carnose, cylindrical, simple or branched. Hymenium smooth, occupying almost the whole surface, confluent with the stipes.

2380. *Calocera*. Plant branched or simple, cylindrical, homogeneous, corneous, gelatinous, viscid. Growing on wood.

** Hymenium only occupying the end. Asci long. Head separate from stem, simple.

2381. *Geoglossum*. Hymenium short, club-shaped, mostly compressed, stipitate. Stipes elongated, smooth or hairy. Plants black or dull green.

2382. *Spatularia*. Hymenium club-shaped, separate, compressed, running down the stipes on each side, bearing the asci at the upper end.

2383. *Mitula*. Hymenium clavate, ovate, closely surrounding at the base the stipes, which is distinct.

*** Hymenium only occupying the end. Asci obsolete. Head separate from stem.

2384. *Typhula*. Hymenium thin, subcylindrical, persistent, terminating the capillary stipes.

**** Hymenium covering the whole surface, but bearing sporules at the end only, without asci.

2385. *Pistillaria*. Simple, contiguous, linear or clavate. Sporida emerging at end.

Class II. UTERINI v. ELVELLACEÆ.

Hymenium distinct, superior, margined. Receptacle urceolate or reflexed, always inferior.

Division I. *Mitrati*.

Receptacle pileiform, bullate, never closed. Hymenium neither margined nor discoid.

2386. *Morchella*. Pileus lacunose, confluent with the stipes either at the margin or a little above it. Hymenium occupying the whole outer surface.

2387. *Helvella*. Pileus submembranaceous, irregular, smooth on each surface, deflexed at the sides. Hymenium occupying the whole outer surface.

2388. *Verpa*. Pileus conical-deflexed, equal. Hymenium smooth or rugose.

2389. *Leotia*. Pileus ovate-conical or orbicular, wholly occupied by the hymenium, the margin free, but closely embracing the stipes.

Division II. *Cupulati*.

Receptacle cupulate, equal. Hymenium discoid, when young somewhat closed, surrounded by the margin of the receptacle.

2390. *Peziza*. Pileus mostly carnose, sessile or stipitate, more or less cup-shaped at length sometimes plane. Hymenium occupying the disk.

§ 1. *Aleuria*. Fleishy, or fleshy-membranous, pruinose or scurfy with flocculent matter, Usually on earth.

§ 2. *Lachnea*. Waxy, hairy or villous externally. Usually on wood.

§ 3. *Phialea*. Waxy or membranous, rarely gelatinous, smooth, naked. On wood.

§ 4. *Helotium*. Plano-convex. On wood.

2391. *Ascobolus*. Pileus carnose, cup-shaped or hemispherical. Sporuliferous cells in the disk, forming prominent points filled with a fluid intermixed with the eight sporules.

Observations.

Division II. *Clavati*. Scarcely any traces of these fungi can be discovered in the writings of the ancients. Clusius described a few. Tournefort confounded them with corals and Lycoperdons. Holmskiöld and Persoon are the principal modern writers upon this tribe.

Almost all the species of which there is any certain knowledge are European. The genuine kinds are terrestrial; those which are found upon wood, being transitional to other orders. In vaults or caverns they become unusually developed, and the asci, on account of the excessive supply of moisture, expand and become flocculent. Most are found in the autumn; the branched kinds are often what are termed meteoric, that is to say, spring up suddenly after heavy falls of rain. They seldom last more than fourteen days.

In qualities they are mild, some having a bitter taste, but the greatest number are almost entirely destitute of smell, color, or taste. Many of the large kinds are used in cookery, and are eaten by various herbivorous animals.

Class II. *Uterini*. The natural form of the receptacle is cupulate, but in the most perfect kinds, the cupula is reflexed, and is called a *mitra*; in the least perfect, which are innate in the matrix, the receptacle is almost wholly obliterated. The resupinate *Pileati* are distinguished from these by their immarginate form, and by their asci.

Division I. *Mitrati*. A small division, apparently wholly unknown to the ancients. The species are almost entirely European; a few are found in North America and Siberia. It is probable, however, from the evidence of Loureiro and others, that some peculiar genera and species exist within the tropics. They are generally fond of a humid shady station. None are found in subterraneous places. If an individual is occasionally produced upon wood, it is upon such as is wholly decayed. Many spring up in the autumn and spring; they are rarely meteoric, but some appear in greater abundance in one kind of season than in another. Most of them last for a fortnight, and retain their form when dry.

Their qualities are generally mild, nutritive, and juiceless; one is said to be bitter. They are little infested by larvae. Several are used as food.

Division II. *Cupulati*. These are included in the Fungoides of the old botanists. The species which are separate from their thallus and much developed, are little changed by the places in which they grow, and are therefore the same in the most remote countries; but the eruptive or innate species, which are more affected by the nature of the substance by which they are fed, are liable to greater changes when their matrix is altered. For it is a general rule, that the more a fungus is innate in the substance which produces it, the more it is not only imperfect, but affected by its situation, and *vice-versâ*. Hence *Cæoma*, which is of a very low order, consists of as many species as the plants upon which it grows, just as a vowel forms as many distinct words as it is combined with distinct consonants.

The *Clavati* and *Pileati*, which chiefly depend upon the access of light, are in perfection from spring to autumn; the *Elvellaceæ* from autumn to spring. The *Cupulati* also depend much upon the operation of light, for in caverns or cellars they remain closed and sphaeria-like. Such is the case with *Peziza cerina*, which in dark places, undergoes many metamorphoses; and *Cenangium* under similar circumstances, when some obstacle is offered to the development of its hymenium, becomes deliquescent. Generally the terrestrial sorts agree in habitude with the preceding divisions; but those which are eruptive are often in perfection for half a year together.

Class III. *Tremellini*. These are nearly akin to the *Pileati* and *Clavati*, especially to *Telephora* and *Calocera*; and also to *Elvellaceæ*, more particularly to *Hygromitra*, *Peziza*, *Mollisia*, *Bulgaria*, and *Ditotia*, but they are distinguished without difficulty by the characters assigned to them.

Formerly all the genera were confounded under one, along with various species of Lichens and Algae. These

2392. *Bulgaria*. Cupula closed at first. Asci immersed, with paraphyses, becoming separate and bursting out. Gelatinous.
2393. *Ditlola*. Hymenium becoming plaited and deliquescent. Cupula open. Veil universal. Corky.
2394. *Cenangium*. Hymenium smooth, persistent, rarely deliquescent. Cupula closed, but opening finally. Somewhat coriaceous.
2395. *Stictis*. Hymenium smooth, immersed. Cupula obliterated. Hymenium persistent.
2396. *Cryptomyces*. Spreading, quite adnate, emerging, nearly plane, carnosae. Hymenium covering the whole surface. Thecae erect. Sporidia large, oval.

CLASS III. TREMELLINI.

Hymenium confounded with a gelatinous receptacle. Sporidia separate. Asci none.

2397. *Tremella*. Receptacle gelatinous homogeneous, fructifying in all directions, without papillae. Sporidia nearly emerging.
- § 1. *Coryne*. Fleshy gelatinous, somewhat clavate.
- § 2. *Phyllopta*. Somewhat cartilaginous, expanded, leafy.
2398. *Exidia*. Receptacle gelatinous, homogeneous, covered on the upper surface only by a papillose hymenium. Sporidia emitted with elasticity.
2399. *Dacrymyces*. Receptacle gelatinous, homogeneous, filled with assurgent flocci, and sporidia placed in layers inside. When young compact, but finally deliquescent.
2400. *Agyrium*. Receptacle spherical, smooth, compact, waxy, when humid gelatinous, finally crumbling away in sporidia.
2401. *Hymenella*. Receptacle flattened, adnate, smooth, like soft leather, very thin, persistent.
2402. *Nematelia*. Receptacle gelatinous, surrounding a compact heterogeneous nucleus. Sporidia emerging.

CLASS IV. SCLEROTIACEÆ.

Hymenium confounded both with the fleshy receptacle and the sporidia. Asci none.

2403. *Acrosperrum*. Elongated, somewhat clavate, with a coat of a similar substance, distinctly fructifying at the end.
2404. *Sclerotium*. Subglobose, or without regular form within, homogeneous, vesiculose, carnosae, or corneous. Sporules unknown.
2405. *Rhizoctonia*. Deformed, united with a similar persistent coat by means of root-like fibres proceeding from all points of its surface.
2406. *Periota*. Rootless, fleshy, covered entirely by a villous persistent coat.
2407. *Acinula*. Rootless, smooth, with a distinct farinaceous granular coat.
2408. *Erysiphe*. Sporangium epiphyllous, very minute, globose, furnished with white radiating subjacent filaments, and containing sporuliferous bodies.

TRIBE II. GASTEROMYCETES,

Fungus entirely closed, and bearing sporidia in the centre; and so forming an uterus.

CLASS I. ANGIOGASTRES.

Uterus finally bursting forth, separate from the receptacle. Sporidia lodged in the receptacle.

Division I. Phalloidæ.

Receptacle separate, open on account of the bursting of the uterus. Sporidia placed in a mucous layer.

2409. *Phallus*. Stipes issuing from a volva. Pileus furnished with large cells filled with a sporuliferous slimy substance.

Observations.

are by modern writers now referred to their proper stations. The genus *Mycoderma* of Persoon, to which are referred those tough skin-like coatings which are found upon vegetable extracts enclosed in bottles, and which is generally placed among Tremellini, is thought by Fries to be not of a vegetable nature.

The species at present known are found in Europe, Asia, and North America, but no material difference seems to be caused in them by their native country. All the species, with one exception, are epiphytes; the most perfect bursting forth from the bark of trees; the least perfect occurring on decorticated wood, the stems of herbs, &c. &c. The more the wood is dried, the nearer the species approach to Lichens; the more it is humid to Algæ. They are in perfection in the latter part of autumn, winter, and early spring, but scarcely any are found in the summer. Some live for a month or more; others appear to be perennial. When dry they are not to be recognized; they may nevertheless be preserved, and if moistened, they recover their original appearance. It must be observed, that they are in all cases to be examined in a wet and humid state.

Their qualities are refrigerant, and but little known. They are destitute of smell and taste, for which reason, and on account of their mucilaginous texture, scarcely any species is eatable. Many of the large kinds were formerly used in medicine in cases of ophthalmia, under the name of the "Jew's ear." Vinegar in which they had been steeped was also used as a gargle in tumors of the throat, according to Clusius. *Tremella fimbriata* is said to furnish a dye, and the sporidia of *T. mesenterica* to dye yellow. *Dacrymyces drostris* timber.

Class IV. *Sclerotiaceæ*. The affinity of this class is complex; for the lower we descend, the less differences are to be found between natural bodies. Thus Sclerotiaci are not only closely connected with the preceding divisions, but have a more or less obvious relation to all the hymenine and epiphytous classes of other tribes.

Before the time of Tode, a most sagacious observer, who was the first to distinguish the Sclerotia from other fungi, a very few species only were known, which were confounded with Lycoperdon, Sphæria, Tuber, and other genera. He was followed by various other mycologists, and especially by Decandolle, who described thirty-nine species. Tode, Persoon, and Link, have been unable to detect any fructification; Decandolle, Ehrenberg, and Fries, declare that the sporidia are scattered through the whole mass of the fungus, and emerge from it like hoar-frost.

Most of the known species are epiphytes, either upon living or recently dead plants. When growing in cellars and subterraneous places they undergo no alteration, but they do not fructify. They flourish most in the winter, late in the autumn, and early in the spring; and are exceedingly common just at the retreat of winter. A very few Spermodes only are found in the summer. Their odor and smell are either inconspicuous or nauseous. None of the species at least are eatable. Those which grow on rotten seeds are exceedingly poisonous. Some feed on the roots of living plants, which they destroy; others infest sickly herbs, whence they are a pest to the farmers.

Tribe II. *Gasteromycetes*. These fungi consist of concrete cells; they have a determinate figure and a tendency to a spherical form; at first they are closed, but finally are furnished with an orifice; or burst in an irregular manner, and emit an internal mass of reproductive matter, which either crumbles to pieces or deliquesces. The integument is of various natures, either a volva, a peridium, or perithecium, of a somewhat bladder texture; and is simple or double, but rarely multiple. They almost all, when young, are fluxile or soft, or have some part or another of a fluid nature; afterwards they become indurated and rigid, and assume their true forms.

Class I. *Angiogastres*. These are fungi of remarkable forms, and most unusual mode of fructifying; they were well known to Clusius, not to mention the celebrated Truffle of which Theophrastus had knowledge. They are found in different climates; but the most perfect only in temperate regions. The latter are also

2410. *Batayrea*. Head hemispherical, crumbling to pieces under the vertex into a little tuft of hairs bearing sporules. Stipes smooth. Involucrum triple, flowing with mucilage.

Division II. *Tuberaceæ*.

Sporangia membranous, scattered in an hymenium which is often grated with veins, and enclosed in the uterus. Sporidia pulpy at first.

2411. *Tuber*. Uterus closed, marbled with veins inside. Sporangia stalked, scattered among the veins. *Subterraneous.*

2412. *Rhizopogon*. Uterus sessile, bursting with irregularity, with anastomosing veins inside. Sporangia sessile. *Above ground.*

Division III. *Nidulariaceæ*.

Uterus filled with separate sporangia.

2413. *Nidularia*. Common peridium simple. Sporangia lenticular, fleshy, with sporidia in heaps in the middle.

2414. *Myriococcum*. Peridium simple, flocculent-furfuraceous, disappearing. Sporangia globose, with sporidia in round heaps.

2415. *Polyangium*. Peridium simple, membranous. Sporangia oblong, filled with a grumous mass.

Division IV. *Carpoboti*.

Uterus protruding a solitary separate sporangium.

2416. *Atractobolus*. Peridium cupuleiform, with a lid. Sporangium fusiform, with mucous sporidia.

2417. *Thelebotus*. Peridium sessile, urceolate-ventricose with an entire orifice. Sporangium papillæform, with mucous sporidia.

2418. *Pilobolus*. Stipes or receptacle pellucid, watery. Peridium a roundish vesicle, bursting elastically, placed on the apex of the receptacle.

2419. *Sphaerobolus*. Peridium double, both stellate; the inner membranous by inversion throwing out with elasticity a globose sporangium, bearing in the middle heaped sporidia.

Class II. PYRENOAMYCETES.

Uterus genuine, forming the receptacle. Sporidia disposed in asci in regular rows.

Division I. *Sphæriacci*.

Perithecium closed, perforated by an orifice, filled by an ascigerous somewhat deliquescent nucleus.

2420. *Xylaria*. Receptacles stipitate, carnosæ or suberosæ. Spherules immersed in the receptacle, and containing a gelatinous sporuliferous mass.

2421. *Stromatosphæria*. Receptacle sessile, free, or bursting from beneath the bark of dead wood. Spherules immersed.

2422. *Cucurbitaria*. Spherules tufted, free, fixed on a receptacle, rarely at first included. Receptacle bursting through the bark.

2423. *Cryptosphæria*. Receptacle O. Spherules scattered or aggregate, lying beneath the epidermis or bark, orifice various more or less exerted.

2424. *Heterosphæria*. (See Notes.)

2425. *Sphæria*. Receptacle O. Spherules sessile on the surface or slightly immersed.

2426. *Lophium*. Perithecium vertical, compressed, dehiscing by a longitudinal somewhat closed cleft. Asci crumbling away.

Division II. *Cytisporci*.

Closed, perforated by an orifice. Asci none; sporidia surrounded by a little bag or thin cellule, deliquescent.

2427. *Spheronema*. Perithecium opening by a pore, enclosing in a very thin bag some mucous sporidia, which burst forth and become indurated in a globose form. *Naked.*

2428. *Septaria*. (See Notes.)

2429. *Cytispora*. Cellular-many-celled; cells deformed, membranous, united at ends. Nucleus gelatinous, filled with sporules, propelled through the common elongated orifice.

2430. *Phoma*. Nucleus grumous, enclosed in a tubercle. Sporidia emitted by a simple orifice without regularity.

Division III. *Phaciidiacei*.

Perithecium finally bursting, with an open disk. Asci erect, fixed.

2431. *Dothidea*. Nucleus inclosing immersed cellules. True perithecium obliterated. Asci erect, remaining for a long time.

2432. *Rhytisma*. Perithecium deformed, bursting into transverse fragments by means of a flexuose crack.

2433. *Phaciadium*. Receptacle O. Perithecia sessile, depressed, bursting from the centre towards the circumference in several acute segments. Sporuliferous cells elongated, fixed.

2434. *Hysterium*. Perithecia mostly oblong, black, corneous, bursting by a longitudinal slit. Sporuliferous tubes erect. (Crust none.)

Division IV. *Xylomacci*.

Asci obsolete. Sporidia innate.

2435. *Actinothyrium*. Perithecium buckler-like, with radiating fibres covering the fusiform sporidia.

2436. *Leptostroma*. Perithecium uniform, without an orifice, but entirely separating and exposing a very thin disk.

2437. *Xyloma*. Black, corneous. Perithecia single, solitary and minute, or united and confluent, irregularly dehiscient.

Observations.

terrestrial; the imperfect kinds being inhabitants either of plants or of the dung of animals. Many are meteoric, flourishing most in "Jove tonante, densisque cadentibus imbris;" others are ephemeral; some exist for a month and more.

The Phalloideæ are generally very fetid, cold, and venomous; one species is accounted in China a vulnerary, and also a food, but of doubtful quality. The old physicians had some peculiar notions about their use in arthritis, &c. but they are not worth repeating. The *Tuberaceæ* have a peculiar smell, which is often grateful; their taste is irritating; their qualities esculent, nutritive, and aphrodisiacal.

Class II. *Pyrenomycetes*. The affinity of this class is very complex, for which reason there is much difference of opinion among authors as to its limits. In fructification it approaches fungi of a higher degree of development; on one hand resembling the *Angiogastres*, from which it is readily distinguished by its separate receptacle; on the other hand, the *Cupulati*, whose differences depend upon the definition of their perithecium. In point of vegetation it descends, first, to *Sclerotiaceæ*, which are entirely different, in the absence of an uterus and nucleus; secondly, to *Perisporia*, which have no distinct perithecium, and no asci; and thirdly, to several genera of *Coniomycetes*.

2438. *Lasiobotrys*. (See Notes.)

2439. *Asteroma*. Black, minute, epiphyllous. Receptacle radiate, filamentous, very adnate, at length tubercled here and there.

Class III. TRICHOSPERMI.

Uterus genuine, forming a receptacle. Sporidia intermixed with flocci.

Division I. *Lycoperdini*.

Uterus of a determinate figure, fleshy when young. Flocci copious.

2440. *Onygena*. Subglobose with a fibrous stipes. Peridium crustaceous, fragile, with interwoven fibres. Sporules naked, compactly clustered.

2441. *Tulostoma*. Globose stipitate. Involucrum none. Peridium opening by a bordered pore in the summit. Sporules scattered in it.

2442. *Scleroderma*. Sporangium globose or prolonged into a stipes. Peridium single, coriaceous, mostly warty, bursting at the apex or subdehiscent. Sporules collected into little contiguous distinct globules mixed with filaments.

2443. *Lycoperdon*. Sporangium globose. Peridium single, membranaceous, scaly, with warts or soft spines bursting irregularly at the apex, and containing a mass of sporules and filaments.

2444. *Bovista*. Sporangium globose. Peridium double; the outer one adnate, cracking, somewhat fugacious; inner one bursting at the apex, and containing a mass of filaments and pedicellated sporules.

2445. *Geastrum*. Globose sessile. Involucrum coriaceous, stellate. Peridium membranous. Sporules on stalks from the first.

Division II. *Trichocisti*.

Uterus regular, when young pulpy. Sporidia having numerous flocci scattered among them.

2446. *Craterium*. Peridium oblong, stipitate, operculate, containing a cellulose, filamentous, sporuliferous mass.

2447. *Stemonitis*. Cylindrical or subglobose. Peridium fugacious. Filaments forming a reticulated mass, perforated by the stipes to which they are attached. Sporules intermixed.

2448. *Cribraria*. Globose stipitate. Peridium crumbling to pieces at the summit in cracks.

2449. *Dictydium*. Globose stipitate. Peridium crumbling to pieces entirely or for the most part.

2450. *Arscyria*. Mostly cylindrical. Peridium fugacious, except a small portion at the base. Filaments abundant, reticulated, fixed at the base. Sporules intermixed.

2451. *Leangium*. Minute subglobose. Peridium single, membranaceous, bursting into subregular, persistent, expanding segments. Filaments attached at the base and surrounding a columella.

2452. *Trichia*. Minute subglobose or irregular. Peridium single, membranaceous, bursting. Filaments involute attached at the base, and expanding elastically.

2453. *Diderma*. Minute subglobose. Peridium double; the outer one fragile and fugitive. Sporules mixed with a few filaments and surrounding a roundish columella.

2454. *Physarum*. Sporangium minute, mostly stipitate, subglobose. Peridium single, membranaceous, bursting and deciduous in distinct portions. Sporules mixed with a mass of filaments.

2455. *Leocarpus*. Minute. Peridium single, fragile, bursting, sessile or stipitate, containing a black mass of sporules mixed with a few filaments. Columella O.

Division III. *Fuliginoidi*.

Uterus somewhat deformed, sessile, when young pulpy. Sporidia separated by flocci.

2456. *Lycogala*. Sessile globose or subirregular, pulpy when young. Peridium single, fragile, variously dehiscent. Sporules mixed with a few filaments.

2457. *Spumaria*. Form irregular, roundish, effused. Peridium soft, at length membranaceous, fragile. Sporules contained in the folds of branched, elongated, membranaceous, persistent processes.

Division IV. *Liccoidei*.

Flocci obsolete.

2458. *Dichosporium*. Flattened hemispherical. Peridium membranous, coated with a layer of granules. Sporules in globose masses.

2459. *Licca*. Peridium membranaceous, sessile, fragile, inclosing a pulverulent mass of sporules unmixed with filaments. (No subjacent membrane.)

Class IV. MUCOROIDEI.

Peridium formed of flocci loosely woven together, vanishing in the middle. Sporidia in heaps.

2460. *Mucor*. Peridium membranaceous, globose, stipitate, pellucid, at length opaque. Pedicel simple or branched, tubular, articulated.

2461. *Thamnidium*. Stipes branched at base; branches bearing solitary globules at their end. Peridium globose.

2462. *Ascophora*. Peridium membranaceous, stipitate, bursting at length, turned inside out, convex and subsistent. Pedicel simple or branched, tubular, pellucid, articulated.

Class V. PERISPORIA.

Perisporium thin, somewhat membranous, bursting. Sporidia immersed, scarcely distinct.

2463. *Eurotium*. Peridia membranous, subglobose, with an articulated floccose innate receptacle. Sporules naked in masses.

2464. *Amphisporium*. Subglobose. Peridium membranous, thin. Sporules naked of two forms.

Observations.

Its extent is very great, ascending from the most simple forms to those which are very compound, but at the same time connected with the former by the most strict natural ties. The true place of the genera in the system has been a subject of doubt. Many authors have taken them for fungi in the most perfect state. Decandolle excludes them from fungi, and, with some analogous Lichens, refers them to a peculiar intermediate family.

They are found in every part of the world in which vegetation exists; for every perfect plant and all its decaying parts nourish Pyrenomyces. The chief families of trees in the European Flora upon which they flourish are Coniferae, Amentaceae, Rosaceae, Ericaceae, Rhamnoides, Acerinae, and Foliaceae, and of herbs, Gramineae, Umbelliferae, and Liliaceae. Many are peculiar to certain species of trees, and others are common to many species. For example, on the *Betula alba* may be found about ten peculiar species, and from forty to fifty which are common to it and other trees. Their qualities are unknown. Many species which are included by Fries under the name of *Ectostroma*, are probably not vegetables, and are here omitted.

TRIBE III. HYPHOMYCETES.

Thallus flocculent.

Class I. CEPHALOTRICH.

*Receptacle distinct, covered over with flocci, with sporidia scattered among them.*2465. *Ceratium*. Filaments very short, pellucid, simple, minute, attached to a membranaceous, plicate, simple or branched, filiform receptacle.2466. *Isaria*. Filaments minute and pellucid, attached to an elongated, simple or branched, clavate, carnosose receptacle.

Class II. STILBOIDEI.

*Fibres grown together upon the receptacle. Sporidia inclosed in a separate naked head.*2467. *Stilbum*. Minute. Stipes slender, bearing a little round solid head, which is pellucid and semifluid at first, at length more dense and opaque.

Class III. INOMYCETES.

*Fibres genuine, somewhat separated by divisions. Receptacle none. Upon putrescent organic matter.*Division I. *Byssacci*.*Opaque fibres, bearing sporæ inside, when fertile jointed, when sterile contiguous. Repeel moisture.*2468. *Torula*. Thallus composed of branched, rigid, fragile, moniliform, subopaque filaments, the articulations minute, globose.2469. *Monilia*. Fibres numerous, erect, opaque, distinctly articulated, permanent. Articulations ovate.2470. *Racodium*. Thallus composed of branched, decumbent, interwoven, jointless, persistent, subopaque filaments, among which are sometimes granules of moniliform filaments.2471. *Dematium*. Fibres decumbent or ascending, rigid, opaque, branched, continuous in all directions, permanent.2472. *Cladosporium*. Thallus composed of erect, rigid, subopaque, jointed, simple or branched, aggregate filaments. Sporules ovate, attached in a series to the filaments, deciduous.2473. *Helicosporium*. Fibres erect, rigid, nearly simple, opaque. Sporules spiral, remotely jointed, some that are fugacious scattered among them.2474. *Ozonium*. Thallus composed of decumbent, branched, entangled filaments: primary ones thick, irregular; ultimate ones fine-jointed.2475. *Rhizomorpha*. Receptacle much branched, elongated, coriaceous or ligneous. Perithecia arising from the branches, mostly clavate, dehiscent at the apex.Division II. *Mucedines*.*Flocci pellucid, with dissepiments, bearing sporæ on the outside.*2476. *Sepedonium*. Thallus formed of entangled filaments, spreading within putrefying fungi. Sporidia scattered, globose. (Bright yellow.)2477. *Acremonium*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.2478. *Sporotrichum*. Thallus minute, tufted or expanded. Sporidia scattered among the branched, tubular jointed filaments.2479. *Trichothecium*. Filaments minute, branched, forming a tufted thallus. Sporidia scattered, subglobose, didymous.2480. *Acrosporium*. Thallus composed of minute, tufted, pellucid, moniliform, simple filaments, the uppermost joints (sporidia) separating spontaneously.2481. *Botrytis*. Thallus composed of decumbent, entangled, branched, pellucid filaments. Sporidia globose, solitary, pedicellate.2482. *Aspergillus*. Thallus composed of minute, pellucid, scattered or tufted filaments, apex of the main filament mostly clavate, on which is a head of (often beaded) sporidia.2483. *Stachylium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, whorled, with ramuli near the top, among which the sporidia are collected.2484. *Penicillium*. Thallus composed of tufted, pellucid filaments: sterile ones procumbent; fertile ones erect, bearing a terminal pencil-like tuft of erect ramuli, to which the sporidia are attached.2485. *Trichoderma*. Sporidia collected in the centre, free, the filaments woven into a web-like covering, at length opening at the apex and discharging the globose sporidia.

Class IV. PHYLLERIACEÆ.

*Fibres spurious, contiguous, bearing sporæ inside. Receptacle none. On living leaves.*2486. *Rubigo*. Fibres infundibuliform or clavate, twisted, situated in patches upon sickly leaves.2487. *Rincium*. Peridia flocciform, subdiaphanous, various, subsimple, aggregato-cæspitose, parasitic on living leaves. Sporules sometimes, but rarely evident.

TRIBE IV. CONIOMYCETES.

Sporidia naked, without any heterogeneous receptacle.

Class I. TUBERCULARIÆ.

*Sporidia naked, simple, scattered over the receptacle.*2488. *Tubercularia*. Sporangium subglobose, sessile, or somewhat stipitate, carnosose-vesiculose (not gelatinous). Sporidia towards the circumference (color mostly red).2489. *Fusarium*. Minute, subglobose, naked, almost wholly formed of fusiform, free, jointless sporidia.2490. *Exosporium*. (See Notes.)*Observations.*

Tribe III. *Hyphomycetes*. Distinguished from other tribes by their flocculent thallus. In no other tribe do flocci occur in so perfect a state of development, although they undoubtedly exist as subordinate organs in the Uterini and Hymenomycetates.

Class IV. *Phylleriaceæ*. These are perhaps morbid states of the outer integuments of plants. This at least seems obvious in *Phyllerium Rubi*, *Gei*, &c. which are nothing but the hairs of the leaves in a clustered and somewhat altered form. This also may be the reason why there are no sporidia.

Tribe IV. *Coniomycetates*. To this are referred those fungi in which the sporidia are of a more obvious nature than the other parts of the plant, and so constitute the essence of the fungus. Hence they are more evolved than in any other class. The receptacle, if present, arises either out of united pedicels, or of united sporidia,

Class II. ENTOPHYTE.

Sporidia naked, separate, without a receptacle.

Division I. *Stilbosporei.*

Entophytes growing upon dead plants.

2491. *Fusidium*. Thallus plane, effused. Filaments short, branched. Sporidia fusiform, scattered.

2492. *Polythrincium*. (See Notes.)

2493. *Stilbospora*. Black. Receptacle O? or a pulverulent mass intermixed with naked sporidia, the whole bursting through the bark in the manner of a Stromatosphæria.

2494. *Sporidermium*. (See Notes.)

2495. *Næmospora*. Receptacle O. Spherules obvious, or somewhat obsolete, discharging sporuliferous pulp through the bark in the form of tendrils.

Division II. *Hypodermia.*

Parasites upon living plants.

2496. *Cylindrosporium*. Very minute, parasitic on the surface of living leaves. Sporidia pellucid, cylindrical, truncate, free, not divided.

2497. *Uredo*. Epidermis of the leaf forming a pseudo-peridium. Sporidia 1-celled, free, mostly globose.

2498. *Æcidium*. Peridium membranaceous, bursting through the epidermis, and dehiscent at the apex, with a dentate or lacerate orifice.

2599. *Puccinia*. Epidermis of the leaf forming a pseudo-peridium. Sporidia fixed by a pedicel, one or many-celled.

Observations.

and is homogeneous with the immature sporidia. The thallus is never flocculent. The organs of nutrition and reproduction are the same.

Division II. *Hypodermia*. The genera of this division are furnished with a caliculus, which must not be confounded with the receptacle or thallus, &c. of other tribes, because it does not constitute part of the fungus, but is formed out of the epidermis of the plant on which the fungus grows.

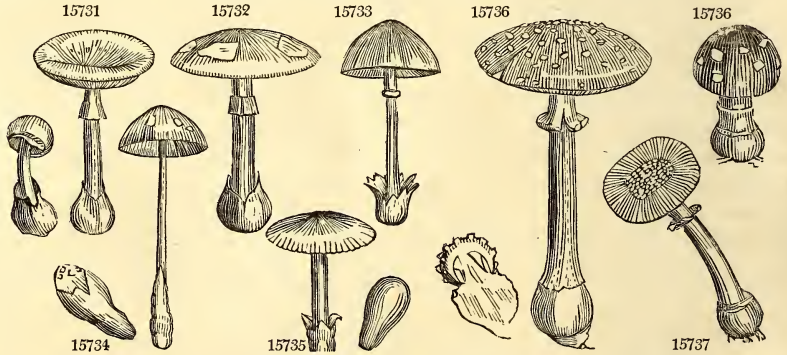
HYMENOMYCETES.

Class I. HYMENINI. — Div. I. *Pileati.*

2365. *AGA'RICUS*, L. AGARIC.

Sp. 308—715.

§ 1. <i>AMANITA</i> , Pers.					
15731	<i>vérnus</i> Bull.	vernal	stinking	3-6 spr. su. W	woo., dam. pl. Bulliard, t. 108
15732	<i>phalloides</i> Fries.	Phallus-like	scintless	4 jul. oct. W	woody places Bull. t. 2. 577. <i>bulbosus</i>
	β <i>verrucosus</i> Fl. Lond.	warted	scintless	4 jul. oct. Y	woody places Fl. lo. t. 312. f. dex. <i>verruc.</i>
	γ <i>viridescens</i> Fl. Dan.	greenish	scintless	4 jul. oct. Pa. Gr	woody places Flora danica, t. 1246
15735	<i>porphyrius</i> Fries.	porphyry	scintless	4 jul. oct. Livid	among moss Schæff. gen. t. 76. f. 3
15734	<i>vaginatus</i> Bull.	sheathed	eatable	6 aut. W	waste places Bulliard, t. 512
	α <i>plumbeus</i> Schæff.	lead-colored	eatable	6 aut. Lead	waste places Schæffer, tt. 85, 86
	γ <i>hyalinus</i> Schæff.	transparent	eatable	6 sum. Cæs.	waste places Schæffer, t. 244
	δ <i>pulvinatus</i> Bolton	cushioned	eatable	6 sum. Br	waste places Bolton, t. 49
	ε <i>fávus</i> Schæff.	tawny	eatable	6 sum. Tawn.	waste places Bolt, t. 38. f. 2. <i>trilobatus</i>
15735	<i>nivalis</i> Grev.	alpine	delicate	5 aug. W	Scotch mou. Greville crypt. t. 1. 18
15736	<i>muscarius</i> L.	fly-blown	poisonous	4 au. oc. Or. R	woods Greville crypt. t. 1. 54
15737	<i>pantherinus</i> Dec.	mottled	warted	3 au. oc. Ol	moun. woods Schæff. t. 90. <i>maculatus</i>
15733	<i>rubescens</i> Pers.	flesh-colored	nauseous	3 jul. sep. F. Col.	heaths Schæff. t. 91. <i>pustulatus</i>
15739	<i>ásper</i> Alb. & Schw.	rough	stinking	3 jul. oct. Rsh	open woods Bull. t. 316. <i>verrucosus</i>
§ 2. <i>LEPIO'TA</i> , Pers.					
15740	<i>procerus</i> Scop.	gigantic	esculent	10 au. no. W. Br	gardens Sowerby, t. 190
15741	<i>excoriatus</i> Schæff.	flayed	esculent	7 jul. au. Wsh	fields Schæff. t. 13, 19
15742	<i>clypeolarius</i> Bull.	buckler	insipid	2 au. oc. Wsh	beech woods Sowerby, t. 14
	β <i>felinus</i> Pers.	spotted	insipid	2 au. oc. Wsh	hot-houses
	γ <i>melægris</i> Sowerb.	variegated	insipid	2 au. oc. Wsh	pine woods Sowerby, t. 171
15743	<i>crístatus</i> Bolton	crested	fétid	1½ au. no. Wsh	grassy places Greville crypt. 3. 176
15744	<i>illinitus</i> Fries	besmearcd	mucilaginous	3 jul. oct. Wsh	meadows Fl. dan. t. 600



History, Use, Propagation, Culture,

2365. *Agaricus*. This, the most extensive genus in the vegetable kingdom, derives its name from *Agaria*, a kingdom of Sarmatia. The species are determined upon various principles. Some writers have mixed together species of the most different kinds, as Gleditsch; and a few writers only have really taken pains to ascertain the species. If it is divided into many genera it would be necessary to break up *Boletus* also, which would scarcely be judicious. An accurate and simple mode of division is, however, of the utmost moment, and several methods have been proposed, the greater part of which are artificial, and therefore objectionable; such, for example, as that of Villars, from the magnitude of the species; of Linnaeus, from the color of the pileus; of Haller, from the color of the lamellæ or gills; of Withering, from the nature of the stipes and the color of the lamellæ taken together; or of Otto, from the position of the lamellæ. The divisions of Fries, which are all named as subgenera, depend upon the characters of the veil, the lamellæ, the sporidia, and the pileus. Our notes will follow these in their order of succession.

§ 1. *Amanita*. This name was applied by Galen to some eatable fungus, and has been restored in modern days by Persoon. Most of the species are poisonous. They do not perish quickly, and are found for the most part on damp earth in shady woods, never upon wood or the dung of animals. They are in perfection about the end of summer.

A. vaginatus is eaten by the Muscovites; but in the Jena Literary Gazette of 1819, it is declared to be poisonous. *A. ovoideus* is said to be delicious.

A. muscarius, or reddish mushroom, has a large pileus, varying much in color, white, red, or crimson, convex, sprinkled with downy warts, which are raised, compact, and angular, or thin, flat, and ragged, turning up with age, from two to seven inches over; flesh white, reddish in decay; gills fixed, white, yellowish with age, mostly uniform, but a shorter one sometimes intervening; the shorter gills varying much in length, but rarely less than one-third the length of the long ones; the stem solid and cylindrical, but the internal substance shrivelling with age leaves irregular hollows; scaly, bulbous at the base, from three to five inches high, and from three quarters to one and a half inch in diameter; ring broad, permanent, and turned down upon the stem. This plant rises out of the ground inclosed within its brown studded wrapper. It is found in pastures. The juice rubbed on the walls and bed-posts destroys bugs; and in the North of Europe, the inhabitants infuse it in

HYMENOMYCETES.

Class I. HYMENINI. — Div. I. *Pileati*.* *Volva loose* : edge of the cap smooth. UNWHOLESOME.

- 15731 Cap somewhat scaly : edge smooth, Stipes solid nearly equal, Volva loosely sheathed
 15732 Cap somewhat scaly : edge smooth, Stipes hollow at top, Volva connate bulbous

15733 Cap naked : edge smooth, Stipes somewhat fistular equal, Volva booted

** *Volva loose* : edge of the cap striated. EATABLE.

15734 Cap furrowed at edge, Gills white, Stipes fistular tapering nearly naked, Volva sheathing

15735 Whole plant white, Cap plane or slightly umbonate : the centre often pale ochraceous ; margin striato-pectinate, Lamella somewhat distant, Stipes solid naked bulbous

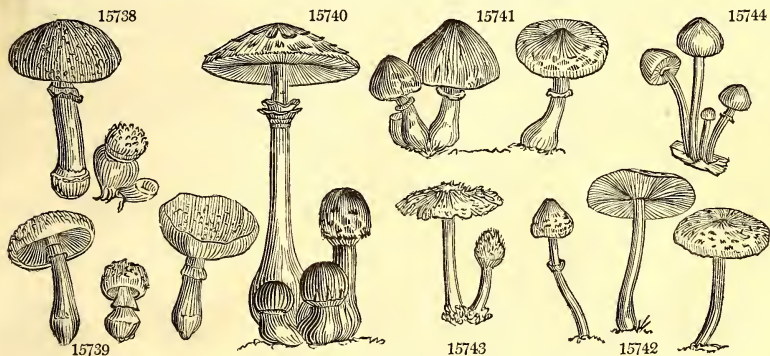
*** *Volva obliterated* : edge of the cap striated. POISONOUS.15736 Margin of the cap striated orange-red shining warty rarely naked, Volva vanishing scaly, Stipes bulbous
 15737 Cap equally warted : edge striated, Stipes nearly solid equal, Volva booted adnate**** *Volva obliterated* : edge of the cap smooth. UNWHOLESOME.15738 Warts of cap mealy unequal : edge smooth, Flesh pink, Stipes solid somewhat scaly and bulbous
 15739 Cap somewhat umbonate rough with acute warts : edge smooth, Stipes solid somew. taper. squarrose* *Veil finally separate*, Gills distant. EATABLE.15740 Large, Cap scaly, Lamella distant white, Stipes very long bulbous, Collar free
 15741 Skin of cap contiguous, Lamella remote, Stipes equal, Collar free** *Veil fixed*, Skin of the cap peeling off, Gills separate.

15742 Inodorous, Cap with the epidermis broken into ferruginous scales, Lamella white numerous, Stipes subsquamose, Collar mostly fugacious

15743 Highly odor. Surface of cap white with reddish scales, Lamella distinct, Stipes smooth, Collar fugacious

*** *Veil fixed*, Gills separate, Skin of the cap adhering.

15744 Cap glutinous striated at edge, Lamella loose, Stipes viscid on account of the veil



and Miscellaneous Particulars.

milk, and set it in their windows in order to poison the flies who taste it. This is *moucho-more* of the Russians, Kamtchadales, and Koriars, who use it for intoxication. They sometimes eat it dry, and sometimes immerse it in a liquor made with the epilobium; and when they drink this liquor, they are seized with convulsions in all their limbs, followed with that kind of raving which attends a burning fever. They personify this mushroom; and if they are urged by its effects to suicide, or any dreadful crime, they pretend to obey its commands. To fit themselves for premeditated assassination, they recur to the use of the *moucho-more*. A powder of the root, or of that part of the stem which is covered by the earth, is recommended in epileptic cases, and externally applied for dissipating hard globular swellings, and for healing ulcers. The dose is from half a scruple to one, taken three a day in water; but a dram administered once a day in vinegar has been thought more efficacious. *Murray, App. Med.* vol. v. p. 560. Dr. Withering enumerates ten varieties of this species.

§ 2. *Lepiota*. Terrestrial, solitary, persistent, autumnal fungi, none of which are noxious. Named from *λεπτε*, a thin membranous layer or cuticle. The *A. procerus*, or tall mushroom, is not uncommon on hedge banks and dry pastures, and is sometimes exposed to sale in Covent Garden market. It may be distinguished from the genuine sort by the sponginess of its flesh; and from others by its fine and large horizontal ring. The gills are white, uniform, and fixed to a collar; the pileus is a broad cone, bossed white-brown, and scaly; the stem is scaly, and the ring loose. This plant, when preserved in pickle, is very apt to run into the vinous fermentation.

A. xerampelinus is the most splendid of all the agarics. Its gills are fixed, bright golden-yellow, and nearly orange under the edge of the pileus, regularly disposed four in a set; fleshy, brittle, and serrated at the edge with a paler cottony matter: the pileus is a fine lake-red, changing with age to a rich orange and buff, and every intermediate shade of these colors, which render it very beautiful; convex, center bossed, edge turned down, three to four inches in diameter, clothy to the touch; flesh pale-buff: stem solid, nearly cylindrical, but gradually tapering upwards, rich buff, shaded with fine rose-red, three to five inches high, half inch in diameter; flesh pale, buffy, spongy, and elastic. This is common in Italy, and brought to the markets for sale. The ancient Romans esteemed it one of the greatest luxuries for the table. It was made the vehicle for poison to Claudius Cæsar by his wife Agrippina, and has therefore been celebrated by Juvenal and Martial.

15745 <i>granulosus Pers.</i> <i>A. croceus</i> Sowerb.	granular	muricated	2	jl. dec.	Y	heaths	Greville crypt. fl. 2, 104
§ 3. ARMILLARIA. <i>Fries.</i>							
15746 <i>mucidus Schrad.</i>	mucid	glutinous	2	jl. dec.	W	old trees	Fl. dan. t. 773. <i>nitidus</i>
15747 <i>melleus Bolton</i> <i>β laricinus Bolton</i> <i>γ elasticus Bolton</i>	honey-like <i>Larch</i> <i>elastic</i>	esulent esulent esulent	4 4 4	au. oc.	DI. Y	trun. of trees	Sowerby, t. 101. <i>stiptitis</i> Bolton, t. 19 Bolton, t. 15
§ 4. LIMA'CIUM. <i>Fries.</i>							
15748 <i>chrysodon Batsch</i>	yellow-toothed	noxious	§	sep. oc.	Pa. Y	beech woods	Batsch cent. 2. f. 212
15749 <i>caruosus Sowerb.</i>	fleshy	noxious	3	sep. oc.	Pa. PK	among grass	Sowerby, t. 246
15750 <i>cburneus Bull.</i> <i>β nitens With.</i>	ivory <i>shining</i>	shining shining	4 4	au. no.	W	woods	Sowerby, t. 71. <i>nitens</i> Sowerby, t. 121. <i>cosus</i>
15751 <i>olivaceo-álbus Fries</i>	olive-white	viscid	4	jul. oct.	Ol	pine woods	Schæff. t. 312. <i>limacnus</i>
15752 <i>hypothésis Fries</i>	slug	clustered	4	oc. dec.	Ysh	beech heaths	Sowerby, t. 3. <i>limacnus</i>
15753 <i>aromaticus Sowerb.</i>	aromatic	glutinous	3	oc. dec.	Pa. Br	woods	Sowerby, t. 144
§ 5. TRICHOLO'MA. <i>Fries.</i>							
15754 <i>albo-brúnneus Pers.</i>	whitish-brown	glutinous	3	au. oc.	Br	fir leaves	Schæff. t. 38. <i>striatus</i>
15755 <i>fulvus Dec.</i>	tawny	smells of flour	4	au. sep.	Tawn.	thickets	Schæff. t. 62. <i>incertus</i>
15756 <i>ustáula Fries</i>	scorched	scentless	3	au. oc.	R. Br	beech wo. &c.	
15757 <i>Rússula Schæff.</i>	rosy	delicious	2	aut.	Pk	woods	Schæff. t. 58
15758 <i>aurántius Schæff.</i>	orange	bitter	3	aut.	Or	pine woods	Schæff. t. 37
15759 <i>prasínus Schæff.</i>	pea-green	tuberous	3	aut.	Y. G.	mossy places	Schæff. t. 218
15760 <i>fucátus Fries</i>	paintd	mild	2	sep. oc.	Lurid	way sides	
15761 <i>lúridus Schæff.</i>	lurid	gregarious	2	sep. oc.	DI. R	pine woods	Schæff. t. 69
15762 <i>equéstris L.</i>	noble	mild	2	sep. d.	Y. Br	way sides	Schæff. t. 41. <i>aureus</i>
15763 <i>rútilans Schæff.</i>	glittering	splendid	3	au. oc.	Y	roots of trees	Sow. t. 31. <i>xerampelinus</i>
15764 <i>vaccínus Schæff.</i>	cow	scaly	3	oc. dec.	Ruf.	damp places	Schæff. t. 25
15765 <i>myomýces Pers.</i>	Mouse-mushr.	smells of mice	3	oc. no.	Livid	plantations	Sowerby, t. 76. <i>terreus</i>
15766 <i>Columbétta Bauh.</i>	white-headed	eatable	1½	au. oc.	W	sandy places	Bulliard, t. 428. f. 1
15767 <i>æ'stuans Fries</i>	burning	very acrid	3	au. sep.	Y	among moss	
15768 <i>sejunctus Sowerb.</i>	white and yell.	bitter	3	sep. oc.	Pa. Y	dry pine wo.	Sowerby, t. 123
15769 <i>virgátus Fries</i>	streaked	bitter	3	sept.	Gr	plantations	
15770 <i>decátes Fries</i>	sinuous	stipes naked	3	au. sep.	Cin.	beech woods	
15771 <i>gambósus Clus.</i>	cracked	smells of flour	2½	my. jn.	Pale	chalk mead.	
15772 <i>personátus Fries</i>	violet	variable	3	sep. no.	Pu	woods	Sowerb. t. 209. <i>violaceus</i>
15773 <i>nódus Bull.</i>	naked	wavy	2	sep. no.	Vi	gardens	Bulliard, t. 439
15774 <i>álbus Schæff.</i>	white	not spotted	3	sep. no.	W	woods	Schæff. t. 253
15775 <i>spléndens With.</i>	metallic	juicy	3	July	Cop.	alder stump	
§ 6. RUS'SULA. <i>Pers.</i>							
15776 <i>alutáceus Pers.</i> <i>β xanthópus Fries</i> <i>A. aurátus With.</i>	tanned <i>yellow-stalked</i>	eatable eatable	2 2	au. sep.	R	shady woods	Bull. t. 509
15777 <i>lúteus Huds.</i>	yellow	brittle	1½	au. sep.	Y	beech woods	
15778 <i>nitidus Pers.</i>	shining	nauseous	1	au. oc.	Rsh	woods	Schæff. t. 254



History, Use, Propagation, Culture,

Schæffer and Clusius have recited several curious circumstances respecting it. Dr. Withering apprehends that these authors have mistaken the species, and that their account should be transferred to the *A. deliciosus*. The *A. xerampelinus* is eatable, but its taste is not at all agreeable. It is the *A. caesareus* of Schæffer, and first found by Dr. Withering's daughter on the red rock plantations at Edgbaston, July 6th, 1791, and afterwards in September 1793; and in July 1792, among moss in the fir plantations at Tettenhall, Staffordshire. Dr. W. enumerates five varieties.

§ 3. *Armillaria*. From *armilla*, a necklace. Autumnal species, of permanent duration, firm, and esulent.

**** *Veil fixed, Cap covered, Gills somewhat united.*

15745 Cap with furfuraceous scales reddish-yellow, Lamellæ fixed white, Stipes subsolid covered below the veil with squarrose scales

* *Cæspitose, Cap smooth.*

15746 Somew. cæspit. Cap thin glutin. Lamellæ annex. dist. Stipes bulb. Collar reflex. and then erect furrowed

** *Cæspitose, Cap not smooth.*

15747 Cap dull-yell. rough with black. hairy scales, Lamellæ adnate-decurr. dist. Stipes fibrous, Coll. tum. spread.

* *Cap smooth, floccose at edge. UNWHOLESOME.*

15748 Cap smooth whitish, Margin and top of stipes yellow-flocculent with crisp lamellæ

15749 Cap smooth whitish-pink: edge involute downy, Lamellæ straight, Stipes thickened upwards scaly

** *Cap smooth, Stalk scaly. EATABLE.*

15750 White, Cap smooth umbon. Lamellæ broad dist. very decur. Stipes white scurfy solid becom. holl. in age

*** *Cap finally depressed, Stalk spotted.*

15751 Cap umbonate smooth olive-brown, Lamellæ connected white, Stipes solid mottled with brown [yellow

15752 Cap obt. smooth yellow. covered by an olive-colored gluten, Lamellæ distinct and stipes (which is spotted)

15753 Cap smooth cinnamon-col. Lamellæ somewhat decurrent and hollow, Stipes spotted rufous

* *Cap truly fleshy, somewhat blunt, humid, viscid; with an involute downy edge, Gills white or yellow, emarginate, Stalk clothed, separate from the cap.*

15754 Cap smooth viscid umbel-col. Lamellæ annexed white, Stipes solid smooth scaly at end

15755 Cap viscid virgate rufous brown discoidal, Lamellæ annexed yellow, Stipes hollow equal fibrous

15756 Cap smooth viscid red-brown, Lamellæ emarginate white, Stipes equal solid fibrous

15757 Cap somew. depress. visc. granul. and solid stipes eq. scaly at end rose-color. Lam. somew. separate white

15758 Cap somewhat scaly viscid yellow-orange, Lamellæ adnate white, Stipes solid thick covered with orange scales

15759 Cap scaly viscid yellow-green, Lamellæ separate yellow, Stipes solid thick tuberous

15760 Cap flexuose virgate viscid lurid, Lamellæ emargin. broad and solid, Stipes somew. scaly yellowish-white

15761 Cap flexuose smooth greenish ash-colored, Lamellæ emarginate narrow yellowish, Stipes solid scaly pallid

** *Cap always dry, scaly, with the young edge involute, downy, or villous, Gills separate or emarginate, Stalk scaly, separate from cap.*

15762 Cap comp. flexuose somew. scaly yellow-brown, Lamellæ emarg. comp. and solid, Stipes scaly sulphure.

15763 Cap obt. convex deep-yellow more or less covered with crimson red squamulose fibres, Lamellæ rounded numerous yellow, Stipes solid or partly hollow streaked with red

15764 Cap umbon. rufous, Skin torn with hairy scales downy at edge, Lamellæ affixed whit. Stipes holl. fibrous

15765 Firm, Cap dry smooth a little scaly brownish-livid, Lamellæ emarg. somew. dist. whit. Stipes solid uneq.

15766 White, Cap irregular becoming scaly and cracked, Lamellæ emargin. compact, Stipes solid short smooth

*** *Cap always dry, smooth, but often fibrillose, with a naked edge, Gills separate or emarginate, Stalk solid, smooth, striated, separate from the cap.*

15767 Cap umbonate dry yellow-brown fibrous towards edge, Lamellæ emarg. broad and solid striat. Stipes yell.

15768 Cap somew. umbon. dry yellow streaked with black hairs, Lamellæ emargin. broad and solid, Stipes white

15769 Cap umbonate dry grey streaked with black, Lamellæ emargin. broad hoary, Stipes solid striated whitish

**** *Cap always dry, smooth, with a thin, floccose, frosted, involute edge, Flesh soft, Gills rounded, clustered, obliterated in front, Stalk united with cap.*

15770 Somew. cæspitose, Pileus smooth unequal cinereous, Lamellæ round, white, Stipes solid powdery at end

15771 Somew. cæspitose, Pileus compact smooth mouse-colored, Lamellæ emarg. and solid downy, Stipes white

15772 Cap somewhat compact smooth with a villous frosted margin, Lamellæ rounded loose and solid somew. bulbous villous, Stem rather violet

15773 Gregarious, Cap thin smooth lilac-brown, Lamellæ rounded pale violet, Stipes solid equal naked

15774 White not spotted, Cap equal smooth, Lamellæ rounded dense, Stipes solid elastic

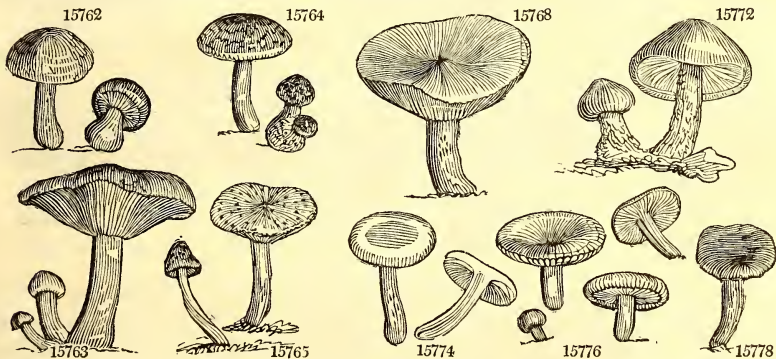
15775 Cap conical shining, Lamellæ loose white, Stipes solid white

* *Gills all equal, Sporidia yellow.*

15776 Cap somewhat compact: the margin finally furrowed, Lamellæ broad equal tanned
 β Stipes yellow

15777 Middle-sized, Margin of cap smooth, Lamellæ narrow compact equal: the color of yolk of egg

15778 Cap thin with a sulcate margin, Lamellæ broad substiant equal yellow



and Miscellaneous Particulars.

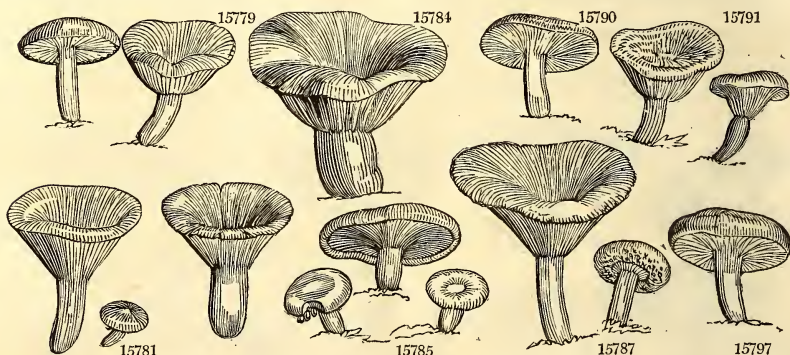
They differ much in habit among each other. The annulus is either superior, that is reflexed from the top of the stipes; or inferior, that is contiguous to the middle; or even proper, being inserted above the middle.

§ 4. *Limacium*. So called from *A. limacinus*, a name which has been indiscriminately applied to almost all the species of this subgenus. They are fungi of a middle size, solitary, terrestrial, autumnal, and permanent.

§ 5. *Tricholoma*. From *Τριχ*, hair, and *λωμα*, a margin. The species are large, robust, and permanent, solitary or gregarious, and terrestrial. Many are eatable; some have an acrid bitter flavor. *A. Russula* is said to be of excellent quality.

15779 eméticus Schæff. β Georgii L.	emetic St. George's	acid acid	3 3	sum. sum.	Rsh Y	woods woods	Sowerby, t. 201. <i>integer</i> . Bulliard, t. 509. f. R.
15780 depállens Pers.	pallid	nauseous	1½	jul.sep.	R.Br	heaths	
15781 rúber Lam.	red	very bitter	2	jul.sep.	R	woods	Bulli. t. 42. <i>san uineus</i>
15782 foe'tens Fries	stinking	rigid	2	au.sep.	Y	woods	Bulliard, t. 292. <i>pipercatus</i>
15783 furcátus Fries	forked	bitterish	2	au.sep.	G	woods	Bulliard, t. 26. <i>bifidus</i>
15784 adústus Pers. β elephántinus Bolt.	scorched etephantine	very compact very compact	2 3	jul.oct. jul.oct.	Ol Y.Br	woods woods	Bulliard, t. 212. <i>nigricans</i> Sowerby, t. 36
§ 7. GALARHÆ'US. Fries							
15785 controversus Pers.	controverted	meteoric	2	sep. oc.	Var.	beech woods	Bulliard, t. 538. <i>acris</i>
15786 scrobiculátus Scop.	pitted	gigantic	4	au. oc.	Y	damp woods	Schæff, t. 227
15787 terminósus Schæff.	bearded	dangerous	2	jn. oc.	Pk	way sides	Sowerby, t. 103
15788 necátor Bull.	destructive	poisonous	1	au. oc.	Ol.Br	woods	Bulliard, t. 14
15789 cilicioides Fries	downy	very downy	3	sept.	Dl.Pk	pine woods	
15790 lóridus Pers.	lurid	flattened	1½	sep. oc.	Lurid	heaths	Sowerb. t. 203. <i>xonarius</i>
15791 ácris Bolton	hot	very acrid	2	au. no.	Ciner.	groves	Bolton, t. 60
15792 úvidus Fries	moist	brittle	1½	au. oc.	Li.Pk	damp groves	
15793 viétus Gleditsch	variable	very acrid	2	au. no.	Livid	woods	
15794 hýsgynus Fries	firm	variable	2½	au. oc.	Pk	grassy places	
15795 biénnius Fries	verdigrease	very acrid	1½	jul. oc.	Gsh	beech woods	
15796 pállidus Pers.	pallid	gregarious	1½	au. oc.	Pa.Y	beech woods	
15797 deliciósus L.	delicious	eatable	1½	jul. no.	Or	pine woods	Sowerby, t. 202
15798 aurantiacus Pers.	orange	acid	3	au. oc.	Or	woods	Batarra, t. 16. f.
15799 mitissimus Fries	mild	sweet	3	au. no.	Or	woods	
15800 quiétus Fries A. serósus Wither.	serous	sweet	3	aut.	Pk	oak woods	Fl.dan. t. 1069. <i>rubescens</i>
15801 subúlcis Pers.	sweetish	nauseous	3	sum.	Brsh	woods	Sower. t. 204. <i>lactiflorus</i>
15802 thejogálus Bull.	yellow-milked	poisonous	2½	sep. oc.	Fulv.	shady woods	Bulliard, t. 567. f. A.
15803 Tithymalínus Scop.	testaceous	very milky	3	sep. oc.	Pa.Y	shady woods	Bats.conf.f.60. <i>ichoratus</i>
15804 rúfús Scopoli A. rubescens With.	rufous	scintless	2	jul. oc.	Br	pine woods	
15805 hélvus Fries	intermediate	acid	2½	jul. no.	R.Oc.	damp places	
15806 glycosmus Fries	sweet-tasted	esulent	3	jul. oc.	Lurid	thickets	
15807 plúmbeus Bull.	lead-colored	insipid	4	au.sep.	Lead	damp places	Sowerby, t. 245. <i>Listeri</i>
15808 pyrogálus Bull.	red-milked	very acrid	1½	au. oc.	Livid	groves	Bulliard, t. 529. f. 1
15809 flexuósus Pers.	flexuose	compact	1	jul. oc.	Br	grassy places	Bull.t. 559.f.1. A. <i>azonites</i>
15810 piperátus Scop.	peppery	eatable	2	sep. oc.	W	woods	Bolton, t. 21
15811 velléus Fries	Lister's	gregarious	2	au. no.	W	thickets	Sowerby, t. 104. <i>Listeri</i>
15812 dúlcis Hudson	sweet	gregarious	2	au. no.	W	thickets	
15813 depréssus Wither.	depressed	variable	2½	au. oc.	Pk	grassy places	

§ 8. CLITÓ'CYBE. Fries
15814 gigantéus Leysser. gigantic very broad 6 sept. Wsh thickets Sowerby, t. 244



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§ 6. *Russula*. So named from the russet color of the original species. The species are all large, or of middle size, rigid, persistent, solitary, terrestrial, chiefly appearing in the autumn.

§ 7. *Galarhæus*. From γαλα, milk, and ρεω, to flow; many of the species being lactescent; some are juicy. These are fungi of the summer and autumn, possessing an aromatic smell and acrid flavor. They all grow upon the ground. A. terminosus, in times of scarcity, is eaten by the Russians, mixed with salt, oil, and vinegar. *Buzb*. A. controversus is stated by Persoon to be eatable; but Fries thinks it must be in mistake. A. deliciosus has gills decurrent, flame-colored, narrow, regularly branched; pileus rich, red, brown; flesh nearly flat, but somewhat hollowed at the centre, and the edge turned in from one and a half to three inches over; orange-color; stem orange, solid, tapering downwards, from one to two inches high, and a quarter to three-eighths high: hollow with age. The juice is rich yellow, which soon turns green. It is found in the fir plantations of Scotland, and in those of the barren hills at Barr, in Staffordshire. Dr. Smith also found it at Hillingdon, Middlesex, under some fir trees; it also grows near Guildford. It is much esteemed in Italy, and exposed in the markets, and supposed to have been the *A. casareus* mentioned by some authors.

15779 Cap compact somew. depressed in centre with marg. at length sulcate, Lamellæ broad subeq. very white

** *Gills nearly equal, Sporidia white.*

15780 Cap deformed opaque pallid: margin finally striated, Lamellæ distinct whitish, Stipes finally cinereous

*** *Gills forked, and many of them halved.*

15781 Very hot, Cap very red: margin smooth, Lamellæ forked white

15782 Acrid stinking, Cap yellow: margin warted furrowed, Lamellæ connected and hollow, Stipes white

15783 Scentless, Cap greenish: margin smooth, Lamellæ forked white [thick. Stipes short solid very robust

15784 Large, Pileus depress. ash color. olive at length dark and as if burnt: marg. smth. Lam. uneq. dist. white

β Cap brownish-yellow, Lamellæ yellowish-white, Stipes solid white

* *Edge of the cap rolled inwards, downy. HOT. POISONOUS.*

15785 White, Pileus villous blood-red variegated downy at edge, Stipes solid

15786 Cap yellow without zones: margin bearded, Milk yellowish, Stipes hollow spotted

15787 Cap glabr. pale with a yellowish brownish or greyish tinge: marg. toment. Stipes most. holl. in part smth.

15788 Cap smooth zoned olive-brown: margin villous, Stipes solid

15789 Cap downy dull flesh-colored, Lamellæ yellowish, Stipes rather hollow

** *Cap smooth, viscid, with a naked edge. HOT. EATABLE.*

15790 Cap viscid zoned lurid, Lamellæ white, Milk reddish, Stipes hollow

15791 Cap viscid not zoned cinereous-sooty, Lamellæ yellow, Milk turning red, Stipes solid

15792 Cap viscid not zoned fleshy livid or brownish, Lamellæ white, Milk whitish-lilac, Stipes hollow

15793 Cap thin smooth somew. viscid not zoned livid pale, Lamellæ and milk whit. Stipes somew. hollow fragile

15794 Cap viscid not zoned smooth flesh-colored, Lamellæ and milk white, Stipes hollow spotted

15795 Cap viscid somewhat dripping not zoned greenish, Lamellæ and milk white

15796 Cap viscid smooth not zoned and stipes (which is short) hollow and firm pallid, Lamellæ and milk white

15797 Cap glutinous obscurely zoned dingy-orange or reddish very pale when dried, Lamellæ and juice orange, Stipes becoming hollow glabrous

15798 Cap somew. viscid not zoned orange-colored, Lamellæ compact yellowish, Milk white, Stipes long smooth

*** *Cap dry, naked at edge, Gills close, when young white, afterwards yellow. EATABLE but ACRID.*

15799 Sweet, Cap papillose smooth dry orange-colored, Lamellæ paler, Milk white, Stipes long hollow

15800 Sweet, Cap obtuse smooth dry opaque, Lamellæ testaceous rufous, Stipes solid firm brownish

15801 Cap glabrous polished reddish, Lamellæ flesh-colored at length ferruginous, Juice white not changing color, Stipes firm smooth becoming hollow

15802 Somewhat acid, Cap dry smooth somewhat zoned rufous brown, Milk yellow, Stipes solid

15803 Acrid, Cap dry smooth obsoletely zoned pale-yellow, Lamellæ pale flesh-color, Stipes solid

15804 Very acid, Cap dry umbonate polished reddish-brown, Lamellæ rufous, Milk white, Stipes solid

15805 Acrid, Cap bluntish scaly dry red-ochre-colored, Lamellæ ochraceous, Stipes nearly solid

15806 Cap thin scaly dry opaque somewhat lurid

15807 Cap large dry zoneless dark fuscous or deep dingy-grey, Lamellæ yellowish rather numerous, Juice white

**** *Cap dry, naked at edge, Gills not altering, Substance compact, tough. VERY ACRID.*

15808 Cap dry smooth somewhat zoned livid, Lamellæ distant yellow. Stipes hollow cinereous

15809 Cap repand dry smooth, Lamellæ distant pallid, Stipes short pallid [white very acid

15810 Cap depress. becom. infundibulif. glab. whit. Lamel. very narrow crowded, Stipes solid white thick, Juice

15811 White, Cap umbilicate downy rigid, Lamellæ narrow distant, Milk white, Stipes solid thick

15812 All white sweet, Cap convex, Stipes long

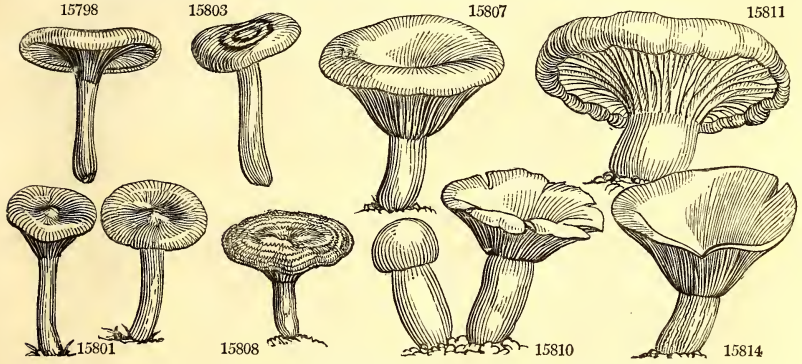
15813 Seems to be a green variety of *A. hysgynus*, with a solid stipes

A. Gills equally narrowed backward, acute.

1. *Cap dry, smooth, Gills close, decurrent or acutely adnate.*

* *Cap more or less fleshy; when young convex-depressed, when older depressed, Gills truly decurrent.*

15814 Very large whitish or very pale brown, Cap becoming infundibuliform, Lamellæ numerous decurrent becoming reddish, Stipes solid very thick



and Miscellaneous Particulars.

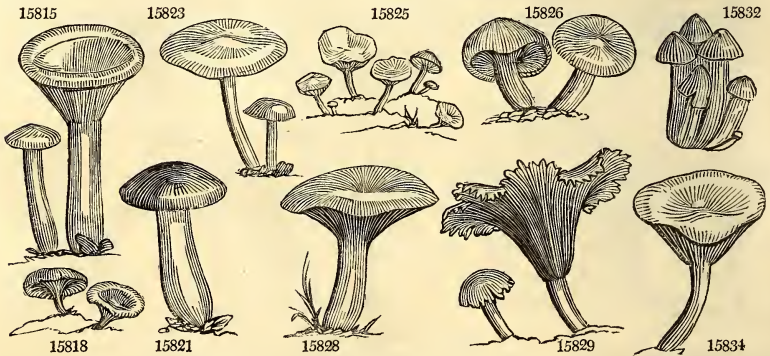
Dr. Withering enumerates three varieties, one of which affords, from every part of it when wounded, a copious discharge of yellow acrid juice. They are gathered in woods and dry pastures in September and October.

Lösel asserts in his *Flora Prussica*, p. 82., that "the juice of *A. piperatus*, mixed with the syrup of mallows, is a certain cure for calculus, and a powerful diuretic." Almost all the venomous fungi, and especially those of the present group, are said to be the favorite food of the goat, during the rutting season. It is sometimes monstrous and irregular. Withering mentions their attaining the diameter of ten inches. The stipes is not unfrequently thicker than it is long. It has been used in medicine, and thought useful in dissolving calculi; a property we may safely venture to deny it.

§ 8. *Ciliocybe*. From *κίλιος*, inclined, and *κύβη*, a head. Most of the species are harmless, and of the larger size. *A. nebularis* is eatable, so also is *A. fusipes*. *A. giganteus* is one of the species which form those circles known by the name of *Fairy-rings*, the origin of which is still as obscure as ever.

A. orcadea has loose gills, with the part attached to the pileus jutting up very close to the stem, so as to give

15815 <i>gil'vus Pers.</i> <i>A. pileolarius Sowerb.</i>	cinnamon-col.	gigantic	3 au. no.	DI.Y	among moss.	Gre v. crypt. 1. 41
15816 <i>flaccidus Sowerb.</i>	flaccid	pretty	3 sep. oc.	W	woods	Bolton, t. 185
15817 <i>gibbus Pers.</i>	gibbous	fragrant	2 oct.	Br	plains	Bulliard, t. 573. 1. 2
15818 <i>turfosus Sowerb.</i>	turfy	scentless	1 nov.	Br	turf	Sowerby, t. 210
15819 <i>diatrétus Fries</i>	perforated	tough	2 sep. no.	Pk	woods	
15820 <i>nebuláris Batsch</i> <i>A. cásesus With.</i>	clouded	gregarious	3 sep. oc.	Ciner.	heaths	Bolton, t. 40. <i>mollis</i>
15821 <i>túrgidus Grev.</i>	turgid	solitary	2 aut.	Sooty	dry woods	Gre v. crypt. t. 9
15822 <i>viridis With.</i>	green	slender	2½ aug.	G	woods	Bolton, t. 12. <i>cæruleus</i>
15823 <i>odórus Bull.</i>	anise-scented	catable	3 au. no.	Ciner.	woods	Gre v. crypt. 1. 28
15824 <i>cándicans Pers.</i>	hoary	shaggy	1½ au. no.	W	dead leaves	Bolton, t. 17
15825 <i>dealbátus Fries</i> <i>A. agréstis With.</i>	whitened	gregarious	¾ au. no.	Wsh	meadows	Sowerby, t. 123. 7
15826 <i>grammopódius Dec.</i>	stinking	shaggy	3 oct.	W	grassy grov.	Sower. t. 231. <i>graveolens</i>
15827 <i>millus Sowerb.</i>	Dog's-collar	depressed	3 jan.	Brsh	woods	Sowerby, t. 154
15828 <i>inornátus Sowerb.</i>	neat	pretty	2 aut.	Liv G	upon earth	Sowerby, t. 342
15829 <i>fimbriátus Bolton</i>	fringed	gregarious	1 au. sep.	Wsh	rotten wood	Bolton, t. 61
15830 <i>lignátilis Fries</i>	wood	irregular	2 au. dec.	Wsh	rotten wood	
15831 <i>adhesivus With.</i>	sticking	irregular	3 sept.	W.Br	plantations	
15832 <i>cedematopus Schæff.</i>	fusiiform	tufted	2 sp. aut.	Ruf.	woods	Schæff. t. 259
<i>β coralloides Dicks.</i>	<i>coralloid</i>	tufted	2 sp. aut.	Ruf.	hollow t. ees	Battarra, t. IX. f. F
15833 <i>obésus With.</i>	squat	tufted	1½ aug.	W.Br	pastures	
15834 <i>opácus With.</i>	opaque	cracked	2 ap. sep. W		among grass	Sowerby, t. 142
15835 <i>pistilláris With.</i>	pistillary	crooked	¾ aug.	Wsh	among grass	
15836 <i>camarophýllus Fries</i>	arched	brittle	4 au. oc.	Sooty	damp woods	Sowerby, t. 172. <i>clivus</i>
15837 <i>praténsis Pers.</i> <i>A. fúlvus With.</i>	meadow	eatable	1½ au. no.	Ysh	way sides	Gre v. crypt. 2. 91
<i>β clavifórmis With.</i>	<i>clavate</i>	eatable	1½ au. no.	W	way sides	Schæff. t. 307
<i>γ erícus With.</i>	<i>heathy</i>	eatable	1½ sep. no.	W	heaths	Bull. t. 467. <i>cricketosus</i>
15838 <i>virginus Wulfen</i>	virgin-white	eatable	2 sep. no.	W	heaths	Gre v. crypt. 3. 166
15839 <i>psittácinus Schæff.</i>	parrot-colored	pretty	2 oc. no.	Gsh.Y	meadows	Gre v. crypt. 2. 74
15840 <i>ceráceus Sowerb.</i>	waxen	gregarious	2½ au. no.	Y	pastures	Sowerby, t. 20
15841 <i>cónicus Schæff.</i>	conical	watery	4 my. oc.	Ysh	meadows	Sow. t. 381. <i>aurantiacus</i>
15842 <i>punicéus Fries</i>	crimson	beautiful	3 au. oc.	Or.R	among grass	Bull. t. 202. <i>coccineus</i>
15843 <i>coccineus Pers.</i>	scarlet	beautiful	2 au. oc.	Sc	meadows	Sowerby, t. 381
15844 <i>baccátus Scop.</i>	varnished	handsome	2 jn. nov.	Ros.R	on earth	Sower. t. 208. <i>farinaceus</i>
<i>β amethýstinus Hud.</i>	<i>amethystine</i>	handsome	2 jn. nov.	Viol.	shady places	Sowerby, t. 187
15845 <i>ovinus Bull.</i>	sheep	mild	2 au. oc.	Brsh	meadows	Bulliard, t. 580
15846 <i>sulphúreus Bull.</i>	sulphureous	fetid	4 sep. oc.	Test.	trees & woods	Sowerby, t. 44
15847 <i>tórtilis Bolton</i>	twisted	distorted	¼ aut.	Br	gard. mould	Bolton, t. 41
15848 <i>ovalis With.</i>	oval	satiny	2½ sep. oc.	R.Br	fir woods	



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them almost the appearance of being fixed, watery, brownish-white, two or four in a set, the small ones very minute, and the large ones sometimes splitting at the outer end; not numerous, rather broad for the size of the plant, frequently connected to the pileus by ligaments; pileus pale, buffy-brown, convex, irregular, with a sudden depression of the border at some distance from the centre, often giving the appearance of a large rounded boss in the middle; central color generally deeper; from one to one and three-quarters inch over; and the edge turning up with age; stem solid, white, changing to watery-brown, cylindrical, but thicker and flattened just under the pileus, very tough, mostly crooked, twisted when dry, rarely central, one and half inch high, and thick as a crow-quill. This is the twenty-seventh fungus of Ray's Synopsis, ed. 3. p. 6.; A. pratensis of Hudson, and coriaceus of Lightfoot. There are two varieties; one with cream-colored gills, buff pileus, and mealy stem; and another with yellow-brown, more fleshy, and more regularly convex pileus, found in groves. Mr. Woodward says, that this species has a much higher flavor than the common mushroom, but he suggests,

- 15815 Large, Cap convex umbonate at length infundibuliform smooth firm yellowish-white, Lamellæ numerous decurrent whitish, Stipes straight solid subradiating
 15816 Cap thin funnel-shaped obt. smooth flaccid, Lamellæ decurr. whit. Stipes solid thickened at base villous
 15817 Cap umbonate smooth becoming funnel-shaped, Lamel. decurr. white, Stipes solid elastic taper. upwards
 15818 Cap depressed broad zoned brown irregular, Gills decurrent pallid, Stipes solid
 15819 Cap flat. somew. umbilic. smth. a lit. flesh-color. : when dry whit. Lam. decurr. and solid eq. Stipes white

** Cap closely fleshy, convex, opening out flat, Gills truly decurrent, Stalk strong. EATABLE.

- 15820 Cap compact smooth cinereous, Lamellæ slightly decurrent compact whitish, Stipes solid tapering upw.

- 15821 Cap plano-convex very smooth greyish-brown, Lamellæ narrow numerous pale, Stipes hollow stout

*** Cap truly but not firmly fleshy, flattish or slightly depressed, Gills adnate, not properly decurrent, Stalk slender.

- 15822 Cap smooth green, Lamellæ adnate narrow, and stipes (which is solid and smooth) white
 15823 Fragrant smooth dull bluish-green umbonate convex becoming plane, Lamellæ numer. adnato-decurrent
 15824 Shining-white, Cap smooth convex then umbonate, Lamel. adnate then decurr. Stipes fistulous smooth
 15825 Scentless white, Pileus unequal thin smooth, Lamellæ adnate numerous, Stipes solid equal glabrous

- 15826 Cap obsolete umbonate smooth, Lamellæ adnate close white, Stipes solid furrowed smooth
 15827 Cap somew. umbon. smooth brown. Lamel. affixed with hind end recurv. Stipes solid equal strigose
 15828 Cap obtuse smooth somewhat repand greenish-livid, Lamellæ adnate, Stipes solid smooth [short
 15829 Dirty-white, Cap becom. funnel-form. smth. : marg. sinuat. and lob. Lam. adnate very tender, Stipes solid

**** Tufted, variable, some growing on wood, some on earth.

- 15830 Cap irregular rather out of centre vill. whit. Lamel. adn. compact white, Stipes solid flexu. vill. at base
 15831 Cap flat discoid viscid, Lamellæ decurrent and solid tapering, Stipes white
 15832 Cap conical powdery rufous, Lamellæ decurrent and solid ventricose powdery, Stipes rufous

- 15833 Cap whit.-brown, Stipes solid obconic. scarcely broader at top than bottom, Lamel. decurr. branch. white
 15834 Cap dead white nearly flat, Lamellæ white numerous, Stipes white with brown pith
 15835 Whitish, Cap convex, Lamellæ decurrent, Stipes solid subconical

2. Cap somewhat compact dry, Gills very distant, arcuate, decurrent.

- 15836 Cap somewhat compact streaked sooty, Lamellæ decurrent white-glaucous, Stipes long stout fibrous
 15837 Firm, Cap compact convex becoming partially expanded smooth brownish-buff with a pink tinge, Lamellæ decurrent thick, Stipes short solid attenuated below

β All white

γ Cap thinner with a striated margin

- 15838 Viscid, Cap campanul. expand. when humid striated, Lamel. adnate somew. distant, Stipes equal smooth

3. Cap thin, viscid, wet, Gills variable, Stalk hollow. TERRESTRIAL.

- 15839 Green chang. to yell. Pileus campanulate spreading, Lamellæ adnate rather distant, Stipes equal smooth
 15840 Cap nearly plane slimy substriate yellow, Lamellæ adnate decurrent distant, Stipes rather unequal gradually attenuated towards the base
 15841 Cap conical glutin. mostly yell. or crim. Lamel. crowd. ventric. attenuat. and free, Stipes substriate splitt.
 15842 Cap campanul. obt. lob. orange-red, Lamel. affixed ascend. yellow, Stipes thick ventricose white at base
 15843 Cap conv. expand. visc. becom. depres. Lam. adn. versicolor connect. by decurr. tooth, Stipes compr. scarlet

B. Gills unequal at the back ; that is, toothed ; or arcuate, decurrent, sinuate, emarginate, &c.

4. Cap dry, minutely scaly, Gills generally arcuate, decurrent, rarely adnate. FIRM.

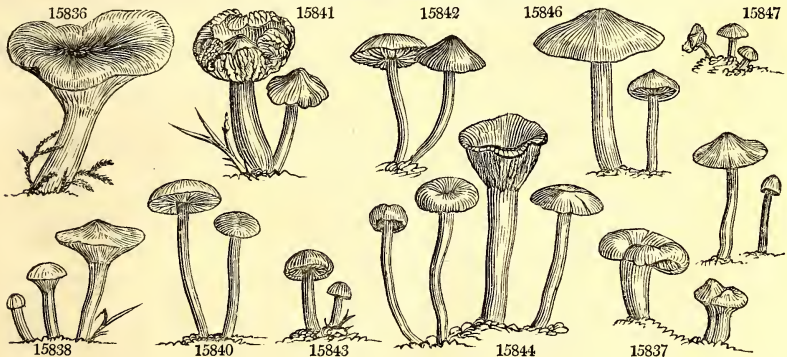
- 15844 Gregarious, Cap scarcely fleshy tough farinaceous with minute scales pale or deep flesh-color : disk depressed in age, Lamellæ distant, Stipes long elastic

β Cap convex becoming depressed somewhat squamulose purple, Lamellæ distant thick violet-purple, Stipes purple, hollow when old

- 15845 Cap fleshy plano-convex somew. scaly brown. Lamel. arcuate affix. connect. whit. Stipes solid short firm
 15846 Cap fleshy somewhat umbonate striated slightly silky testaceous, Lamellæ arcuate adnate somewhat distant and solid equal, Stem sulphur-colored

- 15847 Lamellæ brown changing to purplish, Cap red-brown convex turning up with age, Stipes brownish

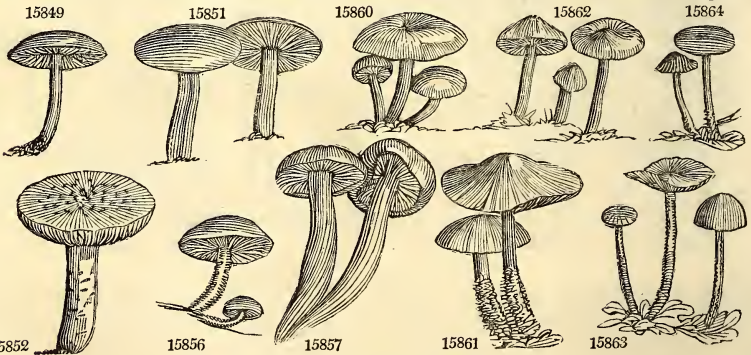
- 15848 Lamellæ brownish-white, Cap cinnamon bossed, Stipes brownish-white cylindrical



and Miscellaneous Particulars.

that from its leathery nature it is indigestible, except in the form of powder, in which it is admirable. Dr. Withering, however, observes, that he has seen the pileus and gills of this agaric very brittle and tender when fully saturated with moisture in rainy seasons, and in that state it is sufficiently digestive. Professor Martyn informs us that he has eaten these mushrooms for forty years without injury, and without perceiving that toughness, like leather, of which others have complained, except in very dry weather, or when they are in too advanced a state. They should be gathered young, and early in a morning, and properly dressed. They are found in hedge banks, upland pastures, and sheep commons, particularly in those patches called Fairy rings. Those that are found in woods and hedges are of inferior flavor to such as are gathered in dry pastures, which have a very pleasant smell and luscious young, and when stewed alone or in ragouts, &c. This sort makes excellent ketchup, and is much valued in the form of powder. It is in season during September and October, but may be dried so as to be in use for the table all the winter. Mr. Lightfoot supposes that this species is the

15849	<i>pelicánthinus Fries</i>	toothlitted	beautiful	3	au.sep. Pu	roots of trees	Bolt. t.4.f.1. <i>denticulatus</i>
15850	<i>melaleúcus Pers.</i>	black & white	elegant	3	au.no. Sooty	damp places	
15851	<i>comprésus With.</i>	compressed	pellucid	3	june Br	among grass	Sowerby, t. 66
15852	<i>murináceus Bull.</i>	nitric-acid-scent.	fragile	2	au. oc. Ciner.	pastures	Sowerby, t. 106
15853	<i>platyphýllus Pers.</i>	broad-headed	large	4	jul. oc. Wsh	trun. of trees	Bul. t.594. <i>grammoceph.</i>
15854	<i>radicátus Relh.</i>	rooting	gigantic	1	jn.sep. W	trun. of trees	Grev. crypt. 4. 217
15855	<i>grácilis With.</i>	slender	more slender	1	jn.sep. W	trun. of trees	
15856	<i>velútipes Fl. Lond.</i>	velvet-footed	caspitose	2	oc. mr. Fulv.	trees	Sowerby, t. 384. f. 3
15857	<i>fúsipes Bull.</i>	thick-footed	eatable	2	jul. no. W	woods	Sowerb. t. 129. <i>crassipes</i>
15858	<i>cónfluens Pers.</i>	confluent	caspitose	4	au. oc. Wsh	shady woods	
15859	<i>collinus Scop.</i>	hill	caspitose	4	sep. oc. Pallid	among grass	Bul. t.403. <i>arundinaceus</i>
15860	<i>dryphílus Sowerb.</i>	oak-loving	caspitose	2	oc. no. Wsh	heaps of lvs.	Sowerby, t. 127
15861	<i>peronátus Bolton</i>	woolly	changeable	2	1/2 jul. no. Test.	dead leaves	Sowerby, t. 37
15862	<i>oréades Bolton</i>	twisted	eatable	3	my.no. Pa.Rf.	grassy places	Sowerb. t. 247. <i>pratensis</i>
15863	<i>pórrus Fries</i>	Garlic-scented	stinking	3	oc. no. W	plantations	Sowerb. t. 81. <i>alliaceus</i>
15864	<i>fúscopurpúreus Pers.</i>	brown-purple	caspitose	2	1/2 jul.sep. D.Pu	beech leaves	Pers. ic. t. 4. f. 1
§ 9. COLLYBIA. <i>Fries</i>							
15865	<i>scorodónius Fries</i>	Onion-scented	strong smell.	1	1/2 au. oc. Wsh	heaths	Schæff. t. 99. <i>alliatius</i>
15866	<i>cárneus Bull.</i>	flesh-colored	dwarf	1	1/2 au.sep. R	grassy places	Bull. t. 533. f. 1
	<i>puníceus With.</i>						
15867	<i>esculéntus Wulfen</i>	eatable	esulent	1	1/2 ap. my. Clay	way sides	Schæff. t. 59. <i>clavus</i>
15868	<i>tuberósus Bull.</i>	tuberous	gregarious	1	1/2 au. no. W	on fungi	Grev. crypt. 1. 23
	<i>A. alumnus Bolton</i>						
15869	<i>racemósus Sowerb.</i>	racemose	compound	1	1/2 aut. Gr	on fungi	Sowerby, t. 287
15870	<i>clávus Bull.</i>	club	gregarious	1	1/2 au. oc. Or. R	dead branch.	Bolton, t. 39. B.
15871	<i>rameális Bull.</i>	branch-living	gregarious	1	1/2 all sea. Wsh	dry branches	Bolt. t.39. f.D. <i>candidus</i>
15872	<i>parasíticus Bull.</i>	parasitical	meteoric	1	1/2 au. oc. Gr	on fungi	Sowerby, t. 343
15873	<i>Vaillántii Fries</i>	Vaillant's	tough	1	au.sep. W	dead branch.	Vail.bot.par. t.11.f.21-24
	<i>Merúlius androsáceu With.</i>	black-footed	gregarious	1	all sea. W	woods	Sowerby, t. 95
15874	<i>Rótula Scop.</i>	Androsace-like	tough	1	1/2 all sea. W.Br	dead leaves	Bolton, t. 32
15875	<i>androsáceus L.</i>						
15876	<i>foetidus Fries</i>	stinking	gregarious	1	au.sep. Br	fallen branc.	Sow. t.21. <i>Merúlius foet.</i>
15877	<i>pérforsans Fries</i>	boring	stinking	1	all sea. Pallid	dead fir lvs.	Sower.t.94. <i>androsaceus</i>
15878	<i>epiphýllus Pers.</i>	shrivelled	gregarious	1	1/2 sep. d. W	dead leaves	Solt. t. 93. <i>squamula</i>
15879	<i>Hudsóni Pers.</i>	Hudson's	hairy	1	1/2 aut. Wsh	holly leaves	Sowerb. t. 164. <i>pilosus</i>



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mouceron of the French, who use it in ragouts instead of that, and acknowledge it to be equal in flavor, but more tough. The *mouceron*, however, has a very thick and fleshy pileus; its gills are very narrow and numerous, and fixed to the stem, and the stem is thick and short. Dr. Withering has carefully distinguished several other species from this fairy-ring agaric, or Scotch bonnets, as it is called by Mr. Ray.

5. *Cap smooth, somewhat humid, Gills arcuate at their connection with the edge, reticulated at their union with each other, with appendages at edge.*

15849 Cap convex livid-purple striat. at edge, Lamel. arcu.-amex. purple with black teeth, Stipes fistular equal

6. *Cap thin, dry, Gills emarginate.* BRITTLE.

* *Cap fleshy, smooth, and stem regular.* TERRESTRIAL.

15850 Cap fleshy soft flatt. smooth, Lamel. clustered somew. ventricose white, Stipes somew. holl. long and thin

** *Cap somewhat fleshy, and stem, which has no roots, irregular.* TERRESTRIAL.

15851 Cap subcarinose irregular smooth thin fuscous, Lamellæ distant white, Stipes hollow-whitish compressed

15852 Cap fleshy deform. crack. scaly cinereous, Lamel. glued together dist. and deform. holl. Stipes cinereous

*** *Cap somewhat fleshy, and stem, which has roots, regular.* GROWING ON WOOD.

15853 Cap fleshy flat somew. streaked ciner.-whit. Lamel. very broad dist. and solid equal striat. Stipes white

C. *Gills equal, behind blunt.*

7. *Cap fleshy, glutinous, Gills somewhat united, Stem rooted.*

15854 Cap rugose glutinous tough, Lamellæ white, Stipes tall rigid with a long fusiform root

15855 More slender, Lamellæ sinuated with a decurrent tooth, Stipes very long [blackish towards base

15856 Cap nearly plane brown orange glutin. Lamel. ventric. yellow. Stipes incurv. velvety and redd.-brown or

8. *Cap tough, dry, Gills separate, close, white.*

15857 Gregarious, Cap fleshy loose, Lamel. somew. separate serrat. Stipes hollow ventricose furrow. whit. root.

15858 Confluent caespitose, Cap somewhat fleshy whitish, Lamellæ loose compact, Stipes fistulosus somewhat compressed red villous powdery

15859 Cap somew. fleshy campanul. expanded umbonate pallid, Lamel. loose, Stipes fistulosus smooth glabrous

15860 Variable, Cap thin watery smooth plane sometimes depressed, Lamellæ free soft, Stipes hollow splitting becoming thicker towards the base pinkish or yellowish-white more colored at the summit

9. *Cap somewhat leathery, dry, Gills separate, distant, pallid.*

* *Cap fleshy, Stem solid.*

15861 Cap dry leathery convex at length plane, Lamellæ distant pale-reddish or buffish, Stipes solid clothed towards the base with a woolly or strigose mass

15862 Cap tough subumbonate reddish becoming buffish or very pale opaque, Lamellæ distant whitish, Stipes solid firm cylindrical thickest under the pileus pale

** *Cap fleshy, Stem fistulosus.*

15863 Strong smell. Cap somew. fleshy smth. and lamellæ somew. loose white, Stipes fistular long downy rufous

15864 Cap somewhat fleshy wrinkled dark-purple becoming pale, Lamellæ loose rufous, Stipes fistular rubiginous

1. *Cap slightly fleshy, smooth, scarcely umbilicate, Gills true, Stem hollow, or somewhat fistulosus.*

15865 Strong smell. Cap somew. fleshy, and lamellæ adnate crisp whitish, Stipes fistular short glabrous rufous

15866 Cap somewhat fleshy smooth pinkish-red, Lamellæ attached white, Stipes nearly solid short scaly

15867 Cap somew. fleshy obt. clay-colored, Lamellæ attached lax white, Stipes fistular rooting smooth yellow.

15868 Cap plane or somewhat umbonate, Lamellæ adnate numerous, Stipes subfistulose slightly tomentose at the base and springing from a reddish tuberous root

15869 Cap membranous papillose grey, Lamellæ white, Stipes racemose

15870 Cap plano-convex reddish-orange, Lamellæ white rather broad fixed, Stipes very slender subsolid whitish

15871 Gregarious, Cap nearly plane white sometimes changing to reddish, Lamellæ adnate white, Stipes short minutely furfuraceous marked within with a white line

15872 Cap somewhat fleshy convex becoming flat pruinose pale-grey, Lamellæ attached thick distant more obscure, Stipes fistular villous

2. *Cap thin, membranous, flat, becoming depressed, plaited, rugose, Gills veiny, of the same substance as the cap, Stem horny, black.*

15873 Cap flat plaited, and lamellæ (which are very broad adnate and distant) white, Stipes solid smooth brownish thicker and paler towards the extremity

15874 Cap conv. umbilic. plicate, Lam. attach. to a collar surround. stipes white, Stipes holl. striate black below

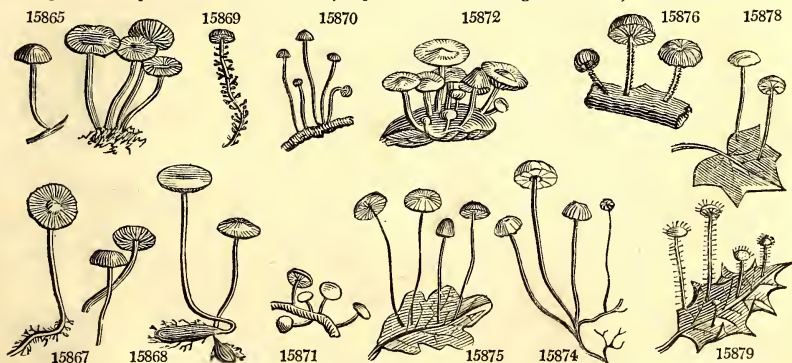
15875 Cap convex plicate white sometimes tinged with brown, Lamellæ simple adnate white, Stipes hollow furrowed very glabrous purplish-brown or black except at the summit

15876 Cap convex umbilicate plicate redd.-brown, Lamel. adnate pale-yellow. Stipes holl. redd.-brown velvety

15877 Cap flatt. rugul. pall. Lam. adnate simp. many being halved, Stipes smth. fistular velvety blackish-brown

15878 Cap nearly plane rugose, Lamellæ few adnate resembling white prominent veins, Stipes hollow very minutely velvety reddish-brown below

15879 Cap convex-expanded whitish and rufous, Stipes covered with straight red hairs, Lamellæ whitish



and Miscellaneous Particulars.

§ 9. *Collybia*. So called from *κολλυβος*, a kind of small money. Small and persistent, gregarious species, growing either on earth or wood. Some of the species may be used as food.

§ 10. MYCENA. Pers.					
15880 alliiaceus Jacq.	onion-scented	fœtid	6 jl. nov. W.Br	dead leaves	Jacq. austr. t. 82
15881 atro-âlbus Bolton	black-white	scentless	3 au. no. Blsh	damp places	Bolton, t. 137
15882 alcalinus Fries	alkaline	fœtid	2 my. oc. Cin.	on earth	Vaill. par. t. 12. f. 1, 2
15883 galericulatus Scop.	various	scentless	3 my. oc. Brsh	trun. of trees	Sowerby, t. 165
vârius With. proliferus Sower. t. 169					
15884 polygram'mus Dec.	marked	cœspitose	6 sep. d. Cin.	dead leaves	Bull. t. 518. <i>H. fistulosus</i>
15885 galopus Pers.	white-footed	scentless	4 au. no. D.Gl.	woods	Fl. danica, t. 1550. f. 2
15886 hamâtopus Pers.	red-footed	cœspitose	2 au. oc. Yk	beech trunks	
15887 cruentus Fries	bloody	solitary	3 au. no. R	fir leaves	
15888 elegans Pers.	elegant	fennel-scent.	2 au. no. Liv.Y	pine woods	
15889 strobilinus Pers.	Pine-cone	gregarious	2 au. no. Crim.	pine woods	Sower. t. 197. <i>coccineus</i>
15890 roseus Pers.	rosy	gregarious	2 au. no. Rosy	pine woods	Pers. syn. t. 3. f. 5
15891 pûrus Pers.	pure	gregarious	3 jn.nov. Rosy	woods	Sowerby, t. 72. <i>roseus</i>
15892 Adonis Bull.	Adonis	various-color.	2½ sep. n. Rosy	woods	Bulliard, t. 560. f. 2
15893 luteo-âlbus Bolton	yellow-white	pretty	2 au.sep. Y	among moss	Bolton, t. 38. f. 1
15894 lacteus Pers.	milky	gregarious	1½ jl. nov. W.Y	heaths	Sower. t. 385. f. 5. <i>tenuis</i>
15895 pilipes Sowerb.	hairy-footed	cœspitose	2 aut. Pa.Br	dead Agarics	Sowerby, t. 249
15896 epip'terýgius Scop.	nodding	variable	1½ au. no. Cin.	among moss.	Sowerby, t. 92. <i>nutans</i>
15897 vulgâris Pers.	common	gregarious	1½ au. no. Cin.	fir leaves	Fl. danica, t. 1678. f. 2
15898 pellucidus Bull.	transparent	thick	1½ aut. Ruf.	the ground	Bulliard, t. 550. f. 2
15899 corticâlis Bull.	bark	delicate	½ oc. feb. Ruf	bark of trees	Sowerby, t. 243
15900 pterigenus Fries	rosy	beautiful	1½ au. oc. Rosy	among moss.	
rosellus With.					
15901 spinipes Sowerb.	spiny-footed	gregarious	4 au. oc. Br	pine cones	Sowerby, t. 206
§ 11. OMPHA'LIA. Pers.					
15902 stellatus Fries	stellate	gregarious	1 jl. aug. W	hollow trees	Sower. t. 107. <i>buccinalis</i>
15903 fibula Bull.	button	slender	1½ my. oc. Or.Y	among grass	Sowerby, t. 45
15904 pyxidatus Bull.	box-like	variable	2 my.no. F.est.	on earth	Bulliard, t. 568. f. 2
15905 murâlis Sow.	wall	subregar.	½ aut. Br	among grass	Sowerby, t. 322
15906 ericetorum Pers.	heath	variable	1 my.no. W	damp heaths	Bull. t. 276. <i>androsaccus</i>
15907 caulicinâlis Sower.	thick-stalked	solitary	2 jl. oct. Ferr.	pine woods	Sowerby, t. 163
15908 epichýsium Pers.	dirty	tender	1 jl. oct. Cin.	will. trunks	Pers. ic. pict. t. 13. f. 1
15909 obliquus Pers.	oblique	solitary	1 aut. Pa.Ci.	on earth	Pers. ic. pict. t. 13. f. 3
15910 frâgrans Sowerby	fragrant	anise-scented	1½ aug. d. Livid	among grass	Sowerby, t. 10
15911 cœspitosus Bull.	cœspitose	pellucid	1 aug. d. Y	peat	Bolton, t. 41. f. C.
15912 cyathiformis Bull.	cyathiform	club-shaped	3 oc. no. D.Br	earth	Sowerby, t. 363. <i>sordidus</i>
<i>A. clavatus</i> With.					
15913 murinus Sowerby	mouse-scented	solitary	2 sept. G	earth	Sowerby, t. 162
15914 tigrinus Bull.	mottled	gregarious	1½ my. jn. Wsh	trun. of trees	Sowerby, t. 68



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§ 10. *Mycena*. From *μύκης*, a kind of small fungus. The species are of the smaller kind, at least they are thin and slender, and tolerably permanent. None of them are fit for food; many are distinguishable by their smell, which is always powerful.

1 Dry, Cap generally umbonate, not depressed, Gills separate or adnate, not decurrent.

* Stem rooting, smooth, juiceless, Gills separate, whole-colored.

15880 Cap becoming nearly plane subcoriaceous, Lamellae free whitish, Stipes tall covered with a sort of bloom dark purplish-brown below velvety at the base

15881 Cap smooth blackish, Margin and lamellae loose whitish, Stipes tumid at base, strigose

*** Stem smooth, juiceless, somewhat rooting, Gills adnate, whole-colored.

15882 Cap obtuse striated cinereous, Lamellae adnate glaucous white, Stipes smooth firm villous at base

15883 Cap brown, Lamel. whit. adnate with a decurrent process, Stipes smth. tenacious strig. at base and radicat.

*** Stem juiceless, striated, Gills whole-colored.

15884 Cap obscurely striate blue-grey, Lamel. attenuated and subadnate whit. Stipes long rigid striate glisten.

**** Stem smooth, milky, somewhat rooting, Gills attenuated, united at the edge.

15885 Cap striated blackish glaucous, Lamellae affixed white, Stipes filled with white juice

15886 Cap fleshy-membranous whitish-red, Lamellae affixed, and stipes filled with dark-red juice

15887 Cap striated reddish-brown, Lamellae adnate whole-colored at the edge, Stipes filled with red juice

***** Stem smooth, juiceless, somewhat rooting, Gills adnate, discolored at edge.

15888 Cap striated livid-yellow, Lamellae adnate linear livid : margin yellow, Stipes rigid smooth fibrous at base

15889 Bright-red, Cap acutely umbonate with a striate margin, Lamellae fixed dilute reddish, Stipes firm strigose and pale at the base

15890 Cap between fleshy and membranaceous convex pale rose-purple, Lamellae ventricose rather paler than pileus, Stipes smooth villous at the base

***** Stem smooth, juiceless, scarcely rooting, Gills affixed, whole-colored. COLOR PURE.

15891 Cap between fleshy and membranous obtuse somewhat rose-colored, Lamellae round ventricose pallid, Stipes smooth villous at base

15892 Cap obtuse smooth, Lamellae adnate white, Stipes smooth rootless

15893 Cap umbonate striated and slender, Stipes yellow, Lamellae adnate white

15894 Cap somew. umbonate striated yellowish-white, Lamel. affixed distinct, and stipes rigid smoothish white

***** Stem juiceless, rootless, but swollen at base into a globe, Cap blunt.

15895 Pale-brown, Cap conical smooth, Lamellae loose compact, Stipes thickish hairy

2. Cap or stem viscid, Gills adnate or decurrent.

15896 Cap obtuse striated and elongated, Stipes yellow viscid, Lamellae uncinata

15897 Cap umbonate becoming depressed striated cinereous, Lamellae decurrent white, Stipes short firm viscid

3. Dry, Cap finally depressed, Gills decurrent.

* Firm, persistent, with a firm stem.

15898 Cap somewhat membranous campanulate striated at edge, Lamellae decurr. very broad, Stipes solid thin

** Delicate, withering, with a capillary stem.

15899 Cap thin hemispher. becom. umbilicat. and striat. Lamel. uncin. decurr. dist. Stipes short incurv. smooth

15900 Thin rosy, Cap campanulate smooth, Lamellae broad distant, Stipes capillary with a strigose bulb

15901 Slender, Stipes slender with stiff wool at base, Cap depressed hemispherical

1. Cap somewhat membranous, Gills decurrent.

* Small, Cap membranous.

15902 White, Cap convex smooth, Lamellae distant, Stipes attached to the base of a convex radiat. membrane

15903 Cap convex glabrous orange-yellow, Lamellae whitish distant, Stipes yellowish

15904 Testaceous rufous pallid, Cap funnel-shaped : disk smooth, Lamellae narrow, Stipes firm

15905 Cap convex umbilicat. striate, Lamellae broad pale, Stipes solid short thickish [at the base

15906 Cap depress. in centre : marg. turned down striate, Lamel. dist. rather broad white, Stipes short pubesc.

15907 Stipes solid thickened at base ferruginous downy

** Large, Cap somewhat membranous.

15908 Tender cinereous blackish, Cap funnel-shaped striated, Lamel. lin. Stipes somew. solid tough vill. at base

15909 Thin pale cinereous, Cap somewhat funnel-shaped smooth oblique, Stipes thick

2. Cap fleshy, membranous, Gills adnate.

15910 Odor. Cap nearly plane pale yellow. or brown.-white when dry, Lamel. numer. whit. Stipes holl. white

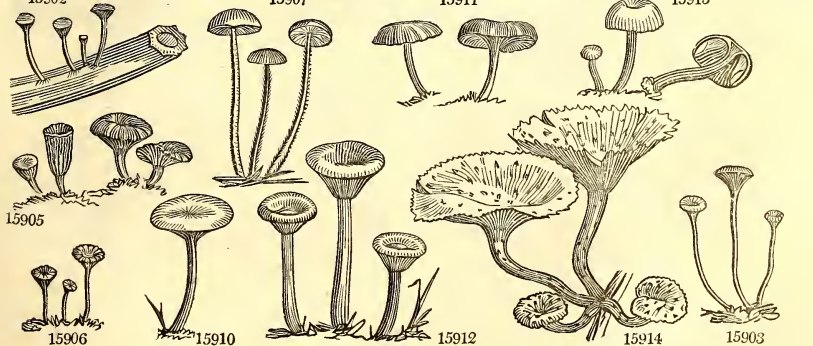
15911 Livid, Cap somewhat membranous plane striated, Lamellae distant, Stipes fistular [attenuat. above

15912 Cap somew. fleshy funn.-shap. smooth dark-brown grey : marg. reflexed, Lamel. dist. grey. Stipes elastic

15913 Cap thin campanulate green at centre brown and plaited at margin, Stipes smooth hollow

3. Cap fleshy, coriaceous, somewhat corky, soft, Gills decurrent.

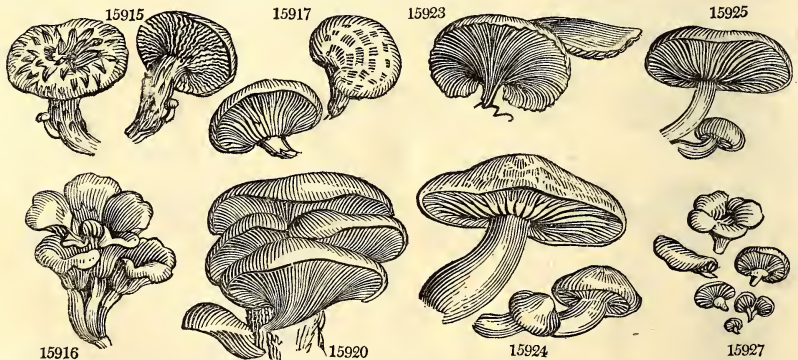
15914 Cap regular umbilicat. whitish with black. hairy scales, Lamel. denticul. white, Stipes thin minutely scaly



and Miscellaneous Particulars.

§ 11. Omphalia. From ομφαλος, the navel, in reference to the young form of the pileus. Many of the species are of the smallest size. None are eatable.

15915	<i>lepideus Fries</i> & <i>monstrósus Fries</i>	scaly <i>monstrous</i>	variable deformed	1 my. jn. pa. Oc.	pine trunks	Schæff. t. 29. <i>squamosus</i>
15916	<i>cochleátus Pers.</i>	<i>cochleate</i>	<i>cæspitose</i>	3 my. jn. pa. Oc.	pine trunks	Sower. t. 382. <i>tubæformis</i>
	§ 12. <i>PLEURO'TUS. Fries.</i>			3 sp. aut. Wsh	old trunks	Sower. t. 168. <i>confusus</i>
15917	<i>dryinus Pers.</i>	oak	solitary	1 au. no. Wsh	oak trees	Schæff. t. 233. <i>dimidiatus</i>
15918	<i>torulósus Pers.</i>	knotted	very tough	1½ jl. oct. Rsh	birch trees	Nees pilze, f. 176
15919	<i>conchátus Bull.</i>	shell-shaped	gregarious	1 jl. sep. Cinn.	birch trees	Bull. t. 298
15920	<i>ostreátus Jacq.</i>	oyster	catable	¼ sp. aut. Cin.	trun. of trees	Sowerby, t. 241
15921	<i>petaloídes Bull.</i>	petaloid	gregarious	½ sep. oc. Brsh	beech trees	Bulliard, t. 226. 557. f. 2
15922	<i>porrigens Pers.</i>	pinic	imbricated	1 jl. nov. W	pine trees	
15923	<i>flabellíformis Bott.</i>	flabelliform	thin	¼ jl. nov. Pa.Br	sides of trees	Bolton, t. 157
15924	<i>ulmárius Bull.</i>	Elm	<i>cæspitose</i>	3 oc. dec. Pale	trun. of trees	Sowerby, t. 67
15925	<i>palmátus Bull.</i>	palmate	<i>cæspitose</i>	2 oc. dec. Br	oak trees	Sowerby, t. 62
15926	<i>serotinus Pers.</i>	late	dwarf	1 oc. jan. Ol	trun. of trees	Bux. cent. 5. t. 2. f. 2
15927	<i>stip'ticus Bull.</i> <i>ficoides With.</i>	stiptic	gregarious	¾ oct. ap. Tann.	trun. of trees	Sow. t. 109. <i>flabelliformis</i>
15928	<i>nidulus Pers.</i>	nestling	imbricated	1 oc. dec. Ysh	fallen trees	
15929	<i>mastrucátus Fries</i>	prickly	imbricated	1 sep. n. Gr	beech trunks	Sower. t. 99. <i>echinatus</i>
15930	<i>móllis Pers.</i>	soft	gregarious	¼ sep. n. Y.Br	beech trunks	Sowerby, t. 98
15931	<i>variábilis Pers.</i>	variable	gregarious	¾ sep. n. W	beech trunks	Sowerby, t. 97. <i>niveus</i>
15932	<i>laterális Fl. Dan.</i>	lateral	imbricated	½ sum. Umb.	birch trunks	Fl. danica, t. 1556. f. 2
15933	<i>trémulus Schæff.</i>	tremulous	almost sessile	½ au. dec. Gr	earth	Sowerby, t. 242
15934	<i>sep'ticus Fries</i>	pubescent	delicate	¼ au. oc. W	decay. trun.	Sower. t. 321. <i>pubescens</i>
15935	<i>applicátus Batsch</i>	cup-shaped	delicate	¼ aut. sp. Cin.	decay. trun.	Sowerby, t. 301
	§ 13. <i>MOU'CRON. Bauh.</i>					
15936	<i>Prunulus Cæsalp.</i>	French Mushr.	esulent	1½ jn. oct. W	woods	Sower. t. 143. <i>pallidus</i>
	§ 15. <i>CLITOP'I'LUS. Fries.</i>					
15937	<i>horténsis Fries</i>	garden	elastic	2½ aut. Sooty	gard. on ear.	
15938	<i>rhopódolus Fries</i>	repand	beautiful	3 jl. nov. Livid	damp places	Bolton, t. 6. <i>repandus</i>
15939	<i>fértilis Pers.</i>	prolific	gregarious	3 aut. P. Lv.	hedge rows	Bulliard, t. 534
15940	<i>sinuátus Eull.</i>	burnt sugar-sec.	fragrant	5 oct. W.Y	damp woods	Bulliard, t. 579. f. 1
15941	<i>marítimus With.</i>	seashore	small	1 oct. W	damp woods	
15942	<i>leonínus Schæff.</i>	tawny	fragile	3 au. oc. Y	beech woods	Schæffer, t. 48
15943	<i>Pluteus Batsch</i>	sooty	variable	3 my. no. Sooty	trun. of trees	Sowerby, t. 108. <i>latus</i>
15944	<i>phlebóphorus Ditt.</i> <i>reticulátus With.</i>	wrinkled	gregarious	4 jul. oct. Ol	decay. wood	Grev. crypt. 3. 173
	§ 15. <i>LEPTO'NIA. Fries.</i>					
15945	<i>griseocyaúneus Fries</i>	blue-gray	solitary	1½ au. sep. Lilac	grassy hills	Bolt. t. 41. <i>purpureus</i>
15946	<i>chalybeus Pers.</i>	dove-colored	pretty	2 jl. sep. B	among grass	Sow. t. 161. <i>columbarius</i>
	§ 16. <i>NOLANE'A. Fries.</i>					
15947	<i>majális Fries</i>	early	<i>cæspitose</i>	4 spring Cinn.	fir woods	Sow. t. 174. <i>molliusculus</i>
15948	<i>pas'cuus Pers.</i>	meadow	variable	3 jan. d. Sooty	everywhere	Bolton, t. 35. <i>fissus</i>
	§ 17. <i>ECCY'LIA. Fries.</i>					
15949	<i>aspréllus Fries</i>	roughish	gregarious	1½ sum. Gr	grassy places	
15950	<i>áquillus Fries</i>	exposed	subáquillus	1 au. sep. Umb.	river sides	
15951	<i>politus Fries</i>	polished	gregarious	3 au. oc. Livid	among grass	
15952	<i>carneo-ábus With.</i>	salmon-color'd	gregarious	1 au. oc. W	among grass	



History, Use, Propagation, Culture,

§ 12. *Pleurotus*. From *πλευρον*, the side; the pileus is always inserted out of the centre. A tribe of perennial, innocuous, often eatable fungi; always found upon trees.

§ 13. *Moucron*. An old French name of certain eatable fungi. This, no doubt, is the origin of our word Mushroom. *A. prunulus* is said to be one of the very best of mushrooms; it is common in woods, among grass.

§ 14. *Clitopilus*. A name analogous to *Clitocybe*, § 8, as the group is also. Species of the middle size, nearly destitute of smell, mild, but not used as food.

- 15915 Cap compact unequal pale ochraceous, Scales spot-like more opaque, Lamellæ torn, Stipes stout scaly
 3 Stipes long curved, Cap small
 15916 Cap tough somewhat lobed twisted smooth rufous, Lamellæ toothed pallid, Stipes firm furrowed rufous
1. *Veil universal, Cap compact, horizontal.*
 15917 Hard, Cap oblique smoothish whitish, Scales brownish, Veil fugacious
2. *Veil none, Cap fleshy, Gills decurrent.*
 * *Cap always entire.*
 15918 Cap tough depressed reddish tan-color, Lamellæ rather crisp paler, Stipes short grey downy
 ** *Cap entire or halved.*
- 15919 Cap tough deformed pink cinnamon-color, Lamel. entire and short irregul. Stipes downy at base and pallid
 15920 Tufted, Stipes sublateral or none, Cap smooth fleshy pale blueish-grey or brown, Lamellæ whitish often anastomosing at the base
- *** *Cap always halved, somewhat ascending.*
 15921 Ascending, Cap spatulate whitish-brown, Disk and stipes somewhat villous, Lamel. compact lin. white
 15922 White, Cap ascending sessile ear-like glabrous, Lamellæ narrow linear quite entire
 15923 Cap flattish smooth pale-brown, Margin and lamellæ crenate, Stipes short or none
3. *Veil none, Cap fleshy, when young horizontal, Gills terminating in a determinate manner.*
 15924 Cap compact smooth pale whitish, Lamellæ adnate or subdecurrent whitish, Stipes strong ascending incrassated at the base excentrical
 15925 Cap smooth rufous, Lamellæ adnate of the same color, Stipes out of the centre smooth whiter
 15926 Cap soft, somew. visc. olive-green, Lamel. adnate comp. pallid, Stipes short rather on one side sooty scaly
 15927 Cap coriaceous reniform rather tan-colored, Epidermis separating into scurfy scales, Lamellæ veiny connected, Stipes lateral frosted
4. *Cap fleshy, when young resupinate, Gills running together in a point out of the centre.*
 15928 Cap fleshy reniform downy yellowish, Lamellæ orange-yellow
 15929 Cap fleshy scaly mouse-color, Upper stratum gelatinous, Lamellæ greyish-white
 15930 Cap soft smooth gibbous pale-yellow brown, Lamellæ pale reddish-brown somew. ventricose, Stipes none
 15931 Cap membranaceous white cottony at first subresupin. at length reflexed, Lamel. whit. afterw. pink.-buff
 15932 Cap fleshy smooth umber-colored: the upper layer gelatinous, Lamellæ pale becoming yellow
5. *Cap membranous, Gills adnate, or running together in one point.*
 15933 Cap reniform diaphanous, Lamellæ linear, Stipes marginal ascending villous [like Byssus
 15934 Cap at first resupinate: afterw. reflex. smooth downy, Lamel. radiat. Stipes thin incurved downy, Koots
 15935 Cap subsessile: at first resupinate; afterwards reflexed frosted villous at base, Lamellæ lax

15936 Cap compact flattish white, Lamellæ white becoming pink

1. *Gills affixed. TERRESTRIAL.*

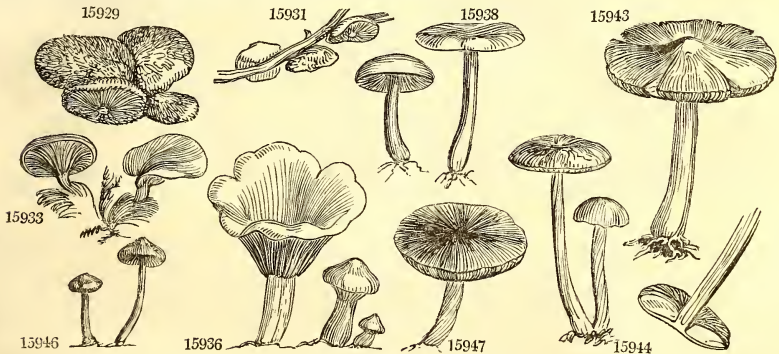
- 15937 Cap somewhat umbonate sooty black, Lamel. flat decurr. twist. whit. Stipes hollow thickened downwards
 15938 Cap somewhat umbonate silky livid, Lamellæ adnate whitish rose-colored, Stipes hollow smooth white
 15939 Cap somew. umbon. smooth livid pale, Lamel. annexed flesh-colored, Stipes solid smooth somew. bulbous
 15940 Broad, Cap smooth yellowish-white, Lamellæ loosely attached very broad rufous, Stipes solid equal white
 15941 Small, Cap convex and stipes white, Lamellæ adnate

2. *Gills altogether distinct. UPON WOOD.*

- 15942 Cap somewhat membranaceous smooth yellow, Stipes solid striated
 15243 Cap fleshy smooth blackish soot-color, Stipes firm with black fibres
 15944 Cap convex at length plane clear olive or yellowish-brown smooth but minutely rug. as if veined towards the centre, Stipes hollow rather twisted, Lamellæ ventricose

- 15945 Cap scaly grey-lilac colored, Lamellæ loose, Stipes hollow fibrous cæsious
 15946 Cap somewhat squamose blue, Lamellæ bluish-white adnate at length purple, Stipes solid smooth bluish
- 15947 Cap irregular smooth somew. cinnamon-colored, Lamel. loose toothed rosy, Stipes hollow twisted striated
 15948 Cap campanul. expanded black. soot-color when dry paler and silky, Lamel. almost loose dirty flesh-col.

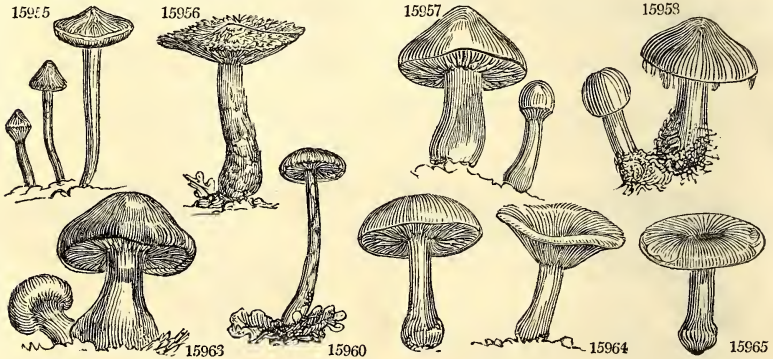
- 15949 Cap fibrous scaly livid-grey, Lamel. adnate and fistular, Stipes (which is white with wool at the base) paler
 15950 Cap squamulose umber-colored, Lamellæ sinuate affixed purplish, Stipes solid short
 15951 Cap smooth with a striated edge and the fistular equal, Stipes livid, Lamellæ decurrent
 15952 Lamellæ salmon-colored not numerous, Cap and stem white



and *Miscellanæous Particulars.*

- § 15. *Leptonia.* From λεπτος, slender. Small permanent, elegant, glistening, scentless, insipid, not used for food. They are in perfection at the end of summer.
 § 16. *Nolanea.* From nota, a bell. Terrestrial, various, of a thin watery substance, insipid, not eatable. Easily distinguished by their habit.
 § 17. *Eccilia.* From εκκαίω, to excavate. Small, terrestrial, inodorous, insipid.

§ 18. TELAMONIA. <i>Fries.</i>						
15953	tórvus <i>Fries</i>	tawny	strong scent.	4 jul. oc. Br	damp woods	Bull. t. 600. <i>araneosus</i>
15954	brun'neus <i>Pers.</i>	brown	weak scented	4 jl. nov. Pa.U.	pine woods	
spongíous <i>With.</i>						
15955	everhíus <i>Fries</i>	dismal	solitary	5 jl. nov. Pu.Br	pine woods	Sower. t. 125. <i>inpuber</i>
15956	sublanátus <i>Sowerb.</i>	half-woolly	radish scent.	3 au. oc. Ol.Br	woods	Sowerby, t. 224
15957	bulbósus <i>Sowerb.</i>	bulbous	radish scent.	4 au. oc. Br	among grass	Sowerby, t. 130
§ 19. INOLO'MA. <i>Fries.</i>						
15958	violáceus <i>L.</i>	violet	shewy	4 au. oc. Vi	groves	Bolton, t. 52
15959	pholídus <i>Fries</i>	cobwebbed	solitary	4 au. oc. Cin.	woods	Bul. t. 586. f. 1. <i>psammoccephalus</i>
15960	spiloméus <i>Fr.</i>	spotted	solitary	3 au. sep. Pa.Br	woods	Sow. t. 324. f. 1. <i>araneosus</i>
15961	scáurus <i>Fries</i>	curved	soft	3 jan. oc. Ol	woods	Batsch cent. 2. f. 184
15962	callochróus <i>Pers.</i>	fine-skinned	soft	4 au. oc. Psh	woods	Bat. cent. 1. f. 74. <i>subpurp.</i>
15963	gláucopus <i>Schaff.</i>	blue-footed	gregarious	3 au. oc. Ol	woods & hea.	Sowerby, t. 223
15964	várius <i>Schaff.</i>	thick-footed	variable	4 au. oc. Y	everywhere	Sower. t. 102. <i>turbinatus</i>
15965	turbinátus <i>Bull.</i>	turbinate	soft	4 sep. no. Y	damp woods	Bulliard, t. 110
§ 20. DERMO'CYBE. <i>Fries.</i>						
15966	sanguineus <i>Wulf.</i>	bloody	handsome	1½ jn. nov. Crim.	woods	Sowerby, t. 43
15967	cinnamómeus <i>L.</i>	cinnamon	variable	3 jn. dec. Cinn.	everywhere	Sowerby, t. 205
15968	hel'volus <i>Pers.</i>	brownish	dirty	2 jn. dec. Cinn.	woods	Sow. t. 173. <i>hinulcus</i>
15969	Cúcumis <i>Pers.</i>	Cucumber-scented	strong smell.	3 au. oc. Pu.Br	woods	Sower. t. 344. <i>fuscipis</i>
15970	Armeniacus <i>Schaff.</i>	Apricot-color.	softish	3 jl. nov. Pa.Br	woods	Schaff. t. 81
15971	castáneus <i>Bull.</i>	Chesnut-color.	gregarious	2 jl. nov. Ches.	woods	Bulliard, t. 268
15972	hýbridus <i>Sowerby</i>	hybrid	variable	2 my. no. Or	fir leaves	Sowerby, t. 221
15973	testáceus <i>With.</i>	testaceous	crooked	4 sept. Y	plantations	
15974	fávidus <i>Sowerby</i>	yellowish	soft	2 sept. Ysh	among grass	Sowerby, t. 263
§ 21. PHOLO'TA. <i>Fries.</i>						
15975	aúreus <i>Sowerby</i>	golden	subcæspitose	6 sep. oc. Fulv.	damp earth	Sowerby, t. 77
15976	cæpératus <i>Pers.</i>	pale	solitary	5 jul. oct. Lem.	mount. woo.	F. l. dan. t. 1675
15977	aúrivéllus <i>Batsch</i>	filamentous	solitary	3 oc. no. Y	old trees	Schæ. t. 209. <i>filamentosus</i>
15978	squarrórus <i>Pers.</i>	squarrose	cæspitose	2 au. dec. Ferr.	roots of trees	Gre. cryp. fl. t. 2. <i>floccosus</i>
15979	flam'mans <i>Batsch</i>	flame-colored	elegant	3 jul. oct. Y	pine trees	Batsch el. f. 30
<i>rheoides</i> <i>With.</i>						
15980	muricátus <i>Fries</i>	muricated	variable	2 jul. oct. Dl. Y	commons	
<i>scariósus</i> <i>With.</i>						
<i>β inæquális</i> <i>Batt.</i>		<i>unequal</i>	variable	2 jul. oct. Dl. Y	commons	Bolt. t. 50. <i>luteus</i>
15981	mutábilis <i>Schaff.</i>	changeable	eatable	3 my. no. Pa. Ci.	on trees	Schæff. t. 9
15982	constríctus <i>With.</i>	contracted	watery	¼ sept. Y. Er	rotten wood	



History, Use, Propagation, Culture,

§ 18. *Telamonia*. So named on account of their gigantic stature. The species are among *Agarics* what *Ajax Telamonius* was among men. Large, terrestrial, firm species, none of which are eaten. The species of this and the next subgenus are extremely difficult to determine; not only on account of their size, but of their colors, which vary exceedingly at different periods of their growth, as well as according to their situation. Their colors are also intermediate between fulvous, testaceous, cinnamon, &c., which are very difficult to describe. The most constant marks are, first, smell; second, surface of pileus being fibrous or viscid; third, the situation of the lamelle, whether they are compact or distant; and fourth, their color in the young state, in which it must be observed, that they are always described.

The *A. bulbosus* of Hudson and Ray is referred by Withering to *A. violaceus* of Linnaeus; which has fixed purple gills, numerous, eight in a set; long gills, sometimes cloven, and a few of them decurrent; purple pileus, soft, smooth, firm, convex, but centrally depressed with age, and cracking at the edge, which is somewhat turned down, from half an inch to five inches over; stem solid, cylindrical, purple, bulbous at the base, from one to four inches high, and from a quarter to one inch in diameter; and certain like a cobweb. In maturity it plentifully emits a powder of the color of Spanish snuff. It is not uncommon from October to December, in Edgbaston and Barr plantations, in the woods near Bath, and at Powick, near Worcester. With much broiling and duly seasoned, it is esteemed as delicious as an oyster. Another variety, which is the *A. varius* of Bolton, is found on grass-plats and new-mown fields in July. It has chocolate gills, from brown to black,

15953 Cap obt. fibrous hoary testac. Lamellæ adn. purple. An annulus sheath. stipes which is violet at upp. end
 15954 Cap bluntly umbon. somew. fibr. pale umb.-color. Lamel. adnate umb.-col. Stipes somew. bulb. striat. paler

15955 Cap somew. fleshy purp.-brown becom. fibrous testac. and hoary, Lamel. violet-pur. Stipes long eq. violet
 15956 Cap scaly testaceous olive-color. Lamellæ yellowish cinnamon. Stipes bulbous scaly, Veil fuscous
 15957 Cap obtusely umbon. smth. bright-brown when dry testac. Lamel. cinnam. Long bulb. stipes and veil white

1. *Cap always dry, scaly, or fibrous, obtuse or umbonate, never depressed.*

15958 Cap very convex dull or brownish-violet, Lamellæ distant violet, Stipes spongy greyish violet within
 15959 Cap umbonate squarrose with hairy sooty scales, Lamellæ compact violet becoming clay-colored, Stipes scaly transversely banded with black
 15960 Cap umbon. smooth. pale-brown, Lamel. compact violet discolor. Stipes taper. varieg. with brown scales

2. *Cap smooth, humid, viscid, always obtuse, finally depressed, Stem blue, becoming white.*

15961 Cap equal viscid, Lamellæ compact olive-purple, Stipes attenuated bulbous
 15962 Cap equal viscid smooth, Lamellæ compact violet-purple, Stipes bulbous becoming white from violet
 15963 Compact rounded, Cap olivaceous or brownish-grey glutinous while young, Lamellæ reddish-brown tinged with violet, Stipes thick tinged with violet

15964 Firm, Cap yellow somew. scaly humid viscid, Lamel. compact serrat. whit.-cesious, Stipes tapering white
 15965 Cap smooth viscid yellow or tawny, Lamellæ compact quite entire yellowish-cinnamon, Stipes bulb. white

1. *Cap scaly or fibrous, Stem same color as the cap or paler. GROWING ON THE EARTH.*

* *Cap fleshy, at first convex.*

15966 Cap slightly fleshy somew. scaly, and stipes (which is thin and eq.) dull sang. Lamel. affix. more dull-color.
 15967 Cap glabrous subcarneous obtusely umbonate cinnamon-color, Lamellæ numerous adnate yellow-cinnamon, Stipes yellowish rarely straight

15968 Cap pale reddish-buff umbonate subfarinaceous, Lamellæ cinnamon-color broad numerous, Stipes whitish often with a few remains of the veil attached

** *Cap somewhat fleshy, at first campanulate.*

15969 Cap somew. fleshy becom. umbon. smoothish brown-purple, Lamel. affix ventric. ferrugin. Stipes fuscous

2. *Cap smooth, but with a few surface-fibres, Stem white. GROWING ON THE EARTH.*

15970 Cap bluntly umbonate pallid, Lamellæ compact cinnamon-colored, Stipes solid tapering upwards white

15971 Cap somewhat fleshy convex becoming bluntly umbonate chesnut-colored, Lamellæ affixed compact violet-testaceous, Stipes short firm

3. *Cap smooth, dry, Gills affixed.*

15972 Cap convex humid orange-colored or fulvous, Lamellæ yellow, Stipes hollowish

15973 Lamellæ brown-yellow, Cap deep-yellow bossed in the centre, Stipes scored yellow thickset downwards

15974 Lamellæ reddish-buff, Cap pale-yellow bossed, Stipes pale-yellow

15975 Fulvous, Cap fleshy : scales few hairy, Lamellæ annexed, Stipes solid smooth, Annulus small

15976 Cap pitted lemon-colored : hairs white ; disk uniform with scatter. scales towards disk, Stipes solid white

15977 Compact, Cap yellow : scales scattered appressed, Stipes solid fulvous long-rooted

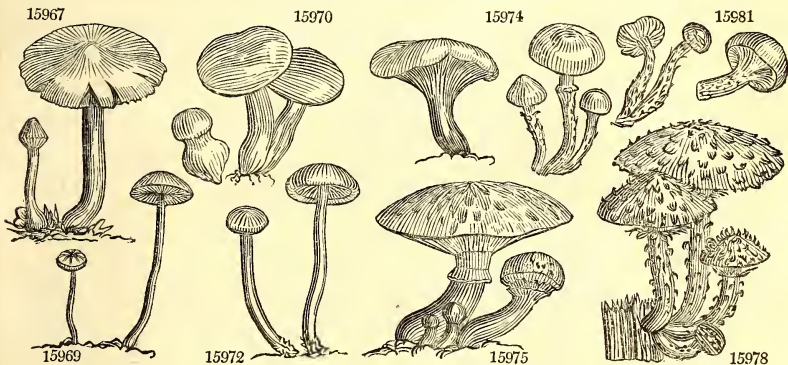
15978 Cap fleshy brownish or reddish-yellow scaly with fasciulat. filam. : scales revol. Stipes squarr. with scales

15979 Cap fleshy dry yellow : scales hairy scattered, Lamellæ at first yellow, Stipes equal squarrose

15980 Cap slightly fleshy obt. fulvous-yellow vil. with stalked scales, Lamel. adnate : at first yeil. Stipes fistul.

15981 Cap scarcely fleshed glabrous striate : when moist dull cinnamon-color becoming pale, Lamellæ subcurrent numerous reddish-brown, Stipes hollow subincurved

15982 Cap yellow-brown bluntly conical, Lamellæ brown, Stipes brown scurry, Veil permanent



- and Miscellaneous Particulars.

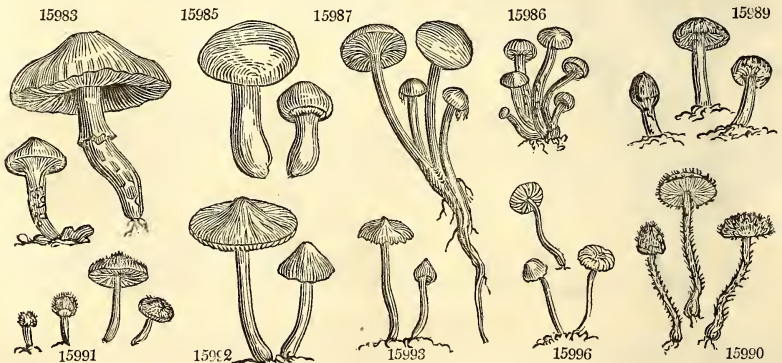
mottled, and in pairs ; pileus mouse-color, conical, and pointed ; stem of the same color, cylindrical, and firm. This, though a common, is a very beautiful species. In a summer morning it is covered with a bloom like that of a plumb, having often a glittering spangled appearance ; its form is regular, and the fringe of the curtain peculiarly delicate. Another variety, with the stem of a dark mulberry color, is found in wet gravel where no grass grows, and sometimes on cow-dung, in which case the stem, under the shelter of long grass, is covered with a white hoariness which is easily rubbed off.

§ 19. *Inoloma*. A name with the same meaning as *Tricholoma*, § 5., to which the species are analogous. They are large, firm, somewhat succulent, autumnal, and terrestrial, but not as far as is known, eatable.

§ 20. *Dermocybe*. From *dermion*, a skin or membrane, and *κυβη*, a head, in allusion to the nature of the pileus. Analogous to *Clitocybe*, § 8. Of middle size, or small ; scarcely eatable. A. cinnamonaceous has gills, four in a set, broad about the middle, deep tawny red, and fixed by claws ; pileus convex, but bossed, of a rich cinnamon color, from one and a half to three and a half inches diameter ; the stem hollow, cylindrical, silky, shining, two inches high, thick as a goose-quill, of a fine full yellow color. This is a species that is readily distinguished by its cinnamon color. It is found in woods in September and October, and has a good flavor.

§ 21. *Pholiota*. From *φολις*, a scale. Species of various habits. Some are terrestrial, others grow upon wood ; some large, others of a smaller size.

§ 22. MYXA'CIUM. <i>Fries.</i>								
15983	<i>collinitus Sowerby</i>	besmeared	solitary	5	jl.nov.	Or	woods	Sowerby, t. 9
15984	<i>longicaudus Fries</i> <i>flexuosus With.</i>	long-tailed	membranous	4	oct.	Tann.	pine woods	
§ 23. HEBELO'MA. <i>Fries.</i>								
15985	<i>fastibilis Pers.</i>	multiform	stinking	2½	jl.nov.	Wsh	everywhere	Schæff. t. 221. <i>gilvus</i>
§ 24. FLAM'MULA. <i>Fries.</i>								
15983	<i>flavidus Sch. aff.</i>	yellowish	cæspitose	2	au.no.	Ysh	trun. of trees	Schæff. t. 35
15987	<i>inopus Fries</i> <i>connatus With.</i>	connate	subcæspitose	2	sep.oc.	Ysh	trun. of trees	Bol.t.143. <i>radicato-ram.</i>
15988	<i>spumósus Batt.</i>	frothy	gregarious	3	au.no.	Ysh	on earth, &c.	Battarra, t. 22. C.
§ 25. INO'CYBE. <i>Fries.</i>								
15989	<i>scaber Sowerby</i>	rough	solitary	1½	aug.	Sooty	pine woods	Sowerby, t. 207
15990	<i>plumósus Bolton</i>	feathery	solitary	4	aut.	Gr	woods	Bolton, t. 33
15991	<i>lanuginósus Bull.</i>	woolly	solitary	3	jul.sep.	Brsh	way sides	Bulliard, t. 370
15992	<i>rimósus Bull.</i>	cracked	variable	2	jn.sep.	Y.Br	woods	Grev. crypt. 3. 128
15993	<i>geophýllus Sowerby</i>	earth-leaf	variable	2	jul.oct.	Wsh	woods	Sowerby, t. 124
15994	<i>furfurósus With.</i>	scurfy	watery	1	june	Y.Br	hedges	
§ 26. NAUCO'RIA. <i>Fries.</i>								
15995	<i>conspérsus Pers.</i>	sprinkled	gregarious	1½	jn.oct.	Cinn	damp woods	Pers. ic. t. 12. f. 3
15996	<i>furfuráceus Pers.</i> <i>viridarius With.</i>	mealy	gregarious	2	au.oc.	Cinn	dead lvs. &c.	Sch.t.226. <i>pulverulentus</i>
15997	<i>hippópínus With.</i>	rounded	crooked	½	aut.	Pa.Br	Sco. fir cones	
§ 27. GALE'RA. <i>Fries.</i>								
15998	<i>cólus With.</i>	campanulate	brittle	6	jl.oct.	Pa.Br	hea. of rubb.	
15999	<i>téner Schæff.</i>	tender	brittle	4	my.no.	Y.Br	grassy places	Sowerby, t. 33.
16000	<i>hynórnum Schrank</i>	Moss	small	1	jl.nov.	Ferr.	among moss	Sch. t.63. <i>campanulatus</i>
16001	<i>atrórufus Bolton</i>	dark-brown	slender	3	aut.	Br	pastures	Bolton, t. 51. f. 1
16002	<i>núceus Bolton</i>	hazel-nut	slender	4	oct.	Pa.Br	fir woods	Bolton, t. 70
§ 28. TAPINE'A. <i>Fries.</i>								
16003	<i>invólútus Batsch</i> <i>adástus With.</i>	involute	compact	3	au.no.	Ferr.	woods	Sower. t. 98. <i>contiguus</i>
§ 29. CREPIDO'TUS. <i>Fries.</i>								
16004	<i>auránt.-ferrugl. Wi.</i>	orange-brown	solitary	2½	aut.	Or.Br	roots of oaks	
16005	<i>fætidus With.</i>	fetid	solitary	2	aut.	DI.Br	old willows	
16006	<i>vulpínus Sow.</i>	foxy	gregarious	2	aut.	Tawn.	hollow trees	Sowerby, t. 361
16007	<i>móllis Schæff.</i>	soft	solitary	½	au.oc.	pa.Cin	trun. of trees	Sowerby, t. 98
16008	<i>haustelláris Fries</i> <i>resupínátus With.</i>	resupinate	small	½	au.oc.	Pa.tar	rotten bran.	
16009	<i>variábilis Pers.</i>	variable	solitary	½	aut.	W	rotten trees	Sowerby, t. 97. <i>niveus</i>
§ 30. VOLVA'RIA. <i>Fries.</i>								
16010	<i>bombycínus Schæff.</i>	silky	eatable	6	jl.aug.	W	trun. of trees	Schæff. t. 98
16011	<i>cempá'stipes Sow.</i>	patchy	tufted	4	jl.nov.	W	bark of trees	Sowerby, t. 2
§ 31. PSALLIO'TA. <i>Fries.</i>								
16012	<i>cretáceus Bull.</i>	chalky Mushr.	eatable	3	au.no.	W	meadows	Bull. t. 374
16013	<i>campéstris L.</i>	comm. Mushr.	eatable	2	my.oc.	Wsh	meadows	Grev. crypt. t. 161



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§ 22. *Myxaciium*. So called from *μύξα*, mucus, on account of the nature of its surface. The species are large, solitary, terrestrial, mucous, inodorous, and not eatable.

§ 23. *Hebeloma*. From *ἠέβη*, down, and *λωμα*, a margin. The only species has a nauseous taste. Its lamellæ are serrated, and distil drops of a peculiar fluid. Its varieties are infinite. Common in woods.

§ 24. *Flammula*. So named in allusion to their color, which is a pale yellow, the color of a weak flame. The species are gregarious, subcæspitose, firm, persistent, rather bitter, and all eatable. A. socialis and illicinus are both eaten at Montpellier, where they are known by the names of *Pinoulade d'couise* and *Frigouie*.

§ 25. *Inocybe*. From *ἰνα*, fibres, and *κύβη*, a head. A tribe which can scarcely be compared to any other. It consists of fungi of middle-size, or smaller, solitary, growing on the ground during the summer, and not known to be poisonous; although, on account of their nauseous odor, they are suspicious.

§ 26. *Naucoria*. Small gregarious epiphytous fungi, growing upon stipules, leaves, wood, and even muddy earth, fragile, and without any smell. Their stature is that of *Collybia*, but their veil is of the same nature as that of *Lepiota*, resembling the kernel of a nut (*naucum*), whence they are named.

15983 Cap fleshy smth. orange-brown, Lamel. pur. : then ferrugin. Stipes part. across into bluish gelatin. scales
 15984 Cap somewhat fleshy smooth, Lamellæ cinnamon-colored, Stipes long smoothish

15985 Cap somewhat repand opaque, Stipes scaly white, Sporidia clay-color

1. *Cap dry, Gills adnate, Tufted.* GROWING ON WOOD.

15986 Cap smooth yellowish, Lamellæ adnate yellow-ferruginous, Stipes fibrous

15987 Cap smooth yellowish, Lamellæ affixed yellow, Stipes fibrous pallid solid

2. *Cap viscid, Gills adnate, Not tufted.* GROWING UPON BOTH WOOD AND EARTH.

15988 Yellowish, Cap smooth viscid, Lamellæ adnate, Stipes hollow tapering at base

1. *Stem fibrous or scaly with fibres.*

15989 Cap fleshy obtuse scaly brownish-grey, Lamellæ free or nearly so, Stipes solid fibrillose

15990 Cap somew. fleshy hemispherical mouse-color, Stipes solid thin long scaly squarr. Lamel. somewhat loose

15991 Cap somewhat fleshy convex scaly-villous, Lamellæ loose and solid : then fibrous, Stipes solid

2. *Stem nearly at the top with white scales.*

15992 Cap dry campanulate at length nearly plane: surface splitting longitudinally pale shining-brown, Stipes solid somewhat tuberous at the base

15993 Cap conical at length expanded umbonate silky, Lamellæ subadnate, Stipes solid slender sprinkled with white pulverulent particles

15994 Cap yellow-brown scaly, Gills watery white irregular, Stem yellow-brown crooked scored

15995 Cap somew. fleshy scurfy scaly rufous cinnam.-color. Lamel. emarg. lin. cinnam.-color. Stipes scaly at end

15996 Cap somew. fleshy : then umbilicat. scaly or silky, Lamel. somew. decurr. cinnam.-color. Stipes fistul. scurfy

15997 Cap dark-brown convex, Lamellæ light-brown, Stipes light-brown

15998 Cap somewhat membranous smooth pallid, Lamel. somewhat loose saffron-color. Stipes long villous white

15999 Cap obtusely conical stri. when moist : when dry smth. ochrac. Lamel. adnate lin. Stipes long glab. fragile

16000 Minute, Cap campanulate striate : when moist reddish-buff becoming pale, Lamellæ adnate rather broad distant, Stipes somewhat crooked filiform

16001 Cap somewhat conical : when dry elastic, Lamellæ few trifid, Stipes very long and slender

16002 Cap globose chesnut-color lobed and incurved at edge, Lamel. trifid wavy, Stipes slender white fistulous

16003 Compact, Cap depressed ochrey-brown with a tomentose involute margin, Lamellæ mostly dichotomous, Stipes thick often excentrical

16004 Cap convex scaly cracked and irregular, Lamellæ orange-brown, Stipes stout somewhat lateral

16005 Cap conv. viscid becom. wrinkled dull-brown : marg. invol. Lamel. adnate yellow. Stipes hard thick black

16006 Imbricated sessile fulvous, Cap fleshy obovate scaly towards the margin

16007 Cap subsessile smooth flaccid pale, Lamellæ watery cinnamon-colored

16008 Cap reniform villous pale tan-color, Lamellæ rounded ferruginous, Stipes lateral tapering upwards white

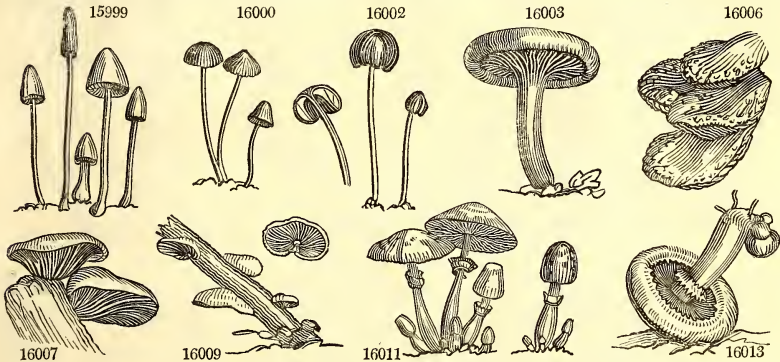
16009 Cap membranous reflexed silky downy white, Lamellæ whitish

16010 Cap silky white, Lamellæ flesh-colored, Stipes solid tapering incurved, Volva lax

16011 Cap campanulate with scattered scales, Stipes hollow ventricose smooth below

16012 White, Cap dry smoothish, Lamellæ loose broadest in front, Stipes hollow smooth, Annulus ascending

16013 Cap white fleshy dry subsquamose or sericeous, Lamellæ free ventricose pink changing to dark-fuscous, Stipes solid white with an annular veil



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§ 27. *Galera*. From *galea*, a helmet, in reference to the figure of their pileus. The species are slender, fragile, tolerably permanent, mostly growing on the ground, and for the most part choosing humid stations. They have neither smell nor use.

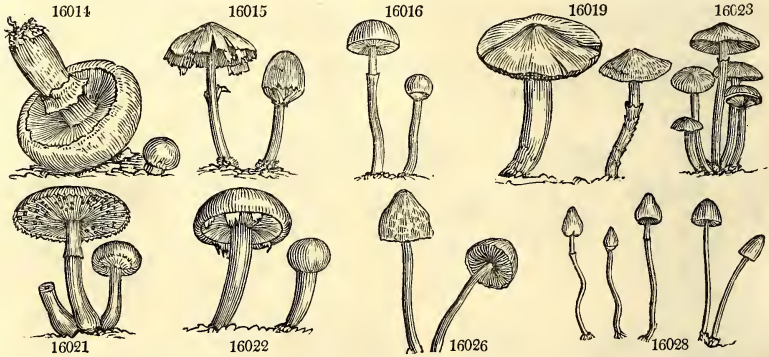
§ 28. *Tapinea*. Fungi of various natures, deriving their name from *ταπεινω*, to depress. Mostly terrestrial and permanent, but scarcely fit for food.

§ 29. *Crepidotus*. These plants form a transition to *Pratella*. They grow on wood or trees, and are hardly eatable. *A. olearius*, a species which grows upon olives in the south of Europe, a poisonous species, exhibits a phosphoric appearance in the night. *A. translucens*, a French species, is eaten by the poor of Montpellier.

§ 30. *Volvaria*. So called from the magnitude of their *volva*. The species grow in fertile manured spots, or on wood, are soft and soon perishable. The larger are fit for food.

§ 31. *Psalliota*. Mostly eatable. Named from *ψαλλιον*, a chain-bit, in the same sense as *Armillaria*. To this place belongs the common Mushroom, *A. campestris*, so called from *Moucceron*, the French name of another eatable kind. It is found all over Europe, the north of Asia, and of Africa, and in North America.

16014	<i>Georgii</i> Sowerby	St. George's	eatable	4	aut.	Wsh	mead.& woo.	Sowerby, t. 304
16015	<i>præcox</i> Pers.	early	tufted	2½	spr. su.	Ysh	among grass	
	<i>β appendiculatus</i> Sow.	<i>appendaged</i>	tufted	2½	spr. su.	Ysh	among grass	Sowerby, t. 324
	<i>γ delicatus</i> With.	<i>delicate</i>	solitary	2	spr. su.	Ysh	among grass	Bolt. t. 67. f. 1. <i>durus</i>
16016	<i>semiglobatus</i> Batsch	half-rounded	gregarious	3	my. no.	Y	meadows	Sowerby, t. 218
16017	<i>squamosus</i> Pers.	scaly	solitary	4	sep. no.	Y	woods	
16018	<i>versicolor</i> With.	changeable-col.	spongy	2	July	G.Br	groves	
16019	<i>ærginösus</i> Flond.	verdigrise-col.	prongy	1½	au. no.	Y.G	woods	Sowerby, t. 264
16020	<i>littoreus</i> With.	sea-shore	solitary	1	oct.	Y.Br	woo. & fields	
	§ 32. <i>HYPHOLOMA</i> . Fries.							
16021	<i>lachrymans</i> Sowerby	weeping	fragile	2	au. no.	W.Br	on ground	Sowerby, t. 41
16022	<i>lateritius</i> Schæff.	one-sided	cæspitose	2	my. oc.	Fulsh	trun. of trees	Bolt. t. 5. <i>pomposus</i>
16023	<i>fascicularis</i> Huds.	bundled	cæspitose	1½	my. no.	Ysh	decay. trees	Sowerby, t. 285
	§ 33. <i>PSILOCYBE</i> . Fries.							
16024	<i>myosotis</i> Fries.	olive	gregarious	3	sep. no.	G. Ol	damp places	
16025	<i>stercorarius</i> Schum.	adnate	brittle	4	Jul. oct.	Liv. Y	cow dung	
	<i>adnatus</i> Hudson							
16026	<i>ericæus</i> Pers.	heath	variable	4	Jul. oct.	Br	damp places	Schæff. t. 210. <i>helvolus</i>
16027	<i>fusco-purpureus</i> W.	brown-purple	twisting	2	aut.	Pa. Br	among grass	
16028	<i>callösus</i> Fries	callous	gregarious	3	au. no.	Y	way sides	Sow. t. 248. f. 1. <i>semiglob.</i>
	<i>β varius</i> Bolton	<i>various</i>	gregarious	3	au. no.	Livid	way sides	Bolton, t. 66. f. 1
	§ 34. <i>PSATHYRA</i> . Fries.							
16029	<i>stipatus</i> Pers.	stalked	tufted	3	jl. nov.	Br	trun. of trees	Bolt. t. 15. <i>concinus</i>
16030	<i>tentaculum</i> Sower.	slender	fragile	3½	au. no.	Brsh	gardens	Sowerby, t. 385. f. 1
16031	<i>cuspidatus</i> Bolton	cuspidate	thin	4	aut.	R. Br	pastures	Bolton, t. 55
	§ 35. <i>COPRINARIUS</i> . Fries.							
16032	<i>semiovatus</i> Sowerby	half-ovate	upright	6	sum.	Wsh	cowdung	Sowerby, t. 131
	<i>coronatus</i> With.							
16033	<i>fimipetris</i> Bull.	shield-headed	fragile	4	au. oct.	Ciner.	horse dung	Bolt. t. 57. <i>clypeatus</i>
16034	<i>papilionaceus</i> Bull.	butterfly	unpleasant	3	my. no.	Sooty	dunghills	Bulliard, t. 58
16035	<i>boltoni</i> Pers.	Bolton's	fragile	3	spring	Y	dunghills	Sower. t. 96. <i>flavidus</i>
16036	<i>tubanus</i> Bull.		delicate	3	au. sep.	Y	dunghills	Sowerby, t. 128
16037	<i>papyraceus</i> Pers.	papery	semitranspar.	3	aut.	Wsh	oak trees	Bolt. t. 11. <i>membranace.</i>
16038	<i>disseminatus</i> Pers.	scattered	gregarious	1	spr. au.	Ysh	trun. of trees	Sowerby, t. 166. <i>striatus</i>
	2366. <i>COPRINUS</i> . Link.	<i>COPRINUS</i> .						
16039	<i>comatus</i> Link.	maned	gregarious	2	au. oct.	W	gardens	Grev. crypt. fl. t. 119
	<i>A. cylindricus</i> Sowerby, t. 189							
16040	<i>picæus</i> Fries	ventricose	subsolitary	5	sep. oc.	Wsh	shady woods	Sowerby, t. 170
16041	<i>atramentarius</i> Link	inky	tufted	6	jn. dec.	Br	trun. of trees	Sow. t. 188. <i>A. fimetarius</i>

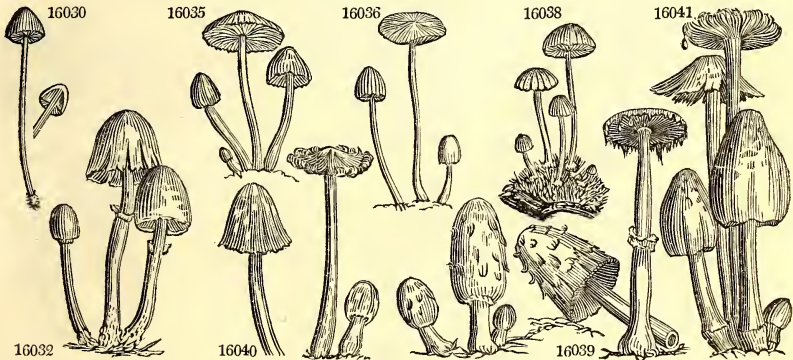


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Of all the species of agaric, one only has been selected for cultivation in our gardens, viz. the *A. campestris*, or common mushroom, or champignon. The gills of this species are loose, pinky red, changing to a liver-color, in contact with the stem, but not united to it; very thick set, irregularly disposed, some forked next the stem, some next the edge of the pileus, some at both ends, and in that case generally excluding the intermediate smaller gills. The pileus is white, changing to brown when old, and becoming scurfy; regularly convex, fleshy, flatter with age, from two to four inches, and sometimes nine inches in diameter, and liquefying in decay; the flesh white. The stem is solid, white, cylindrical, from two to three inches high, half an inch in diameter; the curtain white and delicate. When this mushroom first makes its appearance, it is smooth and almost globular; and in this state it is called a button. This species is esteemed the best and most savoury of the genus, and is much in request for the table in England. It is eaten fresh, either stewed or boiled, and preserved either as a pickle, or in powder; and it furnishes the sauce called Ketchup. The field plants are better for eating than those raised on artificial beds, their flesh being more tender; and those who are accustomed to them can distinguish them by their smell. But the cultivated ones are more sightly, may be more easily collected in the proper state for eating, and are firmer and better for pickling. The wild mushrooms are found in parks and other pastures, where the turf has not been ploughed up for many years; and the best time for gathering them is August and September. Dr. Withering mentions four varieties.

The *A. Georgii* of Linnaeus resembles the former, but is much inferior to it in flavor. Its gills are yellowish white; the pileus yellow, convex, hollow in the centre; the stem yellow, thickish, and smooth; the juice yellow, which flows plentifully from it when wounded. It is gathered in September in woods and pastures. A variety of this is found on the sea-coast of Cornwall, of a large size, with the button as big as a potatoe;

- 16014 Cap very fleshy convex white or pale-yellowish mostly smooth, Lamellæ broad whitish at length deep purple-brown, Stipes thick with a persistent collar
- 16015 Cap fleshy smooth yellowish tan-color, Lamellæ annexed with a decurrent tooth pale-brown, Stipes nearly solid smooth white
- 16016 Cap hemispher. smooth glutin.redd.-yell. Lamel. adnate mostly horizont. darkly mott. Stipes holl. squam.
- 16017 Cap somewhat viscid yellow : scales scattered concentrical, Lamellæ adnate blackish, Stipes solid
- 16018 Cap scaly greenish-brown, Lamellæ decurrent becoming rufous-brown, Stipes solid bulbous [squamoso
- 16019 Cap fleshy yell. but being cover. with a blue slime appear. green. Lamel. adnate purple-brown, Stipes holl.
- 16020 Stipes solid white, Annulus persistent, Cap yellow-brown, Lamellæ adnate reddish-grey
- 16021 Cap fleshy very fibrous pale yellow-brown, Lamellæ dull reddish-brown exuding a thin grey fluid, Stipes hollow fibrilose thickest at the base
- 16022 Cap fleshy obt. brown-orange, Lamel. slightly green. Stipes filled with a spongy mass stained by the veil
- 16023 Cap somew. fleshy umbon. ochrace. or redd.-orange, Lamel. green. numer. Stipes holl. rather long slender
- 16024 Cap convex viscid, Lamellæ adnate whitish-brown, Stipes long fibrous
- 16025 Cap obtuse smooth viscid livid-yellow, Lamellæ broad decurrent brown, Stipes long naked
- 16026 Cap convex smooth shining, Lamellæ broad adnate blackish, Stipes long naked
- 16027 Cap light-brown semiglobular, Lamellæ purplish-brown broad thin, Stipes reddish-brown
- 16028 Cap conical dry, Lamellæ adnate ascending dark-purple, Stipes tough smooth pale
- 16029 Cap somew. fleshy smooth fuscous-brown pallid, Lamel. adnate numer. brown. flesh-color. Stipes smooth
- 16030 Cap somewhat membranous campanulate obtuse, Lamellæ very broad at back adnate cinereous-blackish : margin pink, Stipes thin smooth
- 16031 Cap cinnamon-color conical, Lamellæ dusky-brown, Stipes brownish cylindrical smooth
- 16032 Cap somewhat fleshy obtusely campanulate glutinous yellowish or brownish-white, Lamellæ adnate greyish-black, Stipes long white, Veil annular entire
- 16033 Cap somewhat fleshy campanulate humid cinereous pallid, Lamellæ adnate cinereous-black whole-colored at edge, Stipes long rufous, Annulus ragged
- 16034 Cap somewhat fleshy campanulate dry blackish soot-colored pallid, Lamellæ adnate cinereous-dark white at edge, Stipes long rufous striated at end
- 16035 Cap convex somewhat umbonate viscid yellow, Lamellæ annexed pallid, Stipes attenuated smooth yellow
- 16036 Cap membranaceous plicate viscous yellow, Lamellæ scarcely attached to the stipes pale purplish at length brown flesh-color, Stipes equal shining
- 16037 Cap hemispherical smoothish whitish, Lamellæ loose blackish-purple, Stipes naked white
- 16038 Gregarious small, Cap ovato-campan. plicate, Lamel. subadnate whit. at length grey, Stipes incurv. glab.
- 16039 Cap somewhat fleshy white scaly, Lamellæ white changing to red-purple and to black, Stipes sub-bulbous, Veil annular moveable
- 16040 Cap membranous white separating into broad scales, Lamellæ blackish, Stipes bulbous naked
- 16041 Tufted, Cap somewhat fleshy grey becoming reddish-brown smooth scaly at the apex, Lamel. ventricose white changing to purplish-brown, Stipes equal naked



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the expanded pileus eighteen inches over, the stem as thick as a man's wrist, the gills very pale, the curtain tough, and thick as leather, and the juice yellowish. A plant of this kind, as Dr. Withering informs us, was gathered on an old hot-bed in a garden in Birmingham, which weighed fourteen pounds.

Greville says, "A. Georgii derives its name, according to Parkinson, from springing up about the time of St. George's day. It is unquestionably the largest of the British agarics. It has been known to weigh fourteen pounds. Mr. Hopkirk mentions one that weighed five pounds six ounces, and measured forty-three inches in circumference; but Mr. Stackhouse found it to attain the enormous size of eighteen inches in diameter, which is fifty-four in circumference, having a stem as thick as a man's wrist. The best distinguishing marks are, the extreme paleness of the lamellæ at the period of the bursting of the veil, compared with the true mushroom; the greater convexity and thickness of flesh at the same period; and shortly afterwards, the more yellowish and tough pileus."

§ 32. *Hypopholoma*. So called, from *ύφος*, a cup, and *λαμια*, an edge. Wood species growing in patches.

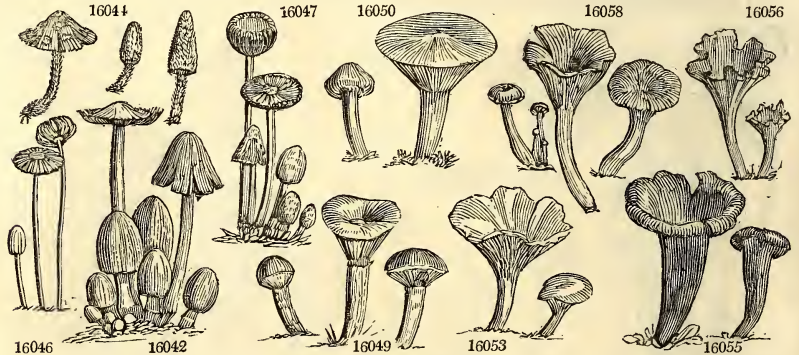
§ 33. *Psilocybe*. From *ψιλος*, thin, and *κυβη*, a head. A very natural assemblage. The species are for the most part terrestrial, inhabiting fertile and somewhat fenny places, growing either solitary or in groups, not eatable, and subject to much variety of appearance.

§ 34. *Psathyra*. So called, from *ψαθυρος*, fragile, on account of their remarkable brittleness. Many species are found upon moist wood, and in grassy places on a fertile soil.

§ 35. *Coprinarius*. All the species are found on dung, whence their name, from *κοπρια*, dung.

2366. *Coprinus*. Named for the same reason as the last. The species are gregarious and fugacious. They are found on dunghills, rich grassy places, and in the hollow trunks of decayed trees. The taste of the

16042 congregatus <i>Fries</i>	clustered	tufted	3	my. no. Ferr.	trun. of trees	Sowerby, t. 261
16043 niveus <i>Pers.</i>	snowy	variable	3	au. no. W	horse dung	
16044 cinereus <i>Fries</i>	cinereous	solitary	4	jul. oct. Cin.	dunghills	Bolt. t. 156. <i>tomentosus</i>
16045 domesticus <i>Fries</i>	domestic	pretty	3	wet w. Sooty	walls	Bolton, t. 26
16046 plicatilis <i>Fries</i>	plaited	tender	2	sum. Cin.	damp places	Sowerby, t. 364
16047 ephemerus <i>Pers.</i>	ephemeral	fugacious	2	my. oc. Br	dunghills	Sow. t. 262. <i>stercorarius</i>
16048 radiatus <i>Bolt.</i>	radiated	very delicate	2	my. oc. Cin.	dung	Bolton, t. 39. f. C.
2367. GOMPHUS. <i>Fries.</i> GOMPHUS.						
16049 glutinosus <i>Fr.</i>	glutinous	solitary	3	jl. nov. Pu	pine woods	Sowerby, t. 7
16050 rutilus <i>Fr.</i>	sparkling	solitary	3	au. oct. Brsh	pine woods	Sowerby, t. 105
2368. CANTHARELLUS. <i>Adans.</i> CHANTARELL.						
16051 umbonatus <i>Pers.</i>	umbonate	gregarious	3	au. no. Cin.	among moss	Jacq. coll. 2. t. 16. f. 1
16052 aurantiacus <i>Fr.</i>	orange	poisonous	2	au. no. Or. Y	fields	Jacq. coll. 2. t. 14. f. 5
16053 cibarius <i>Fries</i>	eatable	esulent	1½	jl. nov. Y	fields	Sow. t. 46. <i>A. cantharellus</i>
16054 cinereus <i>Fries</i>	cinereous	tufted	1½	oct. Blsh	among moss	Bolt. t. 34. <i>infundibularis</i>
16055 cornucopioides <i>Fries</i>	purplish	elastic	2	au. no. Br	woods	Sowerby, t. 74
16056 undulatus <i>Fr.</i>	wavy	tough	¾	all sea. Pale	on ground	Sower. t. 75. <i>floriformis</i>
16057 lobatus <i>Fries</i>	lobed	tough	¾	spring Brsh	humid places	Bo. t. 177. <i>membranaceus</i>
16058 lutescens <i>Fries</i>	yellowish	spirit-scented	2	jul. no. Ysh	humid places	Sow. t. 47. <i>A. cantharellus</i>
2369. MERULIUS. <i>Haller.</i> DRY-ROT.						
16059 lacrymans <i>Schum.</i>	common	parasite	4	all sea. Y. Br	decay. wood	Sowerby, t. 113
β obliquus <i>Bolton</i>	oblique	parasite	4	all sea. Y. Br	decay. wood	Bolton, t. 74
2370. SCHIZOPHYLLUM. <i>Fries.</i> SCHIZOPHYLLUM.						
16060 commune <i>Fr.</i>	common	gregarious	2	wet w. Grsh	trun. of trees	Grev. crypt. t. 61
2371. DÆDALIA. <i>Pers.</i> DÆDALIA.						
16061 umbonata <i>Pers.</i>	oak	variable	0	all sea. Pa. Y	oak trees	Sowerby, t. 181
16062 biennis <i>Fries</i>	biennial	three inch. br.	1	all sea. Ferr.	rotten wood	Sowerby, t. 190
16063 betulina <i>Pers.</i>	birch	smaller	0	all sea. Pallid	birch trees	Sowerby, t. 182
16064 confragosa <i>Pers.</i>	broken	woody	0	all sea. Brsh	service trees	Bolton, t. 160
16065 unicolor <i>Fries</i>	whole-colored	imbricated	0	aut. Sooty	trun. of trees	Sowerby, t. 325
16066 gibbosa <i>Pers.</i>	gibbous	six inches br.	0	aut. Wsh	trun. of trees	Sower. t. 194. <i>sinuosus</i>
16067 angustata <i>Fries</i>	tapering	two inches br.	0	aut. Cin.	poplar trees	Sowerby, t. 193
2372. POLYPORUS. <i>Micheli.</i> POLYPORUS.						
§ 1. Favosus <i>Beauv.</i>						
16068 squamosus <i>Fr.</i>	scaly	3-18 inc. wide	2	jn. nov. Ochr.	trun. of trees	Grev. crypt. 207
16069 heteroclitus <i>Fr.</i>	variable	2½ inches wide	0	aut. Or	on earth	Bolton, t. 164



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European species is watery and nauseous ; they are therefore not eatable. But in the spice islands, two species, *C. moschocaryanus*, which is found on the nutmegs, and *C. saguarius*, which inhabits the pith of the Sago palm, are said to be most delicious. *C. cinereus* is extremely rapid in its growth, attaining perfection and dissolving in the course of a few hours. At its first appearance, it is covered with the delicate frosted remains of the veil.

2367. *Gomphus*. So named from their form, from *γομφος*, a club. Large Fungi, scarcely fit for food, with little taste or smell.

2368. *Cantharellus*. An alteration of the French *Chantarelle*. *C. cibarius* is one of the best of our eatable mushrooms. The best way of preserving the plants for use is to string them in rows, after they have become flaccid, and to hang them in a dry place where they can have plenty of air. They then form a delicious ingredient in rich gravies, &c

2369. *Merullius*. A name applied by the ancients to the common morel, *Morchella esculenta*. Natives of rotten wood, which they soften and finally destroy. *M. lacrymans*, the dry rot, is a pest to the wood of dwelling houses, which it speedily destroys. It is said to be destroyed by a wash of diluted sulphuric acid. The whole plant is generally resupinate, soft, tender, at first very light, cottony and white. When the veins appear, they are of a fine yellow, orange, or reddish-brown, forming irregular plicæ, most frequently so arranged as to have the appearance of pores, but never any thing like tubes. Sometimes the pileus or substance of the plant, from its situation, produces pendent processes like inverted cones. "The whole fructification often forms a circle of 1-8 inches in diameter." Except in favorable situations, it does not produce fructification, and resembles a dry pithy cottony substance, whence it has been called the dry rot. When in a perfect state, its sinuses contain drops of clear water, which have given rise to the specific name.

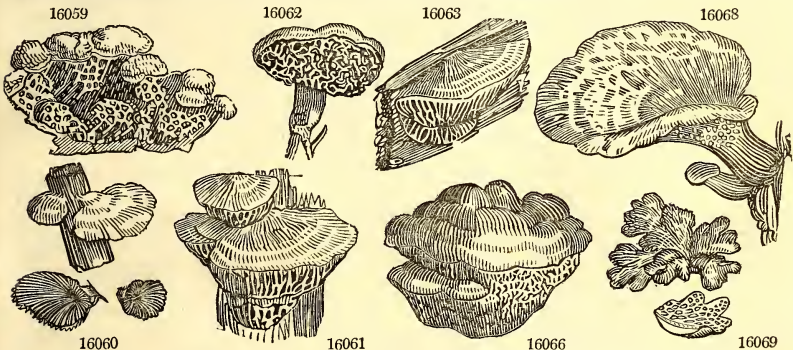
2370. *Schizophyllum*. From *σχιζώ*, to cut, and *φυλλον*, a leaf, in allusion to its lacinated appearance. Found

- 16042 Tuft. Cap membranac. furrow. furfurac. brown-orange, Lamel. pale chang. to black, Stipes equal fragile
 16043 Cap campan. farin. with min. scales, Stipes snow-white tomentose, Lamel. narrow at length brown-black
 16044 Cap furrowed subtomtense cinereous smooth on the summit, Lamel. lin. Stipes tall attenuated upwards
 16045 Cap obtuse scaly scurfy wavy-furrowed sooty, Lamellæ numerous linear blackish, Stipes somewhat silky
 16046 Very tender, Cap conical at length plane umbilicated plicate, Lamellæ not reaching to the stipes distant dark-grey, Stipes smooth weak
 16047 Ovato-campanulate scaly while young afterwards glabrous becoming expanded and revolute grey or tinged with brown very thin splitting, Lamellæ distant
 16048 Very delicate and fugacious, Cap grey furfuraceous at length splitting in a radiated manner glabrous brownish in the centre, Stipes filiform
 16049 Cap obtuse glutinous purplish-brown, Lamellæ whitish cinereous
 16050 Cap umbonate somewhat viscid rufous-brown, Lamellæ purple umber-colored
 16051 Cap slightly fleshy umbonate cinereous-blackish, Stipes solid paler, Plaits straight white
 16052 Cap fleshy rather depressed downy and solid, Stipes orange-yellow, Plaits straight orange-colored
 16053 Rich buff yellow, Cap fleshy irregular smooth: veins tumid, Stipes solid attenuated at the base
 16054 Cap tunnel-shaped pervious scaly and hollow, Stipes blackish, Plaits distant cinereous
 16055 Cap beforem pervious scaly black umber-color: wrinkles obsolete
 16056 Cap coriaceous membranous depressed wavy pallid rugose beneath, Stipes solid
 16057 Horizontal sessile lobed membranaceous dilute brown, Veins branched
 16058 Cap submembranac. funnel-shap. waved yellowish or olivac. brown, Veins anastomosing, Stipes holl. yell.
 16059 Effused large yellow ferruginous or deep orange: margin white and cottony, Veins large forming irregular pores by their sinuosity

16060 The only species

- 16061 Sessile pale with a woody aspect, Cap suberose rugose glab. Hymenium contorted sinuose anastomosing
 16062 Cap somewhat corky depressed rather velvety subferruginous, Hymenium composed of labyrinth-like pores grey flesh-color, Stipes irregular central or nearly lateral
 16063 Sessile pallid, Cap coriaceous banded downy, Lamellæ straight somewhat branched
 16064 Sessile, Cap corky-coriaceous banded rough brownish, Recesses labyrinth-like cinereous
 16065 Sessile cinereous, Cap coriaceous villous banded, Recesses unequal somewhat flexuose becoming ragged
 16066 Sessile whitish, Cap corky villous projecting and gibbous at base, Pores linear straightish
 16067 Sessile, Cap corky downy banded brownish-cinereous, Pores long narrow olive-yellow

- 16068 Large, Cap fleshy pale dirty-yellowish with broad dark-colored scales, Pores large angular whitish becoming mere reticulations at the base, Stipes very short
 16069 Sessile orange-colored, Cap imbricated lobed villous, Pores large deformed



and Miscellaneous Particulars.

upon the trunks of leafy trees through all Europe and Asia, the Gold Coast, Cape of Good Hope, North America, the Antilles, and South America.

2371. *Dædalea*. So called from its sinuosities, which appear as if arranged with *Dædalean* art. Most of the species grow upon wood. The dried substance of *D. quercina* is a good styptic. *D. suaveolens* has, according to Bolton, a smell like anised; and Linnæus mentions, that the Laplanders carry it about them when they visit their mistresses, in order to render themselves more agreeable. From the powder of the plant is prepared an electuary which is said to have been used with success in cases of phthisis. The dose from a scruple to a drachm.

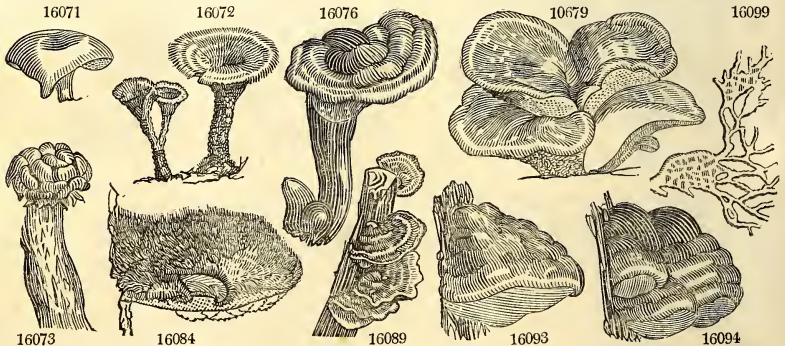
2372. *Polyporus*. From *πολυς*, many, and *πορος*, a pore, on account of the multitude of pores which constitute its hymenium. *P. squamosus* is a common species on trunks of willows, oaks, walnuts, &c. From this was extracted, by Braconnot, the Fungic acid. It is colorless, does not crystallize, has a very sour taste, and when evaporated to dryness, deliquesces upon exposure to the air. The fungates of potash and soda do not crystallize, are very soluble in water, but not in alcohol. The fungate of ammonia crystallizes in regular six-sided prisms. The fungate of lime is not altered by exposure to the air, and is soluble in about eighteen times its weight of water at seventy-three degrees.

P. Tuberaster, a species common in Italy, in various parts of the kingdom of Naples, and the Pontifical states, is held in the highest esteem as an article of Neapolitan cookery. *P. annosus*, a Swedish species, is used by the peasantry as a cure for the bite of snakes. Fries says, that he saw the blood which was flowing from the mouth of a kid which had been hurt stopped in a short space of time by its application. From *P. dryadeus*, the *Boletus pseudo-igniarius* of Bulliard, Braconnot obtained his Boletic acid. The color of this principle is white; it is not altered by exposure to the air, and its crystals are regular four-sided prisms. Its

§ 2. MICROPO'RUS. Beauv.								
16070	leptocéphalus Jacq.	small-capped	one inch wide	1 aut.	Gr	on wood	Jacq. misc. f. t. 12	
16071	brumális Pers.	winter	1-4 inch. wide	2 all sea.	Sooty	trun. of trees	Schæff. t. 281. pileus	
16072	perémnis Fr.	perennial	thin	3 aut.	Cinn.	trun. of trees	Sowerby, t. 192	
16073	strobilifórmis Dicks.	cone-like	lumpish	2 aut.	Br	trun. of trees	Crypt. brit. t. 3. f. 2	
16074	pellucidus With.	pellucid	two inch. br.	$\frac{3}{8}$ aug.	Br	old wood		
16075	variégatus Sower.	variegated	patches	2 all sea.	Br	trun. of trees	Sowerby, t. 368	
	β vārius Pers.	variable	patches	2 all sea.	Grsh	trun. of trees	Grev. crypt. 202	
	γ nummulátus Bull.	moneywort	patches	2 all sea.	Wsh	trun. of trees	Sower, t. 363. fig. min.	
16076	lucidus Fr.	shining	variable	$1\frac{1}{2}$ or 0	sum.	Ysh	trun. of trees	Sowerby, t. 134
16077	frondósus Fr.	leafy	broad patches	2	sep. oc.	Sooty	roots of oaks	Schæffer, t. 127
16078	velutinus Fr.	velvety	thin	2	spr. su.	Wsh	trun. of trees	
16079	gigántus Fr.	gigantic	tufts	24	sum.	Pa. Br	beech trees	
16080	sulphúreus Fr.	sulphur-color.	tufts	24	sum.	Rsh. Y	oak trees	Sow. t. 86. imbricatus
16081	betulinus Fr.	birch	acid	2	sum.	Brsh	birch trees	Sowerby, t. 919
16082	spémeus Fr.	frothy	thick	3	aut.	Wsh	trun. of trees	Sower, t. 211. stipitatus
16083	cæ'sius Fr.	caesious	very thin	2	aut.	Bsh	trun. of pines	Sow. t. 226. abidus
16084	hispidus Fr.	hispid	spongy	6	sum.	Ferr.	oak trees	Grev. crypt. 14
	βol. velutinus Sowerby,	345						
16085	cuticuláris Fr.	cuticular	imbricated	3	aut.	Ferr.	trun. of trees	Sower, t. 195. impuber
16086	adóstrus Fr.	scorched	imbricated	2	aut.	Pa. Br	trun. of trees	Sower, t. 231. carpinus
16087	ulmáriuus Fr.	elm	3-4 inch. wide	0	aut.	Pallid	elm trees	Sowerby, t. 88
16088	suavéolens Fr.	Anise-scented	fragrant	3	aut.	W	willow trun.	Sowerby, t. 228
	β salicinus Fr.	willow	fragrant	3	aut.	W	willow trun.	Sowerby, t. 227
16089	versicolor Fr.	changeable	tufted	1	su. aut.	Bsh	trun. of trees	Sowerby, t. 229
16090	radiátus Fr.	radiated	imbricated	1	aut.	Y. Br	trun. of trees	Sowerby, t. 190
16091	palléscens Fr.	pallid	imbricated	2	aut.	pa. Oc.	trun. of trees	Sow. t. 250. pelleporus
16092	abietinus Fr.	pine-tree	imbricated	$1\frac{1}{2}$	aut.	Wsh	dead pines	Dicks. crypt. t. 9. f. 9
16093	fomentáriuus Fr.	sweet tinder	spongy	6	all sea.	Sooty	beech trees	Sowerby, t. 133
16094	igniárius Fr.	hard tinder	hard	6	all sea.	Ferr.	trun. of trees	Sowerby, t. 132
16095	spongiósus Fr.	spongy	tufts	2	aut.	Ferr.	trun. of trees	Bolt. t. 165. vesupinatus
16096	medúlla panis Fr.	bread-crumbs	thick	4	aut.	W	fallen timber	Bolton, t. 163. f. 1
16097	vulgáriuus Fr.	common	fragile	12	all sea.	W	fallen timber	Bolt. t. 166. proteus
16098	ferruginósus Fr.	rusty	unequal	1	sum.	Ferr.	elder trees	Grev. crypt. 155
16099	molléscus Fr.	slippery	variable	3	all sea.	W	dead trees	Sow. t. 326. Medul. panis
16100	incarnátus Fr.	pink	firm	3	sum.	Pk	pine wood	

§ 3. POLYSTIC'ITA.								
16101	reticulátus Nees.	netted	very delicate	2	sum.	W	pine wood	Nees crypt. f. 225
16102	earnichælianus Gr.	min. hon.-com.	crust-like	3	aut.	W	decay. trun.	Grev. crypt. 224
2373. BOLE'TUS. Dill.								
16103	lúteus L.	yellow	3 inch. broad	2	aut.	Y	old trees	Grev. crypt. 183
16104	lactifluus With.	milky	2-4 inches br.	2 $\frac{1}{2}$	aut.	Buff	pastures	
16105	piperátus Bull.	peppery	2 $\frac{1}{2}$ inch. broad	$1\frac{1}{2}$	su. aut.	Ysh	woods	Sowerby, t. 24
16106	subtomentósus L.	downy	cracked	2	jn. oct.	Ol	woods	Bulliard, t. 393
	β sanguineus With.	bloody	cracked	2	jn. oct.	Crim.	woods	Sow. t. 225. commutatus
16107	lúridus Schæff.	lurid	6 inches broad	2	su. aut.	Ol. G	groves	Grev. crypt. 121
	B. rubeculos Sower.	150						
16108	resculentus Per.	esculent	cracked	4	su. aut.	Sooty	woods	Sowerby, t. 111. edulis
16109	scáber Fr.	rough	3 inches broad	4	su. aut.	W	woods	Bolt. t. 86. procerus
	β aurantifacius Sow.	orange-colored	3 inches broad	4	su. aut.	Ruf.	woods	Sowerby, t. 110
	γ bovinus Schæff.	glutinous	3 inches broad	4	su. aut.	Sooty	woods	Sowerby, t. 175. scaber
16110	cyanéscens Fries	bluish	frosted	3	su. aut.	Straw	woods	Bulliard, t. 369

2374. FISTULINA. Bull. FISTULINA.								
16111	hepática Bull.	liver-like	patches	6	aut.	Crim.	oak trees	Sowerby, t. 58



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taste is similar to that of tartar. It is soluble in 180 times its weight of water, at a temperature of sixty-eight degrees, and in forty-five times its weight of alcohol. The aqueous solution reddens vegetable blues. It combines with the different bases forming boletates, which have been but little examined. The boletate of ammonia crystallizes in flat four-sided prisms, and is soluble in twenty-six times its weight of water at sixty-eight degrees. The boletate of potash is very soluble in water, and crystallizes with difficulty. The boletate of lime crystallizes in flat four-sided prisms, and is soluble in about 110 times its weight of water at seventy-two and a half degrees. Polyporus fomentarius is much used on the continent for making Amadou; also very generally in the Highlands of Scotland for the same purpose by the shepherds, who manufacture it for themselves.

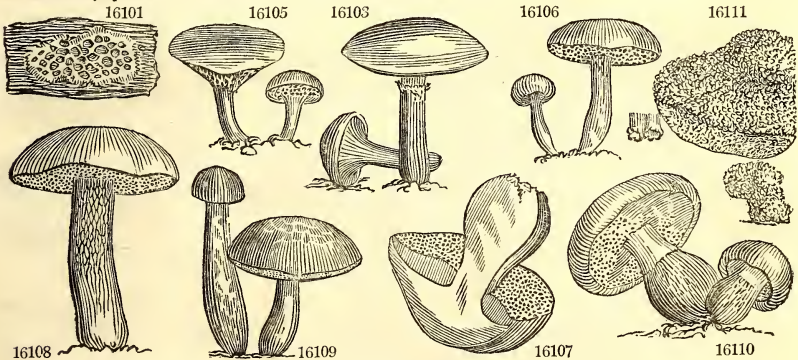
- 16070 Cap fleshy coriaceous thin smooth brownish, Pores very small roundish white, Stipes short pallid
 16071 Cap soft fleshy somewhat umbilicated villous sooty pallid, Pores somewhat angular white, Stipes pallid
 16072 Cap coriaceous velvety zoned, Pores minute at length lacerated, Plant cinnam.-col. Stipes central
 16073 An obscure species scarcely known
 16074 Cap concave rich brown scaly, Pores white very short, Stipes whitish thick short
 16075 Cap rigid glab. smooth, Pores minute round. pallid, Stipes short smooth pallid abruptly black downwards
 β Cap rigid glab. smooth, Pores small round. pale, Stipes short smooth pale becom. suddenly black at base
 γ Cap yellow ochre-color or whitish
 16076 Cap corky and stipes smooth shining, Pores minute round pale
 16077 Much branched, Caps halved rugose sooty-grey, Pores white [Pores excessively short min. round whit.
 16078 Imbricated scarcely reflex. whit. or brown.-grey, Cap betw. corky and coriac. thin velvety obscure. zoned,
 16079 Imbricated multiplied, Caps very broad somewhat banded pale-brown, Pores unequal pale
 16080 Multiplied subsessile, Caps broad imbricated smoothish reddish-yellow, Pores minute flat sulphur-colored
 16081 Cap subsessile not dimidiate compact smooth pale whitish-brown, Pores white small unequal
 16082 Whitish, Cap fleshy rugose hispid obtuse, Pores short roundish
 16083 Cap fleshy subsessile white changing to bluish, Pores minute white irregular lacerated
 16084 Cap dimidiate large somew. fleshy thick villous ferrugin. Pores yellowish pale and fringed at the orifices
 16085 Caps fleshy corky downy ferruginous, Pores shining greyish ferruginous
 16086 Caps fleshy tough villous pale: margin straight blackish, Pores minute round cinereous
 16087 Cap fleshy corky not banded glabrous pallid, Pores small equal
 16088 Cap fleshy corky not banded villous white, Pores largish brownish [brown short irregular
 β Sess. or dimid. bet. suber. and coriac. round. smooth white at length brown. Pores white becom. yellow-
 16089 Cap mostly reflexed coriaceous villose variegated by zones of different colors, Pores round white short
 16090 Caps coriaceous streaked in rays somewhat velvety brownish-yellow, Pores minute
 16091 Caps coriaceous smooth not banded pale ochre-color, Pores equal [lacerating
 16092 Effused but at length mostly reflex. Cap thin coriac. vill. white, Pores violet at length brown. and toothed
 16093 Cap subtriangular glabrous dark brownish-grey soft within: margin pale glaucous as well as the pores
 (which are very minute) but at length ferruginous
 16094 Hard, Cap thick obtuse smoothish mostly ferruginous blackish at the base banded: margin convex,
 Pores minute greenish at length cinnamon-color
 16095 Effused coriaceous-spongy ferruginous, Pores straight round minute
 16096 Effused somewhat wavy hard smooth dry white, Pores middle-size
 16097 Broadly effused thin dry smooth white, Pores minute subequal
 16098 Effused thick portions sometimes growing out horizontally ferrugin. Pores round. very uneq. Flesh none
 16099 Effused thin soft white with a fibrous circumference, Pores thin unequal
 16100 Effused coriaceous very thin submarginate, Pores orange flesh-color minute round suboblique

- 16101 Very fine resembling byssus fugacious white, Pores distant cupuleform powdery
 16102 Effus. entirely resupin. very thin white: marg. membran. laciniat. Pores min. subhexagonal very shallow

- 16103 Cap glutinous varying from bright-yellow to fulvous: tubes adnate yellow, Stipes firm with an annular veil
 16104 Cap red-buff, Pores yellow, Stipes bright-yellow, Juice like milk
 16105 Cap redd. or brownish-yell. smooth: tubes adnate somew. decurr. large ferrugin. Stipes smooth deep-yell.
 16106 Cap round. dry subtoment. reddish or olivaceous: tubes adnate large angul. yell. Stipes very firm smooth

- 16107 Cap convex subtomentose mostly olivaceous: tubes nearly free round yellow; the orifices crimson-red,
 Stipes thick reticulated with crimson-red
 16108 Cap convex smooth cinereous yellow or brown: tubes nearly free roundish minute whitish at length
 yellowish, Stipes thick reticulated: flesh white not changing color
 16109 Cap convex glabrous: tubes free round whitish, Stipes firm attenuated upwards scabrous
 β Cap somewhat rufous with black scales
 γ Cap slightly glutinous reddish-brown thin: tubes adnate compound yellowish, Stipes smooth
 16110 Cap compact somewhat downy: tubes loose round equal, Stipes solid smooth verticose

16111 The only species

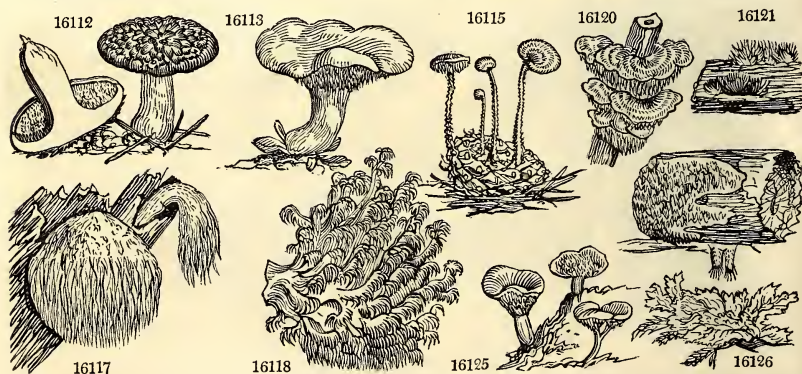


and Miscellaneous Particulars.

2373. *Boletus*. Pliny, Cæsalpinus, Porta, and others, call these plants Suilli. The Boleti (from βωλος, a field, in allusion to the places where they are found) of the Romans were terrestrial Fungi, and more particularly *Agaricus cæsareus*. By Tournefort these were called Phalloidei; by Micheli, Morchellæ. The species grow singly upon the ground, are succulent, and have their parts in the greatest perfection of any fungi. *B. granulatus* is eatable, according to Persoon; so is *Boletus subtomentosus*. *Boletus edulis* is excellent when cooked.

2374. *Fistulina*. So called from the *fistulus* nature of its tubes; the genus is just intermediate between *Boletus* and *Hydnum*, to the former of which it bears the same resemblance as *Schizophyllum* to *Agaricus*. There is only one species, and it is said, by Persoon, to be eatable.

2375. HYD'NUM. L.	HYDNUM.		Sp. 13—87.			
16112 imbricatum L.	imbricated	esulent	1 sep. oc.	Umb.	pine woods	Greville crypt. 71
16113 repandum L.	repand	esulent	1½ su. aut.	Ysh	woods	Greville crypt. 44
β squamosum Fr.	scaly	esulent	1½ su. aut.	Ysh	woods	Bolton, t. 88. imbricatum
16114 rufescens Pers.	brownish	edible	3 su. aut.	Pksh	beech woods	Bolton, t. 89. repandum
16115 auriscalpium L.	ear-pick	curious	2½ all sea.	Bl	pine cones	Greville crypt. 196
16116 gelatinosum Scop.	gelatinous	curious	½ aut.	Fusc.	pine woods	Jacq. aust. t. 239
16117 erinaceum Bull.	Hedge Hog	variable	3 oct.	W	beech trees	Bulliard, t. 34
16118 coralloides Scop.	coralloid	tufts	1 aut.	W	trun. of trees	Sowerby, t. 252
16119 crispum Schæff.	crisp	4 inches wide	0 oct.	Brsh	dead wood	Schæff. t. 147. f. 1
16120 ochraceum Pers.	ochre-colored	variable	2 all sea.	Ysh	pine wood	Sowerby, t. 15. Daviesii
16121 minimum Bolton	least	curious	½ aut.	Taw.	rotten oak	Bolton, t. 171
16122 membranaceum Bull.	membranous	effused	0 sum.	Ferr.	pine wood	Sowerby, t. 327
16123 Bárba Jovis Bull.	Jew's Beard	12 inches wide	0 sum.	Wsh	hollow trees	Sowerby, t. 328
16124 spatulatum Fr.	spatulate	very delicate	0 all sea.	W	pine trees	Nees syst. f. 231
2376. SISTOSTRE'MA. Fries.	SISTOSTREMA.		Sp. 1.			
16125 confluens Pers.	confluent	gregarious	1 au. no.	Wsh	way-sides	Sowerby, t. 112
2377. PHLE'BIA. Fries.	PHLEBIA.		Sp. 1—4.			
16126 vága Fries	wandering	membranous	2 sep. no.	Sul.	alder trees	
2378. THELE'PHORA. Ehrh.	THELEPHORA.		Sp. 33—75.			
16127 pannósa Fr.	cloth-like	gregarious	2 aut.	Pallid	on ground	Sowerby, t. 155
16128 caryophyllæa Fr.	clove	tough	1½ aut.	Psh	among grass	Schæffer, t. 325
16129 terréstris Fr.	terrestrial	gregarious	1½ aut.	Brsh	on ground	Bul. t. 268. caryophyllæa
16130 laciniáta Fr.	ragged	gregarious	1½ aut.	Ferr.	on ground	Bol. t. 173. caryophyllæa
§ 1. MERISMA. Fr.						
16131 palmáta Fr.	palmete	stinking	2 wet au.	Psh	pine woods	Greville crypt. fl. t. 46
β anthocéphala Fr.	flower-headed	stinking	2 wet au.	Ferr.	pine woods	Sowerby, t. 156
16132 cristáta Fr.	crested	crust-like	3 au. oct.	Pallid	damp places	Sow. t. 158. laciniata
16133 tuberósa	dwarf tuberous	solitary	14 aut.	Rsh	bare ground	Greville crypt. 178
16134 rubiginósa Schr.	rusty	woody	2 all sea.	Bt. Br	old oaks	Sow. t. 26. Au. ferrugin.
16135 tabacína Fr.	Tobacco	elegant	6 su. aut.	Ferr.	bran. of trees	Sowerby, t. 25
Auric. nicotiana Bolton, t. 174						
16136 hepática Fr.	Liver	imbricated	4 aut.	Dl. Br	trun. of trees	Sow. t. 388. f. 2. Aur. lœvis
16137 hirsúta W.	hairy	firm	3 all sea.	Ysh	trun. of trees	Sow. t. 27. Au. reflexa
16138 ochroleúca Fr.	pale-yellow	membranous	3 aut.	Wsh	trun. of trees	Sow. t. 349. Au. papyrinus
16139 purpúrea Schum.	purple	wavy	3 aut.	Pu	trun. of trees	So. t. 368. f. 1. A. persistens
16140 intybácea Pers.	endive-like	very irregular	6 au. spr.	Rsh	stumps of tr.	
16141 sínuans Pers.	sinuous	gregarious	1 au. wi.	Y. Br	oak branches	
16142 corýlea Pers.	Hazel-Tree	imbricated	6 all sea.	Ochr.	decay, hazel	
16143 córium Pers.	leathery	thin	6 aut.	Buff	dead trunks	Greville crypt. 147
16144 ochrácea Fr.	yellow-ochre	very broad	12 aut.	Ochr.	rotten trun.	
16145 radiáto-rimósa Grev.	cracked	confluent	4 aut.	R. Br	damp fir tim.	
16146 sanguinolénta Fr.	bloody	very gregar.	2 nov.	Psh	dead trees	Greville crypt. 225



History, Use, Propagation, Culture,

2375. *Hydnum*. The Greeks had their *ὕδνα* and *ὕδνα*, tumours, which were analogous to the tubers of the Romans. *H. coralloides* is eatable; so is *H. leoninum*, a Swedish species. A very extensive genus of fungi, chiefly found in moist situations upon the trunks of trees. The pileus is furnished on its lower surface with numerous awl-shaped bodies, which Linnaeus compares to the prickles of a hedgehog; they are soft, solid, conical or cylindrical substances, emitting spores from every part of their surface.

2376. *Sistostrema*. So named from *συσίστημα*, part. *συσίστω*, compounded, and *τερυμα*, an orifice, in allusion to the regular rows of pores. Intermediate between the Agarics and *Hydna*. Gregarious, becoming concrete, fragile, scentless, white, becoming yellow in age. The pilei are thin, somewhat fragile, from half to one inch

1. *Stem perpendicular, Cap distinct, round, nearly entire.* GROWING ON THE GROUND.
 16112 Cap fleshy flat tessellated scaly not banded umber-colored, Processes buffish-cinereous, Stipes short
 16113 Cap fleshy smooth subrepand buffish, Subulate processes of hymenium unequal pale, Stipes unequal thick
 16114 Cap fleshy orbicular somewhat tomentose brownish-flesh-color, Processes nearly equal, Stipes thin equal
 16115 Cap coriaceous tomentose, Stipes lateral tomentose
2. *Stem simple, somewhat horizontal, Cap halved, or out of the centre.* FLESHY. GROWING ON WOOD.
 16116 Cap gelatinous papillose, Processes soft pyramidal glaucous, Stipes short lateral
 16117 Very large heart-shaped white becoming rather yellow, Cap sessile fibrous torn, Processes very long
3. *Cap confounded with the stem, obliterated.* FLESHY. GROWING ON WOOD.
 16118 Much branched white becoming yellow, Branches entangled tapering, Processes unilateral subulate
4. *Cap sessile, lateral.* GROWING ON WOOD.
 16119 Cap coriaceous lobed scaly plaited rufous brown projecting behind, Processes imbricated pale rufous
 16120 Effuse-reflexed, Cap coriaceous thin banded ochre-colored, Processes minute numer. ochre-flesh-colored
 16121 Coriaceous woody spherical orange-color, Processes short erect

5. *Cap resupinate, effuse.* GROWING ON WOOD.
 16122 Effused thin glabrous tawny-ferruginous, Processes in the middle straight
 16123 Effused downy pale-white, Processes rounded pubescent at the end bearded with orange
 16124 Effus. white at length yellow. with a byssoid marg. Process of hymen. oblique subent. compr. vill. at apex
- 16125 The only species

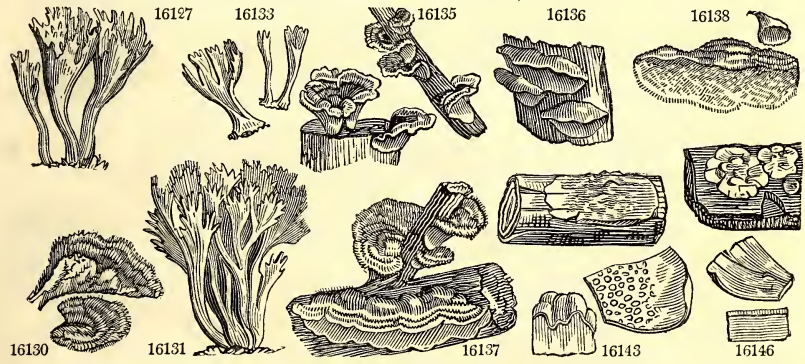
16126 Effused soft sulphur-colored : the circumference expanded and byssoid, Plaits distant irregular

1. *Cap entire, with a stem.* TERRESTRIAL.
 16127 Corky pale, Cap depressed scaly beneath smooth somewhat pilose
 16128 Somew. tuft. stipit. or sess. Cap irregul. rarely quite ent. striato-fibr. purplish-brown : marg. often lacinate
2. *Cap lateral, somewhat stipitate.* TERRESTRIAL.
 16129 Irregularly tufted dark fuscous, Cap rather thick striato-fibrous sessile often imbricated sometimes with a very short lateral stipes
 16130 Ferruginous brown, Caps fibrous scaly ragged and crisp at their edges

3. *Cap and stem confounded, running into compressed branches.* TERRESTRIAL. *Merisma.* Pers.
 16131 Erect purple-brown, Branches compressed palmate folded paler at the summit
 16132 Somewhat ferruginous, Branches glabrous obtusely ragged fastigate
 16133 Subdecumbent pale greyish or yellowish, Branches effused plane expanding fimbriato-lacinate
 16133 Erect distinct stipitate reddish-grey, Cap with branches of nearly equal length, Stipes bulbous at base

4. *Cap sessile, lateral.* GROWING ON WOOD.
 16134 Imbricated rigid somewhat zoned purplish reddish-brown glabrous, Hymenium papillose minutely velvety rubiginous paler at the margin
 16135 Effuse-reflexed thin silky ferruginous margined downy beneath

- 16136 Somewhat imbricated bandless smooth on each side very smooth dull-brown
 16137 Effuse-reflexed coriaceous strigose, Hymenium smooth yellowish or orange-buff
 16138 Effuse-reflexed somewhat membranous striated pubescent beneath smooth and ochraceous
 16139 Imbricated subcoriaceous zoned hirsute, Hymenium smooth purple
 16140 Imbricated velvety zoned pale reddish-buff, Hymenium smooth irregularly papillose buffish at length ferruginous sometimes shooting out into rude stems anastomosing and producing irregularly caps
 16141 Round thick often conflu. Marg. waved splitting, Hymenium tuberculose yellow, or reddish-brown crack.
 16142 Broadly effused thickish, The margin slightly reflexed, Hymenium ochraceous uneven unequally papillose
 16143 Coriaceous broad thin, Margin free with the surface tomentose, Hymenium smooth minutely reticulated buff becoming darker in age
 16144 Effus. very broad thin, Hymen. somew. of an ochrey pale yell. smth. or with scatter. uneq. false papillæ
 16145 Resupinate, Margin free whitish hirsute, Hymenium fuscous smooth somewhat shining and faintly zoned towards the margin cracking in a radiated manner
 16146 Circular effused, Margin sometimes free rarely reflexed, Hymenium pale whitish-brown pruinose silky and minutely byssoid at the margin turning red when wounded



and Miscellaneous Particulars.

broad, somewhat depressed, flexuose, and apt to grow to one another. The only species is found in August and November by the side of sandy paths in pine-groves.

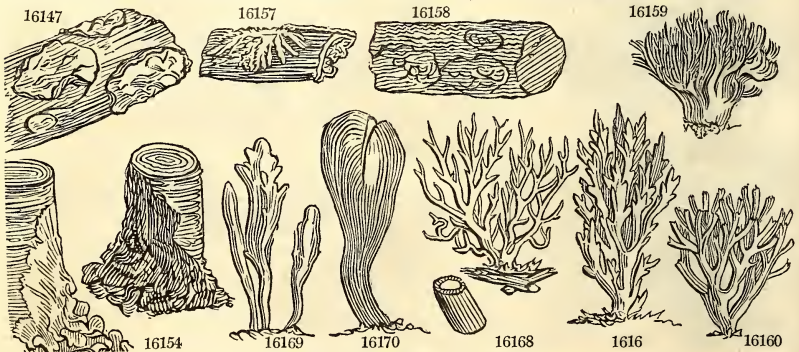
2377. *Phlebia*. So called, from φλέψ, a vein. As the last was intermediate between *Agaricus* and *Hydnum*, so is this between *Cantharellus* and *Thelephora*. As that differed from *Dædalea*, does this from *Merulius*. The species are all found upon bark, late in the year. No species was described before the writings of Fries. *P. merismoides* is an elegant little plant, distinguished by its reddish-flesh-colored huces. It is found occasionally spreading over wood and smooth bark; and sometimes runs with its papillose veiny branches among mosses.

2378. *Thelephora*. So called, from θήλην, a nipple, and ὄσσειν, to bear, in allusion to the papillose surface of

16147 <i>quercina Pers.</i>	oak	brittle	6 spr. au.	Blsh	fallen oaks	Greville crypt. 142
16148 <i>fraxinea Pers.</i>	ash	thin	1 aut.	Grsh	dead ashes	
16149 <i>Tilia Pers.</i>	lime	irregular	2 aut.	Cin.	woods	
16150 <i>epidérmea Pers.</i>	bark	irregular	3 nov.	Pa.Bu	dead trunks	
16151 <i>incrústans Pers.</i>	incrusting	spreading	3 aut.	Ysh	earth, tr., &c.	
16152 <i>calcea Pers.</i>	chalky	cracked	6 aut.	W	decay. wood	
16153 <i>Sambúci Pers.</i>	Elder Tree	membranous	4 aut.	W	decay. elders	
§ 2. PHYLACTE'RIA. <i>Pers.</i>						
16154 <i>biennis Fr.</i>	biennial	plaited	4 aut.	Wsh	on ground	Bulliard, t. 436
§ 3. HIMAN'TIA. <i>Pers.</i>						
16155 <i>doméstica Pers.</i>	household	smooth	6 wet w.	Br	da. pla. in ho.	
16156 <i>fúscá Fr.</i>	brown	rugose	2 aut.	Vi.Br	trun. of trees	
16157 <i>láctea Fr.</i>	milk-white	very thin	2 aut.	W	trun. of trees	Sow. t. 387. f. 1. <i>F. stellata</i>
<i>H. cándida Pers.</i>						
§ 4. LEIOSTRO'MA. <i>Fr.</i>						
16158 <i>cinérea Fr.</i>	cinereous	uneven	4 spr. au.	Cin.	elder tree	Sowerby, t. 388

Division II. *Clavati.*

2379. CLAVA'RIA. <i>Vaill.</i> CLAVARIA.						
<i>Sp. 23—66.</i>						
16159 <i>Bótrytis Pers.</i>	bunched	much branch.	3 sum.	Wsh	beech woods	Sch. t. 176 <i>acroporphyria</i>
16160 <i>háva Pers.</i>	yellow	delicious	3 aug.	Y	woods	Schæffer, t. 175
16161 <i>coralloides L.</i>	coral-like	very smooth	3 aut.	W	on ground	Sowerby, t. 278. fig. sup.
16162 <i>abietina Pers.</i>	pine-wood	gregarious	3 aut.	Ochr.	fir woods	Greville crypt. 117
16163 <i>crístáta Pers.</i>	crested	polymorph	2½ aut.	W	woods	Greville crypt. 190
16164 <i>cinérea Pers.</i>	cinereous	tufted	3 sum.	Cin.	damp places	Greville crypt. fl. t. 64
16165 <i>córnea Pers.</i>	corneous	gregarious	½ aut.	Y	dead fir trees	
16166 <i>stric'ta Pers.</i>	erect	thin	1 au. oc.	Brsh	trunks	Schæffer, t. 286. <i>pallida</i>
16167 <i>praten'sis Pers.</i>	meadow	viscid	1 aut.	Y	meadows	Bolton, t. 114. <i>muscoïdes</i>
16168 <i>corniculáta Schæff.</i>	horned	solitary	3 aut.	Y	meadows	Sow. t. 157. <i>muscoïdes</i>
16169 <i>rugósa Bull.</i>	rugose	toughish	2½ aut.	W	damp earth	So. t. 278. fig. inf. <i>coralioi.</i>
16170 <i>pistilláris L.</i>	pistillary	largest	12 au. no.	Ysh	beech woods	Sowerby, t. 277
16171 <i>Ardénia Sowerby</i>	flexuose	opaque	6 sep.	Brsh	bran. of lime	Sowerby, t. 215
16172 <i>fusifórmis Sowerby</i>	fusiform	regular tufts	3 sep.	Y	among grass	Sowerby, t. 234
16173 <i>ceranoïdes Pers.</i>	wrinkled	much tufted	3 aut.	Ysh	upon trees	Sowerby, t. 235. <i>rugosa</i>
16174 <i>inaquális Fries</i>	unequal	gregarious	2½ aut.	Y	meadows	Sow. t. 253. <i>vermicularis</i>
16175 <i>fragilis Pers.</i>	brittle	gregarious	1 aut.	Ysh	damp places	Greville crypt. 57
<i>C. gracilis Sowerby, 232</i>						
16176 <i>acúta Sowerby</i>	acute	gregarious	2 aut.	W	upon trees	Sowerby, t. 333
16177 <i>fimbriáta With.</i>	fringed	polymorph.	2 aut.	W	upon trees	
16178 <i>hélvola Pers.</i>	pale-red	flexuose	1½ aut.	Y	meadows	
16179 <i>vermicularis Fries</i>	worm-like	crowded tufts	3 aut.	W	mea. & past.	
16180 <i>unciális Grev.</i>	dwarf	veryregar.	1 aut.	W	rotten twigs	Greville crypt. 98
16181 <i>sétipus Grev.</i>	bristle-footed	gregarious	½ aut.	W	dead leaves	Greville crypt. fl. t. 49
2380. CALO'CERA. <i>Fries.</i> CALOCERA.						
16182 <i>tuberósa Fries</i>	tuberosus	root roundish	2 aut.	Y	und.ba. of tr.	Sowerby, t. 199
16183 <i>córnea Fries</i>	horny	tufted	½ jl. dec.	Y	various trees	Sowerby, t. 40
2381. GEOGLOS'SUM. <i>Pers.</i> EARTH-TONGUE. <i>Sp. 4—9.</i> <i>Clavaria Sow.</i>						
16184 <i>hirsútum Pers.</i>	hairy	solitary	2 aut.	Bl	bogs & mea.	Greville crypt. 185



History, Use, Propagation, Culture,

of the pileus of all the species. *T. caryophyllæa* is very common upon the exposed roots of old firs in the autumn. The substance is tough and somewhat woody; the color a chocolate brown. The plants often grow in masses, attached by their upper side to sticks, old bark, &c. and are from one to three inches in diameter.

2379. *Clavaria.* So called, from the simple clavate form of the species. Some are eatable; as for instance *C. flava*, which is said to be delicious; *C. cinerea*, which is frequently eaten in France; *C. pyxidata* is said by Persoon to be tolerably good. Loureiro has also an eatable species found in Cochín-China, growing upon elephant's dung.

5. *Cap obliterated, resupinate.* GROWING ON WOOD.

- 16147 Resupinate rigid nearly black beneath, Hymenium flesh-color rugose and papillose at length cracking
- 16148 Very thin effused cracking and becoming invol. very dark ben. Hymen. brown-grey minutely farin. papill.
- 16149 Effus. extremely thin, Marg. appress. minutely vill. Hymen. purp.-grey cover. with small uneq. papillæ
- 16150 Effused thin smooth, Margin delicate and byssoid, Hymenium whitish at first at length very pale-buff; Papillæ scattered or none
- 16151 Effused spreading over moss, &c., Margin fibrous, Hymenium very unequal tuberculose yellowish
- 16152 Effused unequal in thickness hard, Hymenium white glabrous cracked in different directions so as to be often tessellated obtusely papillose
- 16153 Effused membranaceous thin, Margin entire, Hymenium very white glabrous subpapillose

- 16154 Membranous smooth plaited at base whitish becoming blackish

- 16155 Effused membranous smooth pale beneath white with cobweb-like down
- 16156 Effused somewhat rugose soft of a violet-brown: at the margin and beneath downy
- 16157 Mostly on dead leaves, Filaments very fine white radiating dilated at the extremities in a plumose manner

- 16158 Broadly effused thin dry smooth glabrous cinereous

Division II. *Clavati.*

* *Much branched, Stem thick.*

- 16159 Deformed, Stipes decumbent very thick pale, Branches short somewhat wrinkled red at ends
- 16160 More erect, Stem thick white, Branches straight round fastigate yellow
- 16161 White erect, Stipes thick, Branches elongated irregular unequal mostly acute
- 16162 Dull ochrey-yellow much branched white and tomentose at the base turning green when bruised, Branches erect crowded slightly rugose with acute often forked summits
- 16163 White or ciner. tuft. branch. smooth, Branch. dilat. at summ. and jagged or shortly but acutely lacinate
- 16164 Grey often with a bluish or a purplish tinge much branched unequally incrassated rugose often subcompressed, Summits either very obtuse or somewhat acuminate
- 16165 Yellow half an inch high branched or nearly simple viscous, Stipes of several plants connected at the base

** *Branched, Stem thin.*

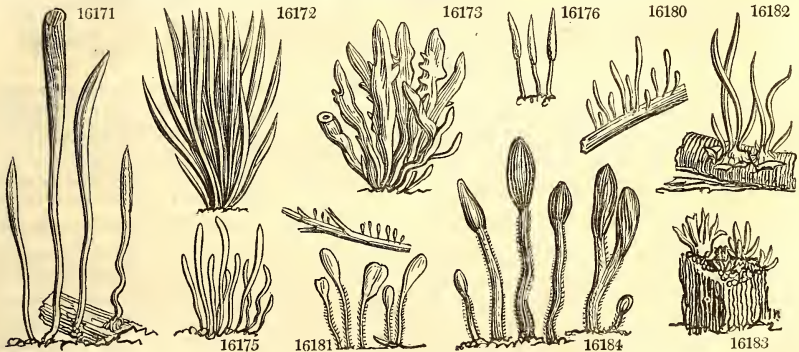
- 16166 Much branched pale brownish, Branches and branchlets straight appressed acute
- 16167 Yell. tuft. Stipes short producing numer. short geniculate divaricate branches: the ramuli subfastigi. obt.
- 16168 Yellow erect much branched in a dichotomous manner, Branches slender with acute summits
- 16169 White gregarious incrassated rugose simple or branched, Branches few short obtuse

*** *Simple, clavate.*

- 16170 Solitary large glabrous yellowish-brown thickened upwards and obtuse
- 16171 Very long hollow thickened upwards brownish downy at base
- 16172 Heaped fasciated yellow, Branches nearly equal incurved yellow [irregular at the apex
- 16173 Fasciated unequal subdivided hollow yellowish-brown at end
- 16174 Yell. or yell.-white tuft. or gregarious fragile uneq. ventric. deformed somew. acum. often bifurcate and
- 16175 Yellow or white gregarious sometimes subcespitoso solid or hollow very brittle rather firm attenuated at the base subrugose in age and often crooked
- 16176 Straight white, Head distinct round acuminate as long as stipes
- 16177 Stem slender villous, Branches long compressed, Branchlets numerous setaceous cut
- 16178 Yellow gregarious cylind. equal smooth obt. slender below and paler, apex frequently of a cinnamon-color
- 16179 Pure white tuft. crowd. subul. flexuose solid but with a small perforat. mostly somew. connected at base
- 16180 White gregarious round club-shaped obtuse much attenuated at the base smooth not brittle
- 16181 White minute, Hymenium oblong or ovato-clavate passing suddenly into a filiform pilose stipes

- 16182 Tough yellowish nearly simple, Stem tuberous long-rooted
- 16183 Tufted smaller simple and branched viscid yellow connate at base

- 16184 Stipes hirsute deep-black, Hymenium somewhat plicate



and *Miscellaneous Particulars.*

2380. *Calocera.* From *καλος*, beautiful, and *κερας*, a horn, in allusion to the divisions of the plants. They grow on wood, and are either brown or yellow; but their sporidia are generally white. *C. viscosa* is at once distinguishable by its beautiful gold color. Some of the species adhere to paper when dry.

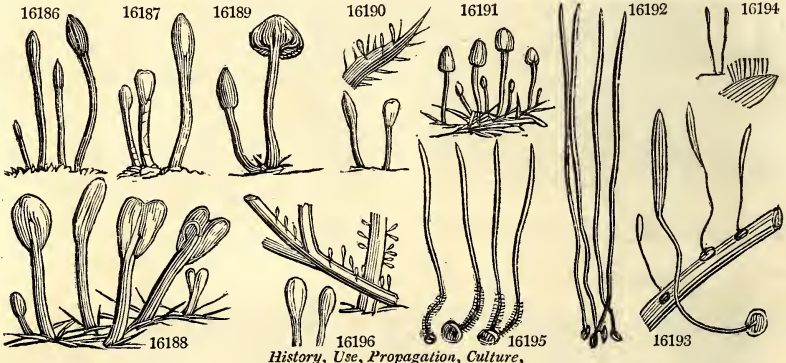
2381. *Geoglossum.* From *γη*, the earth, and *γλωσσα*, a tongue; earth-tongue: in allusion to the simple form of the species, which all grow upon earth, and are of a blackish or dark-green color. Fries considers the genus to be scarcely distinct from *Clavaria*.

16185 glábrum <i>Pers.</i>	smooth	gregario.	1 sum.	Blsh	among grass	Bolton, t. 111. fl. f. 2
16186 viscosum <i>Pers.</i>	viscid	cylindric.	1½ aut.	Bl	moist meadows	Greville crypt. fl. t. 55
16187 viride <i>Pers.</i>	green	gregario.	2 aut.	G	moist meadows	Greville crypt. 211
2382. SPATULARIA. <i>Pers.</i>	SPATULARIA.	<i>Sp. 1.</i>			<i>Clavaria</i> Sow.	
16188 flávida <i>Pers.</i>	yellowish	variable	1½ aut.	Ysh	dead leaves	Greville crypt. 165
2383. MITRULA. <i>Fries.</i>	MITRULA.	<i>Sp. 1-5.</i>			<i>Clavaria</i> Sow. <i>Leotia</i> <i>Pers.</i>	
16189 paludósa <i>Fries.</i>	marshy	hollow	1 my.au.	Y	wet ditches	Sowerby, t. 293
16190 minúta <i>Fries.</i>	minute	gregario.	½ sum.	Y	brac. of Dips. pilos.	Sowerby, t. 391
16191 abletis <i>Fries.</i>	fir-wood	dry	½ aut.	Cinn.	fir woods	Sow. t. 84. <i>ferruginea</i>
	<i>Leotia mitrula</i> Grev. 81					
2384. TYPHULA. <i>Fries.</i>	TYPHULA.	<i>Sp. 4-11.</i>			<i>Clavaria</i> Sow.	
16192 phacorhiza <i>Fr.</i>	tuberous	flexuose	2 aut.	W	woods	Sowerby, t. 253
16193 erythroopus <i>Fr.</i>	red-footed	gregario.	¾ aut.	W	sticks and leaves	Gre. cry. 43. <i>Phacorhiza</i>
16194 ténuis <i>Fr.</i>	thin	gregario.	½ sum.	Blsh	on wood	Sowerby, t. 386. f. 5
16195 filiformis <i>Fr.</i>	filiform	creeping	¼ aut.	Cin.	dead leaves	Gre. cry. 93. <i>Phacorhiza</i>
2385. PISTILLA'RIA. <i>Fries.</i>	PISTILLARIA.	<i>Sp. 1-7.</i>			<i>Clavaria</i> Sow.	
16196 quisquiliáris <i>Fr.</i>	obtuse	gregario.	¼ aut.	W	dead fern leaves	Sow. t. 334. f. 1. <i>obtusa</i>

Class II. UTERINI v. ELVELLACEÆ. — Division I. *Mitrati.*

2386. MORCHEL'LA. <i>Dill.</i>	MOREL.		<i>Sp. 3-14.</i>			
16197 esculénta <i>Pers.</i>	esulent	eatable	3 spring	Wsh	on the earth	Greville crypt. 63
α rotúnda <i>Pers.</i>	round	eatable	3 spring	Wsh	on the earth	Sow. t. 51. fig. sinistr.
β vulgáris <i>Pers.</i>	common	eatable	3 spring	Wsh	on the earth	Sower. t. 51. fig. dextr.
16198 pátula <i>Pers.</i>	spreading	eatable	3 spring	Ysh	on the earth	Sower. t. 51. fig. med.
16199 semilíbera <i>Dec.</i>	half-separate	cap brown	4 spring	Wsh	woods	Gre. crypt. 89. <i>hybrida</i>
2387. HELVEL'LA. <i>L.</i>	HELVELLA.		<i>Sp. 5-15.</i>			
16200 crispa <i>Fr.</i>	crisp	solitary	4 aut.	Ysh	borders of fields	Gre. cry. 143. <i>leucophæa</i>
16201 lacunósa <i>Afx.</i>	pitted	solitary	4 aut.	Livid	hedge banks	Gre. crypt. fl. t. 36. <i>Mitra</i>
16202 esculénta <i>Pers.</i>	esulent	eatable	3 mr. my	Brsh	pine woods	Schæffer, t. 160
16203 In'fula <i>Schæff.</i>	brown	eatable	4 aut.	Cinn.	damp scorch. places	Flora danica, t. 835

16204 elástica <i>Fr.</i>	elastic	slender	4 su. aut.	Blsh	damp places	Sower. t. 154. <i>fuliginosa</i>
2388. VER'PA. <i>Swz.</i>	VERPA.		<i>Sp. 1-6.</i>			
16205 cónica <i>Swz.</i>	conical	fistular	3 aut.	Br	on ground	Sowerby, t. 11. <i>Relhani</i>



History, Use, Propagation, Culture,

2382. *Spatularia*. A very distinct genus, named from its spatulate form. The only species known is an autumnal epiphyte, common on fallen leaves, decaying mosses, &c. Its color is at first pallid; afterwards it becomes yellow and ferruginous; but the stipes retains its paler color. It is found in plantations in various parts of England. In a state of perfect maturity, the head, on being touched, throws up its spores in the form of smoke, which rises with elastic force, and glitters in the sunshine like particles of silver.

2383. *Mitrula*. So called from its *mitra* form. The species are small epiphytes with a simple stem.

2384. *Typhula*. A diminution of *Typha*, a well-known marsh plant, the heads of fructification of which this genus resembles in miniature. All the species are delicate, and are found upon decayed leaves, or even occasionally upon *Sclerotias*.

2385. *Pistillaria*. So called from its *pistil*-like form. The species are all small, delicate epiphytes, appearing in the autumn.

2386. *Morchella*. A name altered by Dillenius from *Morchel*, the German name of the plant. Fungi of a large size, appearing in the spring upon the earth. The eatable morel is one of the most valuable of fungi for purposes of cookery; but is more frequently used in a dried state for sauces, than when fresh. It is found in greatest abundance in places where trees have been burned, which led in Germany to a practice of burning down masses of forests for the sake of the future morels. This practice proved so injurious, that it became necessary to suppress it by law. The morel is subject to many variations of figure and color, which are all referable to four principal forms. But there are also some legitimate species which have been distinguished by modern botanists. Of these it is not ascertained which are natives of England; but it is probable, that they are all to be found if sufficiently sought for. Without, therefore, absolutely inserting them in the list of British species, it cannot be otherwise than useful, considering the importance of an accurate knowledge of the eatable fungi, to enumerate the two principal in this place.

1. *M.* *Deliciosa* is found in the spring, among grass and bushes by the sides of fields in France, and is said to be much superior in flavor to the *M. esculenta*. Its stipes is hollow, and shorter than the pileus, scarcely ever so much as an inch long, about three or four lines thick, nearly equal in the whole length, but sometimes thickened and compressed at the base; under a lens covered with a slight downiness. Pileus is conical-cylindrical, from one inch to two inches and an half long, with nearly parallel ribs, which can scarcely be said to

- 16185 Glabrous dry blackish, Stipes somewhat scaly [thin and attenuated downwards
 16186 Smooth very slimy in moist weather black, Hymen. cylind. round. at apex confluent with stipes which is
 16187 Green somewhat fasciculate, Hymenium distinct, Stipes minutely scaly

16188 The only species

- 16189 Yellow subgregarious, Cap orange-yellow obtuse hollow : margin connate with the stipes
 16190 Very small, Head lanceolate yellow, Stipes equal paler
 16191 Gregarious solid, Hymenium ovate yellow cinnamon, Stipes slender dark-brown flexuose at the base

- 16192 White filiform elongated somewhat villose at the base radicular tuber dark fuscous lenticular
 16193 Gregarious min. Hymenium smooth white short terminat. in an elongated filiform dark pink-red stipes
 16194 Simple smooth dark thickened at end
 16195 Somewhat branched spadiceous, Heads thickened whitish

16196 Thickened towards the extremity white confluent with the stipes

Class II. UTERINI v. ELVELLACEÆ. — Division I. *Mitrati*.

- 16197 Cap round, or oval: marg. contract. round the stipes, Areolæ much hollow. Stipes white dilat. tow. base
 α Cap and areolæ round
 β Cap oval, Areolæ quadrangular
 16198 Cap obtuse separate as far as the middle, Areolæ rhomboid, Stipes smooth [thick white
 16199 Cap short conic. spread. at base, Areolæ shall. partly formed by longitudin. parallel ribs, Stipes long equal

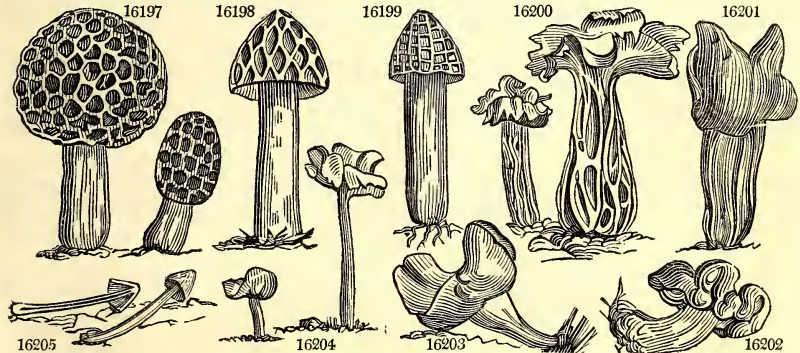
* *Cap waxy, often membranous, at first united, afterwards wavy in plaits.*

- 16200 Cap irregularly deflexed free often variously lobed yellow-white, Stipes deeply sulcate and lacunose white
 16201 Cap dark-livid inflated deflex. and partially adnate with stipes, Stipes deeply furrow. and lacunose white
 16202 Cap inflated deformed wavy wrinkled in circles brown, Margin villous adhering to the smooth stipes
 16203 Cap deflexed lobed adnate about cinnamon-colored, Stipes smoothish villous pale

** *Cap somewhat membranous, smooth, always separate.*

16204 Cap loose smooth inflated becoming sharply lobed, Stipes long thin tapering pruinose

16205 Cap campanulate smoothish fuscous somewhat sinuate at the edge: beneath and the stipes yellow



and *Miscellaneous Particulars.*

anastomose, but which are united by transverse rugosities. The color is usually yellowish, rarely of a pale livid hue.

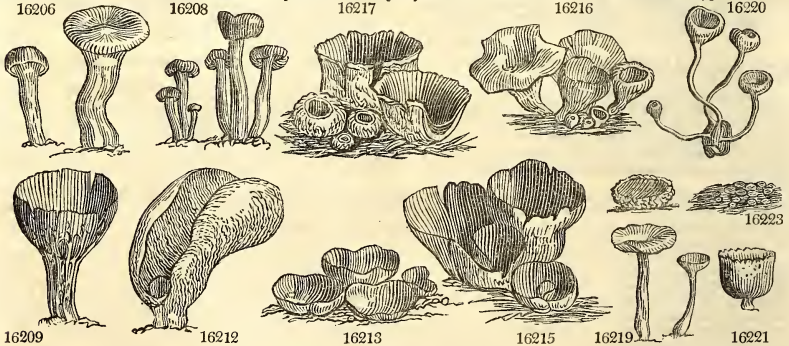
2. *M. elata* has a longer stipes than the last, an inch and more thick, very hollow and brittle, with irregular cavities. The pileus is ovate-conical, two or three inches long, but of a far more delicate texture than any of the others. The longitudinal ribs are much elevated, membranous, flaccid, with very few anastomoses, but united by transverse costae, which give the spaces between a sort of mishapen rhomboidal figure. The color is a soft brown. The flavor is watery and vapid, and in decay becomes so fetid as to be unfit for food. This is found in pine-woods, especially in humid places. It is a rarer kind than the last and like it, appears in the spring.

M. patula and *semilibera* are readily known from the true morels by their pileus not being attached to the stipes by the base, but altogether separate from it. They are distinguished from each other by the latter having a much longer stipes, and a shorter pileus, which is more conical and acute. *M. patula* is considered by Fries to have been confounded, in Mr. Sowerby's fine work on Fungi, with *Helvella esculenta*.

2387. *Helvella*. A name employed by Cicero, as the name of a fungus. The species of the modern genus are permanent, somewhat fragile fungi, with little odor or taste, but always innocuous. They grow on the earth or upon very wet wood, and are chiefly found in the autumn. *H. crispa* is excellent as an article of cookery. *H. lacunosa*, which is confounded with it, is by no means so good. *H. esculenta* has a good flavor, and is commonly eaten, but is far inferior to *Morchella esculenta*. Its qualities are nearly the same as those of the latter plant, and it is popularly confounded with it under the name, in Sweden, of *Stenmurkla*, and in Germany, of *Gemeine Morchel*, *Stumpf Morchel*, and *Stockmorchel*. *H. infula*, a large species, with an inflated smooth pileus of various hues of brown, is also esculent. This last plant is the true *H. Mitra* of Ruppium, and old botanists: a name which, having been applied by one writer or other to every species of *Helvella*, is now abandoned altogether in order to avoid further confusion.

2388. *Verpa*. An old Roman name synonymous with *Phallus*, and restored to modern science by Swartz. The species are meteoric, terrestrial, and intermediate between the Morels and *Leotia*. The hymenium is covered, as is the case with many *Mitrati*, with a frost-like flocculence, which Swartz mistook for spores, but which more recent observation has shewn to have been a mistake.

2389. <i>LEO'TIA</i> . <i>Hill.</i>	<i>LEO'TIA</i> .				<i>Sp.</i> 3—11.		
16206 <i>infundibuliformis</i> <i>Fr.</i>	funnel-form.	solitary	3	oct.	Cin.	on ground	Sowerby, t. 153
16207 <i>nána</i> <i>With.</i>	dwarf	subsessile	$\frac{1}{2}$	aut.	W	on trees	
16208 <i>lábrica</i> <i>Pers.</i>	slippery	gregario.	2	aut.	Ol	moist woods	Greville crypt. 56
Division II. <i>Cupulati.</i>							
2390. <i>PEZYZA</i> . <i>Dill.</i>	<i>PEZYZA</i> .				<i>Sp.</i> 45—300.		
§ 1. <i>ALEU'RIA</i> . <i>Fries.</i>							
16209 <i>acetábulum</i> <i>L.</i>	saucer	clustered	$\frac{1}{2}$	spring	Sooty	damp woods	Sowerby, t. 59
16210 <i>bádia</i> <i>Pers.</i>	brown	tufted	1	su. aut.	Br	grassy places	Bolton, t. 99. <i>cochleata</i>
16211 <i>leporina</i> <i>Batsch</i>	hare's-ear	gregario.	1	aug. oc.	Brsh	on ground	Schæffer, t. 156
16212 <i>onática</i> <i>Pers.</i>	rosy	gregario.	$\frac{1}{2}$	aug. oc.	Brsh	dead leaves	Sowerby, t. 79. <i>leporina</i>
16213 <i>aurántia</i> <i>Fl. dan.</i>	orange	beautiful	$\frac{1}{2}$	aut.	Or	sandy places	Sowerby, t. 78. <i>coccinea</i>
16214 <i>concinna</i> <i>Pers.</i>	neat	very broad	1	sum.	Lem.	dead leaves	Bolton, t. 175. <i>vesiculosa</i>
16215 <i>cochleáta</i> <i>Huds.</i>	cochleate	brittle	$2\frac{1}{2}$	su. aut.	Y. Br	fields	Sowerby, t. 5
16216 <i>cérea</i> <i>Sowerby</i>	waxen	gregario.	$\frac{3}{4}$	sum.	Sooty	dunghills	Sowerby, t. 3
16217 <i>vesiculósa</i> <i>Bull.</i>	bladdery	crowded	$2\frac{1}{2}$	aut.	Wsh	dunghills	Greville crypt. 107
16218 <i>repánda</i> <i>Fr.</i>	repand	fleshy	$\frac{1}{2}$	aut.	Wsh	on ground	Greville crypt. fl. 59
16219 <i>mácropus</i> <i>Pers.</i>	large-footed	solitary	2	su. aut.	Cin.	shady woods	Bolton, t. 96. <i>hispidá</i>
16220 <i>tuberósa</i> <i>Bull.</i>	tuberous	slender	2	mr. ap.	Br	shady woods	Sowerby, t. 63
16221 <i>cupuláris</i> <i>L.</i>	cupped	fringed	$\frac{1}{2}$	aut.	Pa. Br	scorched earth	Bull. t. 396. f. 3
16222 <i>argilácea</i> <i>Sowerby</i>	argillaceous	scattered	$\frac{1}{2}$	aut.	Ysh	clay	Sowerby, t. 148
16223 <i>granuláta</i> <i>Bull.</i>	granular	gregario.	$\frac{1}{2}$	sum.	Or. R	cow dung	Bull. t. 438. f. 3
16224 <i>reticuláta</i> <i>Grev.</i>	netted	very fine	4	spring	Br	on ground	Greville crypt. 156
16225 <i>erécta</i> <i>Sowerby</i>	erect	patches	$\frac{1}{2}$	aut.	Ysh	shady woods	Sowerby, t. 369. f. 10
16226 <i>humósa</i> <i>Fries</i>	earth	scattered	$\frac{1}{2}$	aut.	Crim.	damp earth	Sowerby, t. 369. f. 2
16227 <i>fis'sa</i> <i>Fries.</i>	split	solitary	$\frac{1}{2}$	wint.	Br	hazel bark	
§ 2. <i>LACH'NEA</i> . <i>Fries.</i>							
16228 <i>coccinea</i> <i>Scop.</i>	scarlet	subgrega.	$\frac{1}{2}$	spring	W	dead branches	Greville crypt. 171
<i>P. epidendra</i> <i>Sow.</i>							
16229 <i>melas'toma</i> <i>Sower.</i>	blk.-mouth.	solitary	$\frac{1}{2}$	feb. mr.	Pa. Br	heaths	Sowerby, t. 149
16230 <i>radiculáta</i> <i>Sower.</i>	rooting	clustered	$\frac{1}{2}$	su. aut.	Sul.	earth in gardens	Sowerby, t. 114
16231 <i>hemisphæ'rica</i> <i>Wig.</i>	hemispheric.	scattered	0	jn. dec.	Brsh	earth in woods	Sowerby, t. 147. <i>hispidá</i>
16232 <i>hirta</i> <i>Schum.</i>	hairy	scattered	$\frac{1}{2}$	aug. oc.	Brsh	earth	Sow. t. 369. f. 1. <i>hybrida</i>
16233 <i>cerina</i> <i>Pers.</i>	smooth	much crowd.	0	spr. au.	Ysh	decayed dry wood	
16234 <i>scutelláta</i> <i>L.</i>	scutellate	beautiful	$\frac{1}{2}$	spr. au.	Or	old cow dung	Sowerby, t. 24
16235 <i>Nidulus</i> <i>Pers.</i>	bird's-nest	punctif.	0	aut.	Br	decayed stems	
16236 <i>cerúlea</i> <i>Bolton</i>	blue	punctif.	$\frac{1}{2}$	aut.	Bsh	pine trees	Bolton, t. 108. f.
16237 <i>plano-umbilicáta</i> <i>Gr.</i>	plano-convex	hairy	0	su. aut.	W	decayed nettles	
16238 <i>stercórea</i> <i>Pers.</i>	dung	gregario.	$\frac{1}{2}$	spr. su.	Taw.	cow dung	Sowerby, t. 352. <i>equina</i>
16239 <i>albo-spádicea</i> <i>Grev.</i>	pallid	handsome	$\frac{1}{2}$	aut.	R. Br	bare earth	
16240 <i>sulphúrea</i> <i>Pers.</i>	sulphur	pretty	0	aut.	Y	decay. herbac. stems	Greville crypt. fl. 83
16241 <i>virgínea</i> <i>Batsch</i>	virgin	solitary	$\frac{1}{2}$	aut.	W	rotten sticks	Sowerby, t. 65. <i>nivea</i>
16242 <i>bicolor</i> <i>Bull.</i>	two-colored	beautiful	$\frac{1}{2}$	aut.	W	larch twigs	Sowerby, t. 17
16243 <i>variécólor</i> <i>Fries.</i>	variable	gregario.	0	all sea.	Ysh	rotten wood	Sow. t. 178. <i>hydroidea</i>
16244 <i>papilláris</i> <i>Bull.</i>	pimpled	gregario.	0	all sea.	W	upon wood	Sowerby, t. 177
16245 <i>villósa</i> <i>Fries</i>	villous	crowded	0	aut.	W	dead herbac. stems	Sow. t. 359. f. 1. <i>sessilis</i>
16246 <i>plúmbea</i> <i>Grev.</i>	leaden	crowded	0	aut.	Fu. ol.	rotten wood	Greville crypt. fl. 11
16247 <i>anómala</i> <i>Pers.</i>	anomalous	crowded	$\frac{1}{2}$	all sea.	Dl. Y	fallen branches	Sow. t. 369. f. 3. <i>rugosa</i>
16248 <i>doméstica</i> <i>Sowerby</i>	domestic	minute	0	all sea.	Ruf.	damp walls	Sowerby, t. 351
16249 <i>Waúchii</i> <i>Grev.</i>	woolly	beautiful	$\frac{1}{2}$	aut.	Pa. Br	dead wood	Greville crypt. 139
16250 <i>fúscá</i> <i>Grev.</i>	brown	spots	0	ap. my.	Gr	dead branches	Greville crypt. 132



History, Use, Propagation, Culture,

2389. *Leotia*. Named by Sir John Hill, of famous memory, for no known reason. Gregarious terrestrial substances of the middle size, appearing in summer or autumn, without smell or taste. They are most nearly akin to *Helvella* and *Verpa*, from which they differ in form and substance. The species are not known to be eatable, with the exception of *L. amara*, a native of Cochin-China, which is capable of being deprived of its native bitterness by long stewing.

- 16206 Cap depressed cinereous livid smooth on each side, Stipes solid smooth
 16207 Dwarfs, Cap rugose white beneath smooth brown, Stipes solid cylindrical white
 16208 Tremellose, Cap tumid spread. olivac. : margin rounded, Stipes orange-cylindr. or unequally compressed

Division II. *Cupulati.*1. *Cupule always open, or when young conniving, Veil superficial, Sporidia with two smaller sporidia.*

HELVELLOIDEÆ.

- 16209 Cyathiform sooty veiny on the outside arising from a short fistulous pitted stipes
 16210 Subsess. ent. flexuose brown, Margin at first involute externally pruinose paler and somew. olive-colored
 16211 Substipitate lengthened on one side ear-shaped somew. ferrugin. mealy outside smooth inside at the base
 16212 Substipitate lengthened on one side ear-shaped farinaceous outside pink inside becoming rugose at base
 16213 Gregarious flexuose very brittle white externally, Hymenium fine orange
 16214 Cæsposito large very brittle externally lemon-colored becoming wrinkled pale flesh-color inside
 16215 Gregarious cæsposito variously contorted externally yellowish-brown, Hymenium dull reddish-brown
 16216 Large funnel-shaped repand yellowish villous and whitish outside and upon the stipes-like base [base
 16217 Gregar. cæspit. glob. at first with mouth conniv. at length campan. split. externally whit. and toment. at
 16218 Sessile solitary or somewhat tufted large at first hemispherical and concave at length nearly plane sub-
 rugose and brown within the outer surface farinose whitish, Margin crenate

2. *Cupule at first closed, Veil innate, Sporidia simple.* GEOPYXIA.

- 16219 Subgregarious large: the pileus hemispherical slightly hairy and verrucose ash-colored; the hymenium
 mouse-colored at length pale, Stipes very long incrassated below
 16220 Thin, Cupule funnel-shaped brownish pallid, Stipes long seated on a black deformed root
 16221 Subsessile thin globose campanulate brownish or pale mealy outside crenate at edge
 16222 Sessile yellowish smooth at first urceolate afterwards cracked and torn with hairs about the root outside
 16223 Sessile minute flattish orange-red externally granulated with pimples [Stipes usually short and thick
 16224 Centre plicate and reticulat. without whit. and pruin. Cap invol. at margin variously split somew. spread.

3. *Cupule a little fleshy, small, Veil floccose only at the edge, or fugacious, Sporidia with a solitary little sporidium.* HUMARIA.

- 16225 Sessile clustered subcylindrical smooth somewhat yellow becoming dilated with an erect subciliated orifice
 16226 Sessile fleshy plano-convex smooth crimson entire at margin

4. *Membranaceous, bursting forth with a separating veil, Sporidia simple.* ENCELIA.

- 16227 Subcæsposito sessile coriac. membran. Margin split ragged externally scurfy and brown, internally white

1. *Cupule fleshy, or fleshy-membranous. Crust none.* SARCOscyPIE.

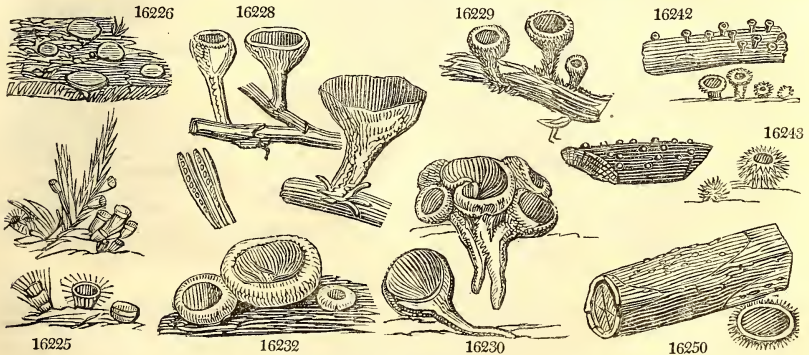
- 16228 Stipitate large subinfundibuliform externally white and tomentose, Hymenium crimson-red
 16229 Cupule fleshy, Disk urceolate black externally rubiginous-flocculent, Stipes short down dense dark strigose
 16230 Subcæspit. fleshy sess. from hemispher. becom. flatten. Disk sulph. external, and thick root white and vill.
 16231 Sessile hemispherical wavy brownish externally covered by dense fasciated hairs, Disk glaucous white
 16232 Sessile subhemispher. externally fuscous hairy with a somewhat inflexed margin, Vermilion colored inside
 16233 Min. sess. or subsessile hemispher. externally tomentose-pulverulent yellowish-olive, Hymen. dull ochrac.
 16234 Sessile gregarious or scattered nearly plane: external surface of the margin hispid with black rigid hairs,
 Hymenium orange-red
 16235 Sessile gregarious very minute orbicular somewhat depressed substrigose brown or nearly black
 16236 Plane ciliated blackish externally, Hairs pale, Disk blue [at margin, Hymenium gently umbonate
 16237 Small sess. gregar. whole plant white glob. concave at length quite ciliate with horizon. white hairs
 16238 Gregarious concave tawny externally surrounded near the edge with straightish brown hairs [white
 16239 Sess. gregar. glob. at length quite plane, exter. surface and marg. strig. with redd.-brown hairs, Hymen.
 16240 Sessile gregarious small globose at length plane: the strigose external surface yellow, Hymenium white

2. *Cupule waxy, dry, villous, Crust none.* Epiphytes. DASyScyPIE.

- 16241 Stipitate gregarious small, Stipes rather long, Pileus hemispherical subpatulose villous, whole plant white
 16242 Subsess. small gregar. externally very white vill. Mouth contract. Hymen. varying from dil. yell. to orange
 16243 Sessile hemispherical orbicular rather firm flocculent, Disk urceolate whitish
 16244 Sessile distinct concave villous hairy milk-white on each side granulated at edge
 16245 Sessile very minute gregarious white subglobose villous, Mouth more or less connivent
 16246 Sessile minute gregarious depressed externally fusco-olivaceous villose, Hymenium smooth bluish-grey

3. *Cupule waxy or coriaceous, seated on a downy crust.* TAPESIA.

- 16247 Substipitate much crowded form. a crust, Cupules turbinate vill. light bistre-colored: disk urceol. whitish
 16248 Sessile gregarious obovate strigose rufous
 16249 Sessile gregarious ovate globose golden-yellow strigose with a subjacent woolly paler web
 16250 Carn. sess. Cup. concave brown at length plane grey: marg. glab. attach. by fibres to a wide toment. web



and Miscellaneous Particulars.

2390. *Peziza*. Pliny had a tribe of Fungi which he called Pezica, from which the modern name has been corrupted. The present genus is very extensive, but almost wholly of modern creation. The species are found in various situations, but chiefly on decayed wood. They are remarkable for their leathery texture, and for emitting their spores in the form of smoke from the bottom of their cup.

§ 3. PHIA'LEA. Pers.							
16251 fir'ma Pers.	firm	gregario.	1 aut.	Oc.Br	rotten sticks	Sower. t.115.	<i>ochroleuca</i>
16252 Persoonii Moug.	Persoon's	aggreg.	$\frac{1}{2}$ aut.	R	bogs on Equisetum	Greville crypt.	162
16253 fructigēna Bull.	fruit	clustered	$\frac{1}{2}$ aut.	Ysh	nuts, &c. in woods	Sowerby, t. 117	
16254 serotina Pers.	late	clustered	$\frac{1}{2}$ spring	Y	damp shady places	Bolton, t. 98	
16255 inflexa Bolton	inflexed	gregario.	$\frac{1}{2}$ aut.	Wsh	rotten sticks	Sowerby, t. 306	
16256 pedicellāta Sow.	stalked	solitary	$\frac{1}{2}$	Wsh	rotten sticks	Sowerby, t. 369. f. 4	
16257 tūba Bolt.	tubular	gregario.	$\frac{1}{2}$ aut.	Y	fallen branches	Bolton, t. 106. f. 1	
16258 calyculus Sow.	cupped	gregario.	$\frac{1}{2}$ aut.	Or.Br	rotten wood	Sowerby, t. 116	
16259 æugūnosa Fl. dan.	verdigrisea	destruct.	0 su.aut.	Bt.G	damp wood	Sowerby, t. 347	
Ugāzved Swed.							
16260 Aspegrenii Fr.	Aspegren's	gregario.	$\frac{1}{2}$ aut.	Ysh	damp wood	Sower. t. 369. f.7.	<i>bicolor</i>
16261 citrina Batsch	lemon-color.	crowded	$\frac{1}{2}$ aut.	Y	fallen branches	Sowerby, t. 150.	<i>aurea</i>
cyathoides Wither.							
16262 pallēscens Pers.	pallid	numer.	$\frac{1}{2}$ aut.	Pa. Y	old trees	Sowerby, t. 151.	<i>citrina</i>
16263 tricolor Sow.	three-color.	scattered	0 aut.	Sooty	trunks of trees	Greville, t. 369. f. 6	
16264 campānula Nees	bell	delicate	$\frac{1}{2}$ aut.	W	dead twigs	Nees syst. t. 38. f. 295	
16265 cribrōsa Grev.	porous	curious	1 aut.	Bl	sandy places		
16266 clarofiāva Grev.	bright-yell.	punctif.	0 aut.	Y	decayed wood		
16267 punctāta Grev.	dotted	punctif.	0 aut.	Y	dead leaves	Greville crypt. fl. 63	
16268 herbāta Pers.	Herb	crowded	$\frac{1}{2}$ aut.	W	dead herbac. stems		
16269 conigēna Pers.	pine-cone	gregario.	0 au. sp.	W	pine cones		
16270 chrycōma Bull.	yellow-hair.	crowded	0 aut.	Fu.Or	posts & rails	Sowerby, t. 152	
16271 cinērea Batsch	cinereous					Sowerby, t. 64	
16272 vulgāris Fries	common	patches	0 wint.	Wsh	dry bark		
β diāphana Sowerby							
16273 erūmpens Grev.	transparent	scattered	0 wint.	Tran.	rotten wood	Sowerby, t. 389. f. 7	
	Sycam.-peti.	scattered	0 aut.	Cæs.	stalks of Sycamore	Greville crypt. 99	
16274 ochrācea Grev.	ochrey	puckered	0 aut.	Oc.Br	fallen trunks	Greville crypt. 5	
16275 atrovirens Pers.	dark-green	crowded	0 aut.	G	rotten wood		
16276 Abbottiāna Sow.	Abbott's	scattered	0 aut.	Sea G	wood	Sowerby, t. 389. f. 8	
§ 4. HELO'TIUM. Pers.							
16277 fibulifōrmis Fries	button-shap.	gregario.	$\frac{1}{2}$ aut.	Y	trunks of elms	Bolton, t. 176	
16278 aciculāris Pers.	needle-like	gregario.	$\frac{1}{2}$ au.dec.	W	hollow oaks	Sow. t.57. <i>agariciformis</i>	
2391. ASCOBOLUS. Pers.							
16279 furfurāceus Pers.	scurfy	gregario.	0 a! sea.	Brsh	old cow dung		
2392. BULGARIA. Fries. BULGARIA.							
16280 in'quinans Fries	dirty	gelatino.	0 au. vi.	Umb.	dead oaks	Sowerby, t. 428	
16281 sarcoides Fries	fleshy	polymor.	$\frac{1}{2}$ aut.	Pu.R	decaying trees	Bolton, t. 101. f. 2	
2393. DITIOLA. Fries. DITIOLA.							
16282 radicāta Fr.	rooting	gregario.	$\frac{1}{2}$ ap. jn.	Gold.	barked pines	Fl. dan. t. 1378. f. 2	
2394. CENANGIUM. Fr. CENANGIUM.							
16283 quercinūm Fr.	oak	gregario.	$\frac{1}{2}$ all sea.	Cin.	dead oak branches	Sowerby, t. 373. f. 3	
Spha'ria collāpsa Sow.							
16284 Prunāstri Fr.	Plum	crowded	0 aut.	Bl	dead plum branches		
16285 Cerasi Fr.	Cherry	crowded	0 all sea.	R.Bl	dead cherry branches		
16286 Aucupārie Fr.	Mount. Ash	tufted	0 aut.	Bl	dead mountain-ash branches		
16287 ferruginōsum Fr.	ferruginous	patches	0 aut.	R.Bl	Scotch fir branches	Greville crypt. 197	
2395. STICTIS. Pers. STICTIS.							
16288 radiāta Pers.	radiating	spots	0 au. spr.	W	bark of trees	Sowerby t. 16	



History, Use, Propagation, Culture,

2391. *Ascobolus*. From *ascus*, one of the forms of theca in which the spores are retained among Fungi, and βελλω, to emit, in allusion to the principal peculiarity of the genus. Small gregarious soft plants, without roots, but not very perishable, growing upon dung, and most obvious during rainy weather.

2392. *Bulgaria*. An intermediate genus between *Peziza* and *Exidia*, named from *bulga*, a leather bag, on account of the saccate form of the species. Scentless, insipid, mucilaginous, rootless, soft fungi, tolerably permanent, and generally breaking forth in clusters from the bark of trees during the winter and autumn. Miller is said to have succeeded in obtaining glue from *B. inquinans*, but subsequent attempts have failed of success.

2393. *Ditiola*. From *dis*, double, and *telos*, down, in allusion to the nature of the pubescence of the velum. The species of this genus are gregarious, firm, permanent, without smell, flourishing upon dry wood from the

1. *Cupule somewhat membranous, distinctly stalked, Hymenium distinct.* HYMENOSCYPHE.

- 16251 Rather large ochrey-brown infundibulif. at length concavo-rep. or very plane, Stipes elongat. dark at base
 16252 Cap smooth urceolate orange-color with a prominent membranous pale margin, Stipes cylindrical pink
 16253 Gregar. yell. or redd.-white subinfundibulif.; surface of hymen. plane, Stipes long subflexu. and attenuat.
 16254 Bright-yellow, Cupule plano-convex thinnish, Stipes short firm thickish
 16255 Stipit. glab. white or yellow. subinfundibulif. Margin fringed with inflexed teeth, Stipes elongated curved
 16256 Stipitate campanulate, Margin smooth, Stipes straight

2. *Cupule fleshy, waxy, firm, obconical, somewhat stalked, Hymenium distinct.* CALYCINÆ.

- 16257 Yellow, Cupule turbinate: disk flat; margin tumid, Stipes long slender [Orange-brown
 16258 Gregarious globoso-infundibulif. slightly concave, Stipes rather short attenuat. whole plant ferrugin. or
 16259 Æruginose, Cupule turbinate becoming expanded and flexuose: disk whitish, Stipes short
 16260 Cupule subrepand smooth: disk yellow exteriorly white as well as the somewhat ascending stipes
 16261 Yell. crowd. apparently sess. but having a short thick obconical stipes carnosæ, Hymenium plano-concave

- 16262 Crowded smooth pale-yellow or whitish, Cupule concave, Stipes short thickish pallid
 16263 Hemispherical margined, Disk yellowish externally sooty, Stipes very short whitish
 16264 Gregarious white rather small very membranaceous campanulate unequal, Stipes filiform short
 16265 Black solitary rather large very concave, Hymen. cribriform or full of lacerat. irregular pores or sinuses
 16266 Yellow gregarious minute obconical at length somew. plane, Margin raised obt. externally somew. paler
 16267 Yellow very minute gregarious punctiform globular at length plane or subconvex, Margin minutely cren.
 16268 White gregar. carnosæ at length convex but sometimes depress. in centre turning reddish in age and decay

3. *Cupule waxy, soft, watery, sessile or obconical, Hymenium confluent.* MOLLISIA.

- 16269 White gregarious excessively minute orbicular subimmarginate
 16270 Fulvous orange gregarious crowded minute nearly plane subretromella-like
 16271 Grey gregarious depressed waved subretromellose, Margin obsolete
 16272 Sessile somewhat tufted membranous soft smooth whole-colored all over and whitish

β Scattered flattish-urceolate whitish transparent [in wet weather
 16273 Minute ceraceous glab. sess. grey connate within the semiputrid petioles of the Sycamore and burst forth

4. *Cupule waxy, dry, sessile, flat at base or innate edged.* PATELLEA.

- 16274 Ochrey-brown min. gregar. carnosæ thick obconic. Hymen. minutely granul. at length plane or subconvex
 16275 Green gregarious minute subretromellose hemispherical at length plane becoming black in decay
 16276 Sessile dry patellate casious on the outside, Disk yellow

- 16277 Firm, Head convex yellow black-brown beneath, as is the short thick villous stipes
 16278 White smooth, Head convex, Stipes long equal

- 16279 Sessile gregarious somewhat concave olive-green or brownish externally furfuraceous

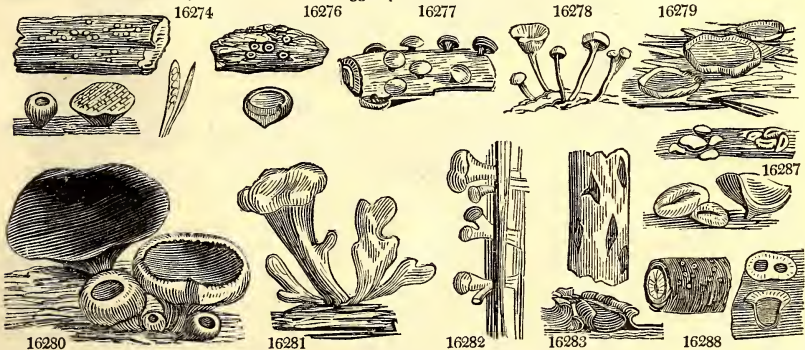
- 16280 Turbinate firm, externally rugulose scaly umber-colored, Disk flattish blackish
 16281 Polymorphous caspitose subgelatinous somew. firm purplish-red externally subvenose, Hymen. concave

- 16282 Disk flattish golden-yellow, Stipes thick villous white long-rooted

- 16283 Simp. gregar. long flexu. at first closed pruïn. and blackish-cinereous, afterw. open with a broad pale disk

- 16284 Substipitate opaque rigid black marginate, Hymenium concave
 16285 Coriaceous reddish-black at first closed at length expanded and plane
 16286 In round. tufts, Caps stipit turbidin. concave with round. marg. intermix. with digit. or subul. processes
 16287 Gregarious between membrane and leathery subsessile rugose somewhat pruinose, The orifice compressed inflexed: when moist spreading

- 16288 Immersed orbicular, Limb snow-white ragged pulverulent



and Miscellaneous Particulars.

autumn until the spring. They are to be considered noxious fungi from the injury they bring to the timber upon which they vegetate. Their mucilaginous roots insinuate themselves between the fibres of the wood, and separate and soften them. Their tubercles burst forth, and filling the wood with clefts, and rendering its interior accessible to wet, soon destroy it. *D. radicata* is one of the species of dry rot.

2394. *Cenangium*. From *κίνας*, hollow, and *αγγίον*, a capsule or vessel, in allusion to the hollow nature of the receptacle. Chiefly distinguished from *Peziza* by substance, and the coriaceous nature of the cupules. From *Tympanis* it is distinguished by its closed cupules and smooth permanent hymenium. The species are small and deformed, growing upon the bark of trees, either singly or in tufts, and mostly produced in winter.

2395. *Stictis*. So named from the punctiform appearance of many of the species, from *στικτος*, a dot. Very simple, minute, gregarious fungi.

2396. CRYPTOZYCES. *Grev.* CRYPTOMYCES. *Sp. 1.*
 16289 *Wäuchii Grev.* Willow firm 0 su. aut. Br willow branches Greville crypt. 206

Class III. TREMELINI.

2397. TREMEL/LA. *L.* TREMELLA. *Sp. 4—18.*
 16290 mesentérica *Rtz.* Mesent.-like subslit. 2 aut. sp. Y fallen branches Eng. bot. t. 709
 16291 al'bida *Huds.* whitish clustered 1 aut. Wsh fallen branches Eng. bot. t. 2117
 16292 intumescens *E. B.* tumid twisted lobes 2 wet w. Br trunks of trees Eng. bot. t. 1870
 16293 clavariiformis *Pers.* Clavari.-like gregarious 1 su. aut. Dl.Or juniper stems Jacq. ic. t. 648

§ 1. Co'RYNE. *Nees.*
 16294 sarcoïdes *Fries* fleshy clustered $\frac{3}{4}$ aut. Pu rotten wood Eng. bot. t. 2450

§ 2. PHYLLOP'TA. *Fries.*
 16295 biparasitica *Fries* parasitical deformed $\frac{1}{2}$ sept. Bl dead Agaric

2398. EXIDIA. *Fries.* EXIDIA. *Sp. 3—14.*
 16296 auricula Júde *Fries* Jew's-ear tufted 3 aut.wi. Blsh elder trunks Bolton, t. 107
 β *rubescēnti-júscā Fr.* redd.-brown tufted 3 aut.wi. Rsh elder trunks Eng. bot. t. 2447
 16297 recisa *Fr.* cut-back gregarious $\frac{3}{4}$ winter Brsh dead willows E. b. t. 1819. *boletiformis*
 16298 flaccida *E. B.* flaccid thin $\frac{3}{4}$ winter Dark oak bark Eng. bot. t. 2452

16299 glandulosa *Fr.* glandular very gelat. 2 aut. Br dead trees E. b. t. 2448. *T. arborea*

2399. DACRYMYCES. *Nees.* DACRYMYCES. *Sp. 2—7.*
 16300 moriformis *Fr.* mulberry-like sessile 0 aut. Bl dead wood Eng. bot. 2446
 16301 stellatus *Nees* trickling very soft $\frac{1}{2}$ all sea. Or.Y rotten wood Grev. crypt. 159
T. deliquescens Grev

2400. AGYRIUM. *Fr.* AGYRIUM. *Sp. 1—6.*
 16302 ca'sium *Fr.* casious punctif. 0 all sea. Cas. dead pine wood

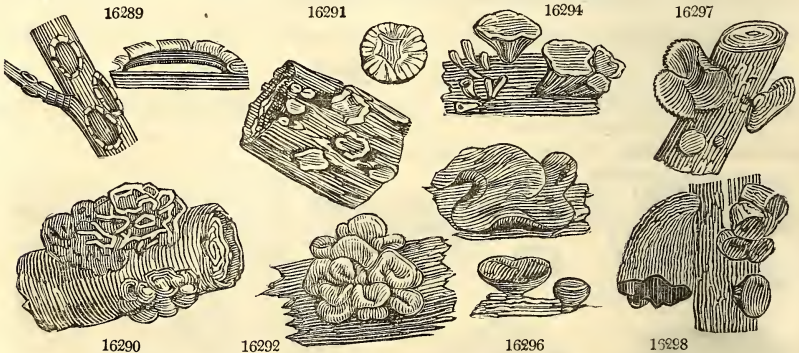
2401. HYMENEL/LA. *Fr.* HYMENELLA. *Sp. 1—4.*
 16303 vulgáris *Fr.* common tumid $\frac{1}{2}$ aut. Blsh nettle stems

2402. NEMATELIA. *Fr.* NEMATELIA. *Sp. 1—3.*
 16304 encéphala *Fr.* monstrous deformed $\frac{1}{2}$ aut. Flesh dead pine wood

Class IV. SCLEROTIACEI.

2403. ACROSPERMUM. *Tode.* ACROSPERMUM. *Sp. 2—5.*
 16305 cornutum *Fr.* cornute gregarious $\frac{1}{2}$ aut. Ruf. putrid Agarics Bulliard, t. 256
 16306 compressum *Tode* dk. narr.-stem. scattered $\frac{1}{2}$ aut. Blsh dead herbac. plants Grev. crypt. 182

2404. SCLEROTIUM. *Tode.* SCLEROTIUM. *Sp. 12—60.*
 16307 sèmeu *Tode* Mustard Seed hard $\frac{1}{2}$ wi.spr. W.Y dead leaves Grev. crypt. 144
 β *Bras'sice Bolt.* Turnip Seed hard $\frac{1}{2}$ wi.spr. W.Y dead leaves Sowerby, t. 393
 16308 fungorum *Fungus* roundish 0 aut. Br gills of dead Agarics



History, Use, Propagation, Culture,

2396. *Cryptomyces.* Upon this curious addition to the British Flora, Dr. Greville has the following remarks. "This very curious plant, I have little hesitation in placing as a new genus among the true Fungi. It is difficult to say, with what it has nearest affinity. In general habit, it might be supposed to resemble some species of *Telephora*, but there the comparison stops. Our plant, besides being produced under the epidermis, seems to belong to a more perfect group, when its structure is examined. The hymenium is a quite distinct substance from that of the receptacle. The fructification is fully and beautifully developed, a good deal similar to that of the *Helvella*. The receptacle is carnosé and white; and the whole exhales a very strong odor, precisely like what is universally known under the name of a fungus-like smell. Till the plant is perfected, it remains concealed beneath the epidermis; and on this account, I have named the genus *Cryptomyces*. The epidermis, in fact, scarcely seems to crack by the swelling of the fungus, more than by the natural consequence of being killed by its separation from the subjacent bark. A cluster of willows, which was attacked in the beginning of the season by this plant, has been nearly destroyed by it; and, from the rapidity of its progress, I have no doubt that a whole plantation might, in the course of a couple of seasons, be rendered good for nothing. At a little distance, the affected branches look as if they were dry, scorched, and rotten."

2397. *Tremella.* Large or middle-sized fungi, rooting at the base, which is considerably contracted between the bark and the wood of trees. Dillenius named the genus on account of its soft, tenacious, tremulous substance, but his name was applied in a far more extensive sense than at present. The section called *Phyllopta* is an aberrant form of the genus, and should perhaps be separated.

2398. *Exidia.* From *εξίδια*, to proceed from a thing; with reference to the manner in which the sporidia exude as it were from their receptacle. This genus differs from *Tremella*, to which it is nearest, in its horizontal Peziza-like receptacle; in its hymenium being superior, the lower surface being dissimilar and either

16289 Suborbicular olivaceous at length nearly black white within, Theca elongated obtuse

Class III. TREMELLINI.

16290 Sessile roundish orange-yellow variously lobed and plicate

16291 Sessile roundish or spreading and somewhat expanded obtusely lobed and plaited whitish

16292 Sessile clustered tumid plaited shining-brown

16293 Gregarious distinct tender gelatinous simple lingulate dull-orange pulverulent towards the apex

16294 Sessile gelatinous reddish-purple at first club-shaped then rounded lobed plaited or curled finally blackish

16295 Cartilaginous lobed somewhat wrinkled black

1. *Pezizoid, plicate, villous beneath, or dotted with roughness, Tubes half inferior, distinct.* AURICULÆ.

16296 Sessile concave flexuose blackish plaited on each side with veins: beneath downy olive-grey

16297 Very soft truncate-flat subrepand fuscous beneath dotted scabrous, Stipes very short oblique out of centre
16298 Thin flaccid very dark, externally opaque, internally wrinkled

2. *Somewhat flattened, wavy, rugose beneath, Tubes half-inferior, obsolete.* GLANDULOSÆ.

16299 Sess. round. rather spread. thick not goyrose plicate ben.: the surface bear. min. white-headed processes

16300 Conglobated sinuous dark opaque fleshy and purple inside

16301 Gregarious entire round depressed pulpy orange-yellow

16302 Gregarious nearly separate convex whitish cæsious

16303 Long various smooth whitish when dry becoming brown: the circumference adhering

16304 Subsessile pulvinate plaited-rugose pale flesh-color becoming dry

Class IV. SCLEROTIACEI.

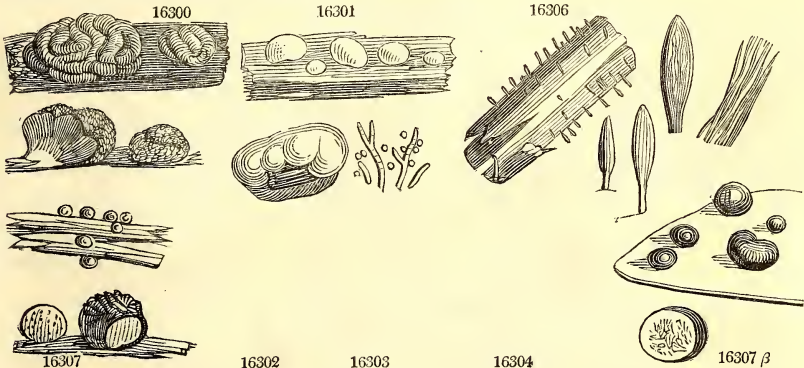
16305 Horn-like smooth when dry furrowed rufous becoming paler at the end

16306 Stipitate mostly lanceolate somewhat obtuse subcompressed of a dark olivaceous color

16307 Separate spherical whitish-yellow becoming wrinkled and black, white inside

β Clustered somewhat immersed pale inside

16308 Deformed lobed smooth pale becoming tawny, whitish inside



and Miscellaneous Particulars.

villous or rugose, and ribbed in a peculiar manner; in the conoid papillæ of the disk; in the tubes, which must be esteemed rudimentary asci, containing the sporules; and in the elastic manner in which the sporidia are produced. The species are simple, rarely growing in patches, of a large or middle size, and generally inhabiting wood; when dry they are membranous, but nearly regain their original form upon being moistened.

2399. *Dacrymyces*. From *δακρυον*, a tear, and *μυκη*, a fungus; in allusion to their deliquescent nature. *Tremella deliquescens* of Bulliard, a yellow confluent mass found chiefly upon pine-timber in the spring, is the type of the genus.

2400. *Agyrium*. Apparently from *αγρεις*, a crowd, in allusion to the clustered disposition of the individuals; although Fries, the author of the name, expressly declares that it has been named "ob superficiem nunquam non lævem." Small dot-like gregarious plants growing upon wood, perennial, seated upon a crust-like spot, and resembling some species of *Lecidea*.

2401. *Hymenella*. This genus consists of plants growing upon plants, generally upon the stem, having the habit of *Sclerotium durum*, but softer, more tender, and bearing sporidia within their surface, for which reason they seem as if they consisted only of a kind of elementary *hymenium*, whence their name.

2402. *Næmatelia*. From *ναίμα*, gelatine, and *εἰλωσ*, to enwrap, on account of the nucleus, which is of various figures, enclosed in the receptacle.

2403. *Acrospermum*. Minute fungi of a rigid habit, parasites upon decaying vegetables. From *ακρος*, the summit, and *σπερμα*, seed, on account of the apex of the plants becoming tumid, and emitting the sporules.

2404. *Sclerotium*. From *σκληρος*, hard, in allusion to the remarkably firm substance of the species. All the species are parasites upon other plants, and some are very destructive.

16309 muscórur <i>m Pers.</i>	Moss	irregular	$\frac{1}{2}$	spring	Or. Y	stems of mosses	G.cr.101. <i>subterraneum</i>
16310 salicínur <i>m Pers.</i>	Willow	patches	0	aut.wi.	Rsh	Salix caprea leaves	
16311 popúlur <i>m Pers.</i>	Poplar	patches	0	all sea.	Rsh	Populus tremula lvs.	
16312 Pterídís <i> Pers.</i>	Bracken	punctiform	0	aut. sp.	Bl	dead Pteris aquilina	
16313 scutellátur <i>m Alb.</i>	shield-like	button-like	0	spring	Br	leaves of trees	Gre.v. crypt. 144
16314 nitídur <i>m Pers.</i>	shining	less crowd.	0	wi.spr.	Bl	dead herb. stems	
16315 dórur <i>m Fr.</i>	hard	corneous	0	wi.spr.	Bl	dead herb. stems	Gre.v. crypt. 1
16316 bullátur <i>m Dec.</i>	blistered	confluent	0	aut.	Bl	rotten gourds	
16317 quercínur <i>m Pers.</i>	Oak	scattered	0	aut.	Bl	dead leaves	Gre.v. crypt. t. 77
16318 fructúrur <i>m Gre.v.</i>	Fruit	crowded	0	aut.	Wsh	putrid fruit	
2405. RHIZOCTONIA. Dec. RHIZOCTONIA. Sp. 1—4.							
16319 crocórur <i>m Dec.</i>	Crocus-blight	clustered	0	all sea.	Ruf.	saffron roots	Nees syst. f. 135
<i>Thamatóphyta crocórur</i> Nees							
2406. PERIOLA. Fr. PERIOLA. Sp. 1—3.							
16320 tomentósa Fr.	downy	scattered	$\frac{1}{2}$	wi. spr.	W	potatoo roots	
2407. ACINULA. Fr. ERGOT. Sp. 1.							
16321 Clávrur <i>m Fr.</i>	common	nauseous	0	sum.	Blish	glumes of grasses	[<i>rotium</i> Dec.mem. t.14.f.8. <i>Scl.</i>]
2408. ERY'SIBE. Rebentisch. MILDEW. Sp. 14—37.							
16322 Artemísia Gre.v.	Wormwood	patches	0	aut.	Wsh	Artemisia vulgaris	
16323 Trifólii Gre.v.	Clover	po vdery	0	aut.	Bl	Trifolium	
16324 Berbérídís Dec.	Berberry	spots	0	aut.	Rsh	berberry	
16325 Láthyrí Gre.v.	Vetch	powdery	0	aut.	R.Br	Lathyrus pratensis	
16326 Bétulá Dec.	Birch	scattered	0	su.aut.	Blish	birch leaves	
16327 Robinía Gre.v.	Acacia	powdery	0	aut.	Wsh	Robinia viscosa	
16328 Arc'tii Gre.v.	Burdock	patches	0	su. aut.	Rsh	Arctium Lappa	
16329 Aquilégiá Dec.	Columbine	spots	0	aut.	Wsh	Aquilegia vulgaris	
16330 Alchemillá Gre.v.	Lady's Mantle	powdery	0	su. aut.	Ysh	Alchemilla vulgaris	
16331 Písi Dec.	Pea	crowded	0	aut.	W	garden pea	Gre.v. crypt. 134
16332 A'ceris Dec.	Sycamore	scattered	0	aut.	Blish	maple & sycamore	
16333 Lonícérá Dec.	Honeysuckle	powdery	0	aut.	Glauc.	honeysuckles	
16334 Asperifóliur <i>m Gre.v.</i>	Borage	powdery	0	aut.	Wsh	Asperifolia	
16335 Ranúnculi Gre.v.	Crowfoot	scattered	0	aut.	Wsh	Ranunculi	

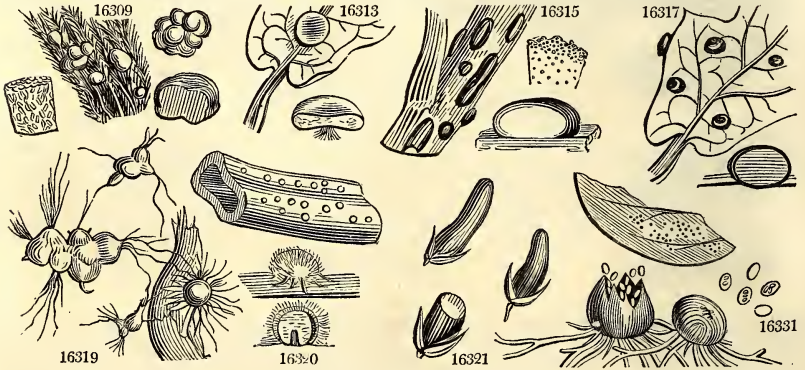
GASTEROMYCETES.

Class I. ANGIOGASTRES. — Division I. *Phalloidea*.

2409. PHAL/LUS. Mich. PHALLUS. Sp. 2—9.							
16336 impudicus L.	Stinking Morel	very fetid	8	su. aut.	Wsh	woods and hedges	Gr.cr.213, 214. <i>fetidus</i>
16337 canítus Hud.	scentless	smaller	4	au.sep.	Pk	rotten hazel trunks	Sow. t. 330. <i>inodorus</i>
2410. BATAR'REA. Pers. BATARREA. Sp. 1—							
16338 phalloídes Pers.	Phallus-like	long	3	au.	Br	banks	Smith spicil. 1. t. 12

Division II. *Tuberacea*.

2411. TUB'ER. Plin. TRUFFLE. Sp. 2—6.							
16339 cibáriu <i>m Sibth.</i>	common	esulent	$1\frac{1}{2}$	winter	Br	under ground	Nees pilz syst. f. 147
16340 al'bidum Cæsalp.	pale	less fragrant	$\frac{2}{3}$	su.aut.	Wsh	under ground	



History, Use, Propagation, Culture,

2405. *Rhizoctonia*. Subterraneous fungi, reposing upon the roots of living plants, which they destroy. The species appear in the summer or autumn, and are very destructive. They have received their name from their habits; *ρίζα*, a root, and *κτίνω*, to destroy. They are very nearly related to the subterraneous *Sclerotia*. *R. crocorum* grows parasitically on the roots of the cultivated Saffron, *Crocus sativus*, in France, and is so pernicious as to have acquired the name of *la mort du safran*. It is very destructive, soon causing the bulb to perish, and spreading with great rapidity over a whole field of that valuable crop, if not speedily stopped by a trench fifteen to eighteen inches deep, to cut off the communication between the infected and the sound plants. The smallest quantity of earth from an infected field is said to be capable of communicating this plague, even if the ground were not planted with saffron till twenty years afterwards. "Hitherto this destructive parasite has not been heard of but in France. The plants are of an irregular knobbed figure, from half an inch to an inch long, of a light reddish brown, scarcely bursting; granular and paler within. Long branching capillary roots are sent out in all directions, propagating the plants very extensively and readily by offsets which attach themselves to the saffron, and multiplying in the substance of the bulbs soon destroy them." (*Smith*.)

2446. *Periola*. From *περί*, about, and *ιολος*, hairiness, in allusion to the appearance the species exhibit when growing upon the roots of plants, or decaying fungi.

- 16309 Gregarious roundish but very irregular tuberculose orange-yellow within and without or whitish
 16310 Depressed epiphyllous scattered or very confluent reddish fulvous
 16311 Minute on both sides of the leaf numerous dark mostly angular and subconfluent
 16312 Black very minute roundish or oval numerous depressed
 16313 Epiphyllous orbicul. flattened at length somew. concave in middle fixed ben. by a central filamentous point
 16314 Minute somewhat scattered or partially aggregate very black orbicular depressed
 16315 Deep-black oval or elongated corneous at length substrate or rugose white within
 16316 Roundish or oval confluent corneous externally and black paler within and concave
 16317 Epiphyllous scattered globular or subdepressed smooth pale at length black, Substance very corneous
 16318 Rounded or oblong sometimes confluent white at length brown or black corneous externally, within somewhat hollow and carnose

16319 Rufous, Filaments few spreading over the bulb in the form of a disk

16320 Round deformed downy white

16321 Horn-like cylindrical powdery and purple-black outside, white inside

- 16322 Very minute on both surfaces of the leaf, Filaments forming a dense whitish web
 16323 On both sides of the leaf very globular nearly black, Filaments giving the leaf a farinose aspect
 16324 On both sides of leaf form. circular pulverul. spots at length conflu. Filam. dichotom. at their extremities
 16325 Red-brown minute, Filaments spreading over the whole leaf pulverulent
 16326 On the under-surface scattered very visible blackish, Filaments few simple not rendering the leaf whitish
 16327 On the upper-surface finely pulverulent, Receptacles minute congregated here and there
 16328 On the under-surface thickly covering the whole leaf, Filam. simple graniferous: bodies pyriform small
 16329 On both sides of the leaf forming a light pulverulent surface, Recept. few scattered distinct
 16330 On under-surface very numer. min. Filam. few forming no filament or pulverul. appear. to the naked eye
 16331 On both sides of the leaf so crowded as to darken its color, Filaments very long and slender
 16332 On the under-surface scattered at length concave, Filaments elongated interwoven
 16333 On both sides the leaf very numerous scattered minute, Filaments presenting a glaucous powdery surface
 16334 On both sides the leaf scattered becoming confluent pulverulent, Recept. aggregated here and there
 16335 Chiefly on under-surface partially scatter. Filam. long flexu. Granulifer. cells oval contain. mostly 4 gran.

GASTEROMYCETES.

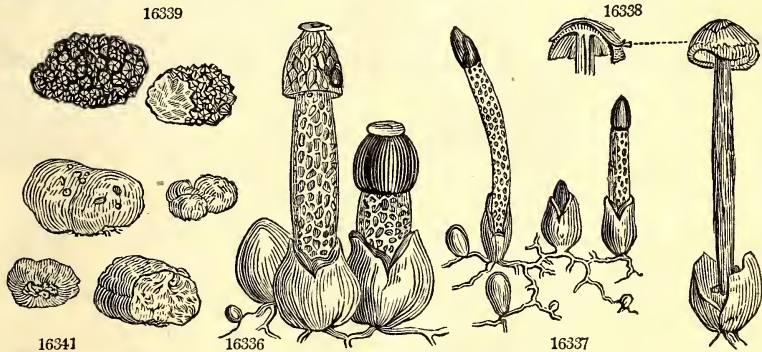
Class I. ANGIOGASTRES. — Division I. *Phalloideæ*.

- 16336 Volva large, Stipes very cellulose white, Cells of the head containing a fetid dull-green sporuliferous slime
 16337 Head close to the stipes ovate warted impervious pink

16338 Stipes cylindrical straight mucilaginous

Division II. *Tuberaceæ*.

- 16339 Very rough with warts blackish
 16340 Very rough with warts whitish



and Miscellaneous Particulars.

2007. *Acinula*. Very similar to *Sclerotium* or *Periola*; but distinguished by the diffuent coat, containing a nucleus resembling an *acinus* in a berry, whence the name. A. Clavus is the Ergot of corn.

2408. *Erysibe*. A Greek name of mildew. Most of the productions arranged under this head are known by the popular name of mildew. They are better characterized by the plants on which they grow, than by their peculiar differences, which, it is probable, depend very much upon the former circumstance.

2409. *Phallus*. Large terrestrial fungi, sometimes growing upon rotten wood, not clustered, appearing in the summer after thunderstorms, fetid, and highly poisonous. Their form is so similar to that of the $\varphi\alpha\lambda\lambda\omega\varsigma$ of the Greeks, as not to be overlooked.

2410. *Batarrea*. So named by Persoon, in honor of Antonio Batarra, professor of botany in the Lyceum at Rimini, and author of a *Historia Fungorum Agri Ariminensis*, published at Faenza, in 1759, in quarto, with forty plates. A very curious plant found only in England, where, however, it is exceeding rare. The volva or wrapper is about the size of a hen's egg, originally of three slightly coraceous layers, hollow internally, when a spongy stalk is formed which rises suddenly to its full height of about twelve inches. This stalk carries up on its summit full half the innermost layer of the volva, which is white and smooth within, and covered externally with copious brown spoules intermixed with fibres.

2411. *Tuber*. An ancient Roman name. T. cibarium is the famous truffle, so celebrated in the annals of

2412. RHIZOPO'GON. Fr. RHIZOPOGON. Sp. 1—4.
 16341 álbis Fr. white flocculent $\frac{1}{2}$ aut. Rufes. way sides Bull. champ t. 404
Lycopérdon gibbósum Dicks.

Division III. *Nidulariaceæ.*

2413. NIDULA'RIA. Bull. NIDULARIA. Sp. 3—13.
 16342 striáta Bull. striated gregarious $\frac{1}{2}$ au. no. Brsh on rotten leaves Sow. t. 29. *hirsuta*
 16343 campanuláta Sibth. bell-shaped flocculent $\frac{1}{2}$ su.aut. Ciner. shavings of wood Sow. t. 28
 16344 Crucibulum Hoffm. crucible coriaceous $\frac{1}{2}$ su.aut. Oc.fer pine bark Grev. crypt. 34

2414. MYRIOCO'CUM. Fr. MYRIOCOCCUM. Sp. 1.
 16345 præ'cox Fr. early confluent $\frac{1}{2}$ ear. sp. W dead leaves, &c.

2415. POLYAN'GIUM. Lk. POLYANGIUM. Sp. 1.
 16346 vitellinum Lk. yolk of egg gregarious 0 au.oct. Y damp trunks Nees syst. f. 131

Division IV. *Carpoboti.*

2416. ATRACTO'BOLUS. Tode. ATRACTOBOLUS. Sp. 1.
 16347 ubiqúitárius Tode common powdery 0 th. sto. W wood, bones, stones, &c. Fung. meckl.p. 45. f.9

2417. THELE'BOLUS. Tode. THELEBOLUS. Sp. 1—2.
 16348 stercóreus Tode dung gregarious $\frac{1}{2}$ w. aut. Ysh cow dung Nees syst. f. 363

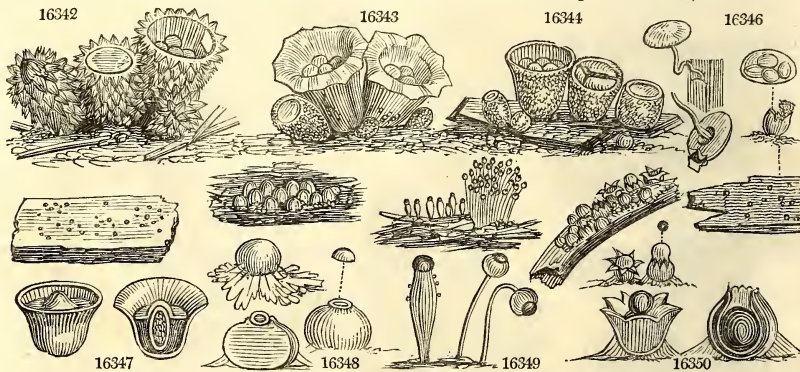
2418. PILO'BOLUS. Tode. PILOBOLUS. Sp. 1—2.
 16349 crystallinum Tode transparent very fugac. $\frac{1}{2}$ cool w. Bl horse dung Bolton, t. 133. f. 1
β ro'ridus Pers. frosted very fugac. $\frac{1}{2}$ cool w. Pellu. horse dung Bolton, t. 132. f. 4

2419. SPHERO'BOLUS. Tode. SPHEROBOLUS. Sp. 1—2.
 16350 stellátus Tode starry emerging 0 su. aut. Pa. Y wood, &c. Grev. crypt. 158

Class II. PYRENOMYCETES. — Division I. *Sphaeriaceæ.*

2420. XYLA'RIA. Hill. XYLARIA. Sp. 11—29.
 16351 hypóxylon Grev. wood various 2 all sea. Bl stumps of trees Sower. t. 55
 16352 digitáta Pers. fingered tufted 2 all sea. Bl stumps of trees

16353 polymórpha Grev. polymorph. variable 2 aut. Bl stumps of trees Sow. t. 69. *digitata*
 16354 grácilis Grev. slender simple 3 aut. Br moist places Grev. crypt. 86
 16355 entomórphiza Dicks. insect-root. stalked 2 aut. Fusc. dead larvae of insects Dicks. crypt. 1.t. 3.f.3
 16356 capitáta Holmsk. capitate 3 sep. oc. Br on Scler. cervinum Sow. t. 354. *agariciformis*
 16357 alutácea Pers. tan-like brittle $\frac{2}{3}$ au. oct. pa. tan dead pine leaves
 16358 hypóxylon Ehr. wood gregarious $\frac{1}{2}$ aut. sp. Wash old trunks
β cypressiformis Woodw. cypress-like gregarious $\frac{1}{2}$ aut. sp. Wash old trunks
 16359 punctáta Sowerby dotted gregarious $\frac{1}{2}$ all sea. Sooty animal dung Bolton, t. 129. f. g
 Sow. t. 54



History, Use, Propagation, Culture,

cookery. Dogs are taught to find this fungus by the smell, and to scratch it up out of the earth. An instance is recorded of a man having possessed this power. It is brought to table either simply boiled, or stewed in various forms. It is reported to have a stimulating aphrodisiacal quality, which perhaps renders them more popular than their flavor, which is trifling. Truffles are found under the surface of the ground in various parts of Europe, where the soil is light and dry; as well as in Japan and the East Indies. There are said to be numerous varieties of color.

2412. *Rhizopogon.* Large or middle-sized Fungi, emerging from the earth, and resembling potatoes; scarcely eatable; but, according to Gleditsch, possessing aphrodisiacal qualities. On the outside covered with netted corymbose rooting fibres, whence the name, from *ρίζα*, a root, and *παργων*, a beard.

2413. *Nidularia.* A diminution of *nidus*, a nest. The plants consist of a leathery cup containing several lenticular bodies supposed to contain spores, and all together resembling a bird's-nest with eggs.

2414. *Myriococcum.* From *μυρίος*, a thousand, and *κόκκος*, a little capsule. Related to Sclerotium. The only species consists of superficial deformed confluent tubercles, 2-4-lines broad, at first sight resembling a white compound Sphæria with prominent brown orifices.

2415. *Polyangium.* Named by Link, from *πολύς*, many, and *αγγιον*, a capsule. Easily distinguished from the last by the internal grumous substance, which Nees and Fries consider unequal sporidia.

2416. *Atractobolus.* From *ατρακτος*, a spindle, and *βαλλων*, to cast. The bladder which contains the spores, is fusiform and closed, and is ejected from the base of the cupule as soon as the operculum is thrown off.

2417. *Thelebolus.* From *θηλή*, a nipple, and *βαλλων*, to emit. The uterus protrudes a globose papilliform vesicle. This is found on the dung of swine, after rainy weather in June and July. Tode compares it to the

16341 Round somewhat rugose whitish-brown slightly fibrous at base

Division III. *Nidulariaceæ.*

16342 Obconical hirsute bright-brown striated inside

16343 Campanulate villous cinereous-brown lead-colored and shining inside

16344 Campanulate-cylindrical truncate at each end somew. downy ochrey-brown smooth and pale-yellow inside

16345 Tubercles superficial deformed confluent, at first sight resembling some kind of compound spheria

16346 About the size of a grain of sand

Division IV. *Carpoboli.*

16347 Resembling to the naked eye flour scattered about

16348 Subglobose saffron-color gregarious sessile

16349 Stem-like receptacle inflated upwards (rarely filiform) Pointed capitular vesicle round depressed black
β Stem-like receptacle globose, Stipes oblong filiform, Capitular vesicle dot-like black

16350 Globose pale-yellow, Orifice regular stellate toothed

Class II. PYRENOAMYCETES. — Division I. *Sphæriacci.*

16351 Gregarious branched compressed black white and farinaceous towards the apex downy at the base

16352 Gregarious somewhat tufted black, Peduncles glabrous more or less united at their base, Receptacle cylindrical terminated by a sterile acuminate apex

16353 Black gregar. simp. or divid. Pedunc. pass. into a ventric. recept. contain. spherules ben. its whole surface

16354 Stipes elongat. cylindr. equal somew. flexuose, Recept. smooth roundish-ovate brown, Spherules obl. pale

16355 Fleshy, Head globose fuscous, Stipes thin very long

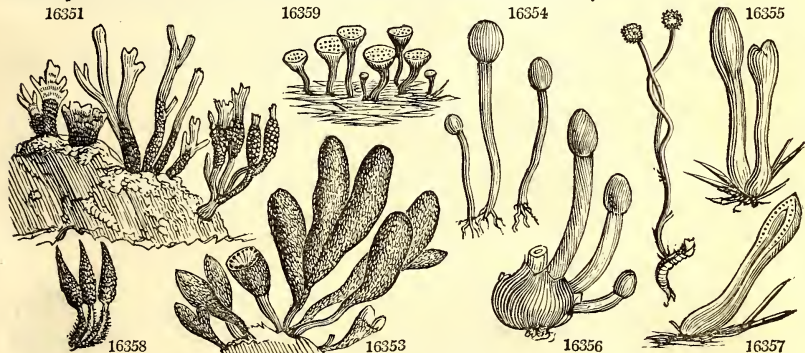
16356 Fleshy, Head ovate globose brown, Stipes yellow becoming blackish

16357 Fleshy soft, Head clavate pale tan-color confluent with the stipes

16358 Corky simple and branch. compressed at first whitish powdery afterwards naked and black, Stipes villous

β Smaller simple, Head distinct cylindrical conical acuminate

16359 Stipitate turbin. Disk truncate white dotted with black blackish externally



and Miscellaneous Particulars.

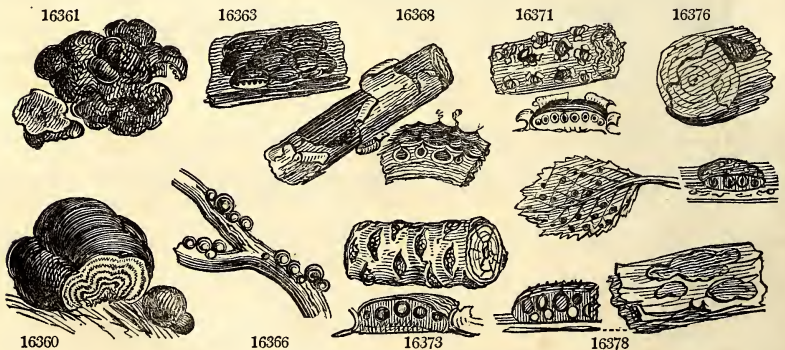
rope of a fish in appearance, and to poppy-seed in size. The color is a tawny yellow. Each individual is globular, attached at the bottom by capillary roots, and crowned by a small papillary tubercle of a more orange or golden hue than the rest.

2418. *Pilobolus*. Named from *πιλος*, a cap, and *βαλλω*. A very natural genus, consisting of gregarious little fungi, of a very fugacious nature, inhabiting dung, appearing in the summer and autumn; when full grown they resemble species of *Mucor*, but in a younger state they are more evidently interwoven, and resemble *Sphæria* or *Sclerotium*.

2419. *Sphærobotus*. From *σφαίρα*, a globe, and *βαλλω*. The peridium is double, membranous inside, at length becoming elastically inverted, and emitting a globose solid sporangium, filled with sporidia clustered in the centre. Epiphytous persistent plants, generally appearing in the autumn. *S. stellatus* is found in various parts of Europe in autumn upon rotten wood or branches of trees, heaps of sawdust, or in the tan-pits of hothouses. In an early state each plant consists of a pale yellow globe larger than a mustard seed. Several such grow crowded in patches, bound down as it were by a fine cottony web. After a while each plant bursts into several starry rays, and by a momentary explosion, projects to the distance of six or eight inches a whitish globular mass of powdery seeds from its internal cavity. Sometimes this ball of seeds remains sticking to the points of the rays. When fallen to a distance, the skin of this ball is found empty, the seeds having flown out, in its passage, through a hole in its base. (Smith.)

2420. *Xylaria*. From *ξύλον*, wood, in allusion to their station, or to their woody and durable texture. Once included in *Sphæria*.

2421. STROMATOSPHERIA. <i>Grev.</i>	STROMATOSPHERIA.	<i>Sp.</i> 24—58.			
16360 concéntrica <i>Grev.</i>	concentric	suberose	1 aut.	Bl	ash trunks Sow. t. 160. <i>fraxinea</i>
16361 deusta <i>Grev.</i>	scorched	fleshy	$\frac{1}{4}$ all sea.	Brsh	rotten stumps Sow. t. 338. <i>maxima</i>
16362 fúscá <i>Grev.</i>	fuscous	suberose	0 all sea.	Br	dead hazel
16363 unduláta <i>Grev.</i>	wavy	broad	$\frac{7}{8}$ aut.	Bl	decayed branches Grev. crypt. 223
16364 strieformis <i>Grev.</i>	striated	gregarious	0 aut.	Bl	herbaceous stems
16365 múlticeps <i>Grev.</i>	many-head.	masses	$\frac{1}{3}$ aut.	Bl	dead branches Sower. t. 394. f. 8
16366 fragiformis <i>Grev.</i>	Strawberry-like	clustered	$\frac{1}{2}$ aut.	R.Br	dead beeches Grev. crypt. 136
16367 stígia <i>Grev.</i>	spot	spreading	0 all sea.	Bl	dead hazel, &c. Grev. crypt. 223
16368 decorticáta <i>Grev.</i>	decorticating	spreading	0 all sea.	Bl	dead hazel, &c. Sow. t. 137
16369 láta <i>Grev.</i>	broad	spreading	0 all sea.	Bl	wood and deadtrees Sow. t. 373. f. 9. <i>fuliginosa</i>
16370 ulmária <i>Grev.</i>	Elm	punctiform	0 all sea.	Gr. Bl	elm leaves Sower. t. 374. f. 3
16371 discíformis <i>Grev.</i>	disk-shaped	gregarious	0 all sea.	D. Br	dead hazel, &c. Sow. t. 216. <i>depressa</i>
16372 emérsa <i>Sowerby</i>	emersed	gregarious	0 all sea.	Dark	lime branches Sow. t. 372. f. 10
16373 elliptica <i>Grev.</i>	elliptical	gregarious	0 all sea.	Ru. Br	dead birches Grev. crypt. 114
16374 parálla <i>Sowerby</i>	parallel	deformed	0 all sea.	Dark	dead oaks Sow. t. 374. f. 4
16375 ribésia <i>Grev.</i>	Currant	furrowed	0 all sea.	Bl. Bl	dead currants
16376 immérsa <i>Sowerby</i>	immersed	opaque	0 all sea.	Bl	dead hazels Sow. t. 374. f. 1
16377 nigro-annuláta <i>Grev.</i>	black-ringed	beautiful	0 all sea.	Bl	dead limes
16378 rubiginósa <i>Grev.</i>	purplish	crusts	0 all sea.	Br	dead trunks Grev. crypt. 110
16379 nívea <i>Grev.</i>	snow-white	gregarious	0 all sea.	W	dead oak branches
16380 prunástri <i>Grev.</i>	Plum	dense mass	$\frac{1}{2}$ all sea.	Bl	dead sloe branches
16381 quercína <i>Grev.</i>	Oak	contiguous	$\frac{1}{3}$ all sea.	Bl	dead oak branches
16382 ferrúginea <i>Grev.</i>	rusty	subconfluent	0 all sea.	Bl	decayed hazel
16383 corniculáta <i>Grev.</i>	horned	subcortical	0 all sea.	Bl	dead branches
2422. CUCURBITARIA. <i>Gray.</i>	CUCURBITARIA.	<i>Sp.</i> 5—13.			
16384 Berbéridis <i>Grev.</i>	Berberry	crowded	$\frac{7}{8}$ all sea.	Bl	dead herb branches Grev. crypt. fl. t. 84
16385 pinástri <i>Grev.</i>	Pinaster	gregarious	0 all sea.	R	dead spruce branch. Grev. crypt. fl. t. 50
16386 coccénea <i>Grev.</i>	scarlet	variable	0 all sea.	Sc	dead branches
16387 decolorans <i>Grev.</i>	discoloring	larger	0 all sea.	Pa. R	dead branches Gr. cry. 135. <i>cinnabarina</i>
16388 elongáta <i>Grev.</i>	long black	cracks	0 all sea.	Blsh	furze branches Grev. crypt. 195
2423. CRYPTOSPHERIA. <i>Grev.</i>	CRYPTOSPHERIA.	<i>Sp.</i> 30—48.			
16389 fagínea <i>Grev.</i>	Beech-wood	protuded	0 all sea.	Bl	dead beeches
16390 pulchélla <i>Grev.</i>	pretty	broad pate.	0 all sea.	Bl	dead birches Grev. crypt. fl. t. 67
16391 bifrons <i>Fries</i>	two-fronted	dry spots	0 wi. spr.	Bl	dry oak leaves So. t. 373. f. 4. <i>circumvalata</i>
16392 Gnómon <i>Grev.</i>	Gnomon	yellow spots	0 all sea.	Bl	hazel leaves Sower. 373. f. 6
16393 Lonícæ <i>Sowerby</i>	Woodbine	longit. cracks	0 all sea.	Bl	honeysuc. branches Sower. t. 393. f. 6
16394 acúta <i>Grev.</i>	acute	very minute	0 all sea.	Bl	dead nettle stems
16395 Héderæ <i>Sowerby</i>	Ivy leaf	innate	0 all sea.	Wsh	dry ivy leaves Sower. t. 371. f. 5
16396 millepunctáta <i>Grev.</i>	punctated	punctiform	0 all sea.	Bl	dead ashes Grev. crypt. 201
16397 subeónfluens <i>Sower.</i>	subconfluent	patches	0 spring	Bl	upon leaves Sower. t. 370. f. 7
16398 Táci <i>Grev.</i>	Yew	conv. spots	0 all sea.	Bl	dead yew leaves Grev. crypt. fl. t. 13



History, Use, Propagation, Culture,

2421. *Stromatosphæria*. From *σφαιρα*, a layer or bed, and *σφαιρα*, a globe, in allusion to the imbedded character of the species. Apparently well divided by Dr. Greville from *Sphæria*.

2422. *Cucurbitaria*. So named in reference to the form of the sporules, which resemble little flasks. *Sphæria*

- * *Receptacle free, not bursting through bark.*
- 16360 Large black somewhat hemispherical, Surface smooth, Orifices of the spherules scarcely at all raised within composed of regular concentric strata
- 16361 Large pale and carnosé at length brownish-black and rigid spreading thick undulato-rugose: the surface dotted with raised points
- 16362 Brown hemispher. depress. somew. confu. when crowd. interior of same col. Spher. very slightly promiu.
- 16363 Black thickish undulato-rugose whitish within, Mouths of the spherules round and somewhat prominent
- 16364 Black gregarious forming linear or oblong striae smooth, Spherules very minute without obvious mouths
- 16365 Black irregular mostly free but sometimes bursting through the bark spreading confluent thickish-green within, Mouths of the spherules obtuse granulated prominent
- 16366 Globose purplish-red shining black within, Spherules in circumference with more or less promin. orifices

**** Receptacle bursting through bark.**

a. Orifices of the spherules plane, or slightly prominent.

- 16367 Black plane spread. transversely on branch. smooth: inside whitish, Mouths of spherules not prominent
- 16368 Black plane spreading longitudinally white within, Mouths of the spherules somewhat prominent conical
- 16369 Black plane widely spreading somewhat rugose at first subdistinct at length confluent and united by a kind of irregular crust, Mouths of the spherules conical and angular
- 16370 Grey.-black scattered plano-conv. round. parasitic on elm leaves, Surface papill. with mouths of spherules
- 16371 Scattered distinct very gregarious round elevated plane dark-brown dotted with the orifices of the spherules, Orifices nearly plane
- 16372 Scatter. broadly thin, Perithecia immers. scatter. cover. with a dark membran. crust, Orifices burst. forth
- 16373 Scattered gregarious rather large elliptical rusty-brown smooth minutely pulverulent blackish and friable within, Mouths of the spherules quite concealed
- 16374 Short of a determinate figure emerging dark, Perithecia somewhat ovate, Orifices obtuse-unequal
- 16375 Rather small roundish elliptical dull-black bursting transversely through the bark depressed rugosulate, Surface minutely rough with the mouths of the spherules
- 16376 Innate-immersed effused smooth black, Perithecia ovate immersed, Orifices prominent somew. depressed
- 16377 Gregar. distinct bursting through the bark which is marked with a narrow black ring, Disk small covered by an evanescent membr. ben. white pulverul. dott. with the black orifices of the immersed spherules
- 16378 Thickish purplish-brown black within covered with a min. pulverul. substance, Spher. conceal. Spor. oval

b. Orifices of the spherules more or less spinose.

- 16379 Scattered very gregarious somewhat conical roundish: the disk pulverulent white, Orifices of the spherules somewhat prominent and converging
- 16380 Deep black bursting transversely through the bark oblong elevated, Orifices of the spherules crowded level-topped acutely 4-sided and grooved
- 16381 Black round much elevated very gregarious: the orifices thick irregular 4-sided
- 16382 Black gregarious sometimes subconfluent bursting transversely through the bark ferruginous within, Orifices of spherules erect straight cylindrical spinose
- 16383 Receptacle very small black, Spherules few crowded with thickish cylindrical elongated obtuse coarctate orifices umbilicate at their apex and piercing the bark
- 16384 Black ellipt.-obl. burst. longitudin. through the bark, Spher. seat. on recept. crowd. rugose somew. tessellat.
- 16385 Clustered, Spherules globose dotted red at length black at first immersed in the receptacle, Tubes containing the sporules attenuated at each extremity
- 16386 Very gregarious, Spherules minute clustered scarlet oval irregular in size smooth: the mouth papilliform
- 16387 Dull pale-red scattered or crowded on the receptacle, Spherules globose tuberculated and rugose
- 16388 Black, Stroma very long, Perithecia at first immersed at length sessile crowded globose, Orifice papilliform with a circular depression around it

*** Spherules collected into circular clusters.**

- 16389 Black, Spherules few: the mouths elongated rough converging
- 16390 Black spherules aggregated forming a dense circle, Mouths filiform flexuose converging depressed
- 16391 Innate grow. on both sides, Leaf arrayed in round spots flat black, Perith. convex promin. becom. bossed

**** Spherules more or less scattered, or simply aggregated.**

a. Spherules with an orifice.

- 16392 Spherules few aggregated globose black: the orifice suberect filiform shining style-like
- 16393 Gregar. burst. forth, Perithecia glob. nearly separate fine black becom. ragged and cup-shap. Orifice simp. like a black point, After the decay of the epidermis the spherules are naked
- 16394 Scattered, Perithecia prominent convex smooth black, Orifice open white
- 16395 Spherules black minute very numerous globose white within immersed in the substance of the bark: the mouth very short scarcely piercing the epidermis which seems covered with innumerable dots
- 16396 Upon leaves, Perithecia innate prominent punctiform globose black clustered in unequal spots
- 16397 Minute scattered, Spherules depressed: the mouth very short not exerted, Epidermis of the leaf convex and slightly ruptured, Sporules naked extremely minute

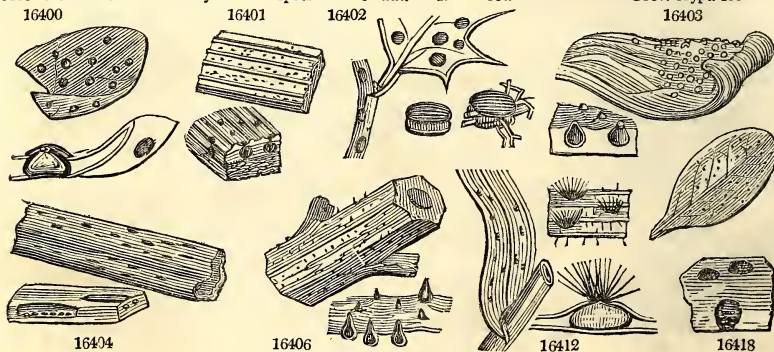


and Miscellaneous Particulars.

Cucurbitula of Tode, seems to have afforded the type of the genus, which contains most of the species constituting the seventh section of Sphæria in Persoon's system.

2423. *Cryptosphaeria*. A genus formed by Dr. Greville, to include those plants formerly referred to Sphæria,

16399 strobilina Grev.	Pine-cone	uneven	0	all sea.	Bl	dead fir cones	
16400 Láuri Grev.	Laurel	scattered	0	all sea.	Blsh	dead laurel leaves	Sower. t. 371. f. 4
16401 dúplex Sowerby	double	variable	0	all sea.	Bl	Spargan. stems, &c.	Sower. t. 375. f. 4
16402 bifrons Grev.	two-fronted	scattered	0	all sea.	Bl	dead holly leaves	Sower. t. 316
16403 aurántia Grev.	orange	succulent	0	all sea.	Ysh	dead fungi	Grev. crypt. 78
16404 Ptéridis Sowerby	Brake	confluent	6	spring	Bl	P. aquilina stems	Sower. t. 394. f. 10
16405 decomponens Sow.	decomposing	spots	0	all sea.	Bl	dead poplar branc.	Sower. t. 217
16406 acumináta Sower.	acuminate	very min.	0	all sea.	Bl	thistle stems	Sower. t. 394. f. 3
16407 curviróstra Sower.	curv.-beaked	very min.	0	all sea.	Bl	Umbellifer. stems	
16408 Tamariscinis Grev.	Tamarisk	patches	0	all sea.	Bl	dead Tam. german.	Grev. crypt. fl. t. 45
16409 semi-immérsa Grev.	$\frac{1}{2}$ -immersed	shining	0	all sea.	Bl	dead honeysuckle	
16410 herbárum Grev.	Herbaceous	punctif.	0	winter	Bl	dead herbac. plants	
16411 nebulósa Grev.	cloudy	spots	0	winter	Bl	dead herbac. plants	
16412 capilláta Grev.	hairy	very min.	0	all sea.	Br.Bl	dead lvs. of <i>Holcus mollis</i>	Grev. crypt. fl. t. 69
16413 Ægopódii Grev.	Ægopodium	spots	0	all sea.	Blsh	living lvs. of Ægopod, Podagraría	
16414 punctifórmis Grev.	dot-like	white spots	0	all sea.	Bl	dead oak and other leaves	
16415 microscópica Grev.	microscopic	cld.-lik. sp.	0	all sea.	Bl	dead Port. laurei lvs.	
16416 glauco-punctáta Gr.	glauc. dotted	cld.-lik. sp.	0	all sea.	B.Bl	dead Rusc. aculeat. lvs.	
16417 arundinácea Sow.	Reed	minute	0	spring	Bl	reed stems	Sower. t. 336
16418 arbuticola Sower.	arbutus	polymorp.	0	spring	Bl	dead Uva ursi lvs.	Sower. t. 370. f. 6
2424. HETEROSPHÆRIA Grev.	HETEROSPHÆRIA.	Sp. 1.					
16419 patélla Grev.	collapsed	shining	0	all sea.	Bl	dead herbac. stalks	Grev. crypt. 103
2425. SPHÆRIA Haller.	SPHÆRIA.	Sp. 38—63.					
16420 spermoídes Pers.	seed-like	crowded	0	all sea.	Bl	rotten wood	Grev. crypt. fl. t. 6
16421 Feziza Pers.	cup	irreg. clust.	0	all sea.	R	dead dry wood	Grev. crypt. fl. 186
16422 Dolíolum Pers.	tub	contiguous	0	all sea.	Bl	dead herbac. stalks	
16423 affinis Pers.	red, mouthed	pretty	0	aut.	R	on <i>Bangia atrovirens</i>	Grev. crypt. 186
16424 citrina Pers.	yeil. web-like	byssoid	0	aut. wi.	Y	on rotten wood, &c.	Grev. crypt. 215
16425 concéntrica Bolton	concentric	confluent	0	aut.	Blsh	upon trees	Bolton, t. 180
16426 tuberculósa Bolton	warted	superficial	0	all sea.	Fusc.	bark of trees	Sow. t. 373. f. 11. crustacea
16427 serpens Pers.	creeping	broad pat.	0	spr. wi.	Bl	dead wood	Sower. t. 395. f. 1
16428 réptans Sowerby	branched	superficial	0	aut.	Dark	dead wood	Sower. t. 394. f. 5
16429 lævis Sowerby	smooth	immersed	0	aut.	Bl	dead wood	Sower. t. 373. <i>diffusa</i>
16430 nummulária Fries	moneynwort	orbicular	0	aut. wi.	Dark	dead wood	Sow. t. 120. ? <i>tentaculata</i>
16431 enteroleúca Fries	white-heart.	crustace.	0	all sea.	Wsh	dry branches	Sow. t. 218. <i>Saturnus</i>
16432 leiphæmia Fries	bordered	immersed	0	spr. su.	Pallid	dead oak branches	Sower. t. 374. f. 7
16433 oblonga Sowerby	oblong	in circles	0	all sea.	Bl	birch bark	Sower. t. 374. f. 6
16434 convérgens Sower.	converging	patches	0	all sea.	Bl	smooth bark	Sower. t. 394. f. 2
16435 Nidula Sowerby	bird's nest	spots	0	aut.	Dark	bean roots	Sower. t. 374. f. 2
16436 hydróphora Sower.	pitcher	small	0	aut. sp.	Or. R	soft beech wood	Sower. t. 23
S. Pexiza Tode							
16437 sanguinea Sibth.	blood-red	minute	0	spring	Crim.	naked wood	Grev. crypt. 175
16438 papillósa Sowerby	pimpled	gregarious	0	all sea.	Dark	rotten wood	Sower. t. 236
16439 stercorária Sower.	dung	middle sized	0	spring	Bl	dung	Sower. t. 357
16440 episphæria Tode	parasitic	dots	0	wi. spr.	R	Stromatosphæria	Grev. crypt. 175
16441 byssiséda Pers.	byssoid	spread. wide	0	all sea.	Br.Bl	dead branches	
16442 hirsúta Pers.	hairy	shining	0	all sea.	Bl	dead branches	
16443 pilósa Pers.	pilose	shining	0	all sea.	Br	dead branches	
16444 cáva Pers.	bald	punctif.	0	all sea.	Bl	dry rotten branches	
16445 aúrea Grev.	golden	crowded	0	all sea.	Or	decay. large fungi	Grev. crypt. t. 47
16446 rosélla Alb.	rosy	spots	0	aut.	R	red	Grev. crypt. 138



History, Use, Propagation, Culture,

which are destitute of a receptacle and remain concealed (*αεφρος*, hidden, whence the name) beneath the epidermis of vegetables, which is only perforated by their mouths. They are further characterized by having their spherules not enclosed in filiform tubes as in true *Sphæria*.

- 16399 Black roundish oblong scattered bursting through the epidermis, Orifice irregular papillose [minute
 16400 Scattered, rather min. plano-convex black, split. Epider. in centre and becom. umbilicat. Spor. naked very
 16401 Scattered, Perithecia immersed globose black concealed, Orifices dilated naked hemispherical
 16402 Scattered black shining plane : the margin slightly raised ; the epidermis united with the plant and
 bursting at the centre into 3-5 acute segments, Sporules naked oblong in 3-5 distinct masses
 16403 Gregarious often crowded, Spherules yellowish globose somewhat fleshy, Orifices short cylindrical sur-
 rounded by an orange web
 16404 Somew. innate parallel confu. shin. black burst. with paral. slits, Thallus black, Perith. in rows connate
 16405 Scattered, Perithecia immersed globose, Orifices min. convex peeping out of a black spot becom. bossed
 16406 Gregarious, Perithecia somewhat immersed ovate black, Orifice bursting conical acute
 16407 Gregarious, Perithecia covered ovate black, Orifices bursting equal smooth longer
 16408 Scattered under the epidermis which is very convex and ruptured in the centre, Mouth very short obtuse
 not exerted, Sporules oval in filiform tubes
 16409 Scattered globose with a very short rounded umbilicated mouth : at first the mouth only visible at length
 the spherule itself semi-exserted falling out in decay and leaving a cavity
 16410 Spherules minute scattered very numerous black round depress. Orifice papilliform piercing the epidermis
 like minute dots at length naked when it decays
 16411 Spherules excessively minute scattered forming dark greyish cloud-like longitudinal spots on the smooth
 stalks of plants : the orifice somewhat acute penetrating the epidermis

b. Spherules without an evident orifice.

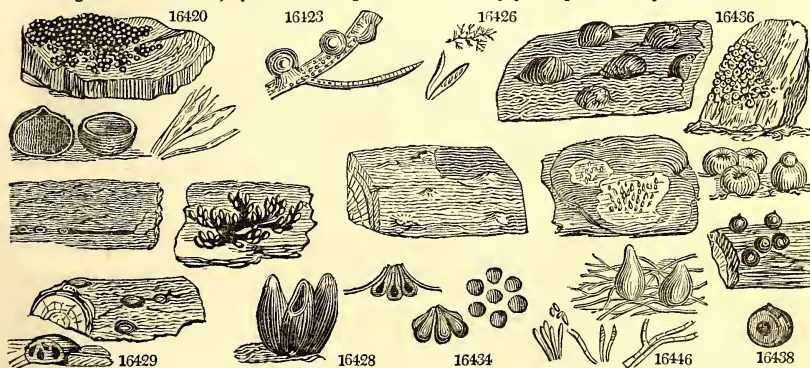
- 16412 Parasitic on the leaves of dead grasses scattered brown black white within flat hemispherical : the apex
 furnished with a tuft of black rigid diverging hairs
 16413 Scattered or in small groups minute blackish roundish producing pale spots on the leaf
 16414 Scattered very gregarious fructiform somewhat shining rarely dehiscent
 16415 Excessively minute very gregarious so as to form dark cloud-like irregular spots on the leaf
 16416 Spherules very numerous punctiform glaucous or blueish-black rendering the leaf pale
 16417 Bursting forth lin. black with hardly any thallus, Perithecia in 1 or 2 rows somew. connate black inside
 16418 Gregar. confu. cover. with a blackened epider. Perith. deform. black : disk finally burst. forth and opaque
 16419 Forming nearly equidistant spots upon the stems of large dead herbaceous plants, Very common

** Spherules with an orifice, not hairy.*

- 16420 Black globose nearly smooth crowded ; the orifice minute slightly papilliform
 16421 Fine red min. smooth gregar. glob. with a very min. papill. orifice, Spher. at length collapsed and concave
 16422 Black scattered gregarious roundish ovate acute shining ; the mouth papilliform
 16423 Subgregar. or scattered sessile orange-colored smooth glob. destitute of orifice whit. and filament. at base
 16424 Perithecia glob. subimmers. Orifices promin. convex furnish. with an effused filament. strat. of a yell. color
 16425 Globose deformed brownish-black banded within with concentric layers, Perithecia oblong immersed
 16426 Convex pulvinate fuscous whole-colored inside, Perithecia globose, Orifices bossed
 16427 Effused thin flattened black, Perithecia subglobose prominent pimpled
 16428 Dark, Layer diffused branched, Perithecia oblong smooth pimpled
 16429 Elliptical smooth black white inside, Perithecia immersed ovate without orifice
 16430 Of a regular figure very flat contigu. dark extern. and internally, Perith. immers. ov. Orif. glob. promin.
 16431 Orbic. conv. separ. Layer white, Perithecia min. Orifices numer. disengaged glob. and rostell. somew. rug.
 16432 Pustular, Layer adhering to the bark and emerging, Disk palish, Orifices exerted oval and rostellate
 16433 Perithecia subovate, Orifices long thickened at end united in an opaque disk bursting transversely
 16434 Minute circinate, Perithecia about 6 ovate and converging, Orifices round somewhat tapering emerging
 16435 Caspitose growing to the surface, Perithecia stalked ovate acute smooth dark
 16436 Gregarious soft, Perithecia globose smooth somew. pimpled orange-red becoming concave by collapse
 16437 Scattered soft very small, Perithecia ovate smooth pimpled crimson
 16438 Dark, Perithecia thin globose smooth, Orifice papilliform
 16439 Black shining, Perithecia globose rigid smooth, Orifice papilliform
 16440 Sess. min. soft aggregated or scattered smooth blood-red, Perithecia subglob. collapsing, Orifice papilliform

*** Spherules with an orifice, hairy.*

- 16441 Rather large brownish-black shining globose with a papilliform orifice arising from a dense brown
 filamentous stratum which sometimes partly envelopes the spherules
 16442 Gregarious somewhat clustered quite black, Spherules roundish ovate somewhat tuberculate with short
 rigid scattered hairs, Orifice obtuse
 16443 Spherules minute crowded roundish : when young appearing like one mass of diverging brown hairs at
 length almost naked towards the apex and black, Orifice minute papilliform
 16444 Black gregar. hemispher. minutely granulat. : the apex naked somew. shin. ; the base hairy, Orif. papill.
 16445 Gregar. very crowd. ov. somew. acum. orange, Orifice indist. but the spherules escape in a pulverul. form
 16446 Gregarious rose-colored, Spherules ovato-globose subacute or papillose placed on a paler colored web



and Miscellaneous Particulars.

2424. *Heterosphaeria*. From *Isogus*, various, and *Sphaeria* ; but we do not know in allusion to what peculiarity. A small black dot-like plant.

2425. *Sphaeria*. In allusion to the spherical figure of the species, which are exceedingly numerous and diffi-

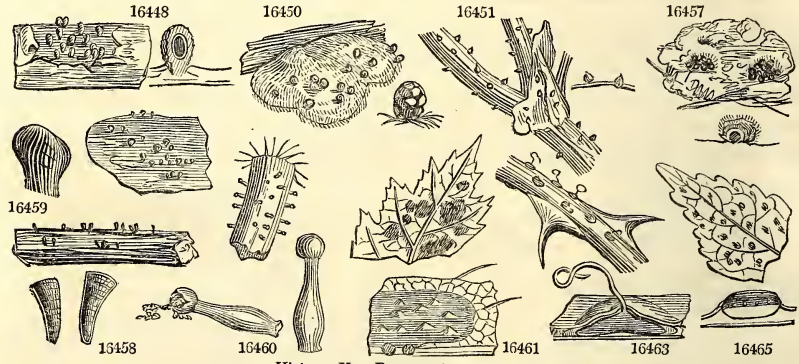
16447	<i>bliformis Pers.</i> <i>β terrestris Sow.</i>	two-formed <i>terrestrial</i>	scattered clustered	0 0	spring spring	Bl Bl	rotten wood gravelly soil	Pers. syn. t. 2. f. 14 Sower. t. 373. f. 7
16448	<i>moriformis Pers.</i>	Mulberry	contiguous	0	all sea.	Bl	dead wood	Sow. t. 337. <i>claviformis</i>
16449	<i>lignaria Grev.</i>	black wood	punctiform	0	all sea.	Bl	dead wood	Grev. crypt. 82
16450	<i>rugosa Grev.</i>	rugose	tessellated	0	all sea.	Bl	dead Polypor. abietinus	Grev. crypt. fl. t. 39
16451	<i>Pisi Sowerby</i>	Pea	scattered	0	wi. spr.	Bl	dead pease haulm	Sower. t. 383. f. 8
16452	<i>pilvis-pyrus Pers.</i>	small black	seed-like	0	all sea.	Bl	dead dry wood	Grev. crypt. 152
16453	<i>irregularis Sower.</i>	irregular	pulvinate	0	aut.	Brsh	dead wood	Sower. t. 374. f. 9
16454	<i>Vaccinii Sower.</i>	Cranberry	patches	0	wi. spr.	Dark	live Vacc. Vitis idæa	Sower. t. 373. f. 1
16455	<i>myriocarpa Fries</i>	minute-crowd.	punctiform	0	aut.	Bl	dead wood	Grev. crypt. 152
16456	<i>verrucosa Grev.</i>	warty	areolated	½	aut. wi.	Bl	cup of fungi	Grev. crypt. 39
16457	<i>hirsuta Sowerby</i>	hirsute	clustered	0	all sea.	Bl	plaster	Sower. t. 386. f. 3
2426.	<i>LO'PHIUM. Fries.</i>	<i>LOPHIUM.</i>					<i>Sp. 2—3.</i>	
16458	<i>elatum Grev.</i>	elongated	scattered	½	all sea.	Bl	pine bark	Grev. crypt. 177
16459	<i>mytilinum Fr.</i>	muscle-shap.	crustaceous	0	all sea.	Bl	pine bark	Grev. crypt. 177

Division II. *Cytisporci.*

2427.	<i>SPHÆRONÆMA. Fries.</i>	<i>SPHÆRONÆMA.</i>					<i>Sp. 1—15.</i>	
16460	<i>subulatum Fries</i>	awl-shaped	spiculiform	½	aut.	Ciner.	On Agarics	Grev. crypt. 189
2428.	<i>SEPTA'RIA. Fries.</i>	<i>SEPTARIA.</i>					<i>Sp. 1—2.</i>	
16461	<i>U'ni Fr.</i>	Elm-leaf	stains	0	aut.	Br	elm leaves	Grev. crypt. 112
2429.	<i>CYTISPO'RA. Ehrenb.</i>	<i>CYTISPO'RA.</i>					<i>Sp. 2—18.</i>	<i>Sphaeria. Sowerby</i>
16462	<i>Chrysosperma Fr.</i>	yellow-seed.	spots	0	all sea.	Blish	poplar bark	Sow. t. 138 <i>errhata</i>
16463	<i>Rosarium Grev.</i>	Rose twig	pustular	0	aut.		Pallid dead rose branches	Grev. crypt. 20
2430.	<i>PHO'MA. Fr.</i>	<i>PHOMA.</i>					<i>Sp. 2—5.</i>	<i>Sphaeria. Sowerby</i>
16464	<i>saligna Fr.</i>	willow leaf	pimpled	0	wi. spr.	Brsh	dead willow leaves	Sow. t. 372. f. 1. <i>salicina</i>
16465	<i>Pöpuli Fr.</i>	poplar leaf	pimpled	0	wi. spr.	Test.	dead poplar leaves	Sower. t. 374. f. 2

Division III. *Phacidiacei.*

2431.	<i>DOTHIDE'A. Fr.</i>	<i>DOTHIDEA.</i>					<i>Sp. 7—54.</i>	<i>Sphaeria. Sowerby</i>
16466	<i>typhina Fr.</i>	Bull-rush	encrusting	0	sum.	Y	live stems of grass	Grev. crypt. 204
		<i>Sphaeria spiculifera Sower. 270</i>						
16467	<i>U'ni Fr.</i>	Elm	spots	0	su. aut.	Blish	elm leaves	Grev. crypt. 200
16468	<i>Robertiana Fr.</i>	shining	punctiform	0	su. aut.	Bl	live Geran. Robertian. lvs.	Grev. crypt. 145
		<i>Cryptosphaeria nitida Grev.</i>						
16469	<i>al'nea Pers.</i>	alder	punctiform	0	aut.	Bl	live alder leaves	Grev. crypt. 145
		<i>Xyloma atneum Pers.</i>						
16470	<i>rûbra Fr.</i>	red	patches	0	aut.	R	leaves	Grev. crypt. 120
16471	<i>fulva Fr.</i>	tawny	patches	0	aut.	Br	leaves	Grev. crypt. 120
16472	<i>betulina Fries</i>	Birch-leaf	punctiform	0	su. aut.	Blish	birch leaves	Grev. crypt. 200
2432.	<i>RHYTIS'MA. Fries.</i>	<i>RHYTISMA.</i>					<i>Sp. 1—22.</i>	
16473	<i>corrugatum Fr.</i>	wrinkled	gregarious	0	all sea.		crusts of lichens	E. b. 1464. <i>L. graniformis</i>
2433.	<i>PHACI'DIUM. Fries.</i>	<i>PHACIDIUM.</i>					<i>Sp. 2—20.</i>	
16474	<i>coronatum Grev.</i>	crowned	black spot	0	all sea.	Bl	dead oak leaves	Grev. crypt. fl. t. 52
16475	<i>dentatum Schm.</i>	toothed	white spot	0	all sea.	Bl	oak leaves	
2434.	<i>HYSTE'RIUM. Tode.</i>	<i>HYSTERIUM.</i>					<i>Sp. 12—52.</i>	
16476	<i>lineare Fries</i>	linear	lines	0	all sea.	Bl	dead wood	Grev. crypt. 167
16477	<i>maculare Fries</i>	pale spot	blotches	0	aut.	Bl	dead leaves	Grev. crypt. 129



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cult of determination. Most of them are highly curious objects when minutely examined, and some even beautiful. *Sphaeria militaris* is a fine species, about an inch in height, the head being ovate, of a beautiful scarlet, granulated like orange-peel.

2426. *Lophium.* So named from *λαφος*, a little elevation. Differs from *Sphaeria* in being completely evolved, dehiscent, compressed, without a veil, and having a nucleus crumbling to powder. The plants are very similar to the valves of a bivalved shell.

2427. *Sphaeronæma.* From *σφαῖρα*, a sphere, and *ναῖμα*, gelatine, in allusion to the round mucous bag in which the sporules are enclosed. The species are minute innate plants, generally growing on wood, very permanent, and often cohering by their base.

2428. *Septaria.* Growing upon dead leaves, in the form of clouds or spots. Named upon account of the septa of the sporidia.

2429. *Cytispora.* From *χυρις*, a little chest, and *σπορα*, a sporule. The species are very common, growing upon plants, immersed, soft, bearing fruit during damp weather, and even by watering only, within doors. The most essential character consists not in the cirrhi, common to many fungi, but in the deformed cellular perithecia, by which it may be easily known in any state.

16447 Perithecia somew. ov. rather wart. black cover. with strigose hairs of same col. Orifice rather lengthened
 β Perithecia numerous seated on a little strigose villous crustaceous stalk

*** Spherules without an evident orifice.

16448 Gregarious obovate deep-black smooth tuberculated
 16449 Spher. minute solitary or somew. cluster. black ovate setoso-rugose mouthless, Spor. ovate in cylindr. tubes
 16450 Minute black scattered globose very rugose and tuberculated parasitic on the pilcus of Polyporus abietinus
 16451 Scatter. Perith. ellipt. rounded depress. plaited lengthwise opaque black, Orifice hidden somew. compress.
 16452 Spher. black min. very numer. crowded roundish somew. tuberculated and often with a transverse furrow
 16453 Emerging prominent irregular brownish-black rufous brown internally, Orifices concealed
 16454 Tufted innate on the surface, Perithecia subglobose solid without orifice at first villous afterwards naked
 16455 Naked more or less crowd. ovate-glob. black shining, Perith. very small smooth at first without an orifice
 16456 Minute black scattered globose very warty, Parasitic on the cap of Polyporus abietinus
 16457 Perithecia subglobose ovate tuberculate black covered with scattered hairs of the same color

16458 Stipit. compress. black transverse. striat. dilat. gradual. from stipes into an elongat. wedge-shap. peritheci.
 16459 Somewhat stalked dilated upwards striated across shining

Division II. *Cytisorei.*

16460 Perithecia conico-subulate acute yellowish somewhat pellucid, Globule very pale

16461 Spherules aggregated, Sporidia 3 or 4 times divided, Cirrhi often becoming effused

16462 Cells impressed on the receptacle, Disk emerging blackish, Cirrhi yellow [with a cottony margin
 16463 Sporulifer. tendr. white simp. Spher. waved: when divid. horizontal. manifest under epider. Orifice black.

16464 One or many-celled convex brownish-black somewhat umbonate in the centre

16465 Generally many-celled roundish flat brownish-testaceous, Orifices obsolete

Division III. *Phacidiaei.*

16466 Long, surrounding the culms whitish becoming dark-yellow at length rendered granular by the orifices

16467 Epiphyll. round. confu. convex cinereous-black: internally black with white cells, Orifices like granulat.
 16468 Epiphyllous subgregarious hemispherical smooth shining very black white within

16469 On both sides of the leaf regularly scattered roundish black shining collapsed rugose and plaited

16470 Plane orange-red, Sporules unequal globose

16471 Plane pale fulvous

16472 Epiphyllous somewhat angular and irregular in form subconfluent tuberculose black shining black within: the cellules white

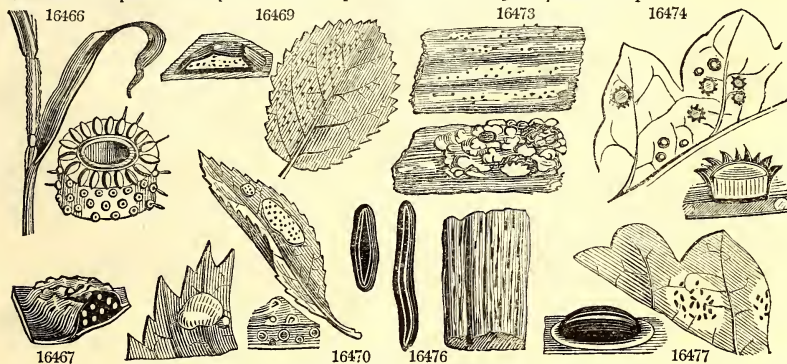
16473 Minute innate on the surface rugose plaited opening with many flexuose cracks

16474 Orbicul. subhemispher. depressed black dehiscnt in numer. acute segm. Disk pale greenish or yellowish

16475 Four-sided small black or whitish spots on the leaf splitting in 4-5 acute segments, Disk dingy

16476 Subimmersed crowded parallel linear black, Lips of the orifice tumid smooth, Disk linear

16477 Collected on pale defined spots roundish elliptical black: the margin depressed and paler



and Miscellaneous Particulars.

2430. *Phoma*. Said by its author to be named in allusion to the pustular appearance of the plants, which are of a brownish color, and grow within the substance of leaves.

2431. *Dothidea*. A genus which has been named from *δοθίω*, a tubercle, and *ειδος*, similar, and appears to be very distinct. The species are numerous, growing upon plants; many of them are innate and dark, a few colored.

2432. *Rhytisma*. From *ρυτίς*, a wrinkle. *R. corrugatum*, the Lichen graniformis of English botany, is a gregarious, subcorneous, shining flattish plant, referred to Lichens by Acharius, but considered by Fries and Ehrenberg to belong to Fungi. It is common upon the crusts of Lichens and upon dry wood.

2433. *Phacidium*. A name with the same meaning as Dothidea; from *φαιδίζω*, and *ειδος*. Intermediate between *Rhytisma* and *Hysterium*, but differing from both in the manner of dehiscence. The species are somewhat innate, epiphytous, tolerably permanent, blackish, and with a kernel which becomes softish.

2434. *Hysterium*. From *ὑστερον*, penury, in allusion, perhaps, to the diseased and squalid appearance which trees attacked by this fungus assume. Minute plants, resembling *Opegrapha*, and like that genus, found occupying the bark of trees; but destitute of a crust.

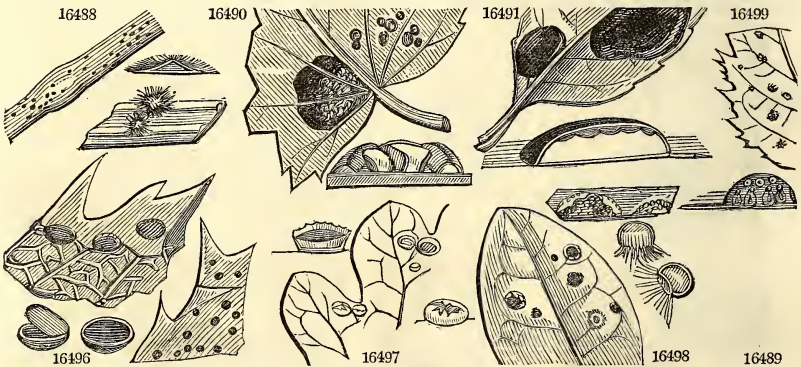
16478 Róbi Pers.	Bramble-stem	lines	0	aut.	Bl	bramble branches	Grev. crypt. 24
16479 foliolum Fries	various	dot-like	0	spring	Bl	common ivy leaf	Grev. crypt. 129
16480 melaleucum Fries	blk. & white	dots	0	aug.	Bl	Vacc. Vitis idæa	Grev. crypt. 88
16481 pulicæ Pers.	flea-like	very grega.	0	all sea.	Bl	rugged oak bark	Grev. crypt. 167
16482 Fráxini Pers.	Ash	corneus	0	all sea.	Bl	dead ash branches	Grev. crypt. 72
16483 quercinum Pers.	Oak	gregarious	0	all sea.	Gr.Br	dead oak branches	
16484 angustátum Pers.	tapered	minute	0	all sea.	DI.B	dead wood & stumps	
16485 Pinástri Pers.	Pinaster	scattered	0	all sea.	Bl	dead Scotch fir lvs.	Grev. crypt. fl. t. 60
16486 Juníperi Grev.	Juniper	spots	0	all sea.	Bl	dead juniper leaves	Grev. crypt. fl. t. 26
16487 gramineum Pers.	Grass	gregarious	0	all sea.	Bl	dead grass leaves	Grev. crypt. fl. t. 87

Division IV. *Xylomacæi.*

2435. ACTINOTHYRIUM. Kunz.	ACTINOTHYRIUM.	Sp. 1.					
16488 gráminis Kunz.	grass	gregarious	0	spring	Bl	culms of grasses	Grev. crypt. 218
2496. LEPTOSTROMA. Fr.	LEPTOSTROMA.	Sp. 1—9.					
16489 scirpínium Fr.	Rush	spots	0	su.aut.	Bl	Scirpus lacustris	Fries obs. t. 1. f. 6
2457. XYLOMA. Pers.	XYLOMA.	Sp. 8—14.					
16490 acerinum Pers.	Maple	broad spots	0	all sea.	Bl	living sycamore leaves	
16491 salicínium Pers.	Willow	solid spots	0	all sea.	Bl	living Sal. capræa lvs.	Grev. crypt. 118
16492 salignum Pers.	Sallow	yell. spots	0	all sea.	Br	decaying Sal. capræa lvs.	Grev. crypt. 118
16493 populínium Pers.	Poplar	small spots	0	all sea.	Br.sh	aspens leaves	
16494 Geránii Grev.	Geranium	crowded	0	all sea.	DI.Bl	living Geran. sylv. lvs.	
16495 fagineum Pers.	Beech	very min.	0	all sea.	Bl	dead beech leaves	
16496 concávum Grev.	concave	scatt. spots	0	all sea.	Bl	dead holly leaves	Sow. t. 317. <i>Sphæria</i>
16497 peziolóideum Pers.	Peziza-like	punctiform	0	all sea.	Bl	dead oak leaves	So. t. 118. <i>Pez. comitialis</i>
2438. LASIOBOTRYS. Kunze.	LASIOBOTRYS.	Sp. 1—2.					
16498 Lonicéræ Kunze	Woodbine	spots	0	sum.	Bl	honeysuckle leaves	Grev. crypt. 191
2439. ASTEROMA. Dec.	ASTEROMA.	Sp. 2—2.					
16499 Ulmi Grev.	Elm	pale spots	0	all sea.	Bl	living elm leaves	
16500 Alchemilla Grev.	Lady's Mantle	pale spots	0	all sea.	Bl	living Alchemilla lvs.	

Class III. TRICHOSPERMI. — Division I. *Lycoperdinei.*

2440. ONYGENA. Pers.	ONYGENA.	Sp. 1.					
16501 equina Pers.	horse-hoof	minute	¼	aut.	Wsh	decaying hoofs, and similar substances	Willd. fl. berol. f. 20
2441. TULOSTOMA. Pers.	TULOSTOMA.	Sp. 1—3.					
16502 brumale Pers.	winter	subsolitary	1	au.oct.	W.Br	pastures	Bulliard, t. 471. f. 2
2442. SCLERODERMA. Pers.	SCLERODERMA.	Sp. 4—14.					
16503 verrucósum Grev.	warty	handsome	5	aut.	Y.Br	plantations	Grev. crypt. fl. t. 48
16504 cêpa Grev.	solid	surf. variab.	2	aut.	Y.Br	plantations	Grev. crypt. fl. t. 65
	<i>Tuber solidum</i> With.						
16505 citrinum Pers.	Lemon-color.	tessellated	2	aut.	Pa.Y	about oak roots	Bolton, t. 116
16506 spadiceum Pers.	brown	tessellated	1	sum.	Pa.Br	beech trunks	Schæffer, t. 188



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2435. *Actinothyrium*. So called from *ακτιν*, a ray, and *θυρον*, to enclose, in allusion to the radiated integument of the sporidia. The only known species is innate, growing upon plants, orbicular, almost black, and appearing in the early part of the year.

2435. *Leptostroma*. From *λεπτος*, thin or delicate, and *στρομα*, a layer, in allusion to the disk, which, when the perithecium separates, becomes naked and very thin.

2437. *Xyloma*. From *ξύλον*, wood, and *λωμα*, a margin. The species are innate coated tubercles, of a hard vesicular substance, but which does not produce fructification. One of the most common kinds, X. acerinum, has a ragged border.

2438. *Lasiobotrys*. From *λασιος*, wool, and *βοτρως*, a bunch. This plant originates beneath the epidermis of the leaf, during its green and living state. When mature, it is of a very black color, and regular circular form, from one to two lines in breadth, very slightly convex, the surface uniformly granulated, and the whole generally situated on a paler or colorless portion of the leaf. On the bursting or laceration of the epidermis of the leaf, which takes place in the centre, our plant is found to consist of a multitude of distinct perithecia of a roundish form, closely arranged side by side, destitute of orifice, and the summits of which produce a granulated appearance to the naked eye or a small magnifier. These perithecia are fixed to the leaf by a number of short filaments radiating from their base, and are not to be detached without some

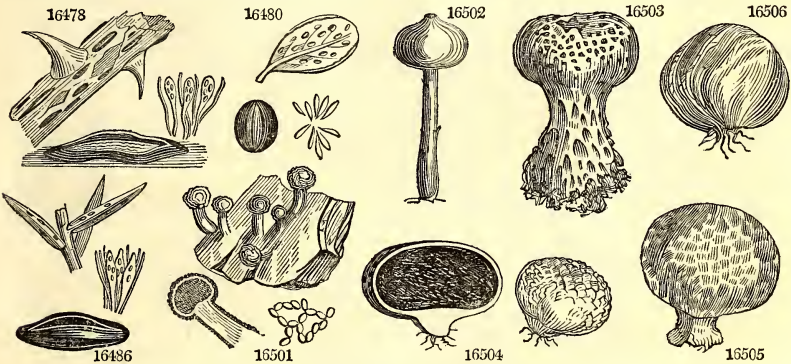
- 16478 Ellipt. or obl. atten. each end black somew. shin. obscure. striat. Sum. of sporulifer. cells obtuse. club-shap.
 16479 Innate scattered elliptical obtuse rather trimid smooth naked black with a longitudinal depression
 16480 Minute black irregularly gregarious oval or roundish convex, Sporuliferous tubes club-shaped
 16481 Gregarious black oblong or roundish-elliptical obtuse somewat striate
 16482 Convex tumid oblong-elliptical very black disposed in a subconcentric manner, Sporules large obl. yellow
 16483 Bursting through the bark oblong elliptical flexuose somewat ventricose greyish-brown
 16484 Gregarious linear narrow parallel smooth of dull black
 16485 Minute oval elliptical very black disposed in a subconcentric manner, Sporules large oblong yellow
 16486 Very min. oval shin. somew. plane growing longitudinally on leaf, Sporulifer. tubes clavate acum. at apex
 16487 Very minute linear elliptical black mostly on the ribs of the leaf or culm

Division IV. *Xylomacei*.

- 16498 Scattered or gregarious orbicular $\frac{1}{2}$ to $\frac{3}{4}$ line broad very dark a little ribbed and elevated in the centre
 16499 Orbicular opaque bossed in the centre at length entirely separating, Disk whitish
 16490 Black spreading in large irregular spots which are either uniform or composed of somewhat distinct dots dehiscence irregular and rugose
 16491 Large irregular very thick black white within
 16492 Gregarious sometimes crowded roundish slightly convex brown at length blackish
 16493 Gregarious rarely scattered over the whole surface flattish irregular smooth dull-brown
 16494 Scattered black unequal in size plane: the surface rugose and somewhat papillose in the centre
 16495 Minute crowded often in circular groups round black shining plane rugose
 16496 Minute roundish regularly scattered black shining smooth: the upper half separating
 16497 Clustered orbicular black becoming open, Margin erect somewat crenate, Disk pale
 16498 Perithecia even much crowded black: the radiating fibres simple
 16499 Filam. black radiat. subdichotom. at length covered with confluent rugoso-plicate shining black tubercles
 16500 Filam. very min. extremely fine branch. at length subdist. black, Tubercles producing a pale spot on leaf

Class III. TRICHOSPERMI. — Division I. *Lycoperdinei*.

- 16501 Stipes short somewat fibrous, Peridium scabrous always closed, Sporules ovate
 16502 Stipes smoothish, Peridium globose, Orifice flat
 16503 Large gregarious subglobose yellowish-brown, Scales small numerous, Stipes subelongated incrassated below lacunose and variously divided at the root
 16504 Globose subdepressed very firm smooth or warty sess. or with a very short thick stipes, Root scarcely any
 16505 Middle-sized roundish long-rooted pale lemon-color obsoletely scaly, Scales thickish
 16506 Gregarious smaller somewat spotted smooth brown, Root hard fibrous



and Miscellaneous Particulars.

force. Their surface is smooth black. Within they are replete with a somewat gelatinous granulose mass, containing subglobose sporidia. The above is a description of the usual appearance of this plant.

A variety, however, occurs in the form of a ring or annulus, the centre being unoccupied. Sometimes the perithecia are scattered in irregular groups, a few together, and may even occur solitary.

2439. *Asteroma*. So named by Decandolle; but we know not with what meaning. Many of the substances referred to this genus are believed to be merely young states of various kinds of Dothidea; some are the black lines by which certain Pyrenomyces are bounded; others are merely darkened veins of leaves. To this the whole of Actinonema of Persoon, and several of his Capillarias are to be referred.

2440. *Onygena*. So called from ονυξ, a hoof, and γινωμαι, to be born, in allusion to the singular circumstance of the original and only species being always found on old horse-hoofs in shady woody places.

2441. *Tulostoma*. From τυλος, a wart, and στομα, the mouth, in reference to the nature of the orifice by which the seeds of this plant are dispersed. *T. brumale* is found on the mossy tops of walls about London in the winter and spring. It may easily be overlooked for some unexpanded Agaric.

2442. *Scleroderma*. So called from σκληρος, hard, and δερμα, skin, in allusion to the hardness of the coat of the species. *S. spadicum* is found on heaths in England, but is very rare; it is about the size of a chestnut, rather depressed at the top.

2443. LYCOPER'DON. <i>Mich.</i>	PUFF-BALL.				Sp. 4—11.	
16507 bovista <i>Pers.</i>	large	turbinate	3	aut.	Wsh	pastures
16508 pratense <i>Pers.</i>	meadow	$\frac{1}{2}$ subterra.	2	su. aut.	W	pastures
16509 excipuliforme <i>Pers.</i>		chan. to br.	2	aut.	W	pastures
16510 pyriforme <i>Pers.</i>	pear-shaped	tufted	$1\frac{1}{2}$	su. aut.	Pa. Br	about tree stumps
2444. BOVISTA. <i>Pers.</i>	BOVISTA.				Sp. 2—4.	
16511 nigrescens <i>Pers.</i>	blackish	becom. blk.	2	su. aut.	W	pastures
16512 gigantea <i>Gre.</i>	gigantic	cracking	12	su. aut.	Y. W.	pastures
2445. GEASTRUM. <i>Mich.</i>	GEASTRUM.				Sp. 4—5.	
16513 coliforme <i>Pers.</i>	purse-shap.	subsultatory	2	aut.	Brsh	pastures
16514 Woodwardi <i>Pers.</i>	Woodward's	subsultatory	1	aut.	D. Br	dry banks
16515 quadrifidum <i>Pers.</i>	quadrifid	subsultatory	2	aut.	Wsh	pine woods
16516 stellatum <i>Bolt.</i>	stellated	subsultatory		sp. aut.	Br	moors

Lycoperdon recolligens Woodw.

Sower. t. 332. *Proteus*
Bulliard, t. 435. f. 2
Bulliard, t. 450. f. 2
Bulliard, t. 435. f. 3

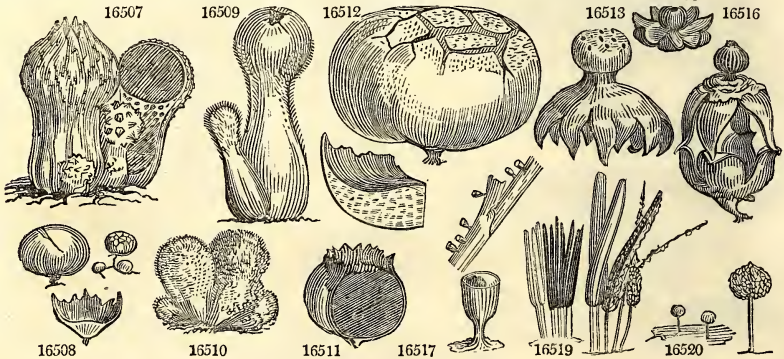
Sower. t. 331
Bulliard, t. 447

Dic. cr. t. 3. f. 4. *Lycoperd.*
Bry. hist. f. 19. *Lycoperd.*
Sch. t. 183. *L. fornicatum*
Bolt. t. 179. *Lycoperdon*

Division II. *Trichocisti.*

2446. CRATERIUM. <i>Trent.</i>	CRATERIUM.				Sp. 2—6.	
16517 leucoccephalum <i>Trent.</i>	white-head.	pretty	$\frac{1}{2}$	aut.		mosses, &c.
16518 vulgare <i>Dittm.</i>	common	pretty	$\frac{1}{2}$	aut.		mosses, &c.
	<i>Cyathus minutus</i> Sowerby					
2447. STEMONITIS. <i>Pers.</i>	STEMONITIS.				Sp. 2—?	
16519 fasciculata <i>Pers.</i>	fascicled	dense	$\frac{2}{3}$	su. aut.	Bl. Br	rotten wood
	<i>Trichia nuda</i> Sow.					
16520 papillata <i>Pers.</i>	pimpled	scattered	$\frac{1}{2}$	aut.	D. Br	rotten wood
2448. CRIBRARIA. <i>Schrad.</i>	CRIBRARIA.				Sp. 1—?	
16521 micropus <i>Schrad.</i>	small stalk.	pinheaded	$\frac{1}{3}$	aut.	Br	pine trunks
2449. DICTYDIUM. <i>Schrad.</i>	DICTYDIUM.				Sp. 1—?	
16522 cernuum <i>Nees</i>	cernuous	pinheaded	$\frac{1}{3}$	all sea.	Bl	rotten wood
2450. ARSCYRIA. <i>Pers.</i>	ARSCYRIA.				Sp. 2—?	
16523 punicea <i>Pers.</i>	crimson	gregar.	$\frac{1}{2}$	su. aut.	Crim.	rotten wood
	<i>Trichia denudata</i> Sowerb					
16524 nutans <i>Gre.</i>	nodding	weak	$\frac{1}{2}$	su. aut.	Pa. Y	rotten wood
2451. LEANGIUM. <i>Link.</i>	LEANGIUM.				Sp. 2—?	
16525 floriforme <i>Link.</i>	flower-like	scattered	$\frac{1}{3}$	aut.	Y	decaying trunks
16526 Trevelyani <i>Gre.</i>	Trevelyan's	scattered	$\frac{1}{3}$	aut.	Pa. Br	leaves of mosses
2452. TRICHIA. <i>Pers.</i>	TRICHIA.				Sp. 3—?	
16527 reticulata <i>Pers.</i>	netted	pulpy	0	aut.	Ysh	rotten wood
16528 ovata <i>Pers.</i>	ovate	crowded	0	aut.	Y	rotten wood
16529 fallax <i>Pers.</i>	deceitful	variable	0	aut.	Rsh	rotten wood
	<i>Sphaerocorypus fragilis</i> Sowerb.					
2453. DIDERMA. <i>Pers.</i>	DIDERMA.				Sp. 1—?	
16530 globosum <i>Pers.</i>	globose	clustered	0	aut.	Cin.	dead beech leaves
2454. PHY SARUM. <i>Pers.</i>	PHYSARUM.				Sp. 6—?	
16531 sulcatum <i>Link.</i>	furrowed	weak	$\frac{1}{2}$	sp. aut.	Gr	rotten wood
16532 nutans <i>Pers.</i>	nodding	weak	$\frac{1}{2}$	aut.	Gr	rotten wood
16533 nigripes <i>Link.</i>	black stem.	firm	$\frac{1}{2}$	aut.	D. Gr	rotten wood
16534 viride <i>Pers.</i>	green	rather weak	$\frac{1}{2}$	aut.	Y. G	rotten wood
16535 leucopus <i>Link.</i>	white stem.	very stiff	$\frac{1}{2}$	aut.	Gl.	dead beech wood
16536 aureum <i>Pers.</i>	golden yell.	gregar.	$\frac{1}{3}$	sp. aut.	Y	decaying trunks

Greville crypt. 170
Nees syst. t. 10. f. 118
Schrad. gen. t. 2. f. 1-2
Greville crypt. 153
Greville crypt. 130
Sower. t. 260. *Trichia*
Bulliard, t. 371
Grev. crypt. 132
Nees syst. t. 10. f. 111
Sower. t. 85. *turbinata*
Sower. t. 279
Grev. crypt. 122
Bull. t. 407. f. 3
Sturm's Deuts. fun. t. 42
Bull. t. 481. f. 1
Grev. crypt.



History, Use, Propagation, Culture.

2443. *Lycoperdon*. So called by Tournefort, from *λύκος*, a wolf, and *πεδών*, to explode backwards, that author certainly having improved upon the foolish old name, *Crepitus lupi*, by making it less generally intelligible. (*Smith.*) These are roundish tuber-like plants, when ripe, exploding and emitting the spores in the form of smoke, whence country people call the species puff-balls.

2444. *Bovista*. A name of barbarous origin, having been formed by Dillenius, from the German *Bovist*. *Bovista furfuracea*, an Italian species, is said by Micheli, to be common on heaths near Florence, where it is sold with others of its tribe, as an article of food. *Bovista gigantea* is the largest of the genus, and, indeed, of the whole order, measuring not unfrequently nearly 2 feet in diameter. Bulliard mentions having seen many of eighteen, twenty, and twenty-three inches in diameter, and on the authority of others, affirms them to attain the enormous bulk of nearly nine feet in circumference. The flesh is at first white, afterwards of a greenish-yellow, lastly of a brown-grey. The outer peridium cracks and peels off in large flakes on being handled.

2445. *Geastrum*. So called from *γᾶς*, the earth, and *ἀστῆρ*, a star, in allusion to the stellate appearance of the species when burst and lying on the ground. A genus formed by Micheli upon the Puff-balls with a stellated volva.

2446. *Craterium*. So named from *κράτης*, a cup, in allusion to the form of the peridium, which in *C. vulgare* is formed like a small goblet. This is a minute subsultatory plant, with the habit of *Calicium*.

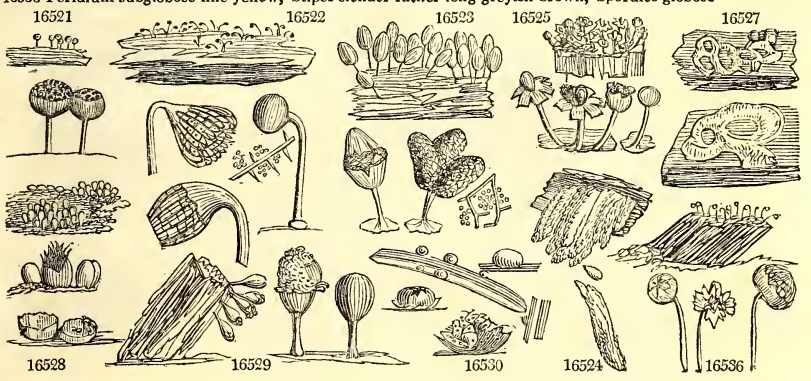
- 16507 Large oboconical soft whitish plicate beneath, Scales broad often indistinct
- 16508 White soft hemispherical subsessile somewhat smooth, Warts scattered
- 16509 Large white variable, Peridium subglob. cover. with spinul. warts, Stipes somew. smooth long and plicate
- 16510 Cæspit. pyrif. umbon. pale-brown, Scales in form of min. slender spin. process. Root consist. of long fibres
- 16511 Large white becoming blackish-brown plicate beneath
- 16512 Almost sessile very large globular yellowish-white, with scattered nearly obsolete scales
- 16513 Volva multifid, Peduncles and oscula of the peridium numerous
- 16514 Smaller, Head flat above, Orifice acuminate with longer cilia
- 16515 Peridium globose stalked, Orifice hoary, Radii somewhat quadrifid arched
- 16516 Volva multifid spreading, Laciniaë equal, Head depressed spherical sessile, Orifice acuminate

Division II. *Trichocisti.*

- 16517 Cup-shap. redd.-brown, Operculum convex whit. very thin evanescent, Filam. white, Sporules very dark
- 16518 Campanulate chesnut-color, Operculum firm white, Stipes orange, Sporules blackish
- 16519 Crowded cylindrical, Stipes black arising from a shining subjacent membrane, Peridia very fugacious blackish-brown, Stipes continued to the summit of the peridium
- 16520 Dark-brown globose stipitate, Stipes penetrating through the summit of the peridium
- 16521 Gregarious roundish, Stipes short blackish
- 16522 Gregar. brownish-purple nodding umbilicated, Membrane of peridium deciduous, Flocci persistent robust
- 16523 Gregarious often cæspitose stipitate dull crimson, Sporules abundant crimson-red
- 16524 Pale-yellow substipitate cylindrical long weak drooping
- 16525 Yellow globose stipitate, Peridium splitting into holes which are beautifully expanded and reflexed
- 16526 Sporangium sess. Peridium splitting into many regular reflexed segm. Colum. very min. Spor. pedicellat.
- 16527 Effused forming an irregular sort of reticulation yellowish or pale-brown
- 16528 Crowded obovate ochrey-yellow bursting at the summit
- 15529 Shortly stipitate reddish at length yellowish bursting at the apex plicate beneath

16530 Sessile subglobose smooth greyish-white: both of the peridia fragile, Sporules globular

- 16531 Head globose flattish beneath grey inclined, Stipes rather long pale weak sulcate, Sporules dark-brown
- 16532 Head glob. flatt. ben. blueish-grey nodd. Stipes thin weak whit. not furrow. Spor. and filam. dark-brown
- 16533 Head globose dark-grey, Stipes long firm black, Sporules and filaments very dark
- 16534 Subglob. umbilicate ben. yellowish-green, Stipes slender rather weak brown. Sporules and filam. very dark
- 16535 Head globose depressed pale-glaucous, Stipes very short thick pale at length brownish
- 16536 Peridium subglobose fine yellow, Stipes slender rather long greyish-brown, Sporules globose



and Miscellaneous Particulars.

- 2447. *Stemonitis*. From *στέμον*, a stamen, in allusion to the form of some of the species, which may be compared to the male organ of a flower, taking the stipes for the filament, and the head for the anthera.
- 2448. *Cribararia*. A genus formed by Schrader out of the *Sphaerocarpi* of Bulliard. It has for its essential character, a peridium, the upper part of which has numerous apertures, whence the name, from *cribro*, to perforate. All the species are found in autumn upon rotten wood.
- 2449. *Dictydium*. From *δικτυον*, a net, and *ειδος*, similar; the peridium appears like net-work fastened together by minute delicate ribs. Very minute pinheaded plants, with the appearance of *Calcium*.
- 2450. *Arsyria*. From *αρσιν*, a net. The sporules are fastened together by a net-work of fibres. Beautiful little minute fungi, found upon wood.
- 2451. *Leangium*. From *λεωσ*, smooth, and *αγγιλιος*, a vessel, in reference to the smoothness of the peridium. Small wart-like plants, resembling a minute *Lycoperdon*.
- 2452. *Trichia*. From *τριχ*, hair, in allusion to the internal mass of elastic fibres gradually expanding after the head bursts. These are pin-headed plants, growing upon old wood, and very rarely seen in this country.
- 2453. *Diderma*. From *δις*, double, and *δερμα*, a skin, on account of the double peridium.
- 2454. *Physarum*. So named, on account of the bladdery appearance of the peridium, from *φυση*, a vesicle.

2455. *LEOCARPUS*. *Link.* *LEOCARPUS*. *Sp. 1—?*
 16537 *vernicosus Link.* varnished enc $\frac{1}{2}$ aut. R.Br stems of grasses Grev. crypt. 111
Lycopérdon fragile Sowerb.

Division III. *Fuliginoidei.*

2456. *LYCOGALA*. *Mich.* *LYCOGALA*. *Sp. 3—?*
 16538 *miniata Pers.* vermilion granular 0 sp. aut. R rotten wood Grev. crypt. fl. t. 38
 16539 *argentea Pers.* silvery fragile 0 aut. Wsh rotten wood Grev. crypt. t. 106
Reticularia Lycopérdon Sowerb.
 16540 *minuta Grev.* minute gregario. 0 aut. W decayed leaves Grev. crypt. fl. t. 40
 2457. *SPUMARIA*. *Pers.* *SPUMARIA*. *Sp. 1—?*
 16541 *alba Grev.* white frothy 1 aut. Br rott. wood, grass, &c. Sow. t. 280. *Reticularia*

Division IV. *Licoidei.*

2458. *DICHOSPORIUM*. *Nees.* *DICHOSPORIUM*. *Sp. 1.*
 16542 *aggregatum Nees* clustered spots 0 aut. Bl bark of trees Nees syst. f. 99
Spumaria physaroides Pers.
 2459. *LICEA*. *Schrad.* *LICEA*. *Sp. 2—?*
 16543 *circumscissa Pers.* pared like ovules 0 aut. Ysh between bark & wood
 16544 *fragiformis Nees* strawberry-like pulpy 0 aut. Dl.R rotten wood Nees syst. t. 8. f. 102

Class IV. *MUCOROIDEI.*

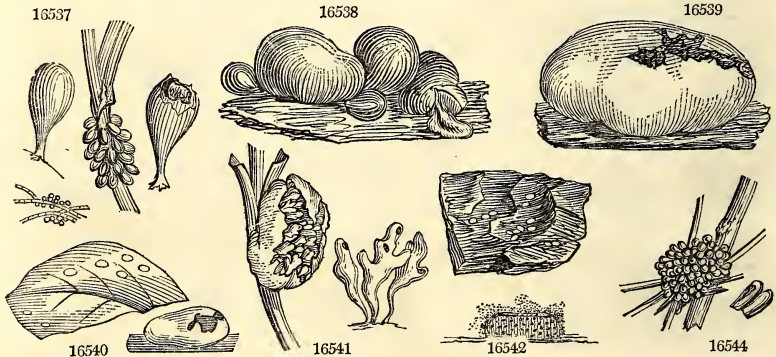
2460. *MUCOR*. *Pers.* *MUCOR*. *Sp. 1—?*
 16545 *stercórea Grev.* common watery 2 wint. W dung
Hydróphora stercórea Tode.
 2461. *THAMNIDIUM*. *Link.* *THAMNIDIUM*. *Sp. 1—?*
 16546 *élegans Link.* elegant whorled $\frac{1}{2}$ aut. Palc putrid substances Nees syst. 75
 2462. *ASCOPHORA*. *Tode.* *ASCOPHORA*. *Sp. 1—?*
 16547 *mucédo Link.* mouldy very slend. $\frac{1}{2}$ all sea. W putrid substances Sow. t. 378. f. 5, 6, 7. *Mucor*

Class V. *PERISPORIA.*

2463. *EUROTIUM*. *Link.* *EUROTIUM*. *Sp. 2—?*
 16548 *herbariorum Link.* herbarium punctiform 0 all sea. Y dried plants Grev. crypt. 164
 16549 *Rosárum Grev.* rose patches 0 sum. W rose bushes Grev. crypt. 164
 2464. *AMPHISPORIUM*. *Link.* *AMPHISPORIUM*. *Sp. 1.*
 16550 *versicolor Link.* changeable spots 0 wint. Y hyacinths in glasses Nees syst. 100

*HYPHOMYCETES.*Class I. *CEPHALOTRICH.*

2465. *CERATIUM*. *Albertini.* *CERATIUM*. *Sp. 2—?*
 16551 *hydnoídes Alb.* Hydnum-like fugacious $\frac{1}{2}$ aut. W dead wood Berl. mag. v. 3. t. 1. f. 33

*History, Use, Propagation, Culture.*

2455. *Leocarpus*. A word with the same meaning as *Leangium*; which see. *L. vernicosus* appears as if varnished over with vermilion. The plants grow in clusters upon bits of rotten wood, and are each formed of a pear-shaped stalked peridium, bursting at the end, and letting fall out a nucleus of sporules held together by fibres.

2456. *Lycogala*. From *λυκος*, a wolf, and *γαλα*, milk, a genus of fungi whose internal appearance and substance in an early state are like a mass of thick cream. It is included under *Mucor* by Linnæus, Schreber, and others. *L. argenteum* is found upon rotten wood in the autumn. It is about an inch or more in diameter, brown and pulpy when young, of a brilliant white when arrived at maturity, discharging, by one or more irregular accidental openings, a mass of rich dark snuff-colored powder.

2457. *Spumaria*. From *spuma*, froth. *S. mucilago* is spread in the autumn over the leaves and stems of living plants, or over dead branches, when it resembles in some measure stiffened foam or froth.

2458. *Dichosporium*. From *διχα*, double, and *σπορα*, a seed; in allusion, we presume, to the double coat of the peridium, the innermost of which is formed of granules like sporules. The only species known is found upon the bark of the oak.

2459. *Licea*. The meaning of this word is unexplained. The species have been referred to *Trichia*, *Didy-*

16537 Shortly stipitate obovate reddish-brown shining crowded, Stipes whitish

Division III. *Fuliginoides*.

16538 Globular gregarious red changing to brown, Sporules orange-red at length purple-grey

16539 Large suboval very fragile silvery-white, Sporules profuse deep-brown, Filaments few

16540 Minute white roundish depressed rarely confluent fragile, Sporules black intermixed with a few filaments

16541 Effused frothy, Peridium furnished internally with horn-like grey processes inclosing brown sporules

Division IV. *Liccoidei*.

16542 The only species

16543 Gregarious sessile yellowish or chestnut-brown subglobose: the upper half of the peridium separating like a lid, Sporules rarely mixed with one or two filaments

16544 Peridia cylindrical very fragile densely crowded forming a roundish or hemispherical mass dull-red changing to pale-brown, Sporules brown in the form of minute abundant dust

Class IV. MUCOROIDEI.

16545 Byssus-like white becoming yellowish, Stipes erect or lax simple bearing a minute subglobose head

16546 Filaments branched whorled, Peridium elevated

16547 Stipes simple, Heads inflated spherical dark-grey bursting close to the stipes which is long and filiform

Class V. PERISPORIA.

16548 Gregarious punctiform yellow, Filaments whitish branched

16549 Tufted, Peridia gregar. greenish covered by the filam. which are elongat. simple profuse somew. erect in [centre

16550 Changes from yellow to grey

HYPHOMYCETES.

Class I. CEPHALOTRICH.

16552 Growing in small tufts, Filaments subconfluent simple or branched and fasciculated



and Miscellaneous Particulars.

mium, &c. by various writers. They are minute productions scarcely bigger than pins' heads, found chiefly on rotten wood of the fir kind.

2460. *Mucor*. An alteration of *μυκης*, the name of a small fungus. To this genus are referable the greater part of the substances which form the mould upon cheese and other materials.

2461. *Thamnidium*. From *θαμνος*, a rod or twig, in allusion to the appearance of the plants under the microscope. Minute plants, with a bushy branched stipes, and a head like that of *Mucor*.

2462. *Ascophora*. From *ασκος*, a term used by mycologists to denote a peculiar kind of receptacle of sporules, and *φερα*, to bear. These are pin-headed fungi, with the habit of *Mucor*, from which they chiefly differ in their peridium being turned inside out after bursting, and being somewhat persistent.

2463. *Eurotium*. *Ευρος* was the Greek name of a sort of mouldiness, and has been with a sufficient reason applied to this genus of plants.

2464. *Amphisporium*. From *αμφι*, double, and *σπορα*, a sporule. These organs are of two forms, either roundish with three dots in the middle, or ovate acuminate, and quite pellucid.

2465. *Ceratium*. So named from *κερας*, a horn, on account of the cornute appearance of the plants under a microscope.

2466. *ISA'RIA*. Pers. *ISARIA*. Sp. 1—?.
16552 *microscópica* Grev. microscopic very mln. 0 spring W Trichia clavata

Grev. crypt. fl. t. 3

Class II. STILBOIDEI.

2467. *STIL'BUM*. Tode. *STILBUM*. Sp. 1—?.
16553 *vulgáre* Tode. common very min. 0 aut. Wsh decayed stems

Tode fun. meckl.t.2.f.16

Class III. INOMYCETES. — Division I. *Byssacei*.

2468. *TOR'ULA*. Link. *TORULA*. Sp. 1—?.
16554 *herbárum* Link. herbaceous fragile 0 aut. Bl dead stems
2469. *MONI'LIA*. Pers. *MONILIA*. Sp. 1—?.
16555 *aúrea* Pers. golden yell. stalked $\frac{1}{2}$ all sea. Y rotten wood
2470. *RACO'DIUM* Peys. *RACODIUM*. Sp. 1—?.
16556 *celláre* Pers. wine-cellar shaggy 3 all sea. Sooty cellars
Fibrúllaria vindria Sowerb.
2471. *DEMA'TIUM*. Pers. *DEMATIUM*. Sp. 1—?.
16557 *articulátum* Pers. articulated minute 0 aut. Blsh stems of herbs
2472. *CLADOSPORIUM*. Link. *CLADOSPORIUM*. Sp. 2—?.
16558 *herbárum* Link. herbaceous very min. 0 su. aut. Ol.G dead stems
16559 *velutinum* Grev. velvety patches 0 spring G.Bl rotten wood
2473. *HELICOSPORIUM*. Nees. *HELICOSPORIUM*. Sp. 1.
16560 *vegétum* Nees quickening cloud-like 0 oct. Gr foot of trees
2474. *OZO'NIUM*. Lk. *OZONIUM*. Sp. 1—?.
16561 *auricomum* Link. yell.-headed byssoid 3 aut. Or rotting wood
2475. *RHIZOMOR'PHA*. Roth. *RHIZOMORPHA*. Sp. 5—?.
16562 *subcorticalis* Pers. subcortical net-like 72 all sea. Br beneath bark
16563 *divérgens* Grev. diverging creeping 24 aut. Rsh beneath bark
16564 *farinácea* Grev. mealy much bran. 36 all sea. W decayed trunks
16565 *subterranea* Pers. subterrane. filament. 24 all sea. Bl mines
16566 *medulláris* Sm. medullary much bran. 144 all sea. W cellars

Sower. t. 432

Pers. disp. t. 4. f. 2

Nees syst. t. 5. f. 64

Nees syst. 66

Sow. 392. f. 1 & 2. *patens*
Grev. crypt. 154

Linn. trans. 12. t. 20

Division II. *Mucedines*.

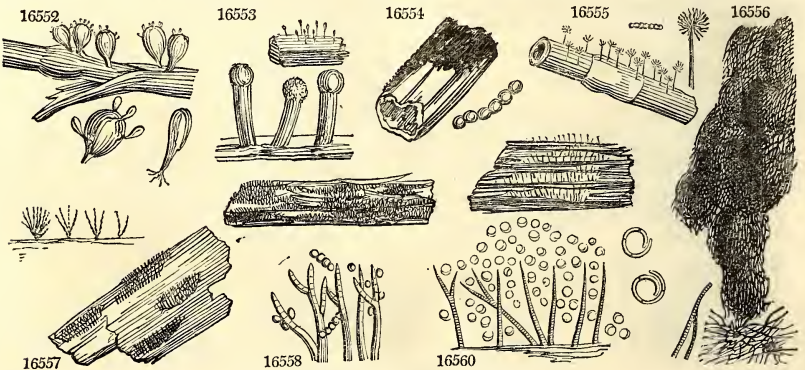
2476. *SEPEDO'NIUM*. Link. *SEPEDONIUM*. Sp. 1—?.
16567 *mycophilum* Link. yellow cloudy 0 aut. Or dying fungi
2477. *ACREMO'NIUM*. Link. *ACREMONIUM*. Sp. 1—?.
16568 *fáscum* Schmidt brown patches 0 aut. Ol.G dead sticks
2478. *SPORO'TRICHUM*. Link. *SPOROTRICHUM*. Sp. 6—?.
16569 *macrospórum* Grev. large grained blotches 0 spr. su. Hoa. apple leaves
16570 *minútum* Grev. minute tufts 0 aut. w. W dung
16571 *sulphúreum* Grev. sulph.-color. tufts 0 all sea. Y casks in cellars
16572 *aurantiácum* Grev. orange-col. tufts 0 all sea. Or damp cellars
16573 *stercorárium* Link. dung tufts 0 all sea. Or damp cellars
16574 *tenuis'simum* Grev. thin thin coat 0 aut. W dead bark

Wern. trans. 4. t. 5. f. 1

Wern. trans. 4. t. 5. f. 1

Wern. trans. 4. t. 5. f. 1

Wern. trans. 4. t. 5. f. 2

*History, Use, Propagation, Culture,*

2466. *Isaria*. From *isos*, equal, on account, perhaps, of the equality which exists among the filaments of the plants both in size and length.

2467. *Stilbum*. From *stilbos*, shining. The species are all found upon old rotten wood, and are at first watery or gelatinous, but become opaque and turbid as they ripen.

2468. *Torula*. A diminutive of *thorus* or *torus*, a bed. This plant forms a thick compact bed or layer upon the plants on which it grows.

2469. *Monilia*. From *monile*, a necklace, with reference to the peculiar manner in which the filaments are articulated.

2470. *Racodium*. *Ρακίον* was the name among the Greeks for a worthless worn-out ragged garment; and has been applied to the present genus, in allusion to the dirty interwoven cloth-like substance with which it clothes whatever it grows upon. R cellars is the black substance which overruns the bottles of the wine merchant, and which often hangs in long thick festoons from the sides and roof of his cellars.

2471. *Dematium*. A diminutive of *δέμα*, a bundle or parcel. The filamentous thallus is often collected into bundles.

2472. *Cladosporium*. From *κλάδος*, a branch, because the sporules are attached to the branches of the fungi.

2473. *Helicosporium*. From *helix*, a spiral, in allusion to the manner in which the sporules are curved.

16552 Extremely minute scattered simple club-shaped very white, Filaments and sporidia indistinct

Class II. STILBOIDEI.

16553 Head roundish whitish semifluid becoming firmer and yellowish, Stipes rather thick cylindrical

Class III. INOMYCETES. — Division I. *Byssacei*.

16554 Filaments densely crowded so as to form a black crust

16555 Tufted gold color

16556 Very soft lax much interwoven of a greenish black color, Filaments intermixed with irregular granules

16557 Minute blackish fascicled, Bristles diverging sometimes jointed

16558 Tufted extremely minute of an olive-green color becoming blackish and rigid in old age

16559 Very minute spreading on old wood in wide velvety patches greenish-black, Filaments simple or branched jointed somewhat thickened upwards

16560 The only species

16561 Very irregular rigid diverging: when young from a common centre; afterwards straggling, Filaments tawny orange-color compressed of various sizes

16562 Compressed brown or black shining anastomosing often broad and very extensive

[regularly patent

16563 Stem pale redd. cylind. subflex. never anastomis. Branches spread. in all directions free, Fructific. clavate

16564 Stems covered with a mealy substance

16565 Long branched roundish somewhat separate black

16566 Round much branched snow-white, cellular and yellow inside

Division II. *Mucedines*.

16567 Spreading widely within putrefying *Agarici* and *Bolleti*, Filam. white, Spor. profuse bright orange-yellow

16568 Filaments spreading branched olive-brown, Pedicels of the sporules numerous alternate

16569 Forming a pulverulent hoariness interspersed with very minute tufts, Filaments few branched straggling, Sporules large obtusely oval

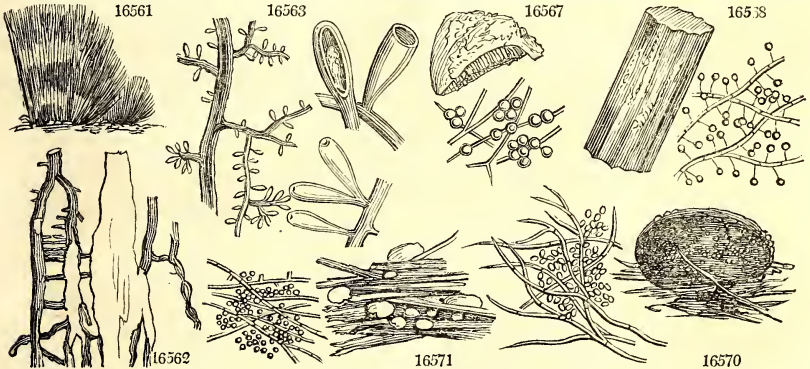
16570 Tufts roundish minute very white, Filaments loosely entangled, Sporules very numerous oval

16571 Tufts yellow irregular roundish, Filaments lax entangled, Sporules numerous subglobose

16572 Tufts of a reddish orange-color, Filaments very slender much entangled, Sporules glob. extremely minute

16573 Differs from the last, chiefly in its paler color

16574 Very white forming a web, Filam. densely interwoven very fine, Sporules globular scattered very minute



2474. *Oxonium*. We presume, from $\alpha\zeta\alpha\varsigma$, a branch, in allusion to the manner in which the filaments branch or diverge from a common centre. This genus has been extracted from *Dematium* by Link.

2475. *Rhizomorpha*. So called from its resemblance to the branching fibrous roots of various plants. All the productions referred to this genus are very obscure and uncertain. R. phosphorea, the *Clavaria phosphorea* of Sowerby, is a plant sometimes existing as a parasite between the wood and bark of trees, or in wine-cellars among saw-dust, and is, when fresh, remarkably luminous in the dark.

2476. *Sepedonium*. From $\sigma\eta\eta\epsilon\delta\omega\mu$, putrescence. The species grow among the decaying parts of fungi, and other putrid substances.

2477. *Acremonium*. From $\alpha\kappa\epsilon\gamma\epsilon\mu\alpha$, a branch; the thecæ are produced about the filaments in fascicles, as branches are about trees.

2478. *Sporotrichum*. From $\sigma\pi\omega\tau\alpha$, and $\tau\epsilon\gamma\lambda\alpha$, hair, in allusion to the filamentous nature of the sporules. A very destructive parasite in some seasons, and probably of general distribution, for it has been detected on a great variety of plants. To gardeners it is well known as a kind of mildew or blight, and is commonly taken for an insect. The leaves of the peach-trees, even when protected by glass, are often attacked by it, nor does the fruit itself always escape, in which case it frequently drops off. The leaves are more or less distorted by it. As its production is probably the result of a peculiar state of the atmosphere, there is little chance of any means being discovered for its prevention.

2479. TRICHOTHE'CIUM. <i>Link.</i>	TRICHOTHECIUM.	<i>Sp.</i> 1—?			
16575 róseum <i>Link</i>	rose-colored tufts	0 aut. w. W		rotten wood	
2480. ACROSPORIUM. <i>Nees.</i>	ACROSPORIUM.	<i>Sp.</i> 2—?			
16576 monilioides <i>Nees</i>	Monilia-like spots	0 sp. aut. W		leaves of grasses	Grev. crypt. fl. t. 73
16577 fasciculátum <i>Grev.</i>	fascicled patches	0 spring Gl.		rotten oranges	
2481. BO'TRYTIS. <i>Mich.</i>	BOTRYTIS.	<i>Sp.</i> 4—?			
16578 diffusa <i>Alb.</i>	diffuse broad tufts	$\frac{1}{2}$ aut. W		rotten herbac. stems	Wern. trans. 4. t. 5. f. 7
16579 agaricina <i>Link</i>	Agaric wool-coat	0 aut. W		decaying fungi	
16584 effusa <i>Grev.</i>	effused spots	0 aut. Pu, Gr		underside of live lvs.	
16581 parasitica <i>Pers.</i>	parasitic lax	0 spr. su. W		on shepherd's purse	Sower. t. 359
2482. ASPERGIL'LUS. <i>Mich.</i>	MOULDINESS.	<i>Sp.</i> 4—?			
16582 glaucus <i>Link</i>	blue patches	0 all sea. B		rotten substances	Berl. mag. 3. t. 1. f. 23
16583 láneus <i>Link.</i>	white patches	$\frac{1}{2}$ aut. Wsh		putrid fungi	
16584 virens <i>Link</i>	green broadspots	$\frac{1}{2}$ aut. Gsh		putrid fungi	[barium
16585 penicillátus <i>Grev.</i>	pencilled spots	0 all sea. D, Gr		damp specimens in Her-	Grev. crypt. fl. t. 32
2483. STACHYLID'IUM. <i>Link.</i>	STACHYLIDIUM.	<i>Sp.</i> 1—?			
16586 cándidum <i>Grev.</i>	white spreading	$\frac{1}{2}$ aut. W		dead wood	Wern. trans. 4. t. 5. f. 6
2484. PENICIL'LIUM. <i>Link.</i>	PENICILLIUM.	<i>Sp.</i> 2—?			
16587 spársium <i>Grev.</i>	scattered broad lines	$\frac{1}{2}$ aut. W		rotten herbac. stems	Grev. crypt. fl. t. 58. f. 2
16588 glaucum <i>Link</i>	tufts	$\frac{1}{2}$ all sea. Gl.		rotten substances	Grev. crypt. fl. t. 58. f. 1
2485. TRICHODER'MA. <i>Pers.</i>	TRICHODERMA.	<i>Sp.</i> 1—?			
16589 viride <i>Pers.</i>	green tufts	0 aut. w. W		rotten wood	

Class IV. PHYLLERIACEÆ.

2486. RUBI'GO. <i>Link.</i>	RUBIGO.	<i>Sp.</i> 1—?			
16590 al'nea <i>Pers.</i>	alder spots	0 sum. D, Br		under alder leaves	Nees syst. 63
2487. ERI'NEUM. <i>Pers.</i>	ERINEUM.	<i>Sp.</i> 9—?			
16591 aúreum <i>Pers.</i>	golden velvety spots	0 sum. Bt, Y		lvs. Populus nigra	Edin. phil. jour. 6. t. 3. f. 15
16592 griseum <i>Pers.</i>	grey velvety spots	0 spr. su. Dl, Pu		under oak leaves	Ed. ph. jo. 6. t. 3. f. 17. <i>minu</i>
16593 acerinum <i>Pers.</i>	Sycamore depress. tufts	0 sp. aut. R, Br		und. sycamore lvs.	Edin. phil. jour. 6. t. 2. f. 1 & 6
16594 pyrinum <i>Pers.</i>	Pear depress. tufts	0 aut. R, Br		on crab-tree lvs.	Grev. crypt. fl. t. 22
16595 tortuósium <i>Kunze</i>	tortuous depress. tufts	0 spr. su. Wsh		on birch leaves	Grev. crypt. fl. t. 94
16596 Juglándis <i>Dec.</i>	Walnut depress. tufts	0 sum. Pale		under walnut lvs.	Ed. ph. jo. 6. t. 2. f. 4. <i>subul.</i>
16597 claudestinum <i>Kunz.</i>	concealed depress. tufts	0 sum. W, Pk		und. hawthorn lvs.	Edin. phil. jour. 6. t. 2. f. 8
16598 róseum <i>Kunze</i>	rose-colored depress. tufts	0 sum. Crim.		on birch lvs.	Grev. crypt. fl. t. 21
16599 betulinum <i>Rebent.</i>	Birch depress. tufts	0 spr. su. Wsh		on birch lvs.	Edin. phil. jour. 6. t. 3. f. 16

CONIOMYCETES.

Class I. TUBERCULARIÆ.

2488. TUBERCULA'RIA. <i>Tode.</i>	TUBERCULARIA.	<i>Sp.</i> 3—?			
16600 vulgáris <i>Pers.</i>	common gregario.	$\frac{1}{2}$ all sea. Dp, R		decayed sticks	Sower. t. 294
<i>Clavária coccinea</i> Sowerb.					
16601 cónfluens <i>Pers.</i>	confluent gregario.	0 aut. sp. F, R		dead sycamore branches	
16602 granuláta <i>Pers.</i>	rough scattered	$\frac{1}{2}$ aut. Br		dead branches	Grev. crypt. 187



History, Use, Propagation, Culture,

2479. *Trichothecium.* The thecæ are intermixed among a mass of hair-like filaments; whence the name.
 2480. *Acrosporium.* From *ακρος*, the top of anything, and *σπορα*, a sporule; the latter occupying the summit of the simple filaments.
 2481. *Botrytis.* So called from *βουτρος*, a bunch of grapes, in allusion to the clusters of little globular seeds or seed vessels.
 2482. *Aspergillus.* This is the name of the brush with which the holy-water is scattered in Catholic ceremonies. The little plant, consisting of a stem and a cluster of sporules at the top, is not unlike a little brush with its handle.
 2483. *Stachyidium.* From *σταχυς*, a spike, and *ιδος*, similar. The sporules are dispersed in a sort of spiked manner on the filaments.

16575 Tufted, Tufts distinct at length sometimes confluent, Filam. white, Sporules pink very numerous oval

16576 Filaments simple forming white spots of one or two lines in length on the living leaves of grasses

16577 Filam. branched somew. fasciculated erect in spreading tufts white at first at length a fine glauc. color

16578 Very lax tuft. white branch. Branch. few long spread. set with short patent ramuli bear. round clust. of spor.

16579 Tufted confluent white, Filaments one line high, Branches divaricate, Sporules numerous ovate large

16580 Pale purpl.-grey spread. Filam. branch. towards summit, Branch. divaric. short, Spor. large oval numerous

16581 Somewhat tufted lax white not much branched, Sporules roundish

16582 Tuft. min. formed of white erect filaments with little heads at first white but when mature of a glauc. color

16583 In dense tufts composed of whitish or yellowish suberect entangled filaments with yellowish heads

16584 Tufts rather dense, Filaments entangled suberect heads as well as the filaments greenish

16585 Filaments scattered gregarious about a line high supporting an elongated tuft of beaded sporidia

16586 Filaments branched erect remotely jointed scattered white, Sporules globular

16587 Barren filaments effused interwoven: fertile ones simple somewhat scattered, Heads of sporules white

16588 Densely tufted spreading, Heads of sporules at length glaucous

16589 Tufted, Tufts roundish composed of snow-white interwoven filaments, Sporules profuse green at length giving the whole a green-color

Class IV. PHYLLERIACEÆ.

16590 Irregularly tufted or effused and confluent whitish at length reddish-brown, Peridia shortly branched, Branches thick bearing several round or ovate lobes

16591 On the surface of the leaf bright gold-color effused sometimes spreading over the whole leaf, Peridia simple crowded club-shaped, Sporules evident excessively minute yellow

16592 Hypophyllous, so minute as scarcely to be raised above the surface of the leaf pale obscure purple widely effused, Peridia simple obtusely club-shaped

16593 On the under surface of the leaf depressed distinct or confluent pale becoming reddish-brown, Peridia club-shaped very rarely turbinate flaccid, the upper half often inclined

16594 Mostly on the under surface of the leaf scattered subeffused rich reddish-brown, Peridia compressed lin. somewhat lax with the apex club-shaped and often truncate

16595 Mostly on the under surface irregularly tufted whitish becoming ferruginous, Peridia linear cylindrical twisted with rounded summits

16596 Hypophyll. silky or toment. pale or quadrangular, Peridia erect cylindric. long and attenuated to a point

16597 On the under surface whitish-pink becoming subferruginous rarely in the form of spots or tufts but confluent at the margin of the leaf which is rolled inwards and conceals it, Peridia short

16598 Mostly on the upper surface unequally scattered confluent fine crimson, Peridia polymorphous turbinate club-shaped or capitate, the summit frequently truncate

16599 Mostly on the under surface whitish at length dark ferruginous often confluent, Peridia short polymorphous sometimes turbinate but generally with two blunt horn-like patent summits

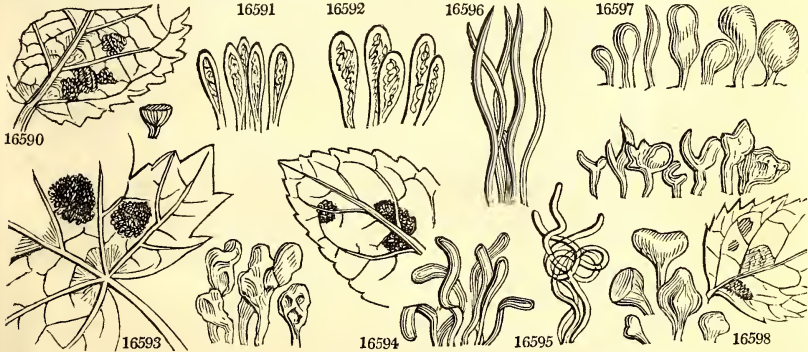
CONIOMYCETES.

Class I. TUBERCULARIÆ.

16600 Gregarious deep-red rugose furnished with a very short thick pale stipes

16601 Gregarious confluent depressed flesh-red small somewhat plane

16602 Somewhat round somewhat shortly stipitate dull-red at length black, Surface tuberculate wrinkled



and Miscellaneous Particulars.

2484. *Penicillium*. A name with the same meaning as *Aspergillus*, to which genus this is extremely similar in appearance.

2485. *Trichoderma*. From *τριχός*, hair, and *δερμα*, a coat. The threads to which the sporules are attached spread round, radiating through the powdery mass in little tufts from a subjacent membrane.

2486. *Rubigo*. An ancient Latin name of blight. There was a inferior deity whom the Romans acknowledged under the name of Rubigus, and whom they propitiated in bad seasons. All the productions referred hither are popularly called mildew or blight.

2487. *Erincum*. So named in reference to its hispid appearance, which resembles the common hedge-hog, *Erinaceus*. Found growing upon leaves in little tufts.

2488. *Tubercularia*. So named in allusion to its warted appearance.

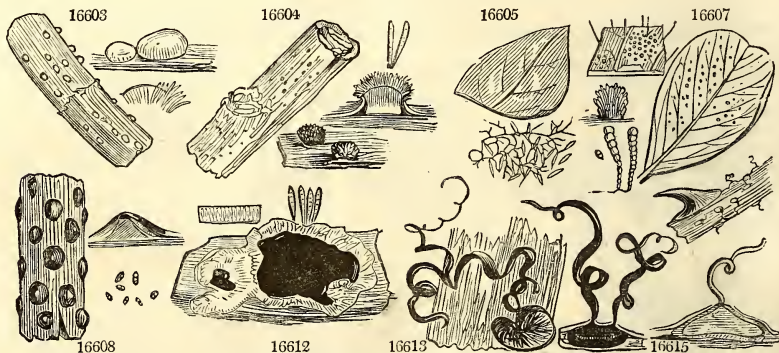
2489. FUSARIUM. Link.	FUSARIUM.		Sp. 1—2.		
16603 tremelloides Grev.	gelatinous	very small	0 spring	Pksh	dead nettle stems Grev. crypt. fl. t. 10
2490. EXOSPORIUM. Link.	EXOSPORIUM.		Sp. 1—2.		
16604 Tiliæ Link	Linden	punctif.	0 sept.	Bl	linden branches Grev. crypt. 208

Class II. ENTOPHYTE. — Division I. *Stilbospori.*

2491. FUSIDIUM. Link.	FUSIDIUM.		Sp. 2—2.		
16605 griseum Grev.	grey	efflus. spo.	0 aut.	Wsh	dead beech leaves Grev. crypt. fl. t. 102
16606 flavo-virens Dittm.	yellow-green	efflus. spo.	0 aut.	Ysh	dead beech leaves Grev. crypt. fl. t. 102
2492. POLYTHRINCIUM. Kunze.	POLYTHRINCUM.		Sp. 1.		
16607 Trifolii Kunze	Trifolium	punctif.	0 aut.	Bl	clover leaves Grev. crypt. 216
2493. STILBOSPORIA. Hoffm.	STILBOSPORA.		Sp. 4—2.		
16608 profusa Grev.	profuse	spots	0 spring	Br	sycamore branches Grev. crypt. 212
16609 microsperma Pers.	small grain.	emerging	0 all sea.	Bl	dead beech bran.
16610 ovata Pers.	ovate	dots	0 aut.	Br	dead branches Grev. crypt. 212
16611 biloculata Grev.	two-celled	emerging	0 all sea.	Bl	dead furze branch.
2494. SPORIDIUM. Link.	SPORIDIUM.		Sp. 1—2.		
16612 atrum Link.	dark	parasitic	0 aut.	Bl	on species of Thelephora Grev. crypt. 194
2495. NEMASPORIA. Pers.	NEMASPORA.		Sp. 3—2.		
16613 Carpini Sowerb.	Hornbeam	irregular	0 all sea.	Bl	dead hornbeam Sower. t. 376
16614 filamentosa Grev.	filamentous	tortuous	0 all sea.	Gr. Bl	dead branches
16615 Rosarum Grev.	Rose	slightly prom.	0 all sea.	Bl	dead rose branches Grev. crypt. fl. t. 20

Division II. *Hypodermia.*

2496. CYLINDROSPORIUM. Grev.	CYLINDROSPORIUM.		Sp. 1—2.		
16616 concentricum Grev.	concent.	speck-lik. hea.	0 my. jn.	W	cabbage leaves Grev. crypt. fl. t. 27
2497. UREDO. Pers.	UREDO.		Sp. 45—2.		
16617 Geranii Dec.	Geranium	scattered	0 sum.	D. Br	on Geranium lvs. Grev. crypt. fl. t. 8
16618 Ficariæ Alb.	Pile-wort	pulverul.	0 su. aut.	D. Br	under Ficaria lvs.
16619 suavæolens Pers.	odoriferous	fragrant	0 spr. su.	Pu. Br	Cnicus arvensis lvs.
16620 Polygonorum Dec.	Polygonum	spreading	0 su. aut.	Pa. Br	under Polygonum lvs. Grev. crypt. fl. t. 80
16621 Primulæ Dec.	Primrose	scattered	0 sum.	Pa. Br	under primrose lvs.
16622 Cichoracearum Dec.	Syngenesious	spots	0 su. aut.	D. Br	on Compositæ lvs.
16623 Heraclei Grev.	Cow-Parsnep	patches	0 sum.	Pa. Br	under Sphondylium lvs.
16624 bifrons Grev.	two-sided	spots	0 aut.	Pa. Br	both sides of sorrel leaves
16625 Ramicum Dec.	Dock	small	0 aut.	Br	on Rumex leaves
16626 Fabe Pers.	Bean	patches	0 aut.	Pa. Br	on bean leaves Grev. crypt. fl. t. 95
16627 Labiatarum Dec.	Mint	pustular	0 aut.	Y. Br	on mint leaves
16628 intrusa Grev.	depressed	scattered	0 aut.	R. Br	on Alchimella lvs.
16629 oblongata Lk.	oblong	pustular	0 sum.	R. Br	on Luzula leaves Grev. crypt. fl. t. 12

*History, Use, Propagation, Culture,*

2489. *Fusarium*. The sporules are remarkable for their regular *fusiform* figure.

2490. *Exosporium*. So called by Link, from $\xi\sigma$, on the outside, and $\sigma\sigma\sigma\sigma$, a sporule; on account of their external situation. Entire plant about one-third of a line in diameter, rarely larger, very gregarious, deep black, convex, bursting from beneath the epidermis, and appearing bristly under a pocket magnifier. Sporida very crowded, elongated, obtuse at the apex, subopaque, divided transversely about five times, fixed at the base upon a roundish dark-colored, solid receptacle, and there persistent.

2491. *Fusidium*. A name with the same meaning as *Fusarium*.

2492. *Polythrincium*. From $\pi\omicron\lambda\upsilon\varsigma$, many, and $\theta\epsilon\tau\iota\gamma\mu\omicron\varsigma$, a little division. To the naked eye, this little plant appears in the form of numerous minute black spots of unequal size. Under the microscope, these spots are each found to consist of a number of distinct little roundish tufts of filaments, nearly equidistant from one another, and becoming smaller towards the circumference. The filaments are densely crowded, semitransparent, gradually thickening upwards, somewhat moniliform from the numerous articulations, erect, simple; the sporida oval, two-celled, scattered above, and the filaments.

2493. *Stilbospora*. From $\sigma\tau\iota\lambda\lambda\omega$, to shine, and $\sigma\sigma\sigma\sigma$, a sporule. Asci or sporules naked, imbedded in a black substance flowing from the branches of trees.

16603 Minute roundish or oval subgelatinous, Sporules long slender slightly curved

16604 Gregarious black minute convex, Sporidia elongated obtuse about 5 times transversely divided

Class II. ENTOPHYTÆ. — Division I. *Stilbospori*.

16605 Mass thin irregular of a whitish or grey color

16606 Mass irregular thin bright-yellow or greenish

16607 The only species

16608 Heaps rather large, Sporidia extremely minute nearly equally 2-celled

16609 Black granulated irregularly ovate at length shapeless, Sporules ovate attenuated at each extremity

16610 Heaps small, Sporidia ovate unilocular

16611 Heaps roundish bursting through the bark, Sporules ovate obtuse 2-celled

16612 Black very crowded, Filaments linear-oblong 4 or 5 times divided

16613 Spherules depressed black immersed, Sporules large ovate escaping in the form of thick black tendrils

16614 Spherules very small grey black, Sporules excessively minute dust-like under a high magnifying power escaping in the form of long capillary entangled dull-orange tendrils

16615 Spherules waved when divided horizontally elevating the epidermis, Orifice blackish with a cottony margin, Sporules very minute forming a single short slightly tortuous whitish tendrils

Division II. *Hypodermia*.

16616 The only species

16617 Hypophyllous scattered dark fuscous round very pulverulent sometimes confluent, Sporidia globose

16618 Aggregated deep-brown chiefly hypophyllous confluent, Sporidia oval sometimes with a very min. stipes

16619 Hypophyllous scattered becoming confluent reddish or purplish-brown, Sporidia globose greenish under a high power of the microscope

16620 Hypophyllous circular scattered rarely disposed in a circle round a pale-brown centre, Sporidia globular

16621 Hypophyllous scattered single or disposed in a circle round a central one light-brown, Sporidia globular subovoid and rarely furnished with a minute pedicel

16622 On both sides of leaf dark fuscous minute round scattered, Sporidia globular rarely with a minute pedicel

16623 Hypophyllous scattered sometimes subconfluent roundish light-brown girt by the remains of epidermis, Sporidia oviform sometimes furnished with a very short blunt pedicel

16624 On both surfaces of the leaf and opposite to each other scattered round light-brown girt with the remains of the epidermis, Sporidia globose

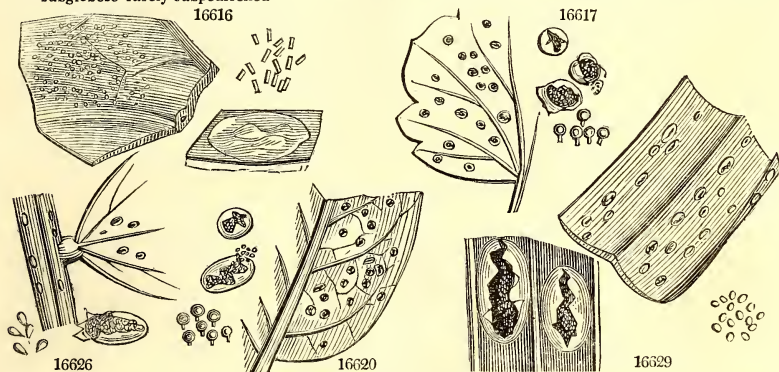
16625 On both surfaces of the leaf brown round minute often not bursting: the epidermis rarely disposed in a circle, Sporidia ovoid sometimes with minute pedicels

16626 Scattered round depressed light-brown girt with the remains of the epidermis, Sporidia rounded or suboval rarely with minute pedicels

16627 Hypophyllous pale yellowish-brown sometimes disposed in a circle round: a central one minute rarely confluent, Sporidia roundish or egg-shaped and rather hyaline

16628 Hypophyllous scattered or partially aggregated reddish-brown rounded somewhat prominent minute very unequal, Sporidia roundish or oval rarely pedicelled

16629 On both sides of the leaf scattered distinct oblong reddish-brown girt by the ruptured epidermis, Sporidia subglobose rarely subpedicelled



and Miscellaneous Particulars.

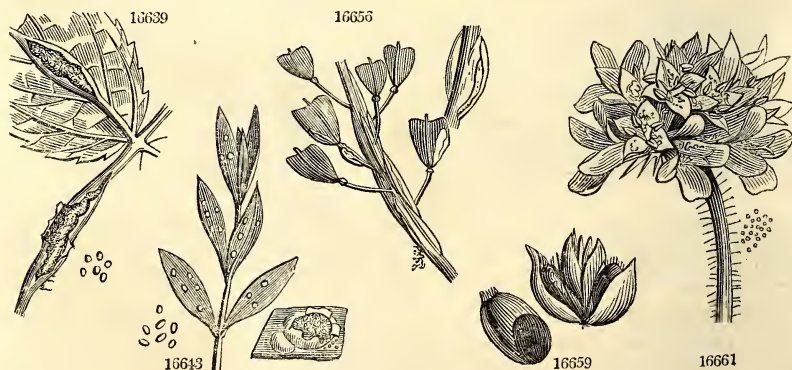
2494. *Sporidermium*. From *σπορος*, a sporule, and *δερμα*, a skin, or coat. A plant of a very simple structure, composed entirely of linear-oblong or club-shaped semi-opaque bodies, closely arranged side by side, exactly of the same height, and transversely divided by three or four dissepiments. When viewed with the naked eye, it resembles an intensely black thin crust, creeping over the surface of *Thelephora*. Specimens from Captain Carmichael, as well as those found by Dr. Greville, occurred on *Thelephora vulgaris*.

2495. *Næmaspora*. From *νημα*, a thread, and *σπορα*, a sporule. The species resemble distorted threads filled with minute sporules.

2496. *Cylindrosporium*. In allusion to the cylindrical form of the sporules. Found on both surfaces of living cabbage leaves (*Brassica oleracea*). Frequent in May and June. A very extraordinary plant, forming minute speck-like heaps of an oblong shape, but otherwise very irregular, and projecting into little angles and processes. They are disposed in a concentric manner, are pure white, and change in decay to a dirty yellow. Sporules naked, very numerous, cylindrical, truncate at each extremity, pellucid.

2497. *Uredo*. An old Latin name, from *uro*, to burn or scorch, applied to those occasional discolorations of the surfaces of plants which were attributed to blasts or injuries of the atmosphere or heavenly bodies, and are

16630	<i>Sálcis Dec.</i>	Willow	mottled	0 aut.	Y	under <i>Salix pentandra</i> lvs.
16631	<i>Vitellinæ Dec.</i>	Golden Osier	pimpled	0 my. aut	Y	under <i>Sal. vitellina</i> lvs.
16632	<i>farinósa Pers.</i>		powdery	0 aut.	Pa. Y	under <i>Sal. Caprea</i> lvs.
16633	<i>Tussiláginis Pers.</i>	Colt's-foot	gyrose	0 sum.	Or	under coltsfoot lvs.
16634	<i>Seneciónis Dec.</i>	Ragwort	blotches	0 sum.	Or	under <i>Senecio</i> lvs.
16635	<i>cónfluens Pers.</i>	confluent	gyrose	0 sum.	Y	on <i>Mercurialis</i> lvs.
16636	<i>Potentillæ Dec.</i>	Cinquefoil	powdery	0 sum.	Go. Y	on <i>Fragaria sterilis</i> lvs.
16637	<i>Róseæ Pers.</i>	Rose	mottled	0 sum.	Or	under rose lvs.
16638	<i>Rubórum Dec.</i>	Bramble	very powd.	0 sum.	Go. Y	under bramble lvs.
16639	<i>effúsa Grev.</i>	effused	spreading	0 sum.	R. Or	under <i>Rosacææ</i> lvs. <i>Grev. crypt. fl. t. 19</i>
16640	<i>gyrósæ Rebert</i>	concentric	gyrose	0 spr. su.	Y	on raspberry lvs.
16641	<i>Alchemillæ Pers.</i>	Lady's Mantle	spreading	0 my. jn.	Or	under <i>Alchemilla</i> lvs.
16642	<i>Rhinanthacæarum Dec.</i>	bt.-yellow	spots	0 su. aut.	R. Y	<i>Scrophularinææ</i>
16643	<i>Lini Dec.</i>	Flax	shining	0 sum.	Or. Y	<i>Linum cartharticum</i> <i>Grev. crypt. fl. t. 31</i>
16644	<i>Saxifragarum Dec.</i>	Saxifrage	brilliant	0 sum.	Or	<i>Saxifrage</i>
16645	<i>Campánulæ Pers.</i>	Campanula	bright	0 sum.	Or	under <i>Campanula</i> lvs.
16646	<i>Pyrolæ Grev.</i>	Winter Green	minute	0 sum.	Gold.	under <i>Pyrola</i> lvs.
16647	<i>Helioscópææ Dec.</i>	Euphorbia	round	0 aut.	Gold.	under <i>Euphorbia</i> lvs.
16648	<i>lineáris Pers.</i>	linear	very com.	0 sp. aut.	Y	on grass leaves
16649	<i>æcidifórmis Grev.</i>	Æcidium-like	pustular	0 spring	Y	on <i>Sphondylium</i> lvs.
16650	<i>Cerástii Grev.</i>	Cerastium	punctif.	0 sum.	Gold.	on <i>Cerast. viscosum</i> lvs.
16651	<i>pustuláta Pers.</i>	pimpled	punctif.	0 spring	Y	on <i>Epilobium palustre</i> lvs.
16652	<i>Sónchi Pers.</i>	Sow Thistle	spreading	0 sum.	R. Or	under <i>Sonch. olerac.</i> lvs.
16653	<i>Petasites Dec.</i>	Petasites	gyrose	0 aut.	Or	under <i>Petasites</i> lvs.
16654	<i>Populina Pers.</i>	Poplar	beautiful	0 aut.	Gold.	under <i>Populus nigra</i> lvs. <i>Ann. wett. 2. t. 11. f. 5</i>
16655	<i>ováta Strauss</i>	Aspen	spots	0 aut.	Tawn.	on <i>Populus tremula</i> lvs. <i>Ann. wett. 2. t. 11. f. 6</i>
16656	<i>cándida Pers.</i>	white	spreading	0 aut.	W	<i>Crucifereæ</i> <i>Sower. t. 340. Thlaspi</i>
16657	<i>ségetum Pers.</i>	Smut Brand	spreading	0 sum.	Bl	within grains of corn
16658	<i>urceolórum Dec.</i>	sedge	spreading	0 sum.	Bl	on fructif. of <i>Carex</i>
16659	<i>cáries Dec.</i>	cankering	destroying	0 aut.	Bl. Br	within grains of wheat <i>Deutschl. fl. t. 34</i>
16660	<i>antherárum Dec.</i>	Anther	spreading	0 sum.	Pu	on <i>Caryophyllææ</i>
16661	<i>fiosculósum Dec.</i>	Floret	spreading	0 sum.	Pu. Br	on <i>Scabiosa arvensis</i> <i>Sow. t. 396. f. 2. Scabiosææ</i>
2498.	<i>ÆCYDIUM Pers.</i>	ÆCIDIUM.				<i>Sp. 21—2.</i>
16662	<i>Pini Pers.</i>	Pine	scattered	½ sum.	Pa. Or	on <i>Pinus sylvestris</i> <i>Grev. crypt. fl. t. 7</i>
16663	<i>Epilóbii Dec.</i>	Epilobium	beautiful	0 sum.	W	on <i>Epilobium montanum</i> lvs.
16664	<i>Violárum Dec.</i>	Violet	crowded	0 sum.	Wsh	under <i>Viola canina</i> lvs.
16665	<i>albescens Grev.</i>	whitish	beautiful	0 april	W	<i>Adoxa moschatellina</i>
16666	<i>Taráxaci Grev.</i>	Dandelion	spreading	0 sum.	W	under <i>Leontodon Taraxacum</i> lvs.
16667	<i>Periclymeni Dec.</i>	Woodbine	large spot	0 sum.	Ysh	under woodbine lvs.
16668	<i>Bánii Dec.</i>	Ground Nut	deformed	0 spring	Ysh	on <i>Bunium</i> lvs.

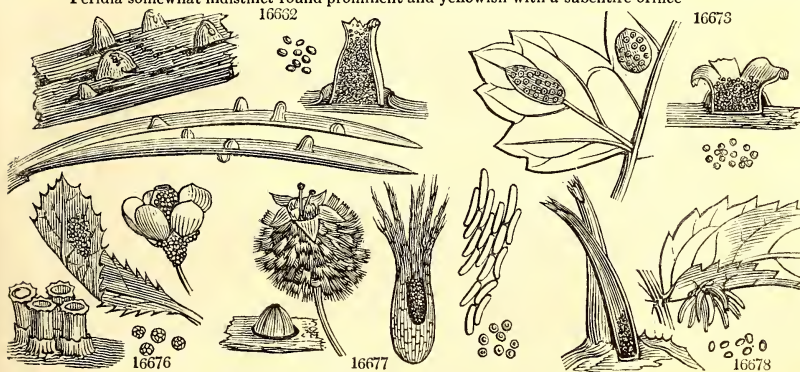


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called mildew or blight. All the species are obscure and require further examination. They are in the hands of Bauer, whose knowledge and pictorial powers cannot be better employed than in illustrating this obscure part of vegetation.

- 16630 Hypophyl. scatter. very min. rounded becom. contigu. but not confluent, Sporidia pyriform subpedicellate
 16631 Hypophyl. very min. convex orbicular scattered becom. confluent, Sporidia very min. globul. transparent
 16632 Hypophyl. pale ochrey-yell. distinct at first soon bursting becom. conflu. and very pulverul. Sporidia oval
 16633 Hypophyllous bright orange-yellow prominent crowded generally forming circles and becoming very confluent, Sporidia very numerous obovate
 16634 Hypophyllous orange-yellow oblong irregular becoming confluent, Sporidia numerous
 16635 Hypophyllous depressed yellow oblong concentric becoming confluent, Sporidia nearly oval
 16636 Chiefly hypophyllous golden-yellow scattered irregular convex becoming confluent, Sporidia subspherical
 16637 Hypophyllous small scattered effused orange-yellow, Sporidia suboval sometimes with a minute pedicel
 16638 Hypophyllous golden-yellow suborbicular becoming effused, Sporidia very numerous irregularly spherical
 16639 Bright reddish-orange broad pulverulent hypophyl. and on nerves and petioles, Sporidia numer. subglob.
 16640 Epiphyllous much scattered rather large yellow thick elevated from the leaf and bursting in a glose manner, Sporidia subglobose
 16641 Hypophyl. lin. obl. crowded arranged in a subparallel manner orange-yell. becom. pale, Sporidia spherical
 16642 Hypophyllous and on the petioles and calyx oblong thickish sometimes partly disposed in a circular manner and subconfluent deep reddish-yellow, Sporidia spherical
 16643 On both sides of the leaf and stem suborbicular prominent bright orange-yellow scattered, Sporidia oval or even oblong transparent
 16644 Hypophyllous and on the calyces rather large oval with an indurated disk after the sporidia have escaped, Sporidia bright orange spherical and granular within
 16645 Hypophyllous scattered round depressed rarely confluent, Sporidia yellowish-orange spherical surrounded by the remains of the ruptured epidermis
 16646 Hypophyllous punctiform scattered or collected into small clusters golden-yellow scarcely bursting, Sporidia ovate or oblong somewhat transparent and granular within
 16647 Hypophyl. golden-yell. scatter. distin. surround. by remains of rupt. epidermis, Sporidia subglob. minute
 16648 On both sides of the leaf oblong or lin. sometimes forming long lines yellow becoming reddish or brownish in decay, Sporidia globular or suboval
 16649 Hypophyllous and on the petioles somewhat aggregated but generally following the course of the veins, bullated yellow bursting in the centre
 16650 Chiefly hypophyllous very minute regular numerous convex late in bursting golden-yellow, Sporidia roundish oval or even oblong
 16651 Chiefly hypophyllous very minute pale-yellow subrotund convex scattered or collected into clusters scarcely bursting, Sporidia suboval
 16652 Hypophyl. depressed regular in form redd. orange scattered becoming partially conflu. Sporidia egg-shaped
 16653 Hypophyllous depressed minute spreading somewhat aggregated subconfluent irregular in form of a deep orange or orange-red, Sporidia oval
 16654 Hypophyllous scattered or crowded distinct convex roundish large compared with the following mostly closed pale becoming golden-yellow, Sporidia very long obtuse at each extremity
 16655 Hypophyllous punctiform prominent or papilliform numerous tawny yellow mostly closed, Sporidia ovate
 16656 Polymorphous of various forms sometimes disposed in a circular manner quite white frequently never bursting, Sporidia in great profusion globular
 16657 Within the fruit and glumes of corn and various grasses spreading and in a short time filling the whole with a profuse black dust, which under the microscope consists of minute spherical spores
 16658 Attacking the fructification of Carices and forming a black compact slightly pulverulent mass composed of a pale solid nucleus surrounded by the naked sporidia which are small and globular
 16659 Always inclosed within the grain and filling it with uniform dense fetid blackish-brown mass composed of very minute spherical sporidia
 16660 Attack. anth. and ovary of the *Caryophylleæ*, fine purp. Spori. very plentiful pulverul. min. and globul.
 16661 Sporidia very min. purpl.-brown plentiful produc. within florets and often filling them with pulverul. mass

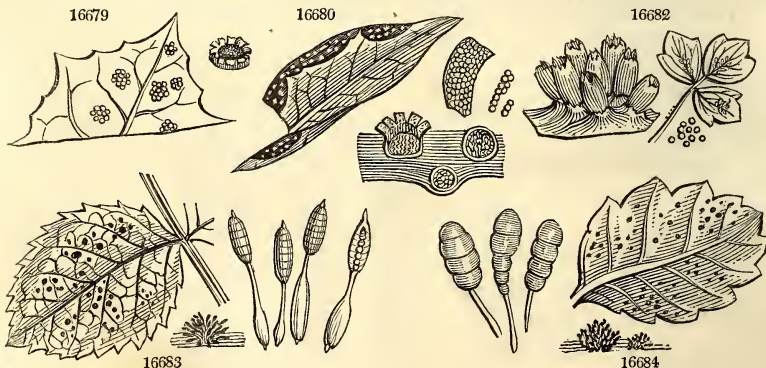
- 16662 Large oblong or conical much scattered pale-orange bursting with an irregular orifice, Sporidia excessively abundant bright-orange
 16663 Hypophyllous numerous distinct, Sporidia very white toothed, Teeth beautifully rolled back brittle and vanishing, Sporidia pinkish-orange
 16664 Hypophyllous and on the petioles scattered or subaggregated numerous, Peridia whitish split into many small deciduous teeth, Sporidia orange becoming obscure brown
 16665 Hypophyllous and on the petioles scattered distinct, Peridia very white split into a few comparatively large teeth, Sporidia yellowish-white, Surface of the leaf blistered whitish
 16666 Hypophyllous very numerous subsessile scattered or collected into little clusters, Peridia white split into subrevolute teeth, Sporidia fine orange
 16667 Hypophyllous, Peridia distinct but decidedly clustered and crowded prominent becoming subelongated; the mouth with a few broad very delicate deciduous teeth, Sporidia fine orange
 16668 Hypophyllous and on the petioles irregularly clustered and deforming the parts on which it grows, Peridia somewhat indistinct round prominent and yellowish with a subterre orifice



and Miscellaneous Particulars.

2498. *Acidium*. These plants are found upon the leaves of other vegetables, and one of them is known to agriculturists under the name of Red Gum. This species usually grows inside the glumes of the calyx, under the epidermis, which, when the plant is ripe, bursts and emits a powder of a bright orange color. It does not

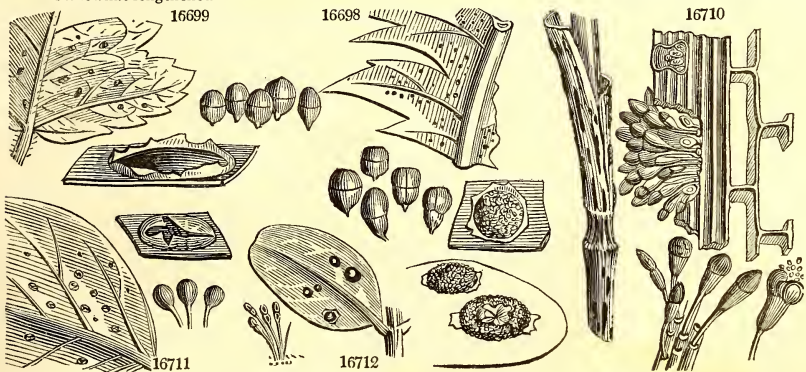
16669	Jacobææ Grev.	Ragwort	agglomerat.	0	sum.	Ysh	under Sen. Jacobæa lvs.
16670	Prenánthis Pers.	Prenanthes	spots	0	sum.	W	under Hierac. sylvat. lvs.
16671	Urticæ Dec.	Nettle	clusters	0	sum.	Ysh	on Urtica dioica
16672	confertum Dec.	dense	clusters	0	sum.	Wsh	on Ficaria
16673	Grossuláriæ Dec.	Gooseberry	bright sp.	0	sum.	R	under gooseberry lvs. Grev. crypt. fl. t. 62
16674	Ranunculacearum Dec.	Crowfoot	clusters	0	sum.	Wsh	under Ranunc. lingua lvs.
16675	Cal'thæ Grev.	Caltha	bright	0	spring	Or	under Caltha palustris lvs.
16676	Berbéridis Pers.	Berberry blight	spreading	0	sum.	Or	on Berb. vulgaris Grev. crypt. fl. t. 97
16677	laceratum Dec.	ragged	swollen	0	sum.	Br	on hawthorn Grev. crypt. 209
16678	cornutum Pers.	cornute	spots	$\frac{1}{6}$	sum.	Y.Br	on mountain-ash Grev. crypt. 180
16679	Tussiláginis Pers.	Coltsfoot	concentrical	0	sum.	Psh	under Farfara lvs. Sower. t. 397. f.
16680	rubellum Dec.	pink	concentrical	0	sum.	Crim.	under Rumex lvs. Sow. t. 405. Rumicis
16681	Al'lii Pers.	Allium	concentrical	0	sum.	Y	under All. ursinum lvs.
16682	Thalictri Grev.	Thalictrum	clustered	0	sum.	Or	Thalictrum alpinum Grev. crypt. 4
2499.	PUCCI'NIA. Mich.	PUCCINIA.					Sp. 30—?
16683	Rósæ Grev.	Rose	many-cell.	0	aut.	Bl	under rose leaves Grev. crypt. fl. t. 15
16684	Rúbi Dec.	Bramble	many-cell.	0	aut.	Bl	under bramble lvs.
16685	gráclis Grev.	slender	many-cell.	0	aut.	Bl	under raspberry lvs.
16686	Potentillæ Pers.	Potentilla	many-cell.	0	aut.	Bl	under Potentilla lvs. Grev. crypt. fl. t. 57
16687	Aspáragi Dec.	Asparagus	two-celled	0	aut.	Bl	dead asparagus
16688	Circææ Pers.	Circæa	two-celled	0	aut.	Pk.Br	under Circæa lvs.
16689	Chrysosplénii Grev.	Chrysosplen.	two-celled	0	may	Fa.Br	under Chrys. opp. lvs.
16690	Aviculáriæ Dec.	knot grass	two-celled	0	aut.	Bl	under Polygonum lvs.
16691	Ægopódii Straus	Ægopodium	two-celled	0	aut.	B.Gr	on Ægopodium lvs.
16692	túmida Grev.	tumid	two-celled	0	june	Br.Gr	on Bunium Bulbocastanum
16693	Men'thæ Pers.	Mint	two-celled	0	spring	Bl	under Mentha lvs.
16694	Polygóni Pers.	Polygonum	two-celled	0	aut.	R.Br	under Polyg. amphib. lvs.
16695	Centaureæ Dec.	Centaury	two-celled	0	aut.	Bl	on Centaurea nigra
16696	Umbelliferarum Dec.	Umbellifer.	two-celled	0	aut.	Ve.D	on Umbelliferæ lvs.
16697	Saniculæ Grev.	Sanicle	two-celled	0	aut.	Bl.Br	under Sanicula lvs.
16698	variabilis Grev.	variable	two-celled	0	aut.	Blsh	on Leont. Taraxacum Grev. crypt. fl. t. 75
16699	Heráclei Grev.	Cow Parsnip	two-celled	0	sum.	Blsh	under Sphondylium lvs. Grev. crypt. fl. t. 42
16700	Epilóbii Dec.	Epilobium	two-celled	0	june	Br	under Epilobium palustre lvs.
16701	Betónica Dec.	Betony	two-celled	0	aut.	Ferr.	under Beton. offic. lvs.
16702	pulverulénta Grev.	powdery	two-celled	0	sum.	D.Br	under Epilobium lvs.
16703	Adóxæ Dec.	Moschatel	two-celled	0	sum.	D.Br	on Adoxa Moschatellina



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appear to be materially injurious to the grain, if at all. Ears full of it have been found with very plump grains; and it has also been found upon branched ears. Before the cuticle which covers the fungus bursts, it has much the appearance of a pustule upon the human body.

- 16669 Hypophyllous at first prominent pustular soon becoming agglomerated very numerous, Peridia splitting into short brittle yellowish-white teeth, Sporidia pale-orange
- 16670 Hypophyllous in widely scattered agglomerated clusters but not very crowded, Peridia subsessile split into very white exceedingly brittle teeth, Sporidia pale
- 16671 Hypophyllous and on the petioles and stem, Peridia campanulate agglomerated rarely single split into many short recurved teeth, Sporidia ochre-yellow numerous ovate
- 16672 Hypophyllous and on the petioles, Peridia in dense agglomerated clusters whitish split into revolute teeth, Sporidia yellowish: the leaf whitish around the clusters
- 16673 Hypophyllous upon a thickened portion of the leaf, which on the upper surface is of a fine red color with a yellow border, Peridia densely crowded splitting into yellowish-white teeth, Sporidia pale
- 16674 Hypophyllous, Peridia agglomerated in scattered clusters of various sizes whitish with a brittle dentated margin, Sporidia yellow
- 16675 Hypophyllous and on the petioles aggregated short somewhat campanulate with numerous very minute marginal teeth, Sporidia bright-orange subglobose or oval
- 16676 Hypophyllous and on the fruitstalk, seed-vessel, calyx, and even petals, Peridia short or elongated cylindrical densely crowded fine orange, Sporidia yellow under the microscope
- 16677 Hypophyllous and on the petioles and young fruit, Peridia elongated agglomerated brown splitting to the base in capillary segments, Sporidia numerous light-brown
- 16678 Hypophyllous, Peridia 2-12 long cylindrical slightly curved yellowish-brown springing from an orange-colored thickened portion of the leaf, Sporidia numerous greyish becoming brown
- 16679 Hypophyllous marked on the upper surface of the leaf by a yellow or purplish spot, Peridia partly immersed short splitting into white revolute teeth, Sporidia pink-orange
- 16680 Hypophyllous producing a crimson spot on the upper surface of the leaf, Peridia minute subimmersed splitting regularly into small revolute white teeth, Sporidia yellowish-white
- 16681 Hypophyllous marked by a pale spot on the upper surface of the leaf and a pale ring round the peridia, which are small not numerous splitting into small brittle yellowish-white teeth, Sporidia pale
- 16682 Hypophyllous somewhat clustered, Clusters of a roundish form, Peridia oblongo-cylindrical bright-orange, Mouth paler and bursting irregularly
- 16683 Hypophyllous, Sporidia mucronate 5-7-celled with a white filiform stipes incrassated towards the base which is furnished with a yellow gland
- 16684 Hypophyllous deep-black tufted, Sporidia 4-celled obtuse mucronate, Stipes slender incrassated at the base
- 16685 Hypophyllous tufted of various sizes black rather lax scattered, Sporidia 7-9-celled somewhat attenuated mucronate with a slender stipes incrassated at the base
- 16686 Somewhat tufted scattered black, Sporidia cylindrical 3-4-celled obtuse never mucronated, Stipes filiform
- 16687 Round, or ov. obl. scatter. black somew. convex, Sporidia densely crowded obl. obt. firmly fix. by pedicels
- 16688 Hypophyll. deep pinkish-brown promin. consist. of a number of distinct aggreg. tufts, Sporidia obl. acute
- 16689 Hypophyllous small of various sizes few together and confluent pale-brown, Sporidia long somewhat waved much attenuated at each extremity with an elongated stipes
- 16690 Hypophyllous punctiform minutely tufted subrotund blackish-brown, Sporidia crowded obtusely egg-shaped with a long flexuose filiform pedicel
- 16691 Chiefly hypophyllous minute aggregated rendering the nerves and petioles swollen dark bluish-grey before bursting, Sporidia nearly black oval not contracted in the centre, Stipes short
- 16692 Hypophyllous and on the petioles conglomerated confluent brownish-grey before bursting, Sporidia nearly black obtuse scarcely contracted in the centre: the upper cell sometimes divided
- 16693 Hypophyllous round scattered nearly black, Sporidia of an obtuse irregular figure with a short filiform stipes somewhat incrassated at the base
- 16694 Hypophyllous minute round very crowded reddish-brown: upper cell of the sporidia thick globose; the lower one long and narrow, Stipes short
- 16695 On both sides of the leaf and on the stem in small nearly black scattered tufts surrounded by the remains of the ruptured epidermis, Sporidia oval the two cells nearly equal, Stipes very short
- 16696 Hypophyllous minute very dark scattered, Sporidia short with both cells obtuse and a short stipes
- 16697 Hypophyllous circular very variable in size blackish-brown scattered rarely confluent, Sporidia very obtuse with a subelongated stipes
- 16698 On both sides of the leaf in minute tufts nearly black circular bordered by the remains of the epidermis, Sporidia variable very obtuse rounded 2-celled both often subdivided, Stipes very short
- 16699 Hypophyllous blackish-brown irregular in figure girt by ferruginous remains of epidermis, Sporidia crowded obtuse divided but scarcely contracted in the middle, Stipes short
- 16700 Hypophyllous scattered closely over the whole surface small round brown depressed, Sporidia much contracted in the centre nearly resembling figure 8: the upper cell largest
- 16701 Hypophyllous very thickly scattered and becoming contiguous but very rarely confluent minute at first and ferruginous after bursting, Sporidia short: upper cell obtuse, Stipes very short
- 16702 Hypophyllous dark-brown scattered or sub-confluent often concentric, Sporidia crowded pulverulent obtusely oval slightly contracted in the middle: the lower cell terminating in an abrupt and short stipes
- 16703 On the leaf and petiole crowded confluent, Sporidia dark-brown pulverulent: upper cell obtuse, Stipes somewhat lengthened

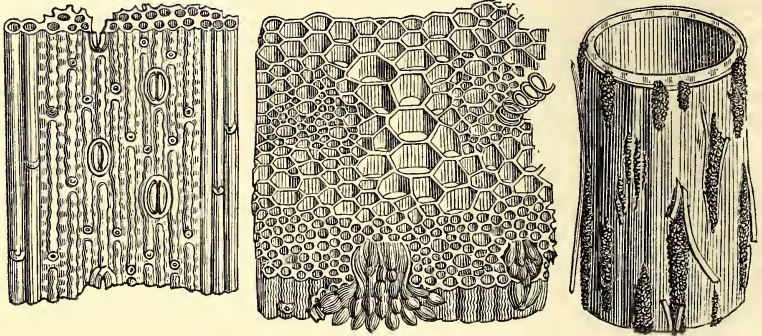


and Miscellaneous Particulars.

2499. *Puccinia*. A name of obscure meaning; possibly derived from πύαα, closely packed, in allusion to the crowded manner in which the little plants are placed.

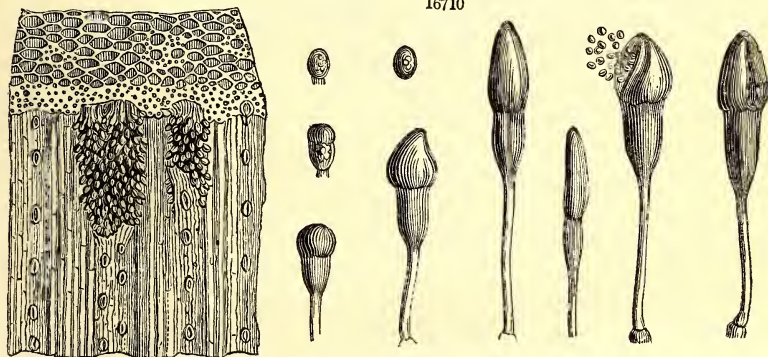
16704 <i>Primulæ Grev.</i>	Primrose	two-celled 0	sum.	D.Br	under primrose lvs.	
16705 <i>Violæ Dec.</i>	Violet	two-celled 0	sum.	D.Br	under <i>Viola canina</i> lvs.	
16706 <i>Valántiæ Pers.</i>	Cross-wort	two-celled 0	sum.	Dp.Br	on <i>Galium verum</i>	
16707 <i>glomeráta Grev.</i>	heaped	two-celled 0	spr. su.	Dp.Br	under <i>Senecio Jacobææ</i> lvs.	
16708 <i>Ulmáriæ Dec.</i>	Ulmaria	two-celled 0	aut.	Pu.Bl	under <i>Ulmaria</i> lvs	
16709 <i>caricína Dec.</i>	Sedge	two-celled 0	aut.	Bl	on <i>Carex</i> leaves	
16710 <i>Gráminis Pers.</i>	Grass	two-celled 0	aut.	Bl	on corn & grasses	Sow. t.140. <i>U.Fruentis</i>
16711 <i>globósa Grev.</i>	globose	one-celled 0	aut.	Bl	on bean leaves	Grev. crypt. fl. t. 29
16712 <i>Báxi Sow.</i>	Box	two-celled 0	sum.	Br	leaves of box	Grev. crypt. fl. t. 17

16710



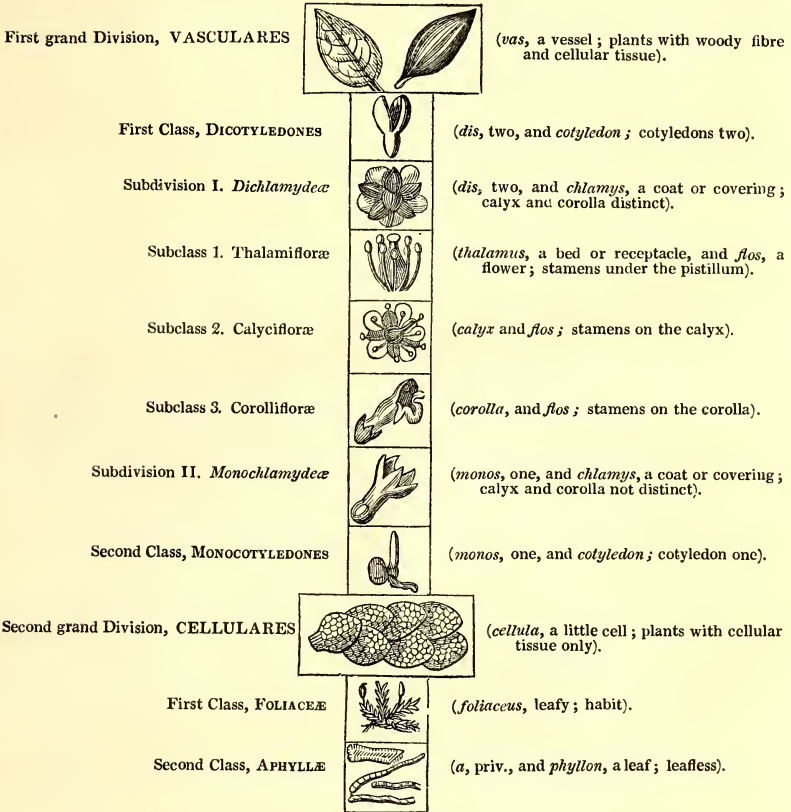
- 16704 Hypophyllous deep brown solitary scattered or concentric and subconfluent, Sporidia rather slender with the lower cell attenuated into a short stipes
- 16705 Hypophyllous minute scattered sometimes confluent irregular in form nearly black, Sporidia short obtuse small with a short stipes
- 16706 Hypophyll. very min. scatter. deep-brown, Sporidia thick obt. variable in shape with lower cell fusiform
- 16707 Hypophyllous tufts circular depressed broad dark fuscous composed of many smaller ones confluent at the centre, Sporidia oblong with lower cell somewhat attenuated
- 16708 Hypophyllous purplish black scattered in tufts, Sporidia variable generally very obtuse two rarely 3-celled frequently also divided perpendicularly, Stipes short
- 16709 Epiphyllous brown eventually black oval often confluent and forming long lines, Sporidia oblong with a white filiform stipes firmly fixed at its base
- 16710 Tufts dense oblong often confluent and forming long parallel lines changing from yellowish-brown to black, Sporidia elongated: the upper cell the shortest, Stipes filiform
- 16711 Epiphyllous minute scattered nearly black, Sporidia globose with a filiform slender stipes
- 16712 Scattered reddish-brown round very convex surrounded by the ruptured epidermis, Sporidia oblong 2-celled yellow with a long filiform stem

16710



ENCYCLOPÆDIA OF PLANTS.

PART II. NATURAL ARRANGEMENT.



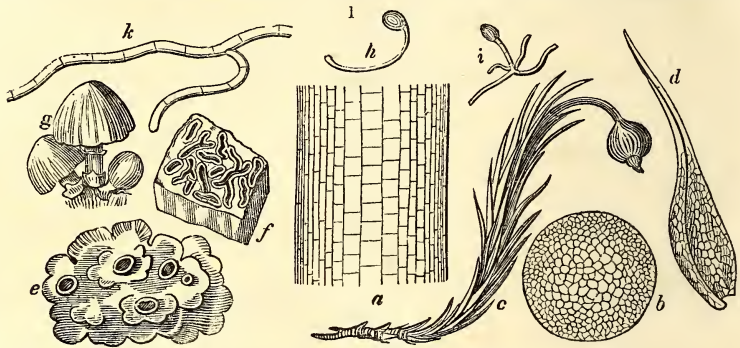
THE difficulties connected with the adoption of the natural system of plants are these, that the characters of many of the orders are at present imperfectly known, and that they depend upon a consideration of many points of structure which are not to be determined without much labor and a considerable degree of practical skill in the use of the microscope and the dissecting knife. But the facilities which the habit of viewing all natural bodies with reference to the relations they bear to other bodies, and not as insulated individuals merely possessing certain peculiarities by which they may be referred to some station in an artificial system, ultimately gives to the investigations of the naturalist, are so great, that difficulties of the nature just alluded to ought not to be suffered to influence the botanist in determining which line of study he will follow, whether that pointed out by Linnæus, or that traced by the hand of nature. By the artificial system of Linnæus, indeed, no great difficulty exists in determining the number of stamens or styles possessed by a given plant, or the nature of their combination, and from the knowledge so obtained, in referring them to their class and order in the Linnæan system. But when this step has been gained, what more has been acquired than the bare knowledge that the plant in question possesses a certain number of stamens and styles? No possible notion can be formed of the relation it bears to other plants of the same nature, of the qualities it probably possesses, or of the structure of those parts not under examination, the fruit for example; and, finally, if it were wished to convey an idea of the plant to a stranger, no means would be in the possession of the Linnæan botanist of doing so, except by stating that the plant belonged to Pentandria Monogynia for example, which is stating nothing. But what would be the condition of the student of the natural affinities of plants in a similar case? It is true he would be obliged to consult more characters than the two unimportant ones of Linnæus — it would be necessary to ascertain if his subject was Vascular or Cellular; if Vascular, whether it was Monocotyledonous or Dicotyledonous; if Dicotyledonous, whether the leaves were opposite or

alternate, stipulate or exstipulate, whether the flowers were monopetalous, polypetalous, or apetalous, the nature and station of the stamens, the condition of the ovarium, and so on. But when he has ascertained thus much, only let it be remembered, for a moment, how much he has gained indirectly as well as directly. Perhaps he has discovered that his plant belongs to Rubiaceæ; he will then have learned that all vegetables with opposite entire stipulate leaves, and a monopetalous superior corolla, are also Rubiaceous; if a fragment of the leaves and stem only of such a plant were afterwards submitted to him for examination, he would recognise its affinities, and remember that it was Rubiaceous, and being aware of that fact, he would be able safely to infer that its calyx and corolla would be of a particular nature, that if the roots afforded any color for dying, it would be red; that the medicinal properties of the bark, if any, would be tonic, astringent, and febrifugal, and that its seeds would be of the same nature as those of coffee, and finally, its geographical position would be tolerably certain to him.

The really important obstacle which exists in the way of acquiring this kind of knowledge, is undoubtedly the want of any introduction to the study of it, accompanied by the distribution and characters of the natural orders into which plants are divided. It is to be hoped that English readers at least will not long have to regret this deficiency in their elementary works. In this place, it must suffice to point out the characters upon which the great divisions depend, under which the orders themselves are arranged; and it is to be hoped, that even this small aid will be found to smooth the way, and to remove some of the obstacles that at present are supposed to exist at the very threshold of the temple.

Plants considered with reference to their general structure, are separated into two grand divisions called **CELLULARES** and **VASCULARES**.

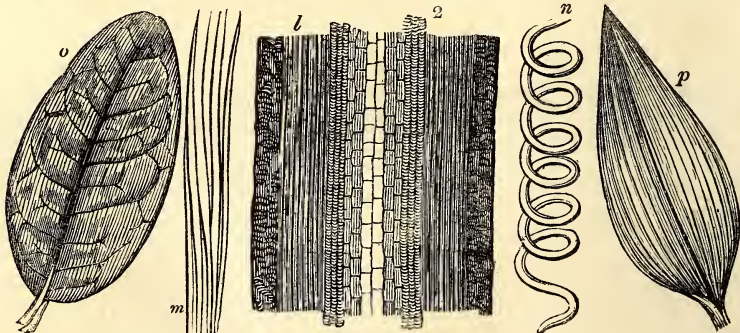
The Cellulares answer to the Linnæan Cryptogamia, and are also called Acotyledonous; the Vasculares answer to the rest of the Linnæan system, which is sometimes called Phanerogamia and Cotyledonous.



a, Longitudinal section of a stem.
 b, Transverse section of a stem.
 c, Stem of a moss, with leaves and theca, or seed-case.
 d, Leaf of a moss, magnified.
 e, Leafy thallus of a lichen, with shields.

f, Crustaceous thallus of a lichen, with shields.
 g, Fungi of the highest dignity.
 h, i, Fungi of the lowest rank.
 k, Conferva magnified.

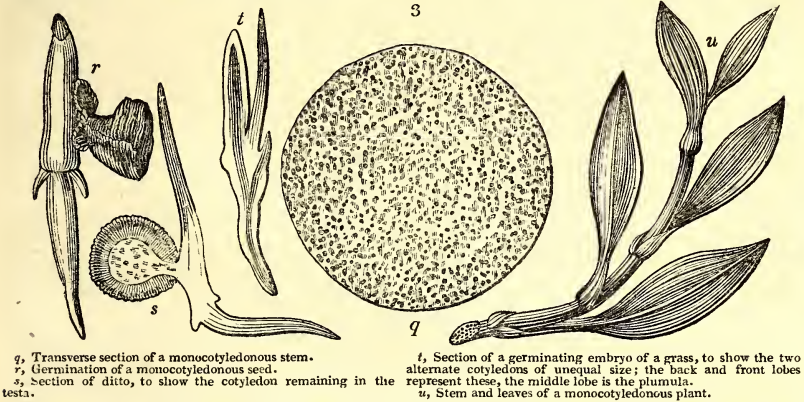
CELLULARES, CRYPTOGAMOUS, or ACOTYLEDONOUS plants are all, therefore, different terms denoting the same combination of vegetables. The first term is here adopted in preference to the others as expressing the most obvious character upon which the division depends, namely, the cellular, not vascular, structure of the plants composing it. Cellular plants are formed entirely of cellular tissue (*fig. 1.*), without woody fibre or spiral vessels; or in more familiar terms by having no veins in their leaves if foliaceous, and not forming wood; they also are destitute of perfect flowers. The lower tribes, such as Fungi and Algae, are destitute of leaves, and in some points approach the animal kingdom so nearly as to be scarcely distinguishable. In the highest tribe, *Ferns*, apparent veins are formed in the leaves; but as they are imperfectly supplied with spiral vessels, they cannot be considered more than analogous to the veins of other plants. Ferns, however, hold the intermediate station between Cellulares and Vasculares, and are chiefly retained among the former on account of their perfect accordance in other respects. In the whole of Acotyledones, it is unnecessary to examine the seed for the purpose of determining whether it has one cotyledon, several cotyledons, or none, the structure of the perfect plant giving the most obvious and satisfactory evidence.



l, Vertical section of a vascular stem.
 m, Woody fibre.

n, Spiral vessel.
 o, Leaf of a dicotyledonous plant.
 p, Leaf of a monocotyledonous plant.

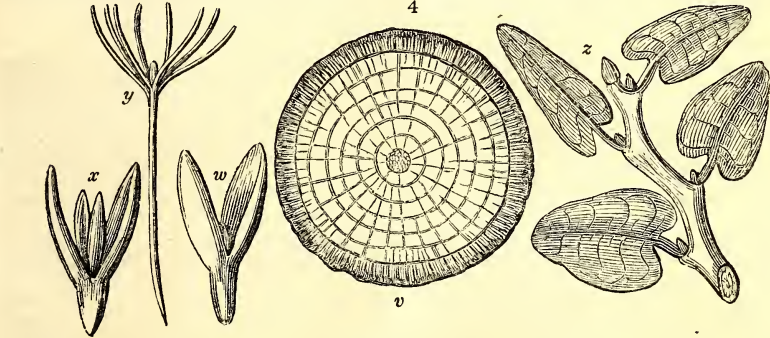
VASCULARES, PHÆNOGAMOUS, or COTYLEDONOUS plants, are also separated into two great classes called Endogenes or Monocotyledones, and Exogenes or Dicotyledones, both which are distinguished as accurately by their obvious physical structure as they are by the minute and obscure peculiarities of the seed. They are all formed with cellular tissue, woody fibre, and spiral vessels (fig. 2), and their leaves are traversed by veins; the last character is sufficient for practical purposes, if it is remembered that they also bear perfect flowers, (that is, flowers furnished either with stamina, or pistillum, or both,) which will always prevent their being confounded with the highest tribes of Cellulares.



3, Transverse section of a monocotyledonous stem.
 4, Germination of a monocotyledonous seed.
 5, Section of ditto, to show the cotyledon remaining in the testa.

6, Section of a germinating embryo of a grass, to show the two alternate cotyledons of unequal size; the back and front lobes represent these, the middle lobe is the plumula.
 7, Stem and leaves of a monocotyledonous plant.

Endogenes, or Monocotyledonous plants, are the first remove from Cellulares, and hold an intermediate rank between them and Exogenes or Dicotyledonous plants, in which vegetation acquires its highest form of development. They were formerly characterised by having a single cotyledon, but this circumstance is not only not absolute but difficult of determination, except after minute analysis. The real difference in the seed of them and Dicotyledones is this, that in Monocotyledones there is only one Cotyledon (fig. 3. s); or, if two, that they are alternate with each other (t), while in Dicotyledones they are always opposite, and more than one, sometimes several, as in Pinus (fig. 4. g). The physiological structure of the two classes is, however, that by which they are familiarly distinguished, and exhibits a beautiful proof of the harmony that exists between the great features of vegetation and their first principle, the seed from which they originate. In Endogenes, or Monocotyledones, there is no distinction between wood and bark (fig. 3. q); in Exogenes, or Dicotyledones, the wood and bark are distinctly separated (fig. 4. v). In Monocotyledones the wood and cellular tissue are mixed together without any distinct annual layers of the former being evident; in Dicotyledones the wood and cellular tissue have each their particular limits assigned them, a distinct layer of the former being annually deposited. In Monocotyledones there are no radiations from the medulla to the bark; in Dicotyledones the radiations are distinctly marked. In Monocotyledones there is generally no articulation between the leaves and the stem, while in Dicotyledones the leaves are always jointed with the stem from which they fall off, leaving a scar behind. In Monocotyledones the veins of the leaf pass in parallel lines from the base to the apex, in Dicotyledones they diverge from the midrib towards the margin at various angles; in the former they are unbranched, the principal veins being connected by nearly simple secondary veins; in the latter they are much branched, ramifying in many directions, and giving the surface of the leaf a netted appearance.



8, Transverse section of a dicotyledonous stem.
 9, An embryo with two cotyledons.
 10, An embryo with four cotyledons.

11, An embryo with many cotyledons.
 12, Stem and leaves of a dicotyledonous plant.

Such are the very obvious distinctions of the two great classes of Phænogamous, or flowering, plants; and so far is it from there being any necessity for dissecting a seed in order to ascertain its structure, that this point is one of the most easy determination, and about which there cannot be in one case in five hundred the slightest cause of doubt or difficulty. It is almost impossible to take even a morsel of a plant in the hand without instantly being in possession of the knowledge of the structure of its seed, with respect to the cotyledons.

Thus far have we advanced without a single obstacle to impede us. In all farther investigation no greater degree of knowledge or application is requisite than what ought to be possessed by every one who would be able to ascertain the genus of a plant. Many of the orders do not depend upon the minute characters of the seed so much as is believed; the structure of the ovary and position of the ovula, are aids which frequently make amends for the absence of fruit: and the nature of the foliage and inflorescence are guides which, though sometimes treacherous, are often as faithful as the fructification itself. But as it is not intended to give the characters of the orders in this place, neither is it necessary to advance farther in an explanation of the manner of determining them; upon that point each order would require a particular note. It may, how-

ever, be confidently believed, that there are no greater impediments in the road to an acquaintance with the natural relations of plants than those that have been already removed; and that although neither the science of botany, nor any other science, is to be taken by storm, yet that the fortress is sure to be reduced by silent and patient approach.

It only remains to explain briefly upon what principles the names of the orders, suborders, &c. are formed. It is usual, in the school of Jussieu, to give to a natural order a name derived from that of the genus which is understood to be the type of the order; as Ranunculaceæ from *Ranunculus*, Rosaceæ from *Rósa*, and so on. But several deviations from this principle had been admitted by Jussieu, in favor of certain groups of plants, long known by other popular names, derived from certain peculiarities; such as Labiate, because their corollas are labiate; Compositeæ, because their flowers are what is commonly called compound; Guttiferae, on account of the resinous juice in which they abound, and some others. It would, perhaps, have been better, if uniformity in nomenclature had not thus been sacrificed to a dread of innovation; but it is now too late to remedy the evil, if such it be; nor would the advantage of alteration be at this day equivalent to the inconvenience. For the purpose of making it at once apparent, whether, in speaking of a group of plants, reference is had to an order or a suborder, it has of late years been thought convenient to terminate the name of the natural order in *aceæ*, and of the suborder in *ex*. Thus, in speaking of the whole mass of which *Ranunculus* is the representative, the word *Ranunculaceæ* is used; but in speaking of the particular division, or suborder, of which *Ranunculus* forms a part, the term *Ranunculæ* is employed. This manner of speaking is, however, at present, very partial in its application, and is of little importance, except in a few cases, of which *Ranunculaceæ* is one of the most striking examples. In those orders, the titles of which, necessarily, from their grammatical construction, end in *ex*, as Orchidæ, it is obviously inapplicable, without a total change in a great part of the nomenclature of natural orders, a measure which cannot be too much deprecated.

It may, perhaps, be finally expected, that these remarks should be concluded by a recommendation of some work, from which those who are anxious to become fully acquainted with the principles and distinguishing characters of the Natural System of Botany, may derive the necessary information. Unfortunately, however, such a work has at present no existence. M. Decandolle's *Théorie Élémentaire de la Botanique* explains the principles upon which the orders of plants are constituted; and M. de Jussieu's *Genera Plantarum* contains their characters, as determined in 1789; but the latter is now too obsolete to be very useful to the tyro. In our own language, the only work that can be consulted upon the subject with advantage, is the *Flora Scotica* of Professor Hooker, in which the characters of the natural orders of Scottish plants are concisely indicated by Mr. Lindley. We understand a work upon the subject is in preparation by the latter gentleman, by which this great desideratum in the science of Botany will be supplied. It may be expected to appear in the course of 1829, previously to which, however, the division Botany, in the forthcoming *Encyclopædia of Natural History* will have been published, in which much information may be expected upon this important subject.

I. VASCULARES.

CLASS I. DICOTYLEDONES.

SUBDIVISION I. DICHLAMYDEÆ.

This subdivision comprehends all the Dicotyledonous plants, that have both a calyx and corolla, by which they are distinguished from Monochlamydeæ, in which the calyx only exists. It is in consequence of this high development of the floral envelopes, that the greater part of flowering trees and shrubs are found in Dichlamydeæ; it rarely happening that those with a single floral covering only have any brilliant coloring.

SUBCLASS I. THALAMIFLOREÆ.

Petals inserted into the receptacle.

The insertion of the petals and stamens into the receptacle is the great character of this subclass, which, therefore, contains all the polyandrous plants of Linnæus, as the Calycifloræ contain the icosandrous genera of the same botanist.

Section 1. *Carpella numerous, or stamens opposite the petals.*

ORDER I. RANUNCULACEÆ.

The greater part of the plants of this order are objects of interest with gardeners, containing, as it does, many of the most elegant or showy of the tribes of hardy plants. It is here that the graceful *Clematis*, the lowly *Anemone*, the glittering *Ranunculus*, and the gaudy *Pæony* are found; differing, indeed, in external appearance, but combined by all the essential characters of the fructification. It is remarkable, however, that the acrid and venomous properties of these plants are nearly as powerful as their beauty is great. They are all caustic, and in many of them the deleterious principle is in dangerous abundance. M. Decandolle remarks, that its nature is extremely singular; it is so volatile, that, in most cases, simple drying in the air or infusion in water is sufficient to destroy it; it is neither acid nor alkaline; but its activity is increased by acids, honey, sugar, wine, or alcohol; and it is, in reality, destructible only by water. The crowfoots of our European pastures, and the *Anemones trilobata* and *triternata*, of those of South America, are well known poisons of cattle. Blistering plasters are made in Iceland of the leaves of *Ranunculus acris*. The foliage of some species of *Clematis* is supposed to afford the means employed by beggars of producing artificial ulcers. Some of the *Aconites* are diuretic, especially *Napellus* and *Cámmarum*. *Delphinium Consólida* is said to be an ingredient in those French cosmetics which are so destructive of the surface of the skin. The *Helléborus*, famous in classical history for its drastic powers, and the *Nigélla*, celebrated in ancient housewifery for its aromatic seeds, which were used for pepper before that article was discovered, are both comprehended in *Ranunculaceæ*. The range of this order, in a geographical point of view, is very extensive. A great number has been discovered in Europe, but they are so abundant in all parts of the world that an order can scarcely be found more universally and equally dispersed. It is singular, that, with the exception of the climbing species of *Clematis* and of *Xanthorhiza*, scarcely an instance occurs in *Ranunculaceæ* of a shrubby stem.

	Tribe 1. CLEMATIDÆ.		
	Clématis <i>L.</i>		1228 <i>Naravélla Dec.</i>
		Tribe 2. ANEMONEÆ.	
	1229 <i>Thalictrum W.</i>	1225 <i>Hepática W. en.</i>	1231 <i>Knowltonia Sal.</i>
	1226 <i>Anemone W.</i>	1241 <i>Hydrástis W.</i>	1230 <i>Adónis L.</i>
		Tribe 3. RANUNCULÆ.	
707 <i>Myosúrus W.</i>	708 <i>Ceratocéphalus P. S.</i>	1233 <i>Ranúnculus W.</i>	1232 <i>Ficária Pers.</i>
		Tribe 4. HELLEBOREÆ.	
1239 <i>Cáltha W.</i>	1235 <i>Isopýrum W.</i>	1053 <i>Garidélla W.</i>	1204 <i>Delphinium W.</i>
1234 <i>Tróllius W.</i>	1237 <i>Helléborus W.</i>	1209 <i>Nigélla W.</i>	1205 <i>Aconitum W.</i>
1286 <i>Eránthis Sal.</i>	1239 <i>Cóptis Sal.</i>	1208 <i>Aquilégia W.</i>	

Tribe 5. PÆONIÆ.

1164 *Actæa Ph.*1207 *Cimicifuga Ph.*1202 *Pæonia W.*709 *Xanthorrhiza W.*

ORDER II. DILLENIACEÆ.

Fine plants, almost exclusively confined to tropical countries. *Dillenia speciosa*, a native of India, is a most noble tree with large yellow flowers, rivalling those of a *Magnolia*. *Hibbertia volubilis* is a green-house plant well known for the beauty of its blossoms, and their powerfully fetid smell. The medical properties of this order are scarcely known; a decoction of their leaves or bark is astringent, and used for gargles; and the acid juice of the fruit of some of the species of *Dillenia* is used in India, mixed with water, as a pleasant beverage in fevers. The foliage of many of the species is extremely scabrous, whence the dried leaves are used for the same purposes as fish-skin and sand-paper in Europe; those of *Trachytella aspera* are even employed in China for polishing works of metal.

1201 *Curatella W.*
1212 *Tetræcera L.*1206 *Trachytella Dec.*
1214 *Dillenia W.*1203 *Hibbertia H. K.*
1211 *Colbèrtia Sal.*

ORDER III. MAGNOLIACEÆ.

No one is ignorant of the grandeur of *Magnolias*, or of the delicious, though sometimes dangerous, fragrance of their blossoms; but it is less generally known, that, from their affinity to the trees that produce the famous Winter's bark and Melambo bark, they possess medicinal qualities of no common power. The bark of all of them is said to have a bitter flavor without any astringency, and combined with a hot aromatic principle. In the United States, the bark of *Magnolia glauca* and *Liriodendron tulipifera*, is employed for the same purposes as Jesuit's bark, and from the fruit of *Magnolia acuminata*, a tincture is prepared which has some reputation for removing attacks of rheumatism. The fruit of *Illicium anisatum*, is the material which flavors the liqueur called Anisette de Bourdeaux. The *Magnolias* are exclusively inhabitants of Asia and America, no species having hitherto been found either in Europe or in Africa.

1215 *Illicium W.*1216 *Liriodendron W.*1217 *Magnolia W.*1218 *Michelia W.*

ORDER IV. ANNONACEÆ.

The plants of this order are closely allied to *Magnoliaceæ*, from which they are principally distinguished by the absence of stipulæ, and by the structure of their anthers and seeds. The latter consist of a hard mass of albumen, ruminated, as the botanists call it, that is to say, perforated by the substance of the seed-coat, in every direction. They are all trees or shrubs, and chiefly inhabitants of the hottest parts of the tropics, but a few have been discovered straggling into the temperate zones of America. The fruit of the *Annona* is in many species highly esteemed as an article for the dessert, especially that of the Cherimoyer, which has the reputation of being the finest fruit in the world, next to the Mangosteen. The hard fruits of the species of *Uvária* are highly aromatic; those of one of them furnish the Piper æthiopicum of the shops. The genus *Asimina* is the only one which contains any hardy species, and these are so delicate as to be seen very rarely in this country. In Brazil, the bark of *Xylópia sericea* is used for cordage; for which it is admirably adapted.

1219 *Uvária W.*
1220 *Annona P. S.*1221 *Artabotrys R. Br.*
1222 *Guattéria R. & P.*1223 *Asimina Ad.*
1224 *Xylópia W.*

ORDER V. MENISPERMEÆ.

The order of *Menispermæ* consists entirely of twining shrubs with minute flowers. They are extremely dissimilar in habit from the orders which are placed near them, and occupy their present station entirely on account of certain minute but important characters in their fructification. With the exception of *Schizandra coccinea* none of them are worth cultivating as plants of ornament. The berries of *Lardizabala biternata* are sold in the markets of Chile, under the name of *Aguiboguil*, *Guilbogui*, or *Coguil-Vochi*, according to different travellers. The bitter, diuretic, and aperient sorts of *Pareira brava*, are produced by a species of *Menispermum*, as is also the famous Columbo root, so much esteemed for its intense bitterness, and for its use in diarrhoea and dysentery. The poisonous drug, called *Cocculus indicus* in the shops, is the seed of *Menispermum Cœculus*. Several Brazilian species of *Cœculus* are said to possess powerful febrifugal properties. No species of *Menispermæ* is found in Europe; they are chiefly natives of tropical America and Asia.

858 *Wendlandia W.*
1272 *Schizandra W.*2100 *Menispermum D.*
2101 *Cœculus Dec.*2116 *Cissampelos Dec.*

ORDER VI. BERBERIDEÆ.

With the exception of *Berberis* this order does not contain any genus of much interest; most of the others are low, inconspicuous, herbaceous plants; *Nandina* is an elegant Japanese shrub. The *Berberises* are all shrubs of much beauty and interest, especially the species with pinnated leaves, which are sometimes called *Mahonias*. These are all inhabitants either of Europe, Asia, or North and South America; none have ever been seen in Africa or New South Wales. Many of the finest species from Chile and India yet remain to be introduced. The berries of the *Berberises* are acid and astringent; the latter quality is especially abundant in the stem and bark.

297 *Leimédium W.*
825 *Léontice W.*826 *Caulophyllum Mich.*
827 *Diphyllia Mich.*829 *Berberis W.*
830 *Nandina W.*

ORDER VII. PODOPHYLLACEÆ.

Little interesting herbaceous North American plants, nearly related on the one hand to *Nymphæaceæ*, and on the other, to the herbaceous genera of *Berberideæ*. Their juice is held to be purgative.

1166 *Podophyllum W.*896 *Jeffersonia Ph.*

ORDER VIII. HYDROPELTIDEÆ.

This order differs from *Nymphæaceæ* chiefly in having a definite number of seeds. It consists of only two genera, each containing a single species. Both are little floating plants of tropical and northern America. Nothing is known of their properties.

1240 *Hydropeltis H. K.*

ORDER IX. NYMPHÆACEÆ.

Like the last, these are all floating plants, and, to gardeners, possessed of great interest, on account of the elegant form and various hues of their flowers. Three species are known as the lilies of our own streams and ponds, and the remainder occupy similar stations in other countries. Some of the Indian species of *Nymphæa* are delightfully fragrant. The holy *Cyamus*, or Pythagorean bean of antiquity, is the produce of the *Nelumbium*, a stately aquatic, which abounds in all the hotter countries of the East, where its roots are frequently used as an article of food. The ditches, about Pekin and other Chinese cities, are literally choked up with its abundance. The pericarpia or beans are oblong, hard, smooth bodies, and possess the power of vegetating after having been dried for even thirty years. The flowers and roots of the common white *Nymphæa* have been long celebrated for their sedative and antiaphrodisiac qualities, which are, however, now considered doubtful. In Sweden, in years of scarcity, the roots of *Núphar lutea* are pounded into cakes along with the inner bark of *Pinus sylvestris*.

This order has been the cause of much difference among botanists, as to its true station in a natural classification, its structure being of so doubtful a character as to leave room for disputing whether it belongs to Dicotyledones or Monocotyledones. Upon this subject M. Decandolle has the following remarks: "Gærtner declares that the embryo is undivided, and therefore monocotyledonous. In 1802, I remarked in the Bulletin Philomathique, that the embryo both of *Nymphaea* and *Núphar* is enclosed in a peculiar integument, and that a dicotyledonous structure is apparent when that integument is removed; shortly after, M. Mirbel declared that the embryo of *Nelúmbium* has two thick cotyledones; in 1806, M. Turpin gave an accurate description of the fruit of *Nelúmbium lóteum*, without however removing the doubts about the real structure of the embryo, and two years afterwards his colleague, M. Poiteau, described the seed and germination of the same plant, pointing out that the embryo consisted of two thick cotyledones enclosed within a stipular membrane, but destitute of radícula: this was subsequently confirmed by M. Mirbel after very minute anatomical examination; that observer compared the seed of *Nelúmbium* to the seed of *Amygdalus*, and also to that of *Piper* and *Saururus*, and also demonstrated that the structure of the stem was analogous to that of exogenous or dicotyledonous plants. A very different opinion was shortly afterwards held by M. Correa de Serra, an observer of the highest order, who admitted indeed that *Nymphaeaceae* are exogenous, but contended that the parts which had been taken by previous observers for cotyledones were, in fact, a mere expansion of the radicle, and that cotyledones were as entirely absent in *Nelúmbium* as in *Cúscuta*. In the meanwhile M. de Jussieu adhered to the old opinion, that *Nymphaeaceae* are monocotyledonous; in which he was supported by the late Professor Louis Claude Richard, a name for ever memorable in the annals of Carpology, who published a new view of their structure, in which he differed materially from all his predecessors; this botanist considered the stipular membrane of Poiteau a simple cotyledon, and the cotyledones of that writer the hypoblastus, or *body of the radícula*; he also refused to admit any evidence derived from the anatomical structure of the stem. In this conflict of opinions, I have determined to station *Nymphaeaceae* among Exogenes, for the following reasons: 1st, because the structure of their stem is that of Exogenes rather than of Endogenes; 2dly, because the two opposite bodies, enclosed within the little bag or stipular membrane, described by Poiteau, appear to be undoubtedly cotyledones, which is confirmed by the presence of a plumula between them in *Nelúmbium*; 3dly, because of the structure of their flower, which has a great affinity with that of *Paeónia*, *Magnólia*, and *Papáver*; 4thly, on account of the similarity between their fruit and stigma and that of *Papáver*; 5thly, because of their milky juice and convolute leaves, two characters which are not known to exist among Endogenes." Those who are interested in pursuing this curious discussion any farther, will find many remarks and illustrative figures in the English edition of the *Analyse du Fruit*, published by Mr. Lindley in 1819.

1174 *Nymphaea W.*1176 *Núphar H. K.*1177 *Euryfale H. K.*1213 *Nelúmbium J.*Section 2. *Carpella solitary or connate; Placentae parietal.*

ORDER X. PAPAVERACEÆ.

These plants are better known for their medicinal properties than for their beauty. Some of them are the common pests of corn fields, and with grain have been disseminated over all the world. *Sanguinaria* is a neat little American plant well known for its crimson juice, and the emetic purgative powers of its roots. *Sarcocénia* is a genus of very doubtful affinity; consisting of curious little American marsh plants of difficult culture, and remarkable for the singular pitcher-like form of its leaves. The peculiar power of the poppy is, as is well known, narcotic; a property which pervades all the order, although in a less intense degree in all than in the official *P. somniferum*, from which exclusively the drug opium is obtained. The Mexicans use the expressed oil of the seeds of *Argemone mexicana* for polishing furniture.

1170 *Papáver W.*1168 *Róméria Med.*1172 *Argemone W.*1073 *Boccónia W.*1165 *Sanguinaria W.*1169 *Glaucium J.*313 *Hypécoum W.*? 1173 *Sarcocénia W.*1167 *Cheidónium W.*1171 *Meconopsis Vig.*

ORDER XI. FUMARIACEÆ.

Tender herbs, with finely cut leaves and annual stems, abounding in a watery juice; without any appearance of milkiness. They are reckoned slightly diaphoretic and aperient, but their medical properties are trifling. Formerly they were combined with *Papaверaceae*, from which they are now universally distinguished. The greater part of them are natives of hedges or thickets in the cooler parts of the northern hemisphere; two are natives of the Cape of Good Hope. Many of the species are beautiful ornaments of the flower-garden.

1502 *Corýdalis Vent.*1504 *Diclytra Dec.*1506 *Sarcocápnos Dec.*1503 *Cysticápnos W. en.*1505 *Adlúmia Raf.*1507 *Fumária P. S.*

ORDER XII. CRUCIFERÆ.

The importance of this order to mankind, and the singular nature of its botanical characters, render it expedient to speak very fully upon it: in which the remarks of the learned M. Decandolle, who has paid *Cruciferae* particular attention, will be chiefly followed. The order consists wholly of annual or perennial, often biennial herbs, occasionally assuming a suffruticose habit; then, however, never exceeding the height of three feet. The roots are either thick and perennial, or annual or biennial and slender, almost always perpendicular and undivided. The young roots are tipped with a little sheath, called the coleorhiza, which is produced by the extended ruptured coat of the epidermis when the rootlet first appears. This is a curious character, and deserves attention. The stems are round or somewhat angular, branched, and often, even in the annual species, indurated at the base. The branches proceed from the axillæ of the leaves, but the uppermost ones are abortive in most cases. The racemes are always opposite to the leaves; sometimes the terminal branch is abortive when the raceme appears to be terminal; but this is merely owing to that circumstance. The leaves are simple, generally radical or alternate, rarely opposite. The flowers are either white, yellow, or purple, or in a few Cape species bright blue. The fruit is called either a siliqua or silicula, the former being a linear pod containing many seeds, the latter a roundish pod containing one or very few seeds, whence this order, which is the same as the Linnæan class *Tetradynamia*, is divided by Linnæus into two parts, called *Siliquosæ* and *Siliculosæ*. In the seed, the radicle and cotyledones are applied to each other in different ways, from which the suborders of M. Decandolle derive their characters. When the edge of the cotyledons is pressed close to the radícula, so that a cross section would be thus $\bigcirc =$, the cotyledons are said to be incumbent, as in all *Pleurorhizæ*; when the side of the cotyledons is pressed to the radícula thus $\bigcirc ||$, the former are called incumbent, as in *Notorhizæ*. If the cotyledons are incumbent, and at the same time half folded together or conduplicate, thus $\bigcirc >$, the suborder *Orthoploceæ* is formed; when the cotyledons are incumbent and spirally twisted, so that a section would resemble this $\bigcirc || ||$, they constitute the suborder *Spirolobæ*; and finally, when the cotyledons are incumbent, and doubled twice in their length, thus $\bigcirc || || ||$, we have *Diplecolobæ*.

The whole order is preeminently European; 166 species are found in the north and middle of Europe, and 178 on the sea-shores of the Mediterranean; 45 are found between Mogadore and Alexandria; 184 in the countries of the East, that is to say, Syria, Asia Minor, Tauria, and Persia; 99 in Siberia; 35 in China, Japan, and India; 16 in New Holland and the South Sea islands; 6 in the Mauritius and adjacent countries; 70 at the Cape; 9 in the Canaries; 2 in Saint Helena; 2 in the West Indies; 41 in South America; 48 in North America; 5 in Kamtchatka and the bordering islands; and finally, 35 are common to several parts of the globe. From this it appears that there are about 100 species in the southern hemisphere, and about 800 in the northern: or, if they are considered with reference to the zones of temperature, 205 are natives of the frigid zone of the northern hemisphere; 30 of the whole of the tropics; 548 of the temperate zone of the northern hemisphere; and 86 of the southern. The forty-first degree of north latitude may be considered the equa-

torial line of Cruciferæ, about half being found on one side of it, and half on the other. Their station is very variable; many inhabit open sandy places, some form the vegetation about the limits of the perpetual snows of lofty mountains, and many follow the footsteps of man through all parts of the world.

The useful qualities of the turnip, the radish, the rape, and the cabbage, and its multiform varieties, are all well known. The greater part of the order consists of plants possessing high antiscorbutic powers. These appear to depend upon a certain acrid volatile oily principle, the chemical nature of which is imperfectly known. It is particularly abundant in the seeds of mustard and the roots of horseradish, and the leaves of *Lepidium latifolium*, which latter exercise a violent influence upon the organs of digestion. The same sort of acrimony, but in less degree, is found in the herbage of the scurvy-grass and the roots of the radish, which act much more mildly when taken inwardly; thus, when any cruciferous plants are found to be eatable, either from culture or other circumstances, it is to be understood to depend upon a reduction of this acrid principle. The exciting powers of this last, are what render the horse-radish, the scurvy grass, and others, so remarkably useful as antiscorbutics; they are also believed to possess diuretic and diaphoretic properties. It is to be remarked, that Cruciferæ are always eatable when their texture is succulent and watery, as in the roots of the radish and the turnip, and the leaves of the cabbage tribe. A further diminution of the acrid principle is produced by blanching. Cruciferæ are said to possess a greater share of azote than any other tribe of plants; as is apparent in their fetid smell when fermented. The embryo of all the order abounds in oil, whence many species are employed with much advantage for expressing, either for eating or for feeding lamps. Some of the species are extremely beautiful and fragrant, as the Stocks, the Gillyflowers, the Hesperides, the Candytufts, and many others. The Hutchinsias, Drabas, Cardamines, &c. are among the most interesting of alpine plants

SUBORDER I. *PLEUORHIZÆE*. ○ =

Tribe 1. *ARABIDÆE*.

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|-------------------------------|------------------------------|--------------------------------|------------------------------|
| 1381 <i>Mathiõla R. Br.</i> | 1385 <i>Notõceras R. Br.</i> | 1390 <i>A'rabis L.</i> | 1392 <i>Cardãmíne L.</i> |
| 1382 <i>Cheirãnthus L.</i> | 1386 <i>Barbarãa R. Br.</i> | 1388 <i>Pãrrya R. Br.</i> | 1393 <i>Pteroneurõn Dec.</i> |
| 1383 <i>Nastũrtium R. Br.</i> | 1387 <i>Braÿa Stern.</i> | 1391 <i>Macropõdium R. Br.</i> | 1394 <i>Dentãria L.</i> |
| 1384 <i>Leptocarpãa Dec.</i> | 1389 <i>Turritis R. Br.</i> | | |

Tribe 2. *ALYSSINÆE*.

- | | | | |
|----------------------------|------------------------------|--------------------------------|---------------------------|
| 1395 <i>Lunãria L.</i> | 1399 <i>Aubriãtia Adans.</i> | 1402 <i>Clypõla W.</i> | 1405 <i>Drãba L.</i> |
| 1396 <i>Ricõtia L.</i> | 1400 <i>Vesicãria Lam.</i> | 1403 <i>Peltãria L.</i> | 1406 <i>Erophila Dec.</i> |
| 1397 <i>Farsãtia Turr.</i> | 1401 <i>Alyssum L.</i> | 1404 <i>Petrocãllis R. Br.</i> | 1407 <i>Cochleãria L.</i> |
| 1398 <i>Berterõa Dec.</i> | | | |

Tribe 3. *THLASPIDÆE*.

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|-------------------------------|------------------------------|---------------------------|
| 1408 <i>Thlãspi L.</i> | 1411 <i>Teesdãlia R. Br.</i> | 1413 <i>Biscutãlla L.</i> |
| 1410 <i>Hutchinsia R. Br.</i> | 1412 <i>Ibãris L.</i> | |

Tribe 4. *EUCLIDIÆE*.

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|------------------------------|-----------------------------|
| 1414 <i>Euclidium R. Br.</i> | 1415 <i>Ochthõdium Dec.</i> |
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Tribe 5. *ANASTATICÆE*.

- 1416 *Anastãtica L.*

Tribe 6. *CAKILINÆE*.

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| 1417 <i>Cakile Tourn.</i> | 1419 <i>Chorispora Dec.</i> |
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SUBORDER II. *NOTORHIZÆE*. ○ ||

Tribe 7. *SISYMBRIÆE*.

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|-----------------------------|-----------------------------|-------------------------|
| 1420 <i>Malcõmia R. Br.</i> | 1422 <i>Sisymbrium L.</i> | 1424 <i>Erÿsinum L.</i> |
| 1421 <i>Hãesperis L.</i> | 1423 <i>Alliãria Adans.</i> | |

Tribe 8. *CAMELINÆE*.

- 1425 *Camelina Crantz* 1426 *Nãsliã Desv.*

Tribe 9. *LEPIDINÆE*.

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|---------------------------|-------------------------|-----------------------------|------------------------------|
| 1427 <i>Corõnopus Sm.</i> | 1428 <i>Lepidium L.</i> | 1409 <i>Capsãlla Mõnch.</i> | 1429 <i>Æthionãma R. Br.</i> |
|---------------------------|-------------------------|-----------------------------|------------------------------|

Tribe 10. *ISATIDÆE*.

- 1430 *Isãtis L.* 1431 *Mÿagrum L.*

SUBORDER III. *ORTHOPLUCEÆE*. ○ > >

Tribe 11. *BRASSICÆE*.

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|-------------------------|-----------------------------|--------------------------|
| 1432 <i>Brãssica L.</i> | 1434 <i>Moricãndia Dec.</i> | 1436 <i>Erũca Tourn.</i> |
| 1433 <i>Sinãpis L.</i> | 1435 <i>Diplotãxis Dec.</i> | |

Tribe 12. *VELLÆE*.

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|----------------------|--------------------------------|-----------------------------|
| 1437 <i>Vãlla L.</i> | 1438 <i>Carrichtũra Adans.</i> | 1439 <i>Succõwia Mõnch.</i> |
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Tribe 13. *ZILLÆE*.

- 1440 *Zilla Forsk.* 1441 *Calepina Adans.*

Tribe 14. *RAPHANÆE*.

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|---------------------|-----------------------------|-------------------------|
| 442 <i>Crãmbẽ W</i> | 1418 <i>Rapistrum Desv.</i> | 1443 <i>Rãphanus L.</i> |
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SUBORDER IV. *SPIROLOBÆE*. ○ || ||

Tribe 15. *BUNIADEÆE*.

- 1444 *Bunias L.*

Tribe 16. *ERUCARIÆE*.

- 1445 *Erucãria Gærtn.*

SUBORDER V. *DIPLECOLOBÆE*. ○ || || ||

Tribe 17. *HELIOPHILÆE*.

- 1446 *Heliõphila L.*

Tribe 18. SUBULARIÆ.

1447 Subulária L.

§ *Of doubtful station.*

1380 Schizopétalon Sims.

ORDER XIII. FLACOURTIANÆÆ.

A very small order formerly comprised in Tiliacæ. It is remarkable on account of the structure of its fruit, to the inner lining of which the seeds are attached upon a branched placenta. Nothing is known of the properties of the Flacourtias. The berries of Flacourtia Ramóntchi are eaten in Madagascar. The order consists entirely of small tropical trees or bushes.

2102 Flacóurtia W.

ORDER XIV. CAPPARIDÆÆ.

These are nearly related to Cruciferae, of the properties of which they partake. Many are very pretty plants, especially Cleóme rósea, and the various species of Cratæva. The common caper is an elegant bush, remarkable for its large white flowers and long purple stamens. The species are found occasionally in various parts of the world. The different kinds of Capparidæ are reputed to be stimulating, antiscorbatic, and aperient. The bark of the root of the common caper passes for a diuretic medicine. Several species of Cleóme have an acrid taste, which has been compared by travellers to that of mustard. The root of Cleóme dodecáandra is employed as a vermifuge in the United States; and the leaves produce an inflammation of the skin, whence they are used in Cochín-china as a sinapism. Dec.

1162 Cápparis W.

1086 Cratæva W.

1448 Cleóme W.

ORDER XV. VIOLARIÆÆ.

This is one of the most favorite orders with gardeners; consisting, as it chiefly does, of the Violet genus, from which most of the others are recent dismembersments. The greater part are hardy herbaceous plants, some of which are remarkable for their perfume, others for their brilliant colors, and all for their neatness. They are natives of the temperate or cold zones of both hemispheres, often growing at great elevations above the sea. Among them is a tribe called Alsodineæ, consisting of suffruticose tropical plants; but none of them have been introduced into the gardens of this country. The attention of collectors should be directed to procuring the shrubby Violacæ of Brazil, some of which possess great interest. The medical properties of the order are found principally in their roots, which appear to possess, in all cases, emetic properties, in a greater or less degree. One of the Ipeacuanhas is the root of a Brazilian violet. M. Decandolle has the following observations upon the affinities of the Violaria: — They are very nearly akin, he observes, to the Polygalæ and Droseracæ, and especially to the Passifloræ. From the first they are distinguished by their unifoliar fruit, leaves furnished with stipules and two-celled anthers; from Droseracæ by their solitary style, lengthened embryo and stipulate leaves, the venation of which is involutive, not circinate. From Passifloræ they differ in their fruit being capsular, not berried; in their albumen being compact and shining, not pitted; in their stamens being hypogynous, not perigynous; in their anthers being attached along their whole length, not fixed by their middle; finally, in their stigmas being one and not three. The genus Calyptrion approaches Passifloræ in its twining stem, and Hymenanthéra borders upon Polygalæ on account of its monospermous pericarpium with solitary pendulous seeds.

541 Ionídium Vent.

540 Viola W.

539 Sauvagéia Jacq.

ORDER XVI. POLYGALÆÆ.

Most of the plants of this order are interesting, and deserving the attention of the gardener, some for their neatness, some for their beauty, and some for their use in medicine. They are natives of most countries, and are either low herbaceous plants, occasionally less than an inch in height (small specimens of Polygala purpúrea), or shrubs varying from a dwarf, rigid, spiny habit, to a tall, graceful, drooping appearance. Polygalæ are remarkable for the union of their stamens into a single body, their one-celled anthers opening with a pore, and their irregular flowers, one of which is often keel-shaped, and beautifully crested or bearded. The leaves have generally a bitter astringent taste, which is much more abundant in the roots, combined with an acrid and somewhat resinous flavour: these properties are particularly sensible in P. sénéga, which is reputed a sudorific, diuretic, siagogue, cathartic, or mild emetic, according to the manner in which it is administered. The Yelhol of South America, the root of a species of Monnina, has the same properties as P. sénéga, and is particularly used as a remedy for dysentery. The well known Rattany, or Ratanhia root, of Chile, is the produce of a plant of this order, and possesses powerful tonic and astringent qualities. According to the analysis of a French chemist, it contains gallic acid, but neither tannin nor resin.

1508 Polygala W.

1509 Muráltia Neck.

1510 Mándia Kunth.

1511 Securidáca. L.

ORDER XVII. DROSERACÆÆ.

The order of sun-dews is a small group of plants, natives of marshes or inundated grounds in all the temperate parts of the world. The species are very remarkable for the abundance of glandular hairs with which all the parts of the foliage are covered. Only two species are in any degree frutescent. The young leaves are always rolled up in the circinate manner, so remarkable in ferns. Their medicinal properties appear to be trifling: the leaves have the power of curdling milk.

702 Drósera W.

1009 Dionæa W.

ORDER XVIII. BIXINÆÆ.

The plants of this order are few in number, and not remarkable either for beauty or use. The Bixa orelána is chiefly known for producing the seed called in the shops Arnotta (*Rocón*, Fr.), and used for coloring cheese; the properties of the Arnotta are slightly purgative and stomachic. They are all bushes or small trees, and mostly tropical. Azaras, Chilian shrubs with fragrant flowers, are not yet known in the gardens of Europe.

1178 Bixa W.

1179 Prockia L.

ORDER XIX. CISTINÆÆ.

The common rock roses of our gardens give an accurate idea of this order, which contains little else. They are all very ornamental, and particularly well calculated for covering rockwork. The species of Cistus and Heliánthemum have been multiplied by Dunal in an extravagant manner, as has been well demonstrated by Mr. Bentham. They are natives of most parts of the world in dry elevated places. The gum called Ladanum is the produce of some kinds of Cistus; it exhales a fragrant perfume when burnt, and possesses slightly tonic and stomachic properties.

1089 Hudsónia W.

1197 Cistus J.

1198 Heliánthemum J.

222 Lechea W.

Section 3. *Ovarium solitary. Placenta central.*

ORDER XX. CARYOPHYLLÆ.

These consist of herbs or low undershrubs, inhabiting the mountains and pastures of all parts of the world. In Europe and Siberia they are particularly abundant, and least so in Africa and South America. Many are common weeds, as most of the *Cerastias*, *Spérghulas*, and others. Several of the *Silènes* are very ornamental, and among the *Arenárias* are to be found some dwarf species of considerable elegance. But it is in *Diánthus*, that the pride of the order consists: this genus is almost unrivalled for the brilliancy of its colors, the neatness of its foliage, and the perfume of its flowers. From the finest of its species the title of the order has been derived. The virtues of *Caryophyllæ* are slight. *Saponária officinális*, and one or two others, have been praised for possessing antisyphilitic properties; the root of *Silène virginiana* is reputed anthelmintic; and the *Arenária peploides*, being fermented, is used by the Icelanders for food.

Tribe 1. SILENEÆ.

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|---------------------------|--------------------------|---------------------------|
| 1044 <i>Gypsóphila W.</i> | 1017 <i>Cucúbalus L.</i> | 1066 <i>Agrostemma W.</i> |
| 1046 <i>Diánthus W.</i> | 1048 <i>Silène L.</i> | 604 <i>Velécia W.</i> |
| 1045 <i>Saponária W.</i> | 1067 <i>Lýchnis W.</i> | 687 <i>Drypis W.</i> |

Tribe 2. ALSINEÆ.

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|-------------------------|--------------------------|------------------------------|--------------------------|
| 91 <i>Ortégia W.</i> | 931 <i>Elátine W.</i> | 1070 <i>Spérghula W.</i> | 1050 <i>Arenária W.</i> |
| 311 <i>Buffónia W.</i> | 225 <i>Mollúgo W.</i> | 1069 <i>Larbrca St. Hil.</i> | 1068 <i>Cerástium W.</i> |
| 319 <i>Sagina W.</i> | 691 <i>Pharnáceum W.</i> | 1049 <i>Stellária W.</i> | 1051 <i>Cherlória W.</i> |
| 920 <i>Mœhringia W.</i> | 220 <i>Holósteum W.</i> | 688 <i>Alsine W.</i> | |

ORDER XXI. LINEÆ.

Separated by M. Decandolle from *Caryophyllæ*, from which it is well distinguished by its fruit having several cells, or in the language of the botanist just named, being formed by the cohesion of several carpella. Most of the species are pretty plants, bearing yellow, blue, or white flowers. They are of immense importance in the world, on account of the tenacity of their fibres when made into flax. The seeds of common flax are between mucilaginous and oily; the leaves of *Linum cathárticum* and *L. selaginoides*, the latter a native of Peru, are purgative.

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| 701 <i>Linum W.</i> | 321 <i>Radiola Sm.</i> |
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ORDER XXII. FRANKENIACEÆ.

Distinguished from *Caryophyllæ* by the fruit not having a central separate placenta, but bearing the seeds on the inner margin of the valves. The species are natives of arid situations in Europe, Africa, and South America. They have not much beauty, and no known medical properties. Besides the genus here recorded, there are two others mentioned by M. Decandolle.

- 835 *Frankénia W.*

ORDER XXIII. MALVACEÆ.

Before this order was dismembered of *Bombacæ* and *Byttneriacæ*, it contained most of the grandest flowers in nature. Even now, the splendour of the various species of *Málva*, *Althæa*, to which the hollyhock belongs, and *Hibiscus*, renders it one of the most remarkable groups of plants. With the exception of the numerous genus *Sida*, nearly all *Malvacæ* are objects worthy of the gardener's care, particularly those which are hardy. In stoves or greenhouse, the softness of their branches and leaves render them peculiarly liable to the attacks of the red spider, mealy bug, and scale, from which few collections are free; a circumstance which makes them less generally esteemed than the surpassing beauty of many of them merits. The greater part of the order is clothed with stellate pubescence, and a reniform one-celled anther is a character common to the whole. These two peculiarities, together with the alternate stipulate leaves, distinguish *Malvacæ* from all the rest of *Dichlamydeæ*. All the species abound in a nutritive mucilage; a quality which renders the young heads of the *Ochro*, or *Hibiscus esculéntus*, an object of great value within the tropics, as an ingredient in soups. In Brazil, the *Abútilon esculéntum* serves the same purposes. The emollient properties of *Althæa officinális*, or *Guimauve* of the French, are well known to physicians, as a remedy for catarrhs and pulmonary complaints. A decoction of the leaves of *Sphæralcea cisplatina* is used for similar objects in Brazil. A species of *Favónia* is employed in the same country as a diuretic in the form of a decoction. The straight shoots of *Sida micrántha* are employed as rocket-sticks at Rio Janeiro. The chewed leaves of *Sida carpinifolia* allay the inflammation occasioned by the stings of wasps. The tough fibres of many *Malvacæ* are manufactured into cordage. Their petals are astringent; whence those of *Hibiscus Rósa sinénsis* are used in China to blacken the eyelashes and the leather of shoes. The fibrous threads in which the seeds of *Gossypium* are enveloped furnish the valuable cotton, an article of immense importance to the world; these threads when examined by the microscope, will be seen to be finely toothed, which explains the cause of their adhering together with greater facility than those of *Bombax* and several *Apocinæ*, which are destitute of teeth, and which cannot be spun into thread without an admixture of cotton.

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|-------------------------|----------------------------|-------------------------|----------------------------|
| 1471 <i>Málope W.</i> | 1476 <i>Maláchra W.</i> | 1487 <i>Sida W.</i> | 1482 <i>Redoutéa Venl.</i> |
| 1472 <i>Málva W.</i> | 1477 <i>Uréna W.</i> | 1478 <i>Pavónia W.</i> | 1483 <i>Palávia W.</i> |
| 1475 <i>Lavatéra W.</i> | 1484 <i>Cristária Cav.</i> | 1479 <i>Achávia W.</i> | 1488 <i>Lagunéa W.</i> |
| 1474 <i>Althæa W.</i> | 1485 <i>Anóda Cav.</i> | 1480 <i>Hibiscus W.</i> | 1481 <i>Gossypium W.</i> |
| 1473 <i>Kitabéla W.</i> | 1486 <i>Periptera Dec.</i> | | |

ORDER XXIV. BOMBACEÆ.

Distinguished from the last by the imbricate æstivation of the calyx, and the arrangement of the stamens in five sets, or, in Linnæan language, brotherhoods. The species are mostly fine trees with large showy flowers, and natives of the tropics. Some of them are among the largest trees in the world; *Adansónia*, the *Baobab* of Senegal, has been seen with a diameter of twenty-five feet, and specimens of *Bombax Cœbia*, and *Eriodéndron anfractuosum*, are not uncommon an hundred feet in height. The wood of all the species is light and soft, as in *Malvacæ*, from which this order probably does not differ in its medicinal properties.

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|---------------------------|--------------------------|------------------------|
| 1458 <i>Ochróma W.</i> | 1490 <i>Carolínea W.</i> | 1492 <i>Bómbax W.</i> |
| 1466 <i>Helicteres W.</i> | 1491 <i>Adansónia W.</i> | 1493 <i>Myródia W.</i> |

ORDER XXV. BYTTNERIACEÆ.

Much the same kind of plants as those of the two last orders, from which they were not formerly distinguished; and from which they scarcely differ, except in their bicolor anthers. Many of the *Sterculias* are fine umbrageous trees, the seeds of which are large and eatable; especially those of the famous *Kola*, which possess the property, being chewed, of rendering bad water pleasant to the palate. The seeds of the *Chicha*, another and very noble species of the genus, are highly esteemed in Brazil for the dessert. *Astrapæa*, and several other genera related to it, are among the most beautiful in the world. The flowers of a species of *Pentapétæ*, called by the Indians, *Machucunha*, give out a mucilaginous refrigerant juice, which is employed in gonorrhœa. *Guazúma ulmifolia* has its fruit filled with a pleasant mucilage, which is sweet and very agreeable; an extract of the bark of the same plant is used in Martinique to clarify sugar; its old bark is

employed in the form of a strong decoction, as a sudorific. *Walthéria* Douradinha contains a great deal of mucilage, and is employed by the Brazilians as an antisyphilitic.

Tribe 1. STERCULIACEÆ.

2036 *Sterculia* W.2037 *Heritiéra* W.

Tribe 2. BYTTNERIÆ.

1607 *Theobroma* W.
1609 *Abróma* W.1608 *Bubroma* W.
703 *Commersónia* W.704 *Rulingia* R. Br.
526 *Buttnéria* W.527 *Ayénia* W.
1098 *Kleinhöfia*

Tribe 3. LASIOPETALEÆ.

525 *Seringia* Gay.524 *Thomásia* Gay.523 *Lasiopétalum* Sm.

Tribe 4. HERMANNIACEÆ.

1445 *Hermánnia* W.1456 *Melóchia* W.1454 *Walthéria* W.

Tribe 5. DOMBEYACEÆ.

1489 *Ruízia* W.
1468 *Pentapétes* W.1467 *Dombéya* J.
1457 *Melhánia* J.1469 *Astrapa*'a Lindl.
1470 *Pterospérmum* W.

ORDER XXVI. TREMANDREÆ.

A very small order containing only seven species, all small bushes, natives of New Holland, and remarkable for the peculiar neatness of their appearance. In habit, they may be compared to heaths, with which they agree in the anthers bursting by a pore at the end. Nothing is known of their properties.

879 *Tetrathéca* Sm.

ORDER XXVII. TILIACEÆ.

Trees, shrubs, or herbs, in general not remarkable for their beauty, the greater part of the last being the commonest weeds of the tropics. The Lime, from which the order derives its name, is a genus of fine trees with fragrant flowers, and *Sparmánia* and *Enteléa* are handsome broad-leaved greenhouse arborescent plants. The inner bark of *Tilia* is tough and separable, and supplies the material whence the Russia mats used by gardeners and others are prepared. *Córchorus olitórius* is cultivated in Egypt as a kitchen-garden vegetable; the fibres of the bark of *Córchorus capsuláris* are twisted into fishing lines; and the roasted nuts of the Lime tree are reported to bear some resemblance to chocolate.

1087 *Triumfetta* W.
1100 *Heliozárcarpus* W.
1180 *Sloána* W.1181 *Apeiba* W.
1182 *Sparmánnia* W.
1183 *Enteléa* R. Br.1184 *Muntingia* W.
1185 *Grécwia* W.1186 *Tilia* W.
1187 *Córchorus* W.

ORDER XXVIII. ELÆOCARPEÆ.

These differ from *Tiliaceæ* in nothing except their lobed petals and anthers opening by two pores at the apex. The flowers of some of the species of *Elæocárcarpus* are fragrant, the fruit eatable, and the hard rugose stones manufactured into necklaces.

1192 *Elæocárcarpus* W.

ORDER XXIX. SAPINDACEÆ.

One of the distinctive peculiarities of this order consists in the petals having an additional lobe in the inside, or a tuft of hairs instead. Nearly all the plants have compound leaves, and bunches of white flowers; a few of them are twining herbs, but the greater part are trees or shrubs, all natives of the warmer parts of the world, and in a great proportion, of the East. The only genus which will bear the climate of England is *Kolreutéria*, a fine shrub or small tree, with panicles of white or pale yellow flowers. *Nephélium* and *Dimocárcarpus* are both genera bearing excellent fruit. The rind of the berry of *Sapíndus saponária* is of a soapy quality, as the name of the plant indicates. The pulp of *Melicocca*, the arillus of *Blighia sápidá*, and the kernel of *Bertholletéa* and *Pékea* are all excellent eating.

926 *Sapíndus* W.
1971 *Nephélium* W.
883 *Dimocárcarpus* W.
831 *Cossignia* Juss.832 *Ornitrophe* W.
884 *Melicocca* W.
885 *Blighia* H. K.
886 *Mezáiba* Aubl.887 *Kolreutéria* W.
923 *Paullinia* W.
924 *Seriána* W.925 *Cardiospérmum* W.
897 *Dodonæa* W.
1991 *Amiróla* Pers.

ORDER XXX. HIPPOCASTANEÆ.

The only genus is *Æsculus*, from which some botanists have divided the smooth-fruited species under the name of *Pavía*. The order is much valued for the grandeur of the foliage and flowers of most of the species, which are all hardy trees. Their bitter fruit has sometimes been used as a sternutatory; it contains a large quantity of potash, and an abundance of starch. The bark is astringent, bitter, and febrifugal, and has been recommended as a substitute for *Cinchóna*.

866 *Æsculus* W.

ORDER XXXI. HIPPOCRATICEÆ.

Little is known of this order. The species are tropical arborescent or climbing shrubs, with opposite simple leaves, and small inconspicuous flowers. The genus *Tonsélla*, of which there is none in cultivation, contains some species known in Sierra Leone as bearing poisonous fruit.

83 *Hippocrátea* L.

ORDER XXXII. MARCGRAAVIACEÆ.

Very curious half-climbing shrubs, all natives of hot countries. Some of them bear among the flowers, which are large and showy, singular hollow bodies, like the pitchers of *Sarracénia*. The order has been well illustrated by Professor Hooker, in the 160th article of his *Exotic Flora*.

1163 *Marcgraávia* W.

ORDER XXXIII. ACERINEÆ.

Valuable trees, native of the woods of Europe, Siberia, and North America. Their flowers are in all cases inconspicuous; the breadth and rich color of their leaves constituting their beauty. All the larger species abound in a very saccharine sap, from which sugar is prepared in North America; it is chiefly made from *A'cer saccharinum* and *Negúndium*, but may be obtained from many others.

2143 *A'cer* W.2144 *Negúndium* Dec.

ORDER XXXIV. MALPIGHIACEÆ.

Undulated unguiculate spreading petals form one of the most obvious characters of this order, the species of which are all tropical, and are either trees or shrubs, often climbers. Many of the *Malpighias* are well known

for the prurient hairs produced on the surface of their leaves; their fruit is eatable, their timber of a deep red color, and their bark a febrifuge. Their showy pink or yellow flowers, and firm neat foliage, render all this order worthy of cultivation, except *Aspicárpa*, which is a weed.

1054 <i>Malpighia W.</i>	1056 <i>Hiræ'a W.</i>	1007 <i>Gærtnéra W.</i>
1055 <i>Banistéria W.</i>	29 <i>Aspicárpa Rich.</i>	

ORDER XXXV. HYPERICINEÆ.

The whole of these abound in a resinous juice, and are in most cases glandular in some degree. Their leaves are all dotted, and which is very remarkable, the dots are often black, even upon the yellow petals. These latter have a singular obliquity, which is not indicated by their outline, but by the arrangement of their veins. The juice just noticed as abundant in this order is yellow, viscid, rather bitter, often purgative or anthelmintic; and so very analogous to Gamboge, that the juice of *Hypericum baccátum*, and some other Guiana species, has received the name of American Gamboge. Most Hypericineæ are bitter, and slightly astringent, whence they have been used as febrifuges. A small part of the order is tropical; but in its most genuine form it consists of herbaceous or undershrubby plants, delighting in the shade of groves and thickets in the cooler parts of Europe and Asia. Nearly all the flowers are yellow; those of *H. cochinchinense* are dull red.

1617 <i>Hypericum W.</i>	1618 <i>Ascýrum W.</i>	694 <i>Parnássia W.</i>
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ORDER XXXVI. GUTTIFERÆ.

Trees or shrubs found in the hottest parts of the world, and well known by their thick entire opposite leaves and resinous juice. In the countries where they grow they are of great importance. One, the *Garcinia mangostána*, bears a fruit, the equal of which is supposed not to exist. The well known Gamboge is the inspissated juice of *Garcinia Gambógia*, and, perhaps, other species; the juice of others is found an efficacious vermifuge, and also a remedy for the chiggers, one of the worst pests of equinoctial America. The bark and fruit of many *Garcinias* are astringent. The unripe fruits of *Grias cauliflora* are pickled. The flowers of all the order being showy, the foliage good, and the properties interesting, every species deserves cultivation.

1079 <i>Garcinia W.</i>	1190 <i>Mammé'a W.</i>	2151 <i>Clússia W.</i>
1085 <i>Canólla W.</i>	1616 <i>Xanthochýmus Roxb.</i>	1188 <i>Grias W.</i>
1189 <i>Calophýllum W.</i>		

ORDER XXXVII. VINIFERÆ.

The vine is the type and representative of this order. *Cissus* and *Ampelopsis* differ little from it in botanical characters, and not at all in habit. The common grape is the only species that bears really good fruit; the American kinds, with large fleshy berries, being spoiled by a disagreeable foxy flavor, which is not found to be removed by cultivation.

501 <i>Vitis P. S.</i>	502 <i>Ampelopsis W.</i>	505 <i>Cissus W.</i>	454 <i>Leé'a W.</i>
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ORDER XXXIII. GERANIACEÆ.

The *Gerániums* are well known to all gardeners for their beauty, and the facility with which hybrid varieties are produced among them. *Geranium* and *Eródium* are chiefly natives of the northern hemisphere; and *Pelargónium* of the southern. Different as they appear from *Vinifera* in most respects, there are some points in which a curious resemblance may be found between the two orders. The young stems of both are articulated and separable at the articulations; and the lower leaves are opposite, while the upper ones are alternate. In *Geraniaceæ* no tendrils are produced, but the peduncles are opposite to the leaves, as in *Vitis*, and occupy the place of tendrils. M. Decandolle observes, that of the true *Geraniaceæ*, some are slightly acid, especially those of which the leaves and bark are succulent; several exhale a resinous smell which is sometimes agreeable, but occasionally so powerful as to be unpleasant. The resinous principle is so abundant in *Geranium spinósum*, that its stem burns like a torch, and exhales an agreeable perfume. The most common property of European geraniums is to be astringent, which is chemically determined by their juice being blackened by sulphate of iron; this is particularly remarkable in *G. Robertianum* and *sanguineum*, which are both accounted vulnerary, and in *G. moscháturn*, *pratense*, and others, in which it is united to a slight aromatic principle, whence they have been recommended for various purposes, and among others for removing calculous disorders. The astringent property of the geraniums is also present in *G. maculátum*, which grows in much abundance about Philadelphia; the root of this plant, boiled in milk, is used for the cholera in children. Barton is of opinion, that it would be a good substitute for gum kino in nephritis and obstinate diarrhæas.

1460 <i>Eródium W.</i>	1461 <i>Pelargónium W.</i>	1463 <i>Geránium W.</i>	1465 <i>Monsónia W.</i>
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ORDER XXXIX. OXALIDEÆ.

Formerly confounded with the last order. It is the opinion of modern botanists, that the species are more nearly allied to *Rutaceæ* or *Zygophylleæ*, and that their character and peculiar habit is quite sufficient to distinguish them. The beauty of the genus *Oxalis* is very great, and the readiness with which the species may be cultivated and caused to flower, would have been expected to make them universal favorites; they are not, however, much seen in cultivation. Their properties are well known: all of them have a slightly acid taste, whence some have occasionally been employed as salad; their acidity is very agreeable and depends upon the presence of a small quantity of oxalate of potassa. In some of the species of equinoctial America oxalic acid exists in great abundance. Several species are employed in Brazil as a remedy for certain fevers of that country.

1064 <i>Biophýtum Dec.</i>	1065 <i>Oxalis W.</i>	1058 <i>Averrhó'a W.</i>
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ORDER XL. TROPÆOLEÆ.

These are climbing or trailing herbs with handsome solitary axillary flowers, and fleshy stems and leaves. They are distinguished from *Geraniaceæ* by their stamens being separate, and not agreeing in number with the petals; by their axillary flowers, and fleshy indehiscent fruit. It is very curious, that this is the only order in which the peculiar acid flavor of *Crucifera* is found to exist. *Tropæolum pentaphýllum*, with probably other species, is a powerful antiscorbutic. All are natives of shady places in various parts of South America. The roots of some are fleshy and eatable.

875 *Tropæolum W.*

ORDER XLI. BALSAMINEÆ.

The flower of this order has been remarked by a learned botanist to be that of *Fumariaceæ*, the capsule of *Oxalis*, the embryo of *Linum*, and the habit peculiar. The well-known elastic spring with which the seeds are ejected, constitutes a principal character of the order. All the species are annuals, with the exception of *Impatiens fruticósa*; they delight in moist hot situations, generally within the tropics; and are remarkable for the singularity and varied colors of their flowers.

538 *Impatiens W.*

ORDER XLII. ZYGOPHYLLEÆ.

The hardness of the wood of the shrubby species of this order is most remarkable, if the softness of the stems of the herbaceous ones is remembered. To this the extreme difficulty of propagating *Guaiaecum* is to

be attributed. *Zygophyllum Fabago* is employed as an anthelmintic, but it is in the *Guaiacum* that the great medical virtues of the order are found: all the genus is extremely exciting; the wood and bark of *Guaiacum officinale* and *sánetum* have a rather bitter acrid flavor, and are principally used as sudorifics, diaphoretics, or alteratives; they have been found to contain a particular substance differing both from gum and resin, which has been called *guayacine*. Many of the species bear beautiful flowers, especially the *Tribulus*, which with their brilliant yellow *Cistus*-like blossoms, enliven many a barren rock in the tropics. None are found in the colder latitudes of the world.

994 *Zygophyllum W.*995 *Fagónia W.*996 *Tribulus W.*993 *Guaiacum W.*

ORDER XLIII. MELIACEÆ.

The nearest affinity of this order is probably with *Sapindacææ*. It is particularly distinguished by the stamens being united into a tube bearing the anthers. The leaves are usually pinnated, and most of the species, which are all either trees or shrubs, are natives of tropical forests. *Mélia* bears bunches of fine lilac colored flowers, but few of the genera are interesting on account of their inflorescence. The qualities of the different species are little known. *Canella álba* is aromatic, and is used in equinoctial America as a spice. The bark of *Guárea trichilioides* is said by Aublet to be purgative and emetic. The pulpy fruit of *Mélia Azedarách* is said to be poisonous; both this part and the inner bark have been used as anthelmintics either in substance or in decoction. It is asserted by Michaux, that the pulp that surrounds the kernel is considered in Pekin a specific in scrophulous cases. The oil expressed from the seeds of the same plant is said to have strong antispasmodic powers.

888 *Guárea W.*
987 *Trichília W.*988 *Mélia W.*
989 *Quivisia Cav.*991 *Ekebérgia W.*
992 *Heynea Roxb.*

ORDER XLIV. CEDRELEÆ.

Some of the finest trees of the tropical regions of the globe are comprehended in this order, as the well known mahogany, and the New Holland cedar, which is a species of *Cedréla*. Their winged seeds distinguish them from *Meliacææ*. The bark of *Cedréla Tóna* is employed in the East Indies as a febrifuge, as is also that of the mahogany in the West. But the most powerful remedy for fevers in the whole order is the *Soymida* of the West Indies, which is the produce of *Swieténia febrífuga*; its taste is bitter and nauseous, and its virtues are extolled as equalling those of *Cinchóna*.

990 *Swieténia W.*531 *Cedréla W.*

ORDER XLV. AURANTIACÆÆ.

These are also known under the name of *Hesperidææ*. They consist of trees or shrubs of the greatest beauty and utility. The well-known orange and lemon are the representatives of the order, the characters of which are so well defined that there is no material deviation from the type afforded by those species. The thick leaves, articulated with their petiole, and abounding in transparent reservoirs of odoriferous oil, are the most obvious peculiarities. The flowers are fragrant, and the fruit in all cases fleshy, and generally eatable. The wood is particularly close-grained. The volatile oil contained in the reservoirs of the leaves and fruit possesses powerful tonic and stimulating properties. M. Decandolle thus explains the singular structure of the fruit of the orange. In the opinion of this learned botanist it consists, first, of a thick, valveless, indehiscent indusium or coat, which is most likely to be considered a *continucus torus*. Secondly, of several *capella*, verticillate around an imaginary axis, often separable without laceration; membranous, and either containing seeds only, or filled with pulp, lying in innumerable little bags proceeding from the inner coats of the cells.

500 *Triphásia Lour.*
1003 *Limónia W.*1004 *Glycósmis Corr.*
1615 *Cítirus W.*1005 *Murraña W.*
1006 *Coókia W.*1196 *E'gle Corr.*
2149 *Ferónia Corr.*

ORDER XLVI. TERNSTROMIACÆÆ.

A very small order, consisting wholly of trees or shrubs, bearing handsome white or yellowish flowers. They are nearly related to *Camellieææ*, from which they do not differ at all in habit. Nothing is known of their properties. *Noronha* states that a species of *Saurauja* found in Java has a subacid fruit, in flavor resembling the Tomato, and that it is eaten by the Javanese under the name of *Koleho*.

1083 *Eúrya Th.*1494 *Gordónia W.*1495 *Stuártia W.*

ORDER XLVII. CAMELLIÆÆ.

Camellias are too well known in our gardens to render it necessary to say much upon their peculiarities. The *Camellia* is one of the most beautiful, and the tea one of the most useful, plants in the world. Both are natives either of China, Japan, or Nepal. The tea is well known for the stimulating influence of its decoction upon the nerves, which is attributed by Cullen to the presence of a narcotic principle. The seeds of *Camellia oleifera* yield a fine oil. None of the species bear fragrant flowers. Their nearest affinity is with *Ternströmiacææ*, from which they probably ought not to be separated.

1496 *Camellia Ker*

ORDER XLVIII. OLACINEÆÆ.

Smooth trees or shrubs, with simple stalked exstipulate alternate entire leaves, and little axillary flowers. Botanists doubt whether what is called a calyx is not rather an involucre, in which case the corolla would become a calyx, and the station of the order among *Monochlamydeææ*, rather than in this place.

890 *Ximénia W.*

ORDER XLIX. RUTACEÆÆ.

An interesting and extensive, but rather heterogeneous, group of plants, natives of all countries and all situations. The species are either fetid northern herbaceous plants, as the garden rue, or neat heath-like southern shrubs, with an aromatic odor, as the Cape *Diósma*; broad or long-leaved Australasian shrubs, with a stellate pubescence, as *Phebálium*, or tropical trees with panicles of pallid minute flowers, as the *Cuspárias* and *Xanthóxylyms*. The order contains nearly 300 species, of which but a small proportion is in our gardens. The medical properties of many genera are considerable. *Rúta* and *Péganum* are emmenagogue, anthelmintic, and sudorific. *Diósma* abounds in a volatile oil of an agreeable smell, but acrid flavor; several of its species are reputed antispasmodics. The *Xanthóxylyms* are said to possess acrid, stimulating, or tonic qualities; *Cláva Hérculis* and *fraxíneum* are said, in America, to be powerful sudorifics and diaphoretics. According to Barton, they possess a remarkable power of exciting copious salivation, not only when applied to the mouth, but even when taken internally; they have both been found powerful remedies in paralysis of the muscles of the mouth. *Xanthóxylym caribæum* is regarded in Guiana as a detersive vulnerary and febrifuge. The famous febrifugal *Angostura* bark is the produce of *Cuspária febrífuga*.

Tribe I. RUTEE.

998 *Rúta W.*1088 *Péganum W.*1293 *Meliánthus W.*905 *Jambolifera*

Tribe 2. DIOSMEÆ.

997 Dictamnus <i>W.</i>	999 Crówea <i>Sm.</i>	517 Diósma <i>W. en.</i>	520 Agathósma <i>W. en.</i>
528 Calodéndrum <i>W.</i>	878 Borónia <i>Sm.</i>	518 Adenándra <i>W. en.</i>	1965 Euplecúrum <i>W.</i>
880 Corréa <i>W.</i>	304 Ziéria <i>Sm.</i>	519 Baryósma <i>W. en.</i>	

Tribe 3. ZANTHOXYLÆ.

303 Fagára <i>W.</i>	2066 Xanthóxyllum <i>W.</i>
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Tribe 4. CUSPARIÆ.

41 Galipéa <i>Aubl.</i>	1500 Monniéria <i>W.</i>
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ORDER L. CORIARIÆ.

Five species constitute the whole of this order, distributed in South Europe, New Zealand, Peru, and Mexico. They possess no beauty, and are only interesting on account of their problematical station in a botanical arrangement. The leaves of *C. myrtifolia* are astringent, and are employed in dying black. Its berries are very poisonous. On one occasion, during the Spanish war fifteen French soldiers were taken ill after eating them, and three died from their powerful narcotic effects.

2091 Coriária *W.*

Section 4. *Fruit (gynobasic) inserted into a fleshy receptacle, with which the style is continuous.*

ORDER LI. OCHNACEÆ.

Beautiful yellow-flowered tropical shrubs or trees with lucid leaves. The roots and leaves of *Walkera serrata*, a Cingalese plant, are bitter; a decoction of them, either in water or milk, is used in Malabar as tonic, stomachic, and antiemetic. The bark of *Gomphia hexasperma* is found useful in healing sores produced in cattle in Brazil by the stings of insects.

1001 Gómphia *W.*

1191 O'chna *W.*

ORDER LII. SIMARUBACEÆ.

Thirteen plants, found in equinoctial America, constitute this order. They are trees or shrubs, with an intensely bitter bark, a milky juice, and pinnated leaves. The *Quassia* is well known as the most pure and intense bitter hitherto discovered; the same property exists, in a milder degree, in the rest of the order. *Quassia amara* is a very ornamental plant, but rare, at present, in collections.

1002 Quássia *W.*

SUBCLASS II. CALYCIFLOREÆ.

Petals separate, inserted into the calyx.

ORDER LIII. CELASTRINEÆ.

This order differs from the succeeding, in having the stamens alternate with the petals; the sepals imbricated in æstivation; and the ovary wholly superior. It consists entirely of shrubs or small trees, with simple, rarely compound, alternate or opposite leaves, and conspicuous flowers of a greenish or white color. Several are favorite ornaments of our shrubberies, as the *Staphyléa*, the *Celástrus*, and the *Euónymus*; the latter of which is valued on account of its beautiful-colored fruit. The fruit of *Euónymus europæus* is a brisk purgative, as is also the inner bark, and in strong doses powerfully emetic. The famous Paraguay tea is the foliage of a species of *Ilex*. The bark of *Prinos verticillatus* possesses such active, astringent, bitter, tonic, and febrifugal qualities, that it is used in North America, with success, as a substitute for *Cinchóna*. A decoction of the twigs of *Maytenus boaria* is used to bathe the swellings produced by the poisonous shade of the tree *Lithi*.

Tribe 1. STAPHYLEACEÆ.

684 *Staphyléa W.*

Tribe 2. EUONYMEÆ.

509 *Euónymus W.*

507 *Celástrus W.*

31 *Maytenus Mol.*

516 *Elæodéndrum W.*

Tribe 3. AQUIFOLIACEÆ.

682 *Cassine W.*

301 *Hartógia W.*

300 *Curtisia W.*

605 *Bumálda Th.*

314 *Myginda W.*

315 *Ilex W.*

828 *Prinos W.*

543 *Plectrónia W.*

514 *Schrebéria Retz.*

ORDER LIV. RHAMNEÆ.

In habit, this altogether agrees with the last, from which the medical properties of the species are not widely different. Throughout the order, as far as it has been examined, there is a remarkable agreement between the fruit and the inner bark, especially in *Rhámnus cathárticus*, *frangula*, and others, in which they both are purgative and emetic. Some, as the *Jujuba*, and the African *Lote*, nevertheless, yield a wholesome and agreeable fruit; and the berries, of the greater number, yield, under the chemist's hands, green or yellow dyes of much importance in manufactures. The leaves of *Rhámnus theézans* are substituted for tea by the poorer sort among the Chinese. The bark of *Ceanóthus cærúleus* is esteemed in Mexico as a good febrifuge.

506 *Zizyphus W.*

505 *Paliórus Gart.*

504 *Cenóplia Mich.*

503 *Rhámnus W.*

510 *Ceanóthus W.*

512 *Pomadérris W.*

542 *Phýlica W.*

2146 *Gouánia W.*

532 *Hovénia Th.*

2060 *Schæfféria W.*

ORDER LV. BRUNIACEÆ.

Small heath-like shrubs, all natives of the Cape of Good Hope, and extremely ornamental, both in flower and foliage. Their properties are unknown.

533 *Brúnia W.*

511 *Stáavia W.*

ORDER LVI. SAMYDEÆ.

Tropical shrubs or small trees, with entire, stipulate, alternate leaves, covered with pellucid dots, and axillary flowers of little show. Some of the species of *Samyda* are pretty, but very rare. Their properties are unknown. M. Decandolle remarks, that in their fruit they approach *Bixineæ* and *Flacourtianæ*; but on account of the position of their stamens must be arranged in the vicinity of *Rhamneæ* and *Rosacææ*.

1034 *Samyda W.*

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ORDER LVII. HOMALINEÆ.

Evergreen handsome shrubs, with alternate leaves and deciduous stipulæ; they are readily known by their parietal placentæ; an unusual character among the orders that surround them. *Blackwéllia fagifolia* has fine bunches of starchy white fragrant flowers. *Aristotélia* is an evergreen half hardy shrub, with eatable berries. Little is known of their medical properties; the root of *Homálium Racoúbea* is used in Guiana as a cure for gonorrhœa.

1108 *Blackwéllia Juss.*873 *Astránthus L.*1084 *Aristotélia W.*

ORDER LVIII. TEREBINTHACEÆ.

This order is, notwithstanding the labors of several botanists, in a very confused state; from want of sufficient knowledge of many of the genera, which have been hitherto imperfectly described, it is difficult either to determine the value of the characters assigned to the tribes, or the dignity of the tribes themselves. All the species are shrubs or trees, with alternate extipulate leaves, and inconspicuous flowers, and abound in the balsamiferous resin, which is chiefly present in the leaves and bark, and from which the denomination of the order has been derived. Notwithstanding the minuteness of their flowers, many of the species are valuable as ornamental plants, on account of the beauty of their foliage, others for the sake of their utility in arts or medicine, and others for their fruit. The walnut, the Cashew nut, and the Pistachio are valuable for their nuts, which are well known articles of the markets of Europe. The *Spóndias* and *Mángio* are equally famous in the tropics. The well-known balsam of Tolu is the produce of the *Toluifera*; the balsam of Mecca, of the *Amýris gileadénsis*; and balm of Acouchi, of the *Ícica acuchini*; gum comes from *Amýris elemifera* and *Ícica leptophýlla*; mastic from *Pistácia atlántica* and *lentiscus*; and Venetian turpentine from *Pistácia terebínthus*. *Schínus Móile* produces a resin which in Peru is used as a dentrifice, as myrrh is with us. Some of the best varnishes are prepared from the exudation of *Amýris guianénsis*, *Rhús vérmix*, copallina, and others; the finest kinds of incense are also afforded by plants of this order, such as the wood and resin of the different species of *Ícica*, of *Amýris balsamifera*, and of *Canárium commúne*, the *Coomia*, which is used in Guiana for such purposes, and finally, the *Boswellia thurifera*, which is the true frankincense of Indian temples. But among the fragrant and wholesome plants of which the order chiefly consists, lie concealed others in which acrid and poisonous qualities no less abound. Such are several pieces of *Rhus*, the juice of which produces blisters upon the skin, and the *Amýris toxifera*, the juice of which is accounted poisonous. To conclude this long list of the uses and dangers of Terebinthaceæ, the bark of *Brúcea* is used as an astringent in dysenteries, that of *Rhus glábra* as a febrifuge and as a mordant for red colors, and that of *Rhus coriária* as a powerful means of tanning skins of animals. It is curious to remark how strongly Terebinthaceæ are connected with Amentaceæ through *Júglans*.

	Tribe 1. ANACARDIÆÆ.	
935 <i>Anacárdium W.</i>	2065 <i>Pistácia W.</i>	2067 <i>Picránnia W.</i>
513 <i>Maugifera W.</i>	85 <i>Comocládia</i>	
	Tribe 2. SUMACHINÆÆ.	
681 <i>Rhus W.</i>	2093 <i>Schínus W.</i>	
	Tribe 3. SPONDIACEÆ.	
	1059 <i>Spóndias W.</i>	
	Tribe 4. BURSERACEÆ.	
2164 <i>Bursétra W.</i>	1010 <i>Garúga Roxb.</i>	
	Tribe 5. AMYRIDÆÆ.	
	889 <i>Amýris W.</i>	
	Tribe 6. PTELEACEÆ.	
298 <i>Ptélea W.</i>	529 <i>Toddália Lam.</i>	84 <i>Cneórum W.</i>
		683 <i>Spathéllia W.</i>
	Tribe 7. CONNARACEÆ.	
1057 <i>Cnéstis Lam.</i>	2061 <i>Brúcea W.</i>	
	Tribe 8. JUGLANDEÆÆ.	
	1999 <i>Júglans W.</i>	

ORDER LIX. LEGUMINOSÆ.

The family to which the various kinds of pulse belong is one of the most familiar to the world, and at the same time one of the most useful to mankind. Their papilionaceous flowers characterise a large number, and their pods and pinnate leaves the remainder, with a few exceptions, which it is not necessary to particularise. As objects of ornament, many are possessed of unrivalled beauty, for example, among hardy flowering trees, the *Robinia* and the *Labúrnum*; among shrubs, for decorating the borders of the flower-garden, the various tribes of *Cýtisis*, *Caragána*, *Colutá*, *Amórpha*, and others; among hardy climbers, the far-famed *Glycine* of China, and its sister of North America, with the species of the herbaceous genera *Vicia* and *Láthyrus*; and, lastly, among hardy herbaceous plants, the numerous species of *Lupinus* and *Astrágalus*. Great, however, as is the beauty of the *Leguminosæ* which can brave the inclemencies of the seasons of Northern Europe, it must give way before the splendor and elegance of their brethren of the tropics. The flowers of the *Erythrina*, or Coral tree, are of the deepest crimson, and borne in profusion upon some of the loftiest trees of the forest. The *Bauhinias*, with their snake-like stems and twin leaves, hang in festoons of flowers from branch to branch of other trees, and are only rivalled by the less vigorous and elegant, but more richly colored blossoms of the *Carpópogons*. But all these, with their broad heavy foliage and gaudy colors, are far surpassed by the rugged trunks, trembling airy foliage, and golden flowers of the *Mimósa*, which cast a charm over even the most sterile deserts of burning Africa. While the forests of hot countries are thus indebted to species of this order for their timber, the meadows and pastures of the same latitudes are enamelled with the flowers of myriads of *Hedýsarums*, and animated by the wonderful motion of sensitive plants. As in our own country, the gayest part of our scenery is in many places indebted to the yellow flowers of our furze and broom, so in other countries the same effect is produced by other genera of *Leguminosæ*; by *Lipária*, *Borbónia*, and *Aspálatus*, at the Cape of Good Hope, and by the *Pultenæas*, *Davíeias*, *Aótuses*, and multitudes of similar genera in New Hoiland. The wood of the order is very hard and durable, with a yellow tinge, sometimes changing into green, as in the *Labúrnum* of Europe, and in the better known Brazil wood of commerce, produced by *Cæsálpinia*. The following useful remarks upon the properties of the order are made by M. Decandolle:—

“The family of leguminous plants, though established upon characters of primary importance, offers, nevertheless, so large a number of species and such singular botanical anomalies, that it is easy to foresee that its properties will exhibit little uniformity. Still more exceptions may be anticipated if one reflects, that the chemical principle which is found most abundantly in every part of leguminous plants, and to which we must attribute their principal properties, is the extractive. It is probable that this principle, either from its own nature, or from its peculiar power of uniting with different matters, or perhaps instead of being a simple principle, it is rather a compound of different matters; it is probable, I say, that the extractive principle exhibits

much less uniformity in its results than any other. It is, without doubt, to the presence of the extractive principle, in considerable quantities, that many leguminous plants owe their purgative properties, which are common to several extracts, and which many chemists attribute to the acetate of potash, which they are almost universally found to contain. Thus the leaves and foliaceous pods of *Cássia séna Lin.*, of *Cássia lanceolata Forsk.*, of *Cássia emargináta* of the Antilles, of the *Cássia marylándica* employed in the United States, of *Colútea arboréscens*, of *Spartium purgans*, and perhaps also of *Coronilla émerus*, act as brisk purgatives, and often cause wind and pain in the bowels. The juice of *Coronilla vária* excites vomiting, and may even become poisonous when taken in too large quantities. It is, perhaps, from a different cause that the pulp which is contained in the husks of leguminous plants operates upon the human body; it purges gently without causing the least pain, and ought to be considered as laxative rather than purgative. Such is the character of the juicy pulp that exists in the *Cássia fistula Lin.*, in the *Tamarindus indica Lin.*, in the *Ceratónia siliqua Lin.*, and probably in the *Mimósa inga* and the *M. fagifolia*, which are eaten in small quantities in the Antilles, but which, taken more copiously, would have the same effect as our Carobs. There are some fruits of Leguminosæ, for example, the *Sophóra* and the *Gleditschia*, with tumid pods, in which is found a juice which surrounds, it is true, the seeds, as in the plants just mentioned, but which differs from them altogether in its very astringent and nauseous flavor; the nature and properties of this juice deserve to be examined by chemists, and would undoubtedly throw some light upon the nature of Leguminosæ. I am induced to think, that the astringent juice of the *Sophóra* is a secretion of the pericarp, whilst the sweet and purgative juice of the *Cássia* would be a secretion of the external part of the seed; but this hypothesis requires to be verified: what leads me to this opinion, is the flavor commonly found in husks; in the Carobs, for example, the husk is astringent, and the pulp sweet and laxative. But let us return to the properties which may be attributed to the extractive principle. It is undoubtedly from some one of these modifications that the singular property of the *Piscidia* and many *Galégas* is derived, which are employed in America to stupefy fish, which are taken by this means as readily as with *Nuxvomica*. The decoction of the root of *Galéga virginiana* is considered in America as a powerful vermifuge. It is, perhaps, indeed, to the very same cause that the rubefacient powers of the fresh leaves of some Leguminosæ are to be ascribed, which act readily upon the skin if applied as plasters; as, for example, in *Ornithopus scorpioides* among ourselves, and *Hyperanthera moringa* elsewhere. It appears to me, that it is to the greater or less considerable mixture of the extractive principle with the *fæcula* contained in the seed, that the different properties of the pulse of leguminous plants may be attributed. If found in small quantities, the seed may serve as food for man and animals, as we see in French beans, peas, lentils, chick peas, beans, and many others, &c. If found in a more considerable quantity, it will render them purgative or emetic, as in the *Cytisus laburnum*, the *Anagyris fœtida*, and even in most *Coronillas*. It is remarkable that the botanical characters of Leguminosæ should so strictly agree with the properties of their seeds: the latter may be divided into two sections; namely, first, those of which the cotyledons are thick and filled with *fæcula*, and destitute of cortical pores, and which, moreover, in germination do not undergo any change, but nourish the young plant by means of that supply of food which they already contain; secondly, those of which the cotyledons are thin, with very little *fæcula*, and furnished with cortical pores, and which change at once into leaves at the time of germination for the purpose of elaborating food for the young plant. All the seeds of the first section are employed as food in different countries; none of those of the second section are ever so employed; the *Cajan*, which has long been classed among the *Cýtisi*, was apparently an exception to this general rule; but observation has proved the contrary. Bearing in mind its known properties, I formerly paid particular attention to its structure, and I have shown in a note, which accompanies my catalogue of the Montpellier garden, that the *Cajan* forms a particular genus much more nearly allied to the French bean than to the *Cýtisi*, and that it, in fact, belongs to the first of the sections which I have just described. The seeds of Leguminosæ present also many other anomalies more difficult to reduce to any fixed laws: thus some are found which contain a rather large portion of fixed oil; such as the seed of the *A'rachis hypogæa*, lately introduced into European agriculture, and that of *Guilandina moringa* which produces oil of ben; there are some, of which the flavor and smell are rather powerful; as the seed of *Dipterix* or *Coumarónia odóra* of Aublet, which, under the name of Tonquin bean, is used for perfuming snuff; there are others which, like the chick pea, have rather a bitter taste and unexciting properties, and are on that account administered for the jaundice. There are others again, like those of the *Andira*, which are so bitter as to be used in Java and Brazil as tonic, alexiteric, and vermifuge. In a word, are not the aperient and diuretic properties which are observable in the herbage and the roots of many leguminous plants, such as broom beans, *Onónis*, *Guilandina ringa* and *moringa*, *Anthyllis créta*, &c. to be attributed to a modification of this extractive principle? There are, in another view, roots which are furnished with tubercles, that is to say, with reservoirs of *fæcula* which furnish mankind with wholesome food, as we see in the *Láthyrus tuberósus*, which is eaten in Holland, the *Dólíchos tuberósus*, and the *D. bulbósus*, which the Indians use as food. The roots of the liquorice have a sweet and mucilaginous taste, which is well known by every body, and which, united to an acrid and rather exciting principle, causes it to be employed as a pectoral; the analysis of this root, published by M. Robiquet, proves that independently of its woody skeleton, the same kind of amylaceous *fæcula* is found in the tuberculous roots of which we have just been speaking; it is thence seen that the acrid flavor of decoctions of liquorice depends on the small quantity of resinous oil which it contains, and that its sweet properties are by no means analogous to common sugar, since it is insoluble in cold water, soluble in warm water or in alcohol, not capable of fermentation, and does not yield to the action of nitric acid any of the known products of sugar. It may here be added, that the sugary flavor of liquorice, and its other properties, are not confined to this genus; they are found equally in the roots of *Trifólium alpinum*, vulgarly called Mountain liquorice; in those of the *A'rbus precatórus*, from which a pectoral draught is prepared in Hindoostan, called *Velti*, and in others. The barks of some trees of the leguminous class, are remarkable for their bitterness, and are used as febrifuges; the different kinds of *Geoffroya* possess this bitter and febrifugal quality in a remarkable degree; in India, the bark of the *Æschynoméne grandiflóra* and of the *Cesalpinia bonducella* are employed for the same purpose. The barks of many leguminous plants are also remarkable for their astringent qualities, caused by the quantity of tannin which they are found to contain; this is observable in the *Acácia Câtechu*, and in the *Acácia arábica*, which is used for tanning leather, and elsewhere. It is well known that almost all coloring matter proceeds from the extractive principle; and as it appears that this principle abounds in Leguminosæ, we ought to find in them a considerable number of the colors which are used by dyers: to this family, in fact, belong the principal blue colors, known by the name of indigo, extracted from every kind of *Indigofera* and from some *Galégas*; and the red colors, which are yielded by all the species of *Cesalpinia* and of *Hæmatóxylin*. We may add the red juice, which is drawn from the *Pterocárpus dráco* and *Santalinus*, under the name of sandal and of dragon's-blood; from *Erythrina monospérma*, under the name of gum lac; and also from *Dalbérgia monetária*. These juices appear to differ in many particulars, but their history and analysis are at present so far from being known, that it is impossible to form a true estimate of the nature of their differences. But anomalies of this nature are far from being confined to the plants just mentioned. Among the exotic drugs employed in the arts they are very common: such, for example, are the balsam of Capivi, produced by the *Copaifera*; the balsam of Peru, which, Mutis says, is obtained from *Myrógylon*; the *Cachou*, which has been found to be almost pure tannin, and which is supposed to be produced by *Acácia Câtechu*; of the same character is that remarkable resin that is yielded by *Hymenæa Cofrariil*; gum Arabic, produced by the bark and roots of *Acácia senegalénsis*, *nilótica*, *arábica*, and others; gum tragacanth obtained from *Astrágalus créticus*, *gummifera*, and *vérus*; and finally, *manná*, secreted by *Hedýsarum alhági*.

The arrangement of this tribe of plants has been found to be attended with great difficulty. By Linnaeus, and the writers who succeeded him, the number of genera was much smaller than those admitted by botanists of the present age; many additions have been made in consequence of the discovery of New Holland, and a large number of subdivisions in old genera have been from time to time introduced by one writer or another. To combine these scattered improvements under one uniform system has lately been attempted by the learned botanist, from whom the foregoing extract has been taken. This was not executed at the time when those parts of the present work, in which leguminous plants are found, were written; for which reason the names

of the suborders will not be found in the body of the work. M. Decandolle's method, however, being here adopted, it will be useful to explain the principles upon which it is founded. He divides Leguminosæ into two grand divisions, the first of which consists of plants, the radicle of whose seed is curved back upon the edge of the cotyledons, and the second of those whose radicle and cotyledons are straight: the former are CURVEMBRIE, the latter RECTEMBRIE. In the *Curvembricæ*, certain diversities in the structure of the calyx and corolla again divide into two principal forms, one of which, comprehending all the genera with papilionaceous flowers, is called *Papilionaceæ*, and the other, consisting of a very small number of species, with one or two petals or more, and an obscurely lobed calyx, is called *Swartzicæ*. The last is not subdivided, but the *Papilionaceæ* resolve themselves into the two great tribes pointed out by M. Decandolle, namely, those with fleshy cotyledons and eatable pulse, *Sarcobolæ*, and those with foliaceous cotyledons and seeds which are not eatable, *Phyllolobæ*. Each of these is divisible by three, upon slight differences in the fructification. In *Rectembricæ* two suborders, *Mimosæ* and *Cesalpiniæ*, are formed upon variations in the æstivation of the calyx and corolla; in the former, it is valvate, in the latter, imbricated; the first constitute a single tribe, the latter divide into three, distinguished by less momentous peculiarities of structure. Having premised thus much, the following tabular explanation will be intelligible:

I. CURVEMBRIE.

PAPILIONACEÆ.

a. Phyllolobæ.

- Tribe 1. *Sophoreæ*. Pod continuous. Stamens distinct.
 Tribe 2. *Loteæ*. Pod continuous. Stamens united by the filaments.
 Tribe 3. *Hedysarææ*. Pod with transverse articulations. Stamens mostly united by the filaments.
 Tribe 4. *Viciææ*. Pod polyspermous, dehiscent. Leaves cirrhous, the first alternate.
 Tribe 5. *Phaseolææ*. Pod polyspermous, dehiscent. Leaves not cirrhous, the first opposite.
 Tribe 6. *Dalbergiææ*. Pod one or two-seeded, indehiscent. Leaves not cirrhous.
 Tribe 7. *Swartzicæ*.

b. Sarcobolæ.

2. SWARTZICÆ.

II. RECTEMBRICÆ.

1. MIMOSÆ.

2. CESALPINIÆ.

- Tribe 8. *Mimosææ*.
 Tribe 9. *Geoffrææ*. Sepals and petals imbricated in æstivation. Stamens variously connected by the filaments.
 Tribe 10. *Cassiææ*. Sepals and petals imbricated in æstivation. Stamens distinct.
 Tribe 11. *Detariææ*. Sepals before expansion indistinct, calyx bladder-like. Petals 0.

SUBORDER I. PAPILIONACEÆ.

Tribe 1. SOPHOREÆ

941 <i>Sophora H. K.</i>	946 <i>Cyclópis R. Br.</i>	954 <i>Gompholóbium H. K.</i>	961 <i>Eutáxia H. K.</i>
940 <i>Edwárdia Sal.</i>	948 <i>Podalýria R. Br.</i>	955 <i>Burtónia H. K.</i>	962 <i>Scletothámmus H. K.</i>
942 <i>Ormósia Jacks.</i>	949 <i>Chorozeímia Lab.</i>	956 <i>Jacksónia H. K.</i>	963 <i>Gastrolóbium H. K.</i>
945 <i>Virgília Lam.</i>	950 <i>Podolóbium H. K.</i>	957 <i>Viminária H. K.</i>	964 <i>Euchilus H. K.</i>
943 <i>Anagýris W.</i>	951 <i>Oxylóbium H. K.</i>	958 <i>Spherolóbium H. K.</i>	965 <i>Pultenæa H. K.</i>
944 <i>Thermópsis R. Br.</i>	952 <i>Callistachys Vent.</i>	959 <i>Aóctus H. K.</i>	966 <i>Daviésia L. T.</i>
947 <i>Baptisia R. Br.</i>	953 <i>Brachysema H. K.</i>	960 <i>Dilwýnia H. K.</i>	967 <i>Mirbélia L. T.</i>

‡ Tribe 2. LOTEÆ.

Subtribe 1. Genisteæ.

1536 <i>Hóvea H. K.</i>	1527 <i>Ráfnia Th.</i>	1535 <i>Loddigésia B. M.</i>	1537 <i>Spártium W.</i>
1525 <i>Platylóbium Sm.</i>	1526 <i>Borbónia W.</i>	1539 <i>Lebécchia W.</i>	1538 <i>Genista W.</i>
1531 <i>Bossia'a Sm.</i>	1565 <i>Lipária W.</i>	1529 <i>Sarcophýllum Th.</i>	1566 <i>Cýtissus W.</i>
1534 <i>Goódia R. Br.</i>	1584 <i>Hállia Th.</i>	1528 <i>Aspálathus W.</i>	1541 <i>Onónis W.</i>
1532 <i>Scóttia R. Br.</i>	1530 <i>Crotalária W.</i>	1540 <i>U'lex W.</i>	1542 <i>Anthýllis W.</i>
1533 <i>Templetónia H. K.</i>	1523 <i>Vibórgia W.</i>		

Subtribe 2. Trifoliæ.

1605 <i>Medicágo W.</i>	1600 <i>Trifólium J.</i>	1601 <i>Lótus W.</i>
1603 <i>Trigonélla W.</i>	1599 <i>Lupináster Ph.</i>	1602 <i>Tetragonólobus Roth.</i>
1598 <i>Melilótus J.</i>	1604 <i>Dorýcenium W.</i>	1606 <i>Hymenocárpus W.</i>

Subtribe 3. Clitoriaæ.

1597 <i>Psorálea W.</i>	1556 <i>Clitória W.</i>	1552 <i>Glycine L.</i>
1589 <i>Indigótera W.</i>	1555 <i>Galáctia Mx.</i>	

Subtribe 4. Galegeæ.

1501 <i>Petalostémum Mich.</i>	1590 <i>Tephrosía P. S.!</i>	1568 <i>Robinia W.</i>	1573 <i>Colútea L.</i>
1596 <i>Dálea P. S.</i>	1545 <i>Amórpha W.</i>	1581 <i>Sesbónia H. K.</i>	1570 <i>Swainsónia H. K.</i>
1574 <i>Glycerhiza W.</i>	1512 <i>Nissólia W.</i>	1524 <i>Piscidia W.</i>	1572 <i>Lessértia H. K.</i>
1575 <i>Liquorítia Mönch.</i>	1567 <i>Mulléria W.</i>	1569 <i>Caragána Royen.</i>	1571 <i>Sutherlándia H. K.</i>
1591 <i>Galéga P. S.</i>			

Subtribe 5. Astragaleæ.

1592 <i>Pháca W.</i>	1593 <i>Oxýtropis Dec.</i>	1594 <i>Astrágalus Dec.</i>	1595 <i>Bisérulla W.</i>
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Tribe 3. HEDYSARÆÆ.

Subtribe 1. Coronilleæ.

1579 <i>Scorpiúrus W.</i>	1576 <i>Coronilla H. K.</i>	1578 <i>Ornithopus W.</i>	1577 <i>Hippocrépis W.</i>
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Subtribe 2. Euhedysarææ.

1587 <i>Zórnia Mich.</i>	1582 <i>Æschynómene H. K.</i>	1588 <i>Hedýsarum W.</i>	1586 <i>Flemíngia Rozb.</i>
1583 <i>Stylosánthes Swz.</i>	1580 <i>Smithia Sal.</i>	1585 <i>Lepedéza Mich.</i>	

Tribe 4. VICIÆÆ.

1564 <i>Cicer W.</i>	1562 <i>E'rvum W.</i>	1560 <i>Pisum W.</i>	1557 <i>O'robús W.</i>
1561 <i>Vicia W.</i>	1563 <i>Ervília Lk.</i>	1558 <i>Láthyrus W.</i>	1559 <i>O'chrus Bauh.</i>

Tribe 5. PHASEOLEÆ.

1643 <i>Róthia W.</i>	1553 <i>Kennédia Vent.</i>	1551 <i>Stizolóbium P. S.</i>	1554 <i>Cylista W.</i>
1546 <i>A'brús W.</i>	1547 <i>Phaseólus W.</i>	1550 <i>Dólichos W.</i>	1521 <i>Erythrina W.</i>
1548 <i>Terámmus Browne</i>	1549 <i>Carpopógon Horb.</i>	1544 <i>Lupinus W.</i>	1522 <i>Bútea W.</i>

1514 Pongámia *Vent.*
1513 Dalbérkia *W.*

Tribe 6. DALBERGIEÆ.
1515 Pterocárpus *W.*
1516 Ecastaphýllum *Rich.*

1520 Amerinnum *W.*

SUBORDER II. of Tribe 7. MIMOSEÆ.

2124 Mimósa *W.*
2123 I'nga *W.*

2125 Schránkia *W.*
2126 Sémánthus *W.*

982 Adenánthra *W.*
984 Prosópis *Roxb.*
2127 Acácia *W.*

SUBORDER III. CÆSALPINEÆ.

Tribe 8. GEOFFREÆ.

1543 A'rachis *W.*

1517 Geoffroýa *W.*

1461 Brównea *W.*

1518 Dipterix *W.*

Tribe 9. CASSIÆ.

2155 Gledítschia *W.*
2094 Gymnocládus *W.*
979 Guilandína *H. K.*
978 Cæsálpinia *H. K.*
977 Poinciána *H. K.*
981 Hoffmanséggia *Cav.*

985 Hæmatóxylo'n *W.*
976 Parkinsónia *W.*
983 Cádiá *W.*
2156 Ceratónia *W.*
867 Jonésia *W.*
1449 Tamaríndus *W.*

974 Cássia *W.*
975 Cathartocárpus *P. S.*
971 Afzéliá *Sm.*
969 Schóifera *W.*
986 Copáifera *W.*
973 Cynométra *W.*

1519 Parivóá *Aubl.*
972 Hymenæ'a *W.*
970 Bauhinia *W.*
968 Cércis *W.*
30 Codárium *Vahl.*

980 Hyperanthéra *W.*

ORDER LX. ROSACEÆ.

With the exception of Chrysobalanææ and Sanguisorbææ, this order is so uniform in its appearance, that Rósa, the type from which all the other genera are to be considered variations, when justly understood, will be found to contain every form of structure which is essential to the order. Having stated this, it will be at once obvious, that if the other genera have such close affinity to Rósa, they must also bear a great analogy in beauty. And this is, indeed, the fact. Amygdalus and Prúnus among trees, and Potentilla, Géum, and others, among herbaceous genera, rival the rose in their blossoms, and, in many particulars, surpass that most lovely of all flowers in foliage and general appearance. But it is not for charms alone of smell, or blossom, or foliage, that this order has fixed itself so high in the estimation of mankind. It has also the rare merit of comprehending all the most important of the fruits of the temperate regions of the world. Thus the apple and the pear belong to Pýrus, the plum and the apricot to Prúnus, the peach and the nectarine to Amygdalus; Eriobótrya produces the loquat, Méspilus the medlar, and finally, the quince is borne by the Cydónia. The medical powers of many plants of this order are not less active than their fruit is excellent. The principal of these is the well-known Prussic acid, which exists in abundance in the leaves and kernels of many genera, especially of Prúnus and Amygdalus: it is the basis of Laurel water, which, when taken in small doses, acts either as a violent purgative or as an emetic; and, in stronger doses, is said to destroy irritability without exciting inflammation; these properties, however, although thus dangerous in the distilled water of the laurel and other similar plants, can scarcely be said to exist in any important quantity in the plants in a state of nature. The kernel of the bitter almond, for example, in which the Prussic acid is more abundant than usual, is used for many culinary and other purposes without any bad effect. There are, however, cases in which it is said to be dangerous to eat the fresh leaves or kernels; as in the Prúnus virginiana, the leaves and fruit of which are reputed in the United States to be poisonous to certain animals. Besides the Prussic acid, there are several other principles which abound in the order. All Drupacææ yield a gum which is nearly allied to gum Arabic, and which affords a strong evidence of the affinity that exists between Rosacææ and Leguminosæ. A great deal of astringency is found in many species, whence different parts have been occasionally employed as febrifuges, and as remedies for hæmorrhage, diarrhæa, and dysentery. The root of the Tormentilla is used for tanning in the Ferro Isles; and that of the Capollim cherry in Mexico. The bark of Prúnus virginiana is used as a febrifuge in the United States; Potentilla réptans has been praised for the same properties. The root of Géum urbanum has been found, by Milandi and Moretti, to contain one eleventh of its weight of tannin; it has been used both in America and Europe as a substitute for Jesuit's bark. The leaves of Drýas octopétala in the north of Europe, of Rúbus árticus in Norway, of Prúnus spinósa and ávium, and of Rósa rubiginósa have been manufactured into a sort of substitute for tea. The bark of the root of Gillénia trifolláta is remarkable in having, in addition to the astringency already mentioned, an emetic property, on which account it is employed in North America as Ipecacuanha. It is said, that a similar power exists in other Spiræas.

It must not be omitted, that the order Rosacææ nearly answers to the Icosandria of Linnæus.

Tribe 1. CHRYSOBALANÆÆ.

1130 Chrysobálanus *W.* 870 Parinárium *Juss.* 499 Hirtélla *W.* 1080 Grangéria *Lam.*

Tribe 2. AMYGDALINEÆ.

1128 Amygdalus *W.* 1129 Prúnus *W.*

Tribe 3. SPIRÆACEÆ.

1156 Kériá *Dec.* 1141 Spiræ'a *W.* 1142 Gillénia *Mönch.*

Tribe 4. NEURADEÆ.

1063 Griélum *W.*

Tribe 5. DRYADEÆ.

1159 Drýas *W.* 1140 Waldsteínia *W.* 1154 Tormentílla *L.* 1101 Agrimónia *W.*
1161 Sievérsia *W.* 1149 Rúbus *W.* 1153 Potentílla *L.* 1152 Comárum *W.*
1155 Géum *W.* 1150 Dalibáarda *Mich.* 710 Sibbáldia *W.*
1160 Colúria *R. Br.* 1151 Fragária *W.*

Tribe 6. SANGUISORBÆÆ.

255 Alchemílla *W.* 1190 Potérium *W.* 68 Ancístrum *L.*
256 Sanguisórbá *W.* 2106 Cliffórtia *W.*

Tribe 7. ROSEÆ.

1148 Rósa *W.*

Tribe 8. POMACEÆ.

1132 Cratæ'gus *L.* 1157 Eriobótrya *Lindl.* 1131 Méspilus *Lindl.*
1136 Raphiolépis *Lindl.* 1139 Cotoneáster *Lindl.* 1133 Pýrus *Sm.*
1135 Photínia *Lindl.* 1138 Amelánchier *Lindl.* 1134 Cydónia *Juss.*

ORDER LXI. SALICARIÆ.

Most of these are very showy plants, in particular the genera *Lýthrum* and *Lagerstrœmia*, which are the representatives of the order. They are chiefly natives of temperate climates, on mountains and among bushes. *Glaux* and *Péplis* are common shore plants in England. *Heimia* is remarkable for its yellow flowers. Little is known of the properties of *Salicariæ*; they are mostly astringent; the common *Salicária* is used in inveterate diarrhœas; a species of *Lýthrum* is used in Mexico as a vulnerary and astringent, and *Lawsónia*, which is used by the Turkish women to stain their nails, is also supposed to possess similar properties. There is a plant of this order called *Hanchinol* in Mexico, which is said to possess much more remarkable powers than any of the preceding; its expressed juice, taken in doses of four ounces, excites violent perspiration and secretion of urine, and is said to cure venereal disorders in an incredibly short space of time.

877 <i>Grislea W.</i>	1094 <i>Lýthrum W.</i>	302 <i>Ammánia W.</i>	898 <i>Lawsónia W.</i>
1097 <i>Cúphea Jacq.</i>	1095 <i>Nesae Kunth.</i>	568 <i>Glaux W.</i>	1031 <i>Acisanthéra J.</i>
1195 <i>Lagerstrœmia W.</i>	1096 <i>Heimia Lk.</i>	836 <i>Péplis W.</i>	

ORDER LXII. MELASTOMACEÆ.

All these are remarkable as handsome tropical shrubs or trees, with large purple or white flowers, and leaves with several costæ, or nerves as they are incorrectly termed. The genera admitted in the body of the work are those received by the greater part of previous writers; they have been much increased, and apparently with great propriety, by Mr. D. Don. The species are generally ill treated in collections, where they are not unfrequently to be found under the form of sickly stunted plants, instead of noble broad-leaved spreading shrubs, with masses of brilliant flowers. To be grown well they require much heat, much moisture during the summer, and much pit-room and head-room. The fruit of true *Melástomas* is a fleshy insipid juicy berry, which is for the most part eatable, and is often so deep a black as to dye the teeth and mouths of those who eat it. They are nearly related to *Myrtaceæ*, from which they differ in the want of essential oil, and of the dot-like reservoirs of the leaves which contain it. The juice of the leaves of *M. succôsa* and *alata* is used as a lotion for recent wounds by the inhabitants of Guiana.

899 <i>Osbéckia W.</i>	1029 <i>Melástoma W.</i>	1075 <i>Blákea W.</i>
900 <i>Rhécia W.</i>	1030 <i>Petalóma W.</i>	

ORDER LXIII. MYRTACEÆ.

Dotted leaves, with marginal ribs, and an inferior ovarium and single style, are the great features of *Myrtaceæ*. They are all fine evergreen shrubs or trees, generally bearing white flowers, and in the first section producing fleshy fruit. It is there that the Allspice, the Clove, the Rose-apple, and the Guava find their station, by the side of the common myrtle and pomegranate of Europe. The section with capsular fruit comprehends, with the exception of the gigantic *Eucalyptuses*, almost wholly, handsome hard-wooded New Holland or South Sea shrubs, with white or crimson flowers and stamens; yellow flowers are very uncommon. The volatile oil contained in the little reservoirs of the bark, the leaves, and the floral envelopes, gives these plants the fragrance which has caused them to be celebrated by poets of all ages. It is very aromatic, a little acrid, and slightly tonic and stimulant, whether it is under the form of *Cajeputi* oil, the produce of *Melaleuca leucadendron*, or of oil of cloves or of myrtle. In the clove this oil is so abundant as to constitute nearly a fifth of the whole weight of the calyxes that produce it. There is also a considerable proportion of astringent principle in these plants; in the bark of the pomegranate it is very obvious; and in *Myrtus régni* and *lúma* of Chile, *Eugénia malaccénsis*, it is so abundant as to render a decoction of those plants of great use in cases of dysentery. *Eucalyptus resinifera* produces an astringent resinous substance resembling gum Kino. The leaves of the Chilian myrtles, *Leptospermum scoparium*, and some other species, have been used as substitutes for tea.

Tribe 1. BACCATÆ.

1193 <i>Alángium J.</i>	1120 <i>Caryophýllus P. S.</i>	1123 <i>Piménta Lindl.</i>	1499 <i>Cáreya Roxb.</i>
1118 <i>Psídium W.</i>	1121 <i>Mýrtus W.</i>	1124 <i>Olynthia Lindl.</i>	1082 <i>Decumária W.</i>
1119 <i>Eugénia W.</i>	1122 <i>Calyptránthes W.</i>	1127 <i>Pónia W.</i>	

Tribe 2. CAPSULARES.

891 <i>Bæ'ckia Sm.</i>	1117 <i>Metrosidéros W.</i>	1611 <i>Tristánia Br.</i>
1115 <i>Leptospermum W.</i>	1126 <i>Eucalyptus W.</i>	1612 <i>Calothámmus Lab.</i>
1116 <i>Fabricia W.</i>	1610 <i>Melaleuca H. K.</i>	1613 <i>Beaufórtia Br.</i>

Tribe 3. LECYTHIDÆ.

1125 <i>Stravádium Juss.</i>	1497 <i>Barringtónia W.</i>	1498 <i>Gustávia W.</i>
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ORDER LXIV. COMBRETACEÆ.

Combrétum and *Quisquális* are among the most splendid of the climbing plants of the tropics, adorning the trees from which they depend with garlands of white and crimson, and yellow. The bark of *Búcia Búceras* is used with success in Guiana for tanning leather. The juice of *Terminália vérmix* is employed by the Chinese as a varnish; it is, however, caustic, and its exhalation dangerous; benzoin is the produce of *Terminália Benzóin*. The kernel of several species is eaten as a nut, and the expressed oil has the remarkable quality of not becoming rancid.

544 <i>Conocárcus W.</i>	1027 <i>Getónia Roxb.</i>	2140 <i>Terminália W.</i>
916 <i>Combrétum W.</i>	1028 <i>Quisquális W.</i>	

ORDER LXV. PASSIFLOREÆ.

The beauty of *Passifóras* is well known; they are remarkable for the singular arrangement of the stamens and pistillum, upon a column surrounded by several lines of circumvallation, formed by as many rows of barren thread-like colored stamens, which are popularly called the rays. The fruit of several species of passion-flower is filled with a pleasant acidulated pulp, on which account they are eaten as dessert fruit. It is not known that they possess any medical properties. The station of the order is not settled; it is undoubtedly very near *Cucurbitaceæ*.

1459 <i>Passifóra W.</i>	2075 <i>Modécca Lam.</i>
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ORDER LXVI. CUCURBITACEÆ.

Here is the station of the gourd, the melon, and the cucumber, succulent climbing vegetables, the fruit of which administers to us many of our comforts and necessities. The importance of the gourd in hot countries is of the highest degree, where, from the nature of the climate, few of those culinary vegetables that are so abundant in the north can be made to succeed. Among these tribes of climbing annuals, the papaw tree is in remarkable deviation from the ordinary character of the vegetation. Its fruit, however, and flowers are in all respects those of *Cucurbitaceæ*. The fruit is mostly sweet, watery, refreshing, and pleasant to the palate; but the *coloquintida* gourd, the spiring cucumber, and the *Trichosánthes amára*, are all possessed of violent bitter, drastic, purgative qualities, which are, indeed, to be found, in a slight degree, even in the mildest of the eatable gourds. M. Decandolle observes, that as the violent action of the *Colocynth* resin is much softened by the mixture with it of gum, it is probable that the difference in the fruit of the order depends upon the different proportions between these two substances. The seeds of the gourd, like those of the

passion-flower, possess none of the properties of the pulp; they are sweet and nutty, and readily form an emulsion. The roots of the bryony are purgative, but also contain a wholesome fecula. It is said that the roots of a species of bryony are eaten in Abyssinia, after being merely boiled. There are some Cucurbitaceæ, the roots of which are intensely bitter; those of one of this description are used in Peru, to remove the pains attendant upon inveterate venereal disorders.

551 Gronóvia <i>W.</i>	2019 Trichosánthes <i>W.</i>	2022 Cúcumis <i>W.</i>	2024 Bryónia <i>W.</i>
1940 Angória <i>W.</i>	2020 Momórdica <i>W.</i>	2023 Sicyos <i>W.</i>	2095 Cárica <i>W.</i>
1976 Lúffa <i>Cav.</i>	2021 Cucúrbita <i>W.</i>		

ORDER LXVII. LOASEÆ.

Nothing is known of the qualities of this order. It consists of succulent cut-leaved plants, generally covered with asperities or rigid stinging hairs, and yellow or white flowers. They are all natives of America, and handsome annuals. A very few of them are climbers.

1113 Bartónia <i>Ph.</i>	1194 Mentzélia <i>W.</i>	1619 Loása <i>L.</i>
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ORDER LXVIII. HALORAGÆÆ.

Obscure weeds, chiefly distinguished from Onagrariæ, by their naked and solitary ovula. They are natives of moist places or ponds, in various parts of Europe and North America. Some of the species of Halorágis are tropical. They are not known to possess any medicinal properties.

23 Hippúris <i>W.</i>	932 Halorágis <i>W.</i>	1987 Myriophýllum <i>W.</i>	309 Ludwígia <i>W.</i>
27 Callitriche <i>W.</i>	1968 Sarpicula <i>W.</i>	258 Isnárda <i>W.</i>	

ORDER LXIX. ONAGRARIÆ.

A very well defined order, generally known by its pollen cohering, by a sort of filamentous substance, an inferior polyspermous ovarium, a tetrapetalous tetrapetalous flower, with a definite number of stamens, and a single style. From this form there are some anomalous variations, such as *Circæa* and *Lopézia*, which are, however, easily reconciled to the usual structure of the order. Most of the genera are pre-eminently beautiful; as *Epilóbium*, *Enothéra*, and *Fúchia*, which are old favorites among gardeners. The properties of Onagrariæ are little known, and probably very weak. The leaves of *Jussiaea peruviana* are used as an emollient poultice, the seed of *Trápa nátnas* as an eatable nut, and the root of *Enothéra biennis* as a sort of salad.

71 <i>Circæa W.</i>	903 <i>Epilóbium W.</i>	1026 <i>Jussiaea W.</i>
18 <i>Lopézia Cav.</i>	904 <i>Fúchia W.</i>	901 <i>Enothéra W.</i>
902 <i>Gaura W.</i>	308 <i>Trápa W.</i>	2064 <i>Montinia W.</i>

ORDER LXX. FICOIDEÆ.

These are all plants with a greater or less degree of succulence; the *Mesembryanthemums* and *Hymenogyne* are well-known dry-stove plants, many of which are beautiful in the highest degree. Of the former of these two, the flowers are of all colors, many of the most vivid hues, and remarkable for expanding only beneath bright sunshine; this phenomenon, indeed, is common to the whole order. *Tetragónia expansa*, *Sesóvium portulacástrum*, and *Mesembryanthemum edèle*, are excellent substitutes for summer spinach. A large quantity of saline matter is contained in all of them; in *Reaumúria vermiculata*, a substance is secreted, which has been found by chemical analysis to consist of muriate of soda and nitrate of potash. The whole order grows in very dry or saline places, in the temperate regions of the world. Four fifths of the whole are natives of the Cape of Good Hope. The leaves of the different species of *Mesembryanthemum*, offer the most remarkable instances of figure known in the vegetable world.

1090 <i>Nitrária W.</i>	1143 <i>Sesóvium W.</i>	1145 <i>Tetragónia W.</i>	1147 <i>Hymenogyne Haw.</i>
1107 <i>Glinus W.</i>	1144 <i>Aizóon W.</i>	1146 <i>Mesembryanthemum L.</i>	1210 <i>Reaumúria W.</i>

ORDER LXXI. PORTULACÆÆ.

With the exception of *Turnéra*, *Támarix*, *Talinum*, and a few species of *Claytónia*, the whole of this order consists of insignificant weedy plants, of no beauty, and little use. *Claytónia perfoliata* and common purslane, which are occasionally used as salads, being the only species of a useful kind. They are chiefly herbaceous plants, frequenting dry barren situations, or the sea-shore of all parts of the world; all are insipid and inodorous, and destitute, as far as is known, of medicinal properties. Some of the kinds of *Támarix* have an astringent tonic bark, and yield, when burnt, a large proportion of sulphate of soda. *Turnéra* resembles a *Cistus*.

224 <i>Móntia W.</i>	1092 <i>Talinum Haw.</i>	871 <i>Línum W.</i>	690 <i>Corrigíola W.</i>
537 <i>Claytónia W.</i>	1093 <i>Anacampséros L.</i>	692 <i>Portulacária W.</i>	686 <i>Turnéra W.</i>
689 <i>Telophium W.</i>	1036 <i>Triánthema W.</i>	1037 <i>Scleránthus W.</i>	685 <i>Támarix W.</i>
1091 <i>Portulaca W.</i>			

ORDER LXXII. CACTI.

All succulent plants destitute for the most part of leaves, the place of which is supplied by fleshy stems of the most grotesque figure; some angular, and attaining the height of thirty feet, others roundish, covered with stiff spines, like the hedgehog, and not exceeding the stature of a few inches. Their flowers are in many cases large and remarkably specious, varying from pure white to rich scarlet and purple, through all the intermediate gradations of colors. The species are chiefly natives of the hottest and driest parts of the tropics, and are cultivable with little care, in pots filled with rubbish, in a dry-stove. Their fruit is fleshy and watery, and generally insipid, but it is eaten in their native countries for the sake of its refreshing moisture and coolness. Two species of *Opúntia* are hardy in Great Britain. The characters of this order and the next are very similar, although their habit is so widely different. Cacti are sometimes called *Nopaleæ*.

1111 <i>Cáctus W.</i>	1112 <i>Rhípsalis Gert.</i>
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ORDER LXXIII. GROSSULACÆÆ.

Distinguished from the last by the definite number of their stamens and woody leafy stems. The utility and excellence of the gooseberry and currant are known to every one. None of the other species equal these, although the fruit of several possesses considerable excellence. The berry of most of these is sweet, watery, and acid, but that of *Ribes nigrum*, and a few more, is tonic and stimulant, which appears to have some connection with the presence of glands upon the leaves of those species.

550 <i>Ribes W.</i>

ORDER LXXIV. SEMPERVIVÆÆ.

Still another order of succulent plants, but with a habit very different from that of those which have gone before. The species are often characterised by the rosulate or densely imbricated arrangement of their leaves, but this is not by any means a universal character. They are natives, for the most part, of dry barren places in Europe, North Africa, and the Cape of Good Hope, and are cultivable with ease in pots of dry rubbish. Many of them have extremely beautiful flowers, especially those of the genera *Sempervivum* and *Crássula*, which are either white, yellow, or deep rose color. Their leaves are used medicinally as refrigerant and abstergent; they are also, in a slight degree, astringent, and in *Sédum acre* so acrid, that, taken internally,

they operate violently both as purgatives and emetics. The leaves of *Sédum téléphium* are occasionally eaten as a vegetable, but they are always found to leave behind a slight and unpleasant taste of burning.

1061 <i>Sédum W.</i>	927 <i>Vérea W.</i>	874 <i>Séptas W.</i>	699 <i>Crássula W.</i>
1110 <i>Sempervivum W.</i>	698 <i>Róchea Dec.</i>	1062 <i>Penthórum W.</i>	320 <i>Tillá'a W.</i>
1060 <i>Cotylédón W.</i>	928 <i>Bryophýllum Sal.</i>		

ORDER LXXV. SAXIFRAGÆ.

The whole of these plants constitute the glory and delight of the cultivator of alpine plants. This is to be attributed to the neatness and perpetual verdure of their leaves, and the exquisite simplicity and elegance of their flowers, rather than to any striking attractions, of which they are wholly destitute: their blossoms being generally white or pale pink, occasionally becoming brownish-purple. All the genuine species are humble herbaceous plants, affecting mountainous situations, but occasionally found in marshes by the sides of springs, and even upon dry walls. All are natives of cold regions, or of the most temperate mountainous situations of hot ones. They are slightly astringent; some of them, as *Heuchéra americana*, eminently so. Infusions of the leaves have been reckoned lithontriptic, and the powdered root of the last-named plant is used with success in cancerous disorders. *Hydránga*, which is shrubby, is not a legitimate inhabitant of the order.

1041 <i>Saxifraga W.</i>	1043 <i>Mitella W.</i>	930 <i>Adóxa W.</i>	1040 <i>Chrysosplénium W.</i>
1042 <i>Tiarélla W.</i>	606 <i>Heuchéra W.</i>	361 <i>Gálex W.</i>	1039 <i>Hydránga W.</i>

ORDER LXXVI. PHILADELPHÆÆ.

This consists at present of a single genus, which was formerly referred to *Myrtacæ*, but which has lately been separated with much acuteness by Mr. Don. The species are hardy ornamental shrubs, natives of North America, with white flowers; in some cases fragrant. Nothing is known of their properties.

1114 *Philadélphus W.*

ORDER LXXVII. CUNONIACÆÆ.

These were formerly included in *Saxifragæ*, from which Mr. Brown first distinguished them. They are shrubs of the southern hemisphere, mostly with pinnated leaves and white flowers. *Callicoma* and *Bauéra*, which have simple leaves, are elegant green-house shrubs. The bark of a species of *Weinmánnia* is employed in Peru for tanning leather, and is said to be also used for adulterating the quinquina. Nothing is known of the properties of the remainder.

1038 <i>Cunónia W.</i>	1099 <i>Callicoma B. R.</i>	1199 <i>Bauéra H. K.</i>	919 <i>Weinmánnia L.</i>
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ORDER LXXVIII. ARALIACÆÆ.

Araliacæ are a slight divergence from the well-known *Umbellifera*, with which they nearly agree in habit, except in being frutescent, and from which they are obviously distinguished by their 5-celled fruit. Their flowers have no beauty, but the foliage of many is extremely fine, especially of the species of *Actinophýllum*; that of our common ivy must not be omitted. Their medicinal properties are much the same as those of *Umbellifera*, except the fruit, which differs in virtues as it does in botanical structure. Their bark exudes an aromatic gum resin, as in *Arália umbellifera*. Their roots are tonic, with, in some cases, the flavor of parsnep. The famous ginseng, which is produced by a *Pánax*, is reputed to have powerful tonic, restorative, and even aphrodisiacal qualities; but it is probable that these have been greatly exaggerated.

607 <i>Cussónia L.</i>	697 <i>Actinophýllum R. & P.</i>	1109 <i>Gastónia Juss.</i>
696 <i>Arália W.</i>	549 <i>Hédera W.</i>	2166 <i>Pánax W.</i>

ORDER LXXIX. UMBELLIFERÆ.

One of the least attractive groups of plants, and at the same time one of the most important to the world. They are not more useful as food than they are dangerous as poison; while in their native ditches they are often suspicious lurid weeds, but under the influence of cultivation they lay aside their venom, and become wholesome food for man. They are generally recognised by their hollow stems and cut leaves, with what botanists call a sheathing petiole; that is to say, with a petiole, the base of which wraps round the stem. Their flowers are mostly white or greenish, rarely, as in *Astrántia*, some species of *Caúcalis*, and others, of a pink color. The inflorescence is umbellate, and their fruit consists of two ribbed portions, improperly called seeds, which are held together by a common axis, and a thickened discus. All are natives of damp ditches or way-sides, in cool parts of the world; in the tropics they are either extremely rare or wholly unknown, and when present, have generally a character unlike that of our European species. The simplicity of their structure, and uniformity of their appearance, has rendered their classification a matter of very great difficulty. It has been attempted in modern days by Lagasca, Sprengel, and Koch, all of whom have added something to our knowledge; but much still remains to be done. The arrangement of Professor Sprengel, objectionable as it is many points, is here adopted as the most perfect, upon the whole, of any yet published. The culinary and agricultural importance of many species is well known; the parsnep and carrot form a large part of the staple winter store of the inhabitants of Europe, as the *Arraæchas* do of those of South America; and the *Prangos* of Thibet is supposed to be the most important and productive of any in the whole world, as a forage plant. The medicinal properties of *Umbellifera* are not more powerful than they are at variance with each other. While the seeds of some are aromatic, and stimulating in the highest degree, the fresh roots and leaves of others are not less narcotic. This has been supposed to arise from the difference in the state of the sap in different parts of the plant; and it has been thought that the narcotic principle is only to be found in the ascending sap, while the aromatic stimulant properties are found in the juices, which are fully elaborated and matured. It has been already observed, that their dangerous properties are often removed by cultivation; the common celery is a familiar instance of this; but the most remarkable, that of *Cenánthe pimpinelloides*, a most dangerous species when wild, which is cultivated about Angers for the sake of its roots, which are there called *Jouanettes*, and about Saumur, where they are known by the name of *Méchons*. The roots of some *Umbellifera* contain a large proportion of sugar; those of the carrot, when dried, more than an eighth; those of the parsnep just an eighth; and those of the chervil about eight parts in 100. *Galbanum*, *Opopanax*, and *Assafætida*, are all the produce of different species of *Umbellifera*.

Tribe 1. DESCISCENTES.

2165 <i>Arctópús W.</i>	622 <i>Eryngium W.</i>	644 <i>Actinóctus Lab.</i>	637 <i>Dóndia Spreng.</i>
548 <i>Lagóciá W.</i>	624 <i>Echinóphora W.</i>	623 <i>Sanícula W.</i>	674 <i>Astrántia W.</i>

Tribe 2. HYDROCOTYLINÆ.

658 <i>Hydrocótyle W.</i>	659 <i>Spanánthe Jacq.</i>
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Tribe 3. BUPLEURINÆ.

657 <i>Bupleiúrum W.</i>	2147 <i>Hérmas W.</i>
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Tribe 4. PIMPINELLEÆ.

635 <i>Pimpinélla W.</i>	647 <i>Sison W.</i>	656 <i>Cnidium Cuss.</i>	651 <i>A'pium W.</i>
629 <i>Ledeburía Lk.</i>	652 <i>Ægopódiúm W.</i>	632 <i>Cenánthe W.</i>	653 <i>Méum Jacq.</i>
642 <i>Séseli W.</i>	655 <i>Cárum W.</i>	636 <i>Phellándriúm W.</i>	

Tribe 5. SMYRNIÆ.

650 Smýrnum <i>W.</i>	677 Cáchrys <i>W.</i>	648 Cícúta <i>W.</i>	666 Hasselquistia <i>W.</i>
633 Crithmum <i>W.</i>	678 Hippomárathrum <i>Lk.</i>	661 Æthúsa <i>W.</i>	673 Toróflum <i>W.</i>
660 Ulospérmum <i>Lk.</i>	618 Coriándrum <i>W.</i>		

Tribe 6. CAUCALINÆ.

626 Caúcalis <i>W.</i>	628 Olivéria <i>Vent.</i>	640 Bábon <i>W.</i>
625 Daúcus <i>W.</i>	634 Athamánta <i>W.</i>	631 Bánium <i>W.</i>
627 Tórilis <i>Gært.</i>	638 Trachyspérmum <i>Lk.</i>	676 Rúmia <i>Haffm.</i>

Tribe 7. SCANDICINÆ.

619 Scándix <i>P. S.</i>	630 Mýrrhis <i>P. S.</i>	621 Chærophýllum <i>P. S.</i>	620 Anthriscus <i>P. S.</i>
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Tribe 8. AMMINÆ.

639 A'mmi <i>W.</i>	646 Sium <i>W.</i>	665 Ligústicum <i>W.</i>
641 Cúminum.	649 Cónium <i>W.</i>	645 Trinia <i>Haffm.</i>

Tribe 9. SELINÆ.

663 Selinum <i>W.</i>	675 Zosímia <i>Haffm.</i>	664 Angélica <i>W.</i>	669 Laserpitium <i>W.</i>
670 Peucedanum <i>W.</i>	671 Pastináca <i>W.</i>	662 Imperatória <i>W.</i>	667 Artéidia <i>W.</i>
672 Heracleum <i>W.</i>	668 Férulea <i>W.</i>	643 Thápsia <i>W.</i>	654 Anéthum <i>W.</i>

ORDER LXXX. RHIZOPHOREÆ.

The mangroves are plants of arborescent stature, which are remarkable, in tropical countries, for growing upon the shores of the sea, even as far as low water. The seeds have the singular property of germinating, while enclosed within the capsule, and adhering to their parent, and pushing forth a long thread-like radicle, which lengthens till it reaches the soil, where it takes root, and forms a new individual. The bark of *Rhizophora gymnorhiza*, which is very astringent, is used in India for dying black.

1078 *Rhizophora W.*

ORDER LXXXI. HAMAMELIDEÆ.

Hardy American deciduous shrubs, with the appearance of Amentaceæ, to which they are undoubtedly closely allied notwithstanding their situation here, which must be considered quite artificial. Nothing is known of their medicinal qualities.

1200 *Fothergilla W.*

312 *Hamamelis W.*

ORDER LXXXII. CAPRIFOLIACEÆ.

This is an eminently beautiful order, consisting either of twining or erect shrubs with clusters of trumpet-shaped fragrant flowers, or of fine bushes having cymes of white blossoms. The honeysuckle is the representative of the former, the dogwood of the latter. Here too is found the modest and delicate *Linnaea*, which, however inferior its attractions for the vulgar eye may be to those of its more ostentatious neighbours, yields to none of them in elegance or interest for the botanist. All the genera have a more or less astringent bark; that of *Lonicera corymbosa* is used in Chile for dying black; that of *Cornus florida* in North America in intermittent fevers, as is also the bark of *Cornus sericea*, which, according to Barton, is scarcely inferior to Quinquina. The *Elicers* are the link between honeysuckles and umbelliferous plants, to the latter of which they are allied by their stinking divided foliage and half herbaceous habit; their flowers are sudorific and soporific in a high degree, their leaves and inner bark are emetics and drastic purgatives. *Triosteum perfoliatum* is intermediate between this order and Rubiaceæ, with the former of which it agrees in its purgative, and with the latter in its emetic, qualities, which resemble those of ipecacuanha. All *Caprifoliaceæ* love shady cool places in both hemispheres; but few have been found in such as endure a very severe climate.

474 *Caprifolium R. S.*

477 *Diervilla J.*

306 *Cornus W.*

475 *Lonicera R. S.*

478 *Triosteum W.*

679 *Viburnum W.*

476 *Symphoria P. B.*

292 *Linnaea W.*

680 *Sanbucus W.*

ORDER LXXXIII. LORANTHEÆ.

None of these are cultivable; they are all genuine parasites rooting beneath the bark of the trees on which they grow, and deriving from their juices the whole of their nutriment. The *Viscum* have little or no beauty, but the *Loranthi* are among the most lovely of plants, hanging in clusters of rich scarlet flowers from the branches of trees in the tropics, which they often clothe with a beauty not their own. The mistletoe of the Druids is supposed to have been the *Loranthus europæus*, the common *Viscum* never being seen upon the oak, while the *Loranthus* inhabits no other tree. If this be so, the latter must have once existed in this kingdom although now extinct. It has been suggested, that all vestiges of their religion were extirpated with the Druids, which will account for the *Loranthus* having disappeared wherever that religion formerly held its sway.

2054 *Viscum W.*

ORDER LXXXIV. RUBIACEÆ.

Opposite entire leaves with intervening stipule, a monopetalous superior corolla, with a definite number of stamens and a bicocular ovary, are the great characteristics of Rubiaceæ; an order of such extent that it embraces a very large proportion of the whole of phænogamous plants, including within its limits humble weeds and lofty trees, plants with important medicinal qualities and flowers of varied dyes, and herbs of neither value nor beauty as far as has yet been ascertained. The sections into which the order has been divided are merely artificial, with the exception of *Stellatæ*, which are the representatives of the order in northern regions. Among these the *Rúbia*, or madder, is the most important on account of its dye; *Galium* also possesses some qualities of minor consequence, which have been already indicated in the body of this work. Among the other sections, the plants of beauty or value are innumerable: of the former description, the genera *Ikóra*, *Bouvárdia*, *Catesbæa*, *Portlândia*, *Coutárea*, *Gardénia*, *Mussaénda*, *Haméllia*, *Cephalis*, *Cephalanthus*, and many others, are notable examples; to the latter, every genus has a contribution of one kind or another. The root of *Oldenlándia umbelláta* is employed in India for staining nankin; that of *Morinda umbelláta* in the Moluccas, and of *Morinda citrifolia* in India, is used for dying red and brown. The potent febrifugal properties of the *Cinchóna* need not be insisted on; it is less generally known that the bark of *Pinckneya pöbens*, *Macrocénium corymbösom*, *Guettárdia coccinea*, and *Portlândia grandiflóra*, possesses similar, but weaker powers. The bark and roots of *Antirhóia* are used, in the Isle of Bourbon, to stop hæmorrhage; and that of *Morinda Róyoc* is used for ink. Astringent properties of a very marked character are found in the juice of *Naúclea Gámbir* of Hunter, and the *Uncária Gámbir* of Roxburgh, both which are often improperly confounded with Gum kino, which is the produce of a very different plant. Some of the species formerly comprehended under the genus *Cinchóna*, but since separated by the name of *Exostemma*, possess strong emetic powers. The same qualities exist in *Psychótia emética*, *Cephalis*, *Ipecacuanha*,

and *Psychotria herbacea*, which are often used as *ipecacuanha*. The seed of the *Coffea* furnishes the valuable beverage which is so much esteemed in Europe and the East, under the name of coffee.

SECTION I. *STELLATÆ*.

266 <i>Gáium W.</i>	268 <i>Aspérula W.</i>	271 <i>Crucianélla W.</i>	617 <i>Phýllis W.</i>
267 <i>Rúbia W.</i>	269 <i>Sherárdia W.</i>	2136 <i>Valántia W.</i>	

SECTION II.

270 <i>Spermacóce W.</i>	290 <i>Pavétta W.</i>	479 <i>Coffea W.</i>	483 <i>Psychotria W.</i>
285 <i>Chomélia W.</i>	291 <i>Ernódea Swz.</i>	480 <i>Chiocócea W.</i>	490 <i>Rándia P. S.</i>
288 <i>Ixóra W.</i>	294 <i>Mitchélla W.</i>	482 <i>Cánthium Pers.</i>	495 <i>Plocama W.</i>
292 <i>Siderodéndrum W.</i>	439 <i>Pædéria W.</i>	494 <i>Webéra W.</i>	833 <i>Richárdia L.</i>

SECTION III.

287 <i>Bouvárdia H. K.</i>	456 <i>Dentélla W.</i>	485 <i>Posoquéria Aubl.</i>	489 <i>Oxyánthus Dec.</i>
261 <i>Houstónia W.</i>	457 <i>Macrocénémum W.</i>	488 <i>Exostémma Rich.</i>	490 <i>Rándia P. S.</i>
293 <i>Coccocýpsillum W.</i>	460 <i>Rondelétia W.</i>	462 <i>Portlándia W.</i>	491 <i>Mussænda Mich.</i>
295 <i>Oldenlándia W.</i>	455 <i>Spermadictyon Roxb.</i>	461 <i>Coutaría Aubl.</i>	492 <i>Pincknéya Mich.</i>
296 <i>Manéttia W.</i>	832 <i>Hillia W.</i>	487 <i>Gardénia P. S.</i>	481 <i>Serissa W.</i>
406 <i>Ophiorhiza L.</i>	289 <i>Catesbæa L.</i>	488 <i>Genipa P. S.</i>	

SECTION IV.

493 <i>Erithalis W.</i>	486 <i>Vanguiéira W.</i>	1981 <i>Guettárda W.</i>
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SECTION V.

484 *Haméllia W.*

SECTION VI.

497 <i>Cephaélis W.</i>	498 <i>Sarcocéphalus Afz.</i>	286 <i>Adína Sal.</i>	459 <i>Burchéllia R. Br.</i>
496 <i>Morinda W.</i>	521 <i>Naúclea W.</i>	275 <i>Cephalánthus W.</i>	2060 <i>Anthospérmum W.</i>

ORDER LXXXV. *OPERCULARINEÆ*.

Exotic weeds, nearly related to *Rubiaceæ*. Their properties are unknown. M de Jussieu has remarked that their affinity to *Valerianææ* is supported by the curious circumstance, that birds devour the young shoots of the *Opercularias* as they do those of the *Corn-salads*.

250 <i>Operculária W.</i>	251 <i>Cryptospérmum P. S.</i>
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ORDER LXXXVI. *VALERIANEÆ*.

Small herbaceous plants, more interesting for the sake of their symmetry and neatness, than on account of any particular attractions: they may be considered a connecting link between *Rubiaceæ* and *Dipsaceæ*. Many of the *Valerians*, and all the *Patrinias*, are pretty plants. The *Valerianéllas* are useful esculents, known under the name of *corn-salads*. Their medicinal properties are of a decisive character. The roots of *Valeriána officinális*, *Phi*, and others, are bitter, tonic, aromatic, antispasmodic, and vermifugal; they are occasionally used as febrifuges. The odour of *Valerian* is not generally agreeable, but the *Orientalis* collect with care, on the mountains of Austria, the roots of *Valeriána céltica*, with which they perfume their baths; and the natives of India, at this day, employ the *Valeriána jatamánsi*, the spikenard of old times, as a perfume, and against hysterics and epilepsy.

20 <i>Centránthus Mich.</i>	78 <i>Valeriána W.</i>	80 <i>Valerianélla Dec.</i>
72 <i>Fédia Dec.</i>	79 <i>Patrinia W.</i>	

ORDER LXXXVII. *DIPSACEÆ*.

Very nearly akin to *Compositæ*, of which they have nearly the habit. All are herbaceous plants with flowers growing in heads. Some of the *Scabiósas* are very handsome, and popular border flowers. The whole tribe is cultivated with great facility. Some of the species of *Scabiósa* have been employed as diaphoretic and antisyphilitic, but are now neglected.

70 <i>Morína W.</i>	263 <i>Cephalária Schr.</i>	265 <i>Knaútia W.</i>
262 <i>Dipsacus W.</i>	264 <i>Scabiósa W.</i>	

ORDER LXXXVIII. *CALYCEREÆ*.

Obscure weedy South American plants, differing from *Compositæ*, chiefly in the position of their ovula.
1842 *Acicárpa Juss.*

ORDER LXXXIX. *COMPOSITEÆ*.

A most extensive and natural order, obviously characterized by the cohesion of their antheræ, and the arrangement of their florets in involucreted heads, or calathidia, as they are now called. Most of them may be said to be ornamental plants, and yet but a very few hold that station in the opinion of the public. It is difficult to account for this circumstance, nor is this the place to enter upon such an investigation; certain, however, it is, that with the exception of *Dáhlia*, the varieties of *Chrysánthemum sinéne*, and a few *Caléndulas* and *Arctóises*, and perhaps *Tagétes*, scarcely a single *Composita* now finds a place in a fashionable flower garden. The prevailing color of the flower in the order is yellow; red, purple, or scarlet, being comparatively uncommon. The species inhabit every part of the world, and in all, perhaps, in nearly equal proportions:—in Europe and the north of the world they are chiefly herbaceous; but within the tropics, they are more frequently frutescent. Their medical properties are very important; *Tussilágo fárfara*, *Chamomile*, *Inula*, *Solidágo Virgáurea*, *Matricária Parthénium*, *Stévia febrífuga*, and *Eupatórium perfoliatum*, are instances of the presence of tonic and febrifugal properties; *Tanacétum* and *Santolina* are anthelmintic; *Matricária* and the *Achillææ emmenagogue*; some *Eupatóriums*, *Achillææ*, *Artemisias*, and *Caléndulas*, are sudorific; certain *Liátrises* are diuretic, and *Erigeron philadélficum* is both sudorific and diuretic. *Prármica* and *A'mrica* are sternutatory, and *Spilánthes*, *Siegesbécia orientális*, *Arthemis pyrétrum*, and others, powerfully excite salivation; finally, many *Achillææ*, *Chamomile*, *Tanacétum*, and *Eupatóriums*, are tonic and antispasmodic. Others seem to possess all these properties combined, and are reckoned among the best alexiterics, as the *Ayapana* of Brazil, and the *Guaco* of Peru. Every one knows the excellent and refreshing flavor communicated to vinegar by *Tarragon*: the same effects are produced in the Alps by *Achillæa nána*, *Artemisia glaciális*, *rupéstris*, and *spicáta*. Some species of *Achillæa*, *Béllis*, and *Artemisia* have been used as substitutes for tea. The seeds of many *Compositæ*, as *Mádia* and *Verbesina*, yield a copious oil; and the fleshy roots of *Heliánthus tuberósus*, a wholesome food for man. The juice of *Lactúca vírosa* is highly narcotic, and has been even employed with extraordinary advantage as a substitute for opium. It is not necessary to mention the utility of the leaves of the lettuce, the endive, the cardoon, or the roots of *Scorzónera* and *Salsafis*, as culinary productions; they must be familiar to all our readers; as also the fleshy receptacle of the artichoke and some other plants. The flowers of *Echinops strigósus* are used as a kind of tinder; those

of the artichoke, the cardoon, and others, have the power of curdling milk. The arrangement of *Compositæ* is attended with extreme difficulty; the greatest progress that has yet been made in reducing them to order has been with M. Cassini, by whom they are called *Synanthereæ*; but unfortunately, the remarks of that learned botanist are so scattered and unconnected, that the public has hitherto been able to derive little benefit from his labors. His general arrangement is here adopted, but for the reasons now given, his genera have not been enquired after, as, until they shall have been more completely systematized, the adoption of them would necessarily be full of errors, which would only add to the confusion that already too extensively exists. Those who wish to make themselves masters of this very interesting and difficult branch of systematic botany, should consult the *Opuscules phytologiques* of M. Cassini, and Mr. Brown's elaborate essay on the structure of *Compositæ*, in the *Transactions of the Linnean Society*.

SUBORDER I. *INULEÆ*.

1767 <i>Relhánia W.</i>	1848 <i>Cassínia H. K.</i>	1747 <i>Podolópis H. K.</i>	1844 <i>Cedéra W.</i>
1765 <i>Leyséra W.</i>	1681 <i>Ammóidium R. Br.</i>	1725 <i>Antennária R. Br.</i>	1723 <i>Leontopódium R. Br.</i>
1764 <i>Longchámpsia W.</i>	1713 <i>Ixódia H. K.</i>	1726 <i>Metalásia R. Br.</i>	1728 <i>Athrixia Ker.</i>
1722 <i>Gnaphálium W.</i>	1727 <i>Astélna R. Br.</i>	1846 <i>Stœrbe W.</i>	1730 <i>Elichrýsum W.</i>

Tribe 1. *ARCHETYPÆ*.

1838 <i>Filágo L.</i>	1734 <i>Conýza W.</i>	1731 <i>Carpésium W.</i>
1724 <i>E'vax Lam.</i>	1744 <i>Ínula W.</i>	1785 <i>Columéllia Jac.</i>
1839 <i>Micrópus W.</i>	1745 <i>Pulicária Gært.</i>	1710 <i>Neurolaena R. Br.</i>

Tribe 2. *BUPHTHALMEÆ*.

1797 <i>Buphthálmum W.</i>	1849 <i>Sphæránthus W.</i>
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SUBORDER II. *LACTUCEÆ*.Tribe 3. *PROTOTYPEÆ*.

1659 <i>Scólymus W.</i>	1626 <i>Picridium P. S.</i>	1628 <i>Lactúca W.</i>
1623 <i>Arnopógon W.</i>	1627 <i>Sónchus W.</i>	

Tribe 4. *CREPIDÆÆ*.

1639 <i>Helminthia J.</i>	1653 <i>Rhagadiolus W.</i>	1652 <i>Zacíntha W.</i>	1638 <i>Crépis W.</i>
1634 <i>Picris W.</i>	1629 <i>Chondrilla W.</i>	1637 <i>Borkháusia Dec.</i>	1640 <i>Myóseris Lk.</i>
1651 <i>Lapsána W.</i>	1632 <i>Apárgia W.</i>	1636 <i>Lagóseris Lk.</i>	

Tribe 5. *HIERACIÆÆ*.

1630 <i>Prenánthes W.</i>	1641 <i>Tólpis W.</i>	1649 <i>Soldevilla Lag.</i>	1643 <i>Róthia W.</i>
1635 <i>Hierácium L.</i>	1644 <i>Krigia W.</i>	1654 <i>Moscária Fl. per.</i>	1642 <i>Andrýala W.</i>

Tribe 6. *SCORZONEREÆ*.

1647 <i>Robértia Rich.</i>	1621 <i>Tragopógon W.</i>	1625 <i>Scorzona'ra W.</i>	1655 <i>Catanánche W.</i>
1648 <i>Seriola W.</i>	1633 <i>Thrinacia W.</i>	1622 <i>Tróximón Gært.</i>	1657 <i>Cichórium W.</i>
1650 <i>Hypochar'ris W.</i>	1631 <i>Leóntodon W.</i>	1645 <i>Hyóseris W.</i>	
1620 <i>Geropógon W.</i>	1624 <i>Podospérmum Dec.</i>	1646 <i>Hedýpnois W.</i>	

SUBORDER III. *ADENOSTYLEÆ*.1678 *Palafóxia Lag.*SUBORDER IV. *EUPATORIÆÆ*.Tribe 7. *AGERATEÆÆ*.

1689 <i>Stévia W.</i>	1688 <i>Cælestína Cass.</i>	1704 <i>Piquéria W.</i>
1687 <i>Agératum W.</i>	1700 <i>Lavénia W.</i>	

Tribe 8. *ARCHETYPÆ*.

1683 <i>Mikánia W.</i>	1685 <i>Eupatórium W.</i>
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Tribe 9. *LIATRIDEÆ*.1682 *Liátris W.*SUBORDER V. *AMBROSIEÆ*.Tribe 10. *IVEÆ*.1841 *I'va W.*Tribe 11. *ARCHETYPÆ*.

1974 <i>Xánthium</i>	1977 <i>Ambrósia</i>
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SUBORDER VI. *ANTHEMIDEÆ*.Tribe 12. *CHRYSANTHEMEÆ*.

1721 <i>Artemísia W.</i>	1774 <i>Cénia J.</i>	1719 <i>Pentzia Th.</i>	1769 <i>Chrysánthemum W.</i>
1711 <i>Húmea Sm.</i>	1775 <i>Cótula W.</i>	1720 <i>Tanacétum W.</i>	1771 <i>Matricária W.</i>
1835 <i>Sóliva Fl. per.</i>	1718 <i>Balsamita W.</i>	1770 <i>Pyréthrum W.</i>	1773 <i>Lidbéckia W.</i>
1834 <i>Híppia W.</i>	1776 <i>Gránga W.</i>	1788 <i>Chrysanthéllum P. S.</i>	

Tribe 13. *SANTOLINEÆ*.

1717 <i>Athanásia W.</i>	1777 <i>Anacýclus W.</i>	1781 <i>Achilléa W.</i>
1715 <i>Otánthus Lk.</i>	1778 <i>A'nthemis W.</i>	1806 <i>Osmítes W.</i>
1714 <i>Santolina W.</i>	1837 <i>Eriocéphalus W.</i>	1816 <i>Sphenógyne R. Br.</i>

SUBORDER VII. *ARCTOTIDEÆ*.Tribe 14. *GORTERIEÆ*.

1812 <i>Gortéria W.</i>	1811 <i>Didéltia W.</i>	1809 <i>Cullómia H. K.</i>
1813 <i>Gazánia H. K.</i>	1801 <i>Galárdia W.</i>	1810 <i>Berckhýya H. K.</i>

Tribe 15. *ARCHETYPÆ*.

1814 <i>Cryptostémma R. Br.</i>	1815 <i>Arctothéca W.</i>	1831 <i>Arctótis H. K.</i>
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SUBORDER VIII. *CALENDULEÆ.*Tribe 16. *ARCHETYPE.*1830 *Caléndula W.*Tribe 17. *OSTEOSPERMEÆ.*1832 *Osteospermum W.*SUBORDER IX. *MUTISIEÆ.*Tribe 18. *ARCHETYPE.*1748 *Chætanthéra Fl. per.*Tribe 19. *GERBERIEÆ.*1750 *Gerbéria Burm.*1829 *Chaptália Vent.*1752 *Perdícium H. K.*SUBORDER X. *TUSSILAGINEÆ.*1737 *Tussilágo W.*SUBORDER XI. *NASSAUVIEÆ.*Tribe 20. *TRIXIDEÆ.*1686 *Dumerília Lag.*1825 *Trixis Dec.*Tribe 21. *ARCHETYPE.*1656 *Triptilion Fl. per.*SUBORDER XII. *CARLINEÆ.*1671 *Acárna W.*1676 *Cardopátum Pers.*1677 *Stæhelina W.*1729 *Xeránthemum W.*1670 *Atráctylis W.*1669 *Carlína W.*1673 *Stobæa Th.*1674 *Onobróma Gært.*1658 *Bacázia Fl. per.*1662 *Saussúrea Dec.*SUBORDER XIII. *CENTAURIEÆ.*1819 *Centaureá W.*1665 *Cnicus W.*1817 *Zæ'gea W.*SUBORDER XIV. *CARDUINEÆ.*1660 *A'rectium W.*1668 *Cýnara W.*1676 *Onopórdum W.*1661 *Serrátula W.*1663 *Cárduus W.*1820 *Galáctites P. S.*1667 *Berárdia Vill.*1684 *Silybum Gært.*1675 *Cárthamus W.*1818 *Leázua Dec.*SUBORDER XV. *ECHINOPSEÆ.*1850 *Echinops W.*1699 *Lagásca Cav.*SUBORDER XVI. *TAGETINEÆ.*1749 *A'rnica W.*1763 *Péctis W.*1760 *Tagétes W.*1702 *Kleínia W.*1766 *Sellóa Spreng.*1759 *Bebéra W.*SUBORDER XVII. *HELIANTHEÆ.*Tribe 22. *HELENIEÆ.*1782 *Tridax W.*1690 *Cephalóphora W.*1692 *Hymenopáppus J.*1707 *Cálea W.*1792 *Galinsógea W.*1694 *Marshállia Ph.*1716 *Caléacte R. Br.*1755 *Helcínium W.*1762 *Schkúhria W.*Tribe 23. *COREOPSISIDÆ.*1697 *Bídens W.*1758 *Dáhlia Cav.*1824 *Silphium W.*1804 *Coreópsis W.*1761 *Heterospermum W.*1791 *Synedrèlla P. S.*1803 *Cósmea W.*1840 *Parthénium W.*1753 *Tetragonothéca W.*Tribe 24. *ARCHETYPE.*1793 *Acmélla P. S.*1693 *Melananthéra Mi.*1780 *Sanvitália Cav.*1790 *Verbesína W.*1807 *Enclíia Cav.*1709 *Petróbium R. Br.*1805 *Simsia Pers.*1754 *Ximenesía W.*1798 *Heliánthus W.*1698 *Platýpteris Kth.*1695 *Spilánthes W.*1768 *Zinnia W.*1708 *Isocárpha R. Br.*1696 *Sálmea Dec.*Tribe 25. *RUDBECKIEÆ.*1823 *Baltimóra W.*1799 *Gymnolómia Kth.*1795 *Pascália W.*1802 *Tithónia Desf.*1786 *Eclipta W.*1796 *Heliópsis P. S.*1800 *Rudbeckia W.*1821 *Wedélla W.*Tribe 26. *MILLERIEÆ.*1852 *Brotéra W.*1827 *Chrysógonum L.*1735 *Mádia W.*1808 *Sclerocárpus W.*1712 *Cæsúlia W.*1854 *Euxéúia Cham.*1828 *Melampódium W.*1789 *Siegesbeckia W.*1787 *Meyéra Swz.*1847 *Nauenbúrgia W.*1822 *Milléria P. S.*1794 *Zaluzánia P. S.*1779 *Centrospermum Spr.*1845 *Flavéria Juss.*1826 *Polýmnia W.*SUBORDER XVIII. *ASTEREÆ.*1783 *Améllus W.*1732 *Bácccharis W.*1757 *Bállium W.*1784 *Stárkea W.*1743 *Kaulfóssia Nees.*1733 *Molina Fl. per.*1772 *Boltónia W.*1836 *Psiádia W.*1739 *A'ster W.*1756 *Béllis W.*1705 *Chrysócoma W.*1746 *Grindélla W. en.*1740 *Solidágo W.*1742 *Calótis R. Br.*1736 *Erigeron W.*1679 *Pterónia W.*SUBORDER XIX. *SENECIONES.*1701 *Caecália W.*1751 *Dorónicum W.*1738 *Senécio W.*1741 *Cinerária W.*1833 *Othónna W.*SUBORDER XX. *VERNONIEÆ.*1843 *Elephantópus W.*1851 *Rolándra W.*1706 *Tarchonánthus W.*1703 *Ethúlia W.*1684 *Sparganóphorus Gært.*1680 *Vernónia W.*1853 *Gundélla W.*1672 *Stokésia W.*1691 *Ampheréphis Kth.*

ORDER XC. CAMPANULACEÆ.

These differ from the last in not having the flowers in heads, in their usually distinct antheræ, which are, however, synsigenous in *Lobelia*, in their polyspermous fruit, and also in exuding a milky juice. All the genera are pretty, and some highly ornamental. They are mostly herbaceous, and by far the greater number are extra-tropical, abounding especially in the woods and coppices of the North. The roots of *Campánula Rapunculus* are used as a vegetable under the name of Rampion. The juice of some of the *Lobelias* is highly caustic and inflammatory; when taken internally, producing vomiting and even death: nevertheless, the root of *Lobelia siphilitica*, in small doses, acts as a diaphoretic, in greater quantity as diuretic or purgative, and, if taken in considerable quantities, as an emetic. An infusion of *Lobelia inflata* is used in North America as a remedy for leucorrhœa; and the root of *Lobelia cardinalis* is employed in the same country as a vermifuge.

464 <i>Lobelia W.</i>	466 <i>Trachelium W.</i>	467 <i>Roëlia W.</i>	834 <i>Canarina W.</i>
463 <i>Campánula W.</i>	546 <i>Lightfootia L'Her.</i>	545 <i>Cýphia W.</i>	547 <i>Jasione W.</i>
465 <i>Phyteúma W.</i>	895 <i>Michauxia W.?</i>		

ORDER XCI. GOODENOVIÆ.

New Holland and South Sea herbs or undershrubs, very nearly akin to the last, from which they differ more in artificial characters than in habit. All of them are pretty, and deserving culture. Nothing is known of their properties.

468 <i>Goodénia R. Br.</i>	470 <i>Dampiera R. Br.</i>	473 <i>Scævola R. Br.</i>
469 <i>Eutháles R. Br.</i>	472 <i>Velléia Sm.</i>	

ORDER XCII. STYLIDÆ.

Like the last, the properties of this very small but curious order are, if any, undiscovered. All are inhabitants of New Holland, and either herbs or half-herbaceous shrubs. They have pink flowers, ornamented with glittering glands; their stamens are united into a column, which is terminated by a sessile stigma, and which is irritable in so high a degree, that, if touched with a pin, it instantly starts from its place with great elasticity.

1932 <i>Stylidium R. Br.</i>

ORDER XCIII. GESNERIÆ.

Fine tropical herbs, with broad, fleshy, downy leaves, and purple or scarlet flowers. They all require stove heat, and decayed vegetable soil; in their native country, which is chiefly equinoctial America, they are found growing in the woods, where the earth is little more than a bed of rotten leaves and bark.

1290 <i>Gesnéria W.</i>	1291 <i>Gloxinia W.</i>
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ORDER XCIV. ERICEÆ.

These are distinguished from the neighbouring orders by their polyspermous fruit, aristate anthers, and dry shrubby habit. Every genus is eminently beautiful, and worthy of the most assiduous cultivation. The first tribe is a native of hill-sides and open plains, chiefly of the extra-tropical regions of the earth. Some are famous for their beauty, some for their fragrance, and many for their foliage. The heaths are the glory of the Cape, the *Arbutuses* of Europe, the *Andrómedas* of America, and *Cléthra* of the Canaries. The second tribe is distinguished from the rest by its inferior berry, and is not less valuable for its fruit than conspicuous for its beauty. The species are principally North American. *Monotropeæ* stand in their systematic station as they grow in their native woods, lowly herbs among thickets of bushes and trees. *Rhodoracææ*, once considered a distinct order, are chiefly North American; their flowers are less tubular than those of true *Ericææ*; but their habit is not materially different; here the *Azálea* the *Kálmia*, and the *Rhododéndron*, the pride of European gardens, as they are of their native woods, find their station. The utility of the fruit of *Vaccinium* is well known; its bark is reckoned tonic, stimulant, and astringent, and their fruit slightly styptic. The berries of *A'rbutus úva-úrsi* are considered lithontriptic; its leaves have also been employed successfully in infusions in obstinate cases of gonorrhœa. Extract of *Chimáphila umbelláta*, in the form of pills, in doses of five scruples a day, has been found successful in cases of dropsy. Some of the species are possessed of narcotic qualities; this is the case with *Lédum*, *Rhododéndron chrysánthum*, and especially *Azálea póntica*; honey obtained from the juice of which is said by Xenophon, to have caused the death of many soldiers in the famous retreat of the ten thousand. An infusion of *Rhododéndron máximum* is used in America in cases of chronic rheumatism, and that of *Rhododéndron pónticum* in Asia, against gout and rheumatism.

Tribe 1. ERICEÆ VERÆ.

284 <i>Blæ'ria W.</i>	535 <i>Itea L.</i>	1018 <i>Gaulthéria W.</i>	1020 <i>Cléthra W.</i>
892 <i>Erica W.</i>	536 <i>Cyrilla L.</i>	1019 <i>A'rbutus W.</i>	1021 <i>Mylocáryum W. en.</i>
534 <i>Brosse'a L.</i>	1016 <i>Andrómeda W.</i>	1017 <i>Enkiánthus B. M.</i>	

Tribe 2. VACCINIÆ.

906 <i>Oxycóccus P. S.</i>	907 <i>Vaccinium L.</i>
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Tribe 3. MONOTROPEÆ.

1022 <i>Pýrola W.</i>	1023 <i>Chimáphila Ph.</i>	1008 <i>Monotrópa W.</i>
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Tribe 4. RHODORACEÆ.

403 <i>Azálea W.</i>	1011 <i>Kálmia W.</i>	1014 <i>Rhododéndron W.</i>
404 <i>Chamælédon Lk.</i>	1012 <i>Lédum W.</i>	1015 <i>Epigæ'a W.</i>
893 <i>Menziésia Sm.</i>	1013 <i>Rhodóra W.</i>	1076 <i>Bejária Ph.</i>

SUBCLASS III. COROLLIFLORÆ.

Petals cohering in the form of a hypogynous corolla, which is not attached to the calyx. To this subclass are to be referred all genera which have a monopetalous corolla, with the stamens inserted into it, and a superior ovarium.

ORDER XCV. MYRSINÆ.

Showy shrubs, with evergreen undivided leaves, and cymes of white or red flowers. *Theophrásta* is a very rare stove plant, with a simple stem, and undulated spiny toothed leaves. The *Ardísias* are common in collections. None are natives of Europe, but are found in the hot parts of Asia, Africa, and America. Nothing is known of their properties.

408 <i>Theophrásta L.</i>	435 <i>Ardísia W.</i>	443 <i>Bæobótrys Vahl.</i>
409 <i>Clavija Fl. per.</i>	2160 <i>Myrsine R. Br.</i>	

ORDER XCVI. SAPOTEEÆ.

These are also shrubs, which are mostly evergreen, and natives of the warmer regions of the world. Some of the Bumélias are found in the southern states of N. America, but none of the order exists in Europe. They are chiefly valuable for their fruit, which, in many cases, contributes richly to the dessert. Mimusops eléngi, Imbricária malabárica, Sideróxyllum spinósum, are all of this description; the star apples of the West Indies, the produce of several species of Chrysophyllum, and particularly of *C. cainito*, are esteemed delicious; and the Medlars, Lucumas, and Sapotillas of equinoctial America, all the fruit of different kinds of *A'chras*, are among the most valuable productions of the western world. The seeds of all the order are oily: those of *A'chras sapóta* are accounted diuretic and aperient. Their oil is not fluid, but so concrete as to have the appearance and consistence of butter, whence the name of butter-tree has been applied to different species both in Africa and India. The most famous of this description is the Indian mava, mahva, or madhua, the *Bássia butyrácea* of botanists; the seeds of which are so oleaginous, that a single tree has been known to produce three quintals of oil; the dried flowers of the same tree are mixed by some Indians with their food, and a kind of spirit is distilled from them by others. The juice of all the sapotas is milky, but not acrid and poisonous like that of most other lactescens orders, but, on the contrary, yielding a wholesome beverage or food. Here is supposed to belong the famous Palo de Vaca, or Cowtree of South America, the trees of which are regularly milked by the inhabitants of the districts in which it grows. According to Brown, the bark of some of the *A'chras* is so astringent and febrifugal as to be substituted for quinquina.

423 Bumélia <i>W.</i>	426 Jacquinia <i>W.</i>	434 Manglilla <i>Juss.</i>	1024 Inocárpus <i>W.</i>
424 Chrysophyllum <i>W.</i>	427 A'chras <i>W.</i>	881 Mimusops <i>W.</i>	1074 Bássia <i>W.</i>
425 Sideróxyllum <i>W.</i>	433 Sersalsisia <i>R. Br.</i>		

ORDER XCVII. SYMPLICACEÆ.

Shrubs with serrated leaves, turning yellow in drying, and small white flowers which are sometimes fragrant. The leaves of most of them are astringent; those of *Alstónia* tinge the saliva greenish yellow, of *Symplocos tinctoria* are used in America under the name of Sweet-Leaf, for dying yellow.

1614 *Symplocos L.*

ORDER XCVIII. EBENACEÆ.

Some of these are hardy trees or shrubs, with deciduous leaves and white flowers, natives of woods, mountains, and banks of streams in North America and Europe; others are tropical evergreens. Among the former, the best known are the Snow-drop tree, or Halési, with pendent shewy white blossoms; and the different species of *Stýrax*: of the latter, many of the *Diospyroses* produce are eatable fruit; as, for example, the Maboló of the Philippine Islands, which is as big as a peach, and the Kaki of Japan, which resembles an apricot. All these fruits are remarkable for their extreme austerity before maturity, and the necessity of letting them decay, like our medlars, before they are fit for table. These are also distinguished for the excessive hardness of their wood, and for the black colour it sometimes acquires when old, as the Ebony. The bark of *Diospyros virginiana* is used in North America in intermittent fevers.

1035 Royéna <i>W.</i>	2159 Diospyros <i>W.</i>	1081 Halésia <i>W.</i>
2086 Mába <i>J.</i>	1025 Stýrax <i>W.</i>	1105? Visnea <i>W.</i>

ORDER XCIX. OLEINÆ.

The olives are known by their monopetalous corolla, with a valvular æstivation, two stamens alternate with the segments, a bilocular ovary with no discus at the base, and pendulous collateral ovula. They were formerly combined with the jasmynes. They have all simple opposite leaves; their flowers are either white, yellow, or purple, and frequently fragrant. The *Phillyréas* are among our finest evergreens, and the *Lilac* or *Syringa* perhaps at the head of hardy deciduous bushes. The ash is an anomalous genus which hardly belongs to the order. The seed of the olive contains so large a proportion of fixed oil, that it has long been one of the most important objects of cultivation in the South of Europe. The bark and leaves of many *Oleinæ* are bitter and astringent; these properties are particularly apparent in the ash, which has often been employed successfully as a febrifuge. From the exudation of many species of that genus, the mild purgative called manna is formed; it is most commonly found upon the *O'rnus*. *M. Decandolle* remarks, that in proof of the natural affinity of the plants here combined, and of the propriety of separating the jasmynes from them, it has been found that all the olives as now restricted, will bud or graft upon one another, but not on the jasmynes. Thus the *lilac* will graft on the ash, the *Chionánthus*, and the *Fontanésia*, and even upon *Phillyréa latifolia*, and the olive will take upon the *Phillyréa*, and even on the ash.

32 O'lea <i>W.</i>	34 Chionánthus <i>W.</i>	67 Linociéra <i>B. P.</i>	69 O'rnus <i>P. S.</i>
33 Phillyréa	36 Ligústrum <i>W.</i>	66 Fontanésia <i>W.</i>	2157 Fráxinus <i>W.</i>
35 Notelæ'a <i>B. P.</i>	37 Syringa <i>W.</i>		

ORDER C. JASMINEÆ.

Fragrance is the predominant property of the jasmine, and has made it for ages the favourite of poets and of the people; this arises from the presence of an oil which can be extracted so as to retain its perfume. In medicinal qualities, the jasmynes do not differ materially from the last; they are neatly distinguished by botanists by the direction of their ovula which are erect in *Jasmineæ*, and pendulous in *Oleinæ*.

38 Nyctánthes <i>W.</i>	39 Jasminum <i>W.</i>
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ORDER CI. APOCYNÆÆ.

We now turn from the contemplation of plants endued with mild and agreeable properties and fragrant flowers, and often bearing food for man, to others which are among the most dangerous and fatal poisons; whose juices, milky indeed, like the Cowtree, are not a wholesome and delicious beverage like those of *Sapotæa*, but on the contrary acrid, caustic, or bitter. They are readily known by the twisted direction of the segments of the corolla, which have been compared to the rays of a Catherine's wheel, whence they were called by *Linnaeus*, *Contortæ*. By far the greatest part of the order consists of tropical trees and shrubs: a few *Apocynums*, *Amsónias*, and *Vincas*, are natives of the colder zones of the earth. Many are elegant climbers, as the different species of *Echites* and *Melodinus*. The splendid *Oleánder* belongs to *Nérium*; the different species of *Plumiéria*, *Camerária*, *Strophánthus*, and *Arduina* are stove plants of the greatest beauty. The medicinal action of these plants is highly powerful. The *Strychnos*, or nux vomica tree, is remarkable for its bitterness and acrid deleterious effects, which are indicated not only when introduced into the stomach, but still more violently when absorbed into the system by inoculation. In general, the *Apocynæ* are acrid, stimulating, and astringent; these principles, when in excess, act so powerfully on the nerves as to produce stupefaction. The root of *Ophióstylon* is very bitter and purgative: under the name of snake-root it is used in India as an antidote to the bites of serpents. The bark of *Cérbera Mánghas* is purgative; of *Echites antidyntérica*, and the *Wrightia* of the same name, astringent and febrifugal; the leaves of the *Vinca* are so astringent, that they have been used successfully in tanning; those of *Nérium oleánder* are said to abound in free gallic acid. The inspissated juice of a species of *Cérbera*, known in Mexico under the name of *Ycotli*, is a fatal poison.

407 Allamándia <i>W.</i>	411 Nérium <i>R. Br.</i>	413 Echites <i>R. Br.</i>	415 Plumiéria <i>W.</i>
410 Vinca <i>W.</i>	412 Wrightia <i>R. Br.</i>	414 Ichnoécárpus <i>R. Br.</i>	416 Strophánthus <i>Dec.</i>

417 Camerária <i>W.</i>	420 Cérbera <i>W.</i>	438 Caríssa <i>W.</i>	572 Apócynum <i>R. Br.</i>
418 Tabernaemontána <i>W.</i>	436 Arduína <i>W.</i>	440 Gelséminum <i>J.</i>	573 Melodínus <i>Forst.</i>
2152 Ophióxydon <i>W.</i>	437 Strýchnos <i>W.</i>	441 Rauwólfa <i>W.</i>	299? Monétia <i>W.</i>
419 Amsónia <i>Mich.</i>			

ORDER CII. ASCLEPIADEÆ.

These differ from the last only in having the stamens united into a sort of fleshy crown, and the pollen coherent in masses of a waxy substance like that of Orchideæ; their properties, habit and geographical range, are much the same. Periplóca is a singular instance of an asclepiadeous plant being a hardy shrub, every other frutescent species of the order being natives of countries where frost is unknown. Hofa comprehends climbing plants, with waxen, clustered, odoriferous flowers distilling honey. Pergulária is valued for its fragrance, Ceropégia for its singularity, and Asclépias for beauty and hardness. But the most extraordinary genera of the order are Stapélia, Piaránthus, and Huérnia, in which the place of leaves is supplied by fleshy short stems of various forms, and whose flowers are not less singular for their curious and complex organization, than they are remarkable for their strange coloring and spotting, and offensive for their fætor. The root of Gymnéma vomitório, Asclépias curassávica, Calótropis prócera, and some others, is employed in different countries for ipecacuanha. An infusion of the root of Asclépias decumbens has the singular property of exciting general perspiration; whence it is successfully used in Virginia for pleurisy. It is very singular that, in a tribe of plants so generally poisonous as these are, the young shoots of some species should be an article of food: of this nature are Pergulária édulis, Periplóca esculénta, Apócynum indicum, and several more.

574 Periplóca <i>R. Br.</i>	581 Cynánchum <i>R. Br.</i>	587 Gomphocárpus <i>R. Br.</i>	583 Ceropégia <i>Roxb.</i>
575 Cryptostégia <i>R. Br.</i>	582 Oxstélma <i>R. Br.</i>	588 Asclépias <i>R. Br.</i>	594 Stapélia <i>R. Br.</i>
576 Hemidésmus <i>R. Br.</i>	583 Gymnéma <i>R. Br.</i>	589 Gonólobus <i>R. Br.</i>	595 Piaránthus <i>R. Br.</i>
577 Secamóne <i>R. Br.</i>	584 Calótropis <i>R. Br.</i>	590 Pergulária <i>R. Br.</i>	596 Huérnia <i>R. Br.</i>
578 Microlóma <i>R. Br.</i>	585 Dischídida <i>R. Br.</i>	591 Marsdénia <i>R. Br.</i>	597 Brachystélma <i>R. Br.</i>
579 Sarcostémma <i>R. Br.</i>	586 Xysmalóbium <i>R. Br.</i>	592 Hofa <i>R. Br.</i>	598 Carallúma <i>R. Br.</i>
580 Dæmia <i>R. Br.</i>			

ORDER CIII. GENTIANEÆ.

An order in some degree intermediate between Polemoniaceæ and Scrophularineæ, from both which it is distinguished both by habit and fruit; some of the genera border closely upon Apocynæ. The species are natives of cool or mountainous regions or pools in all parts of the world. The Gentians are mostly dwarf herbaceous plants, with deep blue flowers; the latter color, and different shades of orange, being the prevailing hues. They are all pretty, and many beautiful in the highest degree; but, with a few exceptions, they are impatient of cultivation. The medicinal properties of the root of Gentiana lútea, rúbra, and purpúrea, are eminently tonic, stomachic, and febrifugal; their bitterness is second only to Quássia. Similar, but more feeble virtues, are found in most of the order, especially in Villársia ováta, Gentiana peruviána, Chirayita, Fraséra Wálteri, &c. Spigélia anthémia is used as a vermifuge; and the root of Spigélia marylándica infused in water as anthelmintic, and in wine as febrifuge. Potália amára is used in Guiana as an emetic. A kind of spirit is distilled in Switzerland from the roots of Gentiana, macerated in water.

231 Seba'a <i>R. Br.</i>	365 Eústoma <i>P. L.</i>	600 Gentiana <i>W.</i>	368 Logánia <i>R. Br.</i>
232 Fraséra <i>Walt.</i>	366 Erythræa <i>P. S.</i>	599 Swértia <i>W.</i>	
230 E'xacum <i>W.</i>	367 Sabbátia <i>P. L.</i>	379 Spigélia <i>W.</i>	362 Menyánthes <i>W.</i>
364 Chirónia <i>L.</i>	894 Chlóra <i>W.</i>	378 Lisianthus <i>W.</i>	353 Villársia <i>R. Br.</i>

ORDER CIV. BIGNONIACEÆ.

The showy trumpet-shaped flowers and broad leaves of these plants, render them objects of general admiration. The greatest number is found in the equinoctial regions, a few only passing beyond those limits to the north. Bignónia rádicans is a hardy climbing plant, of exceeding beauty; and the Jacarándas are resplendent with flowers of blue or purple, and leaves which emulate the elegance of the Acácia. Nothing important is known of their qualities. Their wood is said to resist the attack of worms.

64 Catálpa <i>Juss.</i>	1294 Bignónia <i>W.</i>	1295 Jacaránda <i>Juss.</i>
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ORDER CV. COBÆACEÆ.

A climbing genus with large purple flowers, recently separated from the Bignónias by Mr. Don. Nothing is known of its medicinal properties.

388 Cobæa <i>Cav.</i>

ORDER CVI. POLEMONIACEÆ.

Herbaceous plants with showy blue, red, or white flowers, and often with pinnated leaves. They are natives of cool or mountainous parts in Europe and America. Nothing is known of their properties.

369 Phlox <i>W.</i>	70 Polemónium <i>W.</i>	389 Cántua <i>W.</i>	390 Hoitzia <i>Cav.</i>
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ORDER CVII. CONVULVULACEÆ.

Nearly the whole of these are twining plants, with showy flowers expanding beneath the influence of bright sunshine. A few are shrubs, but the greater part are herbaceous, and very many annual. They are frequently, also, weeds, which, from their creeping roots, are difficult to extirpate. All parts of the world produce them, from the cold regions of the north to the burning soil of the equator. Cúscuta is a singular parasite, wholly destitute of leaves. The root of many is filled with a milky acid juice, which is very purgative. Scammony, jalap, and some other drugs, are the produce of Convulvulaceæ. The root of Convólulus flóridus and scopáris, and Ipomæa' a quamóclit, is stimulatory; that of Convólulus batátas, which is the sweet potato of America and Southern Europe; and Convólulus édulis are wholesome articles of food.

Hydrólea are little known, pretty, herbaceous plants, mostly with blue flowers, native both of cold and tropical countries; Diapénsia lapponíca being an inhabitant of Lapland mountains, and Hydrólea spinósa of West Indian marshes. Their botanical characters are very nearly the same as those of Polemoniaceæ. The roots of Hydrólea spinósa are reputed bitter, and slightly purgative.

	Tribe 1. GENUINEÆ.	
385 Ipomæa' a <i>R. Br.</i>	387 Calystégia <i>R. Br.</i>	310 Cúscuta <i>W.</i>
384 Convólulus <i>W.</i>	602 Fálkia <i>L.</i>	603 Dichóndra <i>W.</i>
385 Argyréia <i>Lour.</i>	695 Evólulus <i>L.</i>	391 Rétzia <i>Th.</i>

601 Hydrólea *W.*

Tribe 2. HYDROLEÆ.

358 Diapénsia *W.*

359 Pyxidanthéra *Mi.*

ORDER CVIII. BORAGINEÆ.

True Boragineæ are chiefly herbaceous plants, with alternate exstipulate leaves, the surface of which is covered over with minute asperities, and with flowers arranged in one-sided spikes or racemes, occasionally solitary. Each flower has also four distinct little nuts or seeds, as they are commonly called. Some E'chiums

and a few more are shrubs. They are found abundantly in Europe, Siberia, and the North of Africa, less commonly in India, and the equinoctial parts of the world; in some quantity in North America, and in tolerable abundance in New Holland. Within the tropics the order is principally represented by *Heliotrópiums* and *Tournefortias*; in colder latitudes by *Anchúsas*, *Cynoglossúms*, herbaceous *E'chiums*, and the like. Some are mere weeds, quite unworthy of culture; others are eminently beautiful, as many *E'chiums*, *Onósmas*, *Onosmódiums*, *Sýmphytums*, and others. In general they are mucilaginous and emollient, qualities which are especially abundant in the root of *Sýmphytum* and *Cynoglossúm*. Pure nitre has been found in several plants of the order. A red color is given out by *Anchúsa fíntórtia*, *Lithospérmum tinctorium*, and *Onósmas echioides*, which is used in dyeing. Several plants are employed on the same account in America. The *Hydrophyllæ* are often considered as distinct, on account of their capsular fruit and cartilaginous albumen. One or two of these are pretty plants, but most of them mere weeds.

Tribe 1. ASPERIFOLIE.

316 <i>Coldénia W.</i>	330 <i>Lithospérmum W.</i>	336 <i>Cynoglossúm W.</i>	342 <i>Asperúgo W.</i>
325 <i>Heliotrópium L.</i>	331 <i>Bátschia Mich.</i>	337 <i>Omphalódes Lehm.</i>	343 <i>Nónea Mönch.</i>
326 <i>Myosótis E. P.</i>	332 <i>Onósmas W.</i>	338 <i>Pulmonária W.</i>	344 <i>Lycópsis W.</i>
327 <i>Echinospérmum Sw.</i>	333 <i>Anchúsa W.</i>	339 <i>Cerínthe W.</i>	345 <i>E'chium W.</i>
328 <i>Máttia Sch.</i>	334 <i>Sýmphytum W.</i>	340 <i>Borágo W.</i>	346 <i>Tournefortia R. Br.</i>
329 <i>Tiaridiuum Lehm.</i>	335 <i>Onosmódium Mich.</i>	341 <i>Trichodésma R. Br.</i>	347 <i>Nolána W.</i>

Tribe 2. HYDROPHYLLÆ.

372 <i>Hydrophyllum W.</i>	373 <i>Phacélia Mich.</i>	386 <i>Nemóphila Nutt.</i>	432 <i>Ellisia W.</i>
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ORDER CIX. CORDIACEÆ.

Trees formerly referred to the last order, from which their habit, plaited cotyledons, and dichotomous style divide them. Little is known of their properties, except that the flesh of their fruit is emollient and mucilaginous. The nuts of *Córdia Sebesténa* are employed sometimes as laxatives.

428 <i>Córdia W.</i>	429 <i>Varrónia W.</i>	430 <i>Ehrétia W.</i>	431 <i>Bourréria Gert.</i>
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ORDER CX. SOLANÆÆ.

The baneful nightshade represents this order, which participates very generally in its qualities, although they are frequently hidden beneath a fairer form, and often much mitigated. Many of the *Solanúms* are very handsome. The *Verbásucums*, *Datúras*, and *Solanáras* are all plants of great beauty, although the former, on account of their frequency, are despised in gardens. *Cápsucums* are famous for their pungent fruit and seeds; *Brunsfélsias* for their fragrance, and *Nicotiánas*, or *Tobacco*, for their fetor. The leaves indeed of the whole order are disagreeably scented. The usual effect of *Solanææ* is narcotic; but it is thought that this has been exaggerated, on account of the intense and deleterious properties of *A'tropa belladónna*. These, according to the observations of *Vauquelin*, depend upon the presence of a bitter nauseous matter which is soluble in spirits of wine, forming with tannin an insoluble compound, and giving out ammonia when decomposed by fire. Notwithstanding the narcotic power of the roots of the *Mandrake*, the *Belladónna*, and others, those of the potato are found to contain an abundant *fæcula*, which is among the most valuable food of man. The leaves of many *Solanææ* are exciting and narcotic, but in very unequal degree, as in *Tobacco*, *Phýsalis*, *Henbane*, &c.; those of the *Nightshade* excite vertigo, convulsions, and vomiting. The juice of *Stramónium* is given in North America, in doses of from twenty to thirty grains, in cases of epilepsy. The fruit of *Phýsalis Alkekéngi* is a veterinary diuretic; that of *P. édulis* is used in tarts; that of *Solanúm Lycopersícium*, and *Melongená*, is served at table in various forms, under the name of *Tomatoes* and *Aubergines*.

375 <i>Verbásucum W.</i>	381 <i>Hyoscýamus L.</i>	373 <i>Witheringia W.</i>	1336 <i>Crescéntia W.</i>
374 <i>Ramónda P. S.</i>	382 <i>Nicotiána W.</i>	450 <i>Lycium W.</i>	1375 <i>Brunsfélsia W.</i>
1377 <i>Alonsóá H. K.</i>	446 <i>A'tropa W.</i>	371 <i>Véstia W. en.</i>	445 <i>Solanára W.</i>
1376 <i>Célsia W.</i>	447 <i>Mandragóra W. en.</i>	451 <i>Solanúm W.</i>	446 <i>Céstrum W.</i>
376 <i>Datúra W.</i>	448 <i>Phýsalis W.</i>	452 <i>Nyctérium Vent.</i>	1378 <i>Anthocércis R. Br.</i>
377 <i>Brugmánsia P. S.</i>	449 <i>Sarácha Fl. per.</i>	453 <i>Cápsicum W.</i>	1000? <i>Códon W.</i>
380 <i>Nicándra J.</i>			

ORDER CXI. OROBANCHEÆ.

Leafless parasites on roots, with brown or colorless scaly stems and flowers.

1335 <i>Orobánche W.</i>	1339 <i>Lathræa W.</i>
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ORDER CXII. SCROPHULARINEÆ.

A great part of *Linnaeus's* *Didynamia Angiospermia* is found here, capsular fruit and didynamous stamens being among the most obvious characteristics of the order. The species are generally herbs with opposite leaves, very rarely shrubs; and natives of mountains, valleys, ditches, woods, and waysides, in all parts of the world. The *Personatæ* have the palate so prominent as to close up the orifice of the corolla. *Ringentes* have the palate open. Some are highly ornamental, as *Digitális*, *Pedicularis*, *Calceolária*, &c., others are mere weeds, as is the case with a large proportion of them. Most of them have a weak unpleasant smell, a bitterish taste, and acrid and suspicious properties; but this odor is sweet and aromatic in the *Ambóbia* of *Lamarck*; the taste is refreshing in *Mimulus léuteus*, which is a culinary plant in *Peru*, and the ordinary acrid properties become emollient in some *Antirrhinúms*. The *Rhinanthaceæ* are remarkable for their astringent tonic bark and leaves. The leaves and roots of *Scrophularia aquática*, *Gratiola officinális* and *peruviana*, and *Calceolária*, act as purgatives, or in strong doses produce vomiting; these properties exist, in a high degree, in *Digitális purpúrea*. The leaves of this plant, reduced to powder, excite vomiting and vertigo, excite urine and saliva, and lower the pulse; in too strong doses they cause death; in moderate doses they are useful in *scrophula*, dropsy, asthma, &c.

Tribe 1. PERSONATÆ (OR RHINANTHACEÆ).

1343 <i>Antirrhinum J.</i>	1346 <i>Nemésia Vent.</i>	1342 <i>Euphrásia W.</i>	1337 <i>Castilléja Sm.</i>
1344 <i>Linária J.</i>	1347 <i>Maurándya W.</i>	1340 <i>Rhinánthus W.</i>	1299 <i>Tourrétia J.</i>
1345 <i>Anarrhinum Desf.</i>	1349 <i>Pedicularis W.</i>	1341 <i>Bártsia W.</i>	1298 <i>Chelone W.</i>

Tribe 2. RINGENTES.

40 <i>Verónica W.</i>	1350 <i>Erinus W.</i>	1359 <i>Limosélla W.</i>	1368 <i>Caprária P. S.</i>
43 <i>Gratiola W.</i>	1351 <i>Mimulus W.</i>	1360 <i>Browállia W.</i>	1369 <i>Buchnéra B. P.</i>
51 <i>Calceolária W.</i>	1352 <i>Hornemánnia W. en.</i>	1361 <i>Stemódia W.</i>	1370 <i>Manólea W. en.</i>
276 <i>Scopária W.</i>	1353 <i>Mázus Lour.</i>	1362 <i>Treviráua W. en.</i>	1371 <i>Angelónia Kth.</i>
279 <i>Béndílea W.</i>	1354 <i>Isopléxis Lindl.</i>	1363 <i>Colúmnea W.</i>	1372 <i>Schizánthus R. & P.</i>
1297 <i>Pentstémon W.</i>	1355 <i>Digitális W.</i>	1364 <i>Russéllia W.</i>	1373 <i>Besléria W.</i>
863 <i>Disándra W.</i>	1356 <i>Scrophularia W.</i>	1365 <i>Dodártia W.</i>	1374 <i>Teédia P. S.</i>
1338 <i>Halléria W.</i>	1357 <i>Vandéllia L.</i>	1366 <i>Lindérnia R. Br.</i>	1379 <i>Cymbária W.</i>
1348 <i>Gerárdia W.</i>	1358 <i>Sibthórpia W.</i>	1367 <i>Herpéstis R. Br.</i>	

Tribe 3. MELAMPYRACEÆ.

1315 *Melampyrum W.*

ORDER CXIII. LABIATÆ.

A portion of *Diandria Monogynia*, and the whole of *Didynamia Gymnospermia* of Linnæus, make up *Labiata*, which are characterized by their didynamous stamens, four little nuts or naked seeds, single style, and irregular corolla. They are mostly natives of extra-tropical countries, although under the form of *Hýptis*, *Anisoméles*, *Leucas*, *O'cymum*, &c., they are found in the hottest zones of the world. Many are extremely odoriferous in the leaves, some bear handsome flowers, but by far the greater part are no better than weeds. They are all remarkable for their tonic, cordial, and stomachic virtues: they contain both a bitter and an aromatic principle, in different proportions. The bitterness which is given out in decoctions, resides in a gum-resinous secretion, abounding in some *Teucriums*, which are particularly employed as stomachics, and sometimes as febrifuges: those which abound in essential oil, and which are consequently aromatic, are used as stimulants. From the different degree of combination of these principles in different plants, they have obtained various uses; such as savory, thyme, marjoram, for seasoning of food; sage, balm, ground ivy for tea; marum, marjoram, lavender, and thyme, for sternutatories; others, such as lavender, mint, balm, and rosemary, for perfumes. It is a remarkable fact, that the essential oil of all contains camphor, which exists in such quantity in sage and lavender, that it has been supposed that the separating of it might become an object of commerce.

§ 1. *Diandra*.

55 <i>Lycopus W.</i>	58 <i>Cúnila P. S.</i>	61 <i>Rosmarinus W.</i>
56 <i>Amethýstea W.</i>	59 <i>Hedeóma P. S.</i>	62 <i>Sálvia W.</i>
57 <i>Ziziphora W.</i>	60 <i>Monárda W.</i>	63 <i>Collinsónia W.</i>

§ 2. *Tetrandræ*.

1242 <i>A'juga W.</i>	1254 <i>Méntha W.</i>	1266 <i>Marrúbium W.</i>	1278 <i>Melissa W.</i>
1243 <i>Anisoméles R. Br.</i>	1255 <i>Perilla W.</i>	1267 <i>Leonúrus R. Br.</i>	1279 <i>Dracocéphalum W.</i>
1244 <i>Teucrium W.</i>	1256 <i>Hýptis Poit.</i>	1268 <i>Phlómis R. Br.</i>	1280 <i>Melittis W.</i>
1245 <i>Westringia Sm.</i>	1257 <i>Hormínium Ort.</i>	1269 <i>Leúcas R. Br.</i>	1281 <i>O'cymum W.</i>
1246 <i>Saturéja W.</i>	1258 <i>Gléchoema W.</i>	1270 <i>Leonótis R. Br.</i>	1282 <i>Plectránthus W.</i>
1247 <i>Thýmbra W.</i>	1259 <i>Lámium W.</i>	1271 <i>Moluccélla W.</i>	1283 <i>Trichostéma W.</i>
1248 <i>Hyssópus W.</i>	1260 <i>Galeópsis W.</i>	1272 <i>Clinopódiúm W.</i>	1284 <i>Prostanthéra R. Br.</i>
1249 <i>Népeta W.</i>	1261 <i>Galeóbdolon, E. B.</i>	1273 <i>Pycnanthemum Th.</i>	1285 <i>Scutellária W.</i>
1250 <i>Elshóltzia W.</i>	1262 <i>Betónica W.</i>	1274 <i>Origanum W.</i>	1286 <i>Prunélla W.</i>
1251 <i>Lavándula W.</i>	1263 <i>Stáchys W.</i>	1275 <i>Thýmus L.</i>	1287 <i>Cleónia W.</i>
1252 <i>Sidéritis W.</i>	1264 <i>Zieténia Pers.</i>	1276 <i>A cynos Pers.</i>	1288 <i>Práslum W.</i>
1253 <i>Bystropógon W.</i>	1265 <i>Ballóta W.</i>	1277 <i>Calamintha Ph.</i>	1289 <i>Phryña W.</i>

ORDER CXIV. PEDALINÆ.

Herbaceous plants, formerly included in *Bignoniaceæ*, from which they are distinguished by the small number of seeds in each cell of the fruit. Natives of the tropics, with shewy trumpet-shaped flowers. The seeds of *Sésamum* abound in oil, which is easily expressed, for which the common species is extensively cultivated in hot countries.

1296 <i>Sésamum W.</i>	1300 <i>Martýnia W.</i>	1331 <i>Pedálium W.</i>
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ORDER CXV. MYOPORINÆ.

South Sea and New Holland shrubs, with scarcely any hair. The leaves are simple, alternate, or opposite, with no stipulæ. The flowers, scarlet, white, or blue, axillary without bractææ. These are very near *Verbenaceæ*. *Stenochilus* is the handsomest genus of the order: the *Avicénnias* are shore plants, growing in the place of the mangroves, and shooting their long roots to a great distance among the mud, sometimes to the length of six feet along the surface before they fix themselves. Their medicinal properties, if any, are unknown.

1323 <i>Avicénnia L.</i>	1332 <i>Myopórum Forst.</i>	1333 <i>Stenochilus R. Br.</i>	1334 <i>Bóntia R. Br.</i>
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ORDER CXVI. VERBENACEÆ.

A mixture of weeds and shewy herbs, of humble creeping plants and of lofty timber trees. Some of the *Vitex*æ and *Clerodéndrum*s are handsome shrubs: *Aloýsia* is esteemed for the fragrance of its flowers, and *Holmskiöldia* for the refulgent scarlet of its enlarged calyxes. *Téctona* produces the famous Indian teakwood. No properties of consequence have been attributed, by medical men, to any plant of the order, those formerly ascribed to the vervain and chaste-tree being now disregarded. The species are natives of waysides in Europe, and of woods and barren plains in the tropics.

1322 <i>Verbéna L.</i>	274 <i>Ægíphila W.</i>	1313 <i>Aloýsia Fl. per.</i>	1325 <i>Clerodéndrum B. P.</i>
54 <i>Stachytárheta Vahl</i>	421 <i>Téctona W.</i>	1316 <i>Selágo W.</i>	1326 <i>Volkaméria H. K.</i>
1310 <i>Zapánia J.</i>	1309 <i>Hebenstreítia W.</i>	1312 <i>Lantána W.</i>	1327 <i>Holmskiöldia H. K.</i>
1320 <i>Priva P. S.</i>	1310 <i>Hósta Jacq.</i>	1311 <i>Gmelina W.</i>	1328 <i>Petréa W.</i>
1314 <i>Líppia L.</i>	1317 <i>Vítex W.</i>	1321 <i>Spielmánnia W.</i>	1329 <i>Citharéxylum W.</i>
272 <i>Callicárpa W.</i>	1318 <i>Cornútia W.</i>	1324 <i>Caldásia W.</i>	1330 <i>Duránta W.</i>
65 <i>Ghínia W.</i>			

ORDER CXVII. ACANTHACEÆ.

These are known by the elastic dehiscence of their capsules, and the hooked processes of the seeds. They are almost entirely tropical herbs or shrubs, with the pubescence, if any, simple or capitate, but never stellate. Their leaves are opposite, occasionally arranged in fours, simple and undivided, or very seldom lobed. The flowers are either in imbricated heads or open racemes, always enclosed in their bractææ; and are white, blue, yellow, scarlet, or purple. Some of the species are very shewy, but few of them are cultivated commonly; a large proportion are mere weeds. The *Thunbérrias* are fine climbers, and the *Acanthus mollis*, the foliage of which gave rise to the classical acanthus of architecture, is, perhaps, except *Morina pérsica*, one of the most interesting of hardy herbaceous plants. It is also one of the few species to which any medical properties are ascribed, being used sometimes as an emollient by reason of its mucilage. *Justicia bíflóra* is employed in Egypt as a poultice, *J. Ecbólium* as a diuretic, and *J. pectorátis* as a vulnerary.

45 <i>Elytrária M.</i>	49 <i>Eránthemum P. B.</i>	1304 <i>Ruéliá J.</i>	1305 <i>Aphelánda R. Br.</i>
46 <i>Hypoéstes R. Br.</i>	1302 <i>Bariéca W.</i>	1305 <i>Blécherum R. Br.</i>	1307 <i>Crossánda P. L.</i>
47 <i>Justicia W.</i>	1303 <i>Phaylópsis Juss.</i>	1301 <i>Acanthus W.</i>	1308 <i>Thunbérria W.</i>
48 <i>Dielíptera W.</i>			

ORDER CXVIII. LENTIBULARIÆ.

Very pretty interesting aquatics, which are scarcely susceptible of cultivation, except in a few cases. The *Pinguiculas* are either European or North American, inhabiting elevated patches in bogs; the *Utricularías* are floaters, found in most countries in marshes and little rills: their flowers, are white, yellow, or blue.

52 <i>Pinguicula W.</i>	53 <i>Utricularía W.</i>
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ORDER CXIX. PRIMULACEÆ.

Beautiful dwarf herbs, inhabiting the mountains and meadows of all parts of the world, but especially in the northern hemisphere. Nothing can be more lovely than the little delicate alpine Primulas, Androsaces, Arétias, and Soldanellas, with their little modest blossoms, sometimes rivaling the whiteness of the surrounding snow, sometimes emulating the intense blue of the empyrean, as if the one had borrowed its hues from heaven, and the other from the spotless mantle of the earth. Hottónia is a naiad of the stream, inhabiting several parts of England, in ponds and ditches, which are enlivened for many a month with its rosy flowers, peeping from among the sedge and under grass, by which it is environed. All the genera are familiar to gardeners, except Centúnculus and Schwénckia, of which the former is singular in the order, as being an obscure minute weed, and the latter has inelegant green flowers, curious to the botanist but ungrateful to the florist. The prominent botanical character is the one-celled fruit, with a central placenta, and the stamens opposite the petals. The properties of Primulaceæ are feeble and of little consequence; they appear to be slightly astringent and bitter; the root of Cýclamen is acrid, and only eaten by wild boars; the flowers of the primrose and cowslip are fragrant, and mildly sudorific and soporific. Cortúsa Mathiola has been used in nervous disorders.

350 Primula <i>W.</i>	352 Soldanella <i>W.</i>	356 Lysimachia <i>W.</i>	277 Centúnculus <i>W.</i>
349 Androsace <i>W.</i>	353 Dodecatheon <i>W.</i>	392 Lubinia <i>Comm.</i>	42 Schwénckia <i>W.</i>
348 Arétia <i>W.</i>	354 Cýclamen <i>W.</i>	357 Anagallis <i>W.</i>	471 Samólus <i>W.</i>
351 Cortúsa <i>W.</i>	355 Hottónia <i>W.</i>	360 Córís <i>W.</i>	862 Trientális

ORDER CXX. GLOBULARINÆ.

Pretty alpine plants with blue flowers. The leaves of Globularia Alypum are very bitter and powerfully purgative, giving at the same time a tone to the stomach and intestines.

260 Globularia *W.*

ORDER CXXI. PLUMBAGINÆ.

These are properly placed at the limit between Monochlamydeæ and Dichlamydeæ, to either of which they are referable in the minds of some botanists, although it appears, upon the whole, to be most convenient to station them where they are now arranged. They are low shrubs or herbaceous plants, with shewy red or blue flowers of an arid texture, inhabiting salt marshes and subalpine tracts, in the temperate latitudes of both the northern and southern hemispheres. All the Státices and Armérias are fine plants worth cultivating. The root of Státice Limónium is astringent and tonic; of the Plumbágos, the root and whole plant are acrid and caustic, and employed as vesicatories.

324 Plumbágo <i>W.</i>	705 Arméria <i>W. en.</i>	706 Státice <i>W. en.</i>
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SUBDIVISION II. MONOCHLAMYDEÆ.

Perianthium simple.

The absence of corolla characterizes this subdivision of dicotyledonous vegetation; but as the term corolla is subject to frequent misunderstanding, it should be borne in mind, that whenever there is only one floral envelope, that envelope is to be considered calyx, whether green, as in most cases, or colored, as in the Marvel of Peru.

ORDER CXXII. PLANTAGINÆ.

Little inconspicuous herbs found in waste places all over the world. The leaves are stellate, and occasionally ternate; the pubescence is jointed; the flowers are brownish, and arrayed in dense spikes. Their leaves are rather bitter and astringent; their seeds mucilaginous and rather acrid; those of Plantágo arenária are imported in large quantities from the south of France, for the purpose of forming an infusion in which muslins are washed. P. média is sometimes cultivated by farmers under the name of ribgrass.

278 Plantágo <i>W.</i>	1967 Littorélla <i>W.</i>
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ORDER CXXIII. NYCTAGINÆ.

With the exception of Mirábilis, in which the colored calyx has a shewy effect, all the order consists of weeds, growing often among the loose sand on the sea coast of the tropics and western hemisphere; none are found in Europe. The Abrónias are curious, neat, and often fragrant. The root of Mirábilis Jalápa was formerly considered the jalap, which is now known to be an error; it is however purgative, although in a less degree. Boerhaavía tuberósa is also a reputed purgative.

19 Boerhaavía <i>W.</i>	81 Calyménia <i>R. P.</i>	322 Mirábilis <i>W.</i>	323 Abrónia <i>Juss.</i>	864 Pisónia <i>W.</i>
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ORDER CXXIV. AMARANTHACEÆ.

Upon this order Dr. von Martius has the following remarks: Leaves, especially when young, of a lax soft texture, abounding in saccharine, mucilaginous, and fibrous particles, and therefore fit for food. The seeds are farinaceous, consisting chiefly of starch and mucus. Their virtues are nutritive, emollient, demulcent; the root of Gomphréna officinális is tonic and stimulant. The species are either gregarious or solitary; mostly diffuse and villous, and existing in dry stony exposed places, or erect and reclining on other vegetables, with little pubescence, when found on the skirts of ancient forests; a few are found in saline coast places; finally, they are more common in low land, little elevated above the surface of the sea, than in mountainous regions. They are met with in both hemispheres; rarely under the equator, but increasing both northwards and southwards as we recede from them; they are confined to no countries in particular, but are found to affect all regions of the world. Among an abundance of weeds, we distinguish a few fine plants deserving cultivation, as the Globe Amaránthus, the Cockscorns, and a few species of Amaránthus, one of which, under the name of Love-lies-bleeding, is commonly reared for the sake of its long, tail-like, pendent masses of crimson flowers. Amaránthus oleráceus, and a few others, are occasionally cultivated as potherbs.

552 Achyránthes <i>W.</i>	556 Alternanthera <i>R. Br.</i>	563 Deeringia <i>R. Br.</i>	918 Aphanánthe <i>Lk.</i>
553 Philoxérus <i>R. Br.</i>	560 Érúa <i>Juss.</i>	565 Celósia <i>R. Br.</i>	1975 Amaránthus <i>W.</i>
554 Desmochæta <i>Dec.</i>	561 Lestibudésia <i>R. Br.</i>	566 Gomphréna <i>R. Br.</i>	2069 Irésine <i>W.</i>

ORDER CXXV. ILLECEBREÆ.

Weeds distinguished from Amaranthaceæ by their membranous stipules. They are found in dry barren places, for which they are better fitted than for a garden, unless as objects of curiosity.

555 Illecébrum <i>Juss.</i>	569 Mólíia <i>W.</i>	82 Loéflingia <i>W.</i>	226 Minuártia <i>W.</i>
557 Paronýchia <i>Juss.</i>	614 Herniária <i>W.</i>	221 Polycáron <i>W.</i>	227 Quéria <i>W.</i>
559 Anýchia <i>Mich.</i>			

ORDER CXXVI. CHENOPODEÆ.

The habit of this order is a better distinction from Amaranthaceæ, than any artificial character which it is easy to point out. While Amaranthaceæ have a dry perianthium with a dense inflorescence, Chenopodeæ on the contrary have a fleshy perianthium and a very effuse inflorescence. In the former, the stamens are usually

inserted under the ovarium; in the latter into the calyx, but this mark is not constant. None of them, unless *Phytolacca* is excepted, can be esteemed plants of ornament; on the contrary, they have a weedy uninviting appearance, which is not improved by the fetid smell of some of them. But, although their appearance is less attractive than that of the *Amaranthus*, their use to man is far more considerable. Their qualities are very various; *Camphorosma* has the smell of camphor; *Petivéria* stinks like onions; *Phytolacca* roots, leaves, and berries, are violent purgatives and emetics; the latter are esteemed in North America nearly equal to *Guaicum*, and are employed in chronic rheumatisms, and in rheumatic pains following venereal diseases; an extract of the berries has been employed in scrophula and cancerous ulcers; and the young shoots of the plant are eaten in the United States as asparagus. Some of the *Chenopódiums*, as *Ambrosioides*, *Bótrys*, &c., possess antispasmodic and tonic properties; the leaves of *Spinácia*, and of many *Chenopódiums*, are eaten as spinach; as are those of *Basélla* in China and India. *Salsóla* and *Salicórnia* are often employed as pickles. Beet roots are equally valuable as a culinary and agricultural production, and the leaves are an excellent vegetable when boiled. But the most remarkable feature in the properties of the order is the abundant production of soda, which is obtained from many of the species, as from all the *Salsólas*, *Salicórniás*, *Anabásis*, many species of *A'triplex*, several salt marsh *Chenopódiums*, and others. The seeds of *Chenopódium anthelmínticum* are used as a vermifuge, those of *A'triplex horténsis* excite vomiting, frequently attended with acute pain; those of *Chenopódium quinóá* are said to be used as rice. To conclude this list of remarkable properties in one of the most vile of all assemblages of plants, the roots of beet yield an abundance of sugar.

21 <i>Pollíchia W.</i>	608 <i>Anabásis W.</i>	254 <i>Camphorósmá W.</i>	1943 <i>Axýris W.</i>
22 <i>Salicórnia W.</i>	558 <i>Chenólea W.</i>	693 <i>Basélla W.</i>	1964 <i>Diótis W.</i>
92 <i>Polycnémum W.</i>	613 <i>Bósea W.</i>	865 <i>Petivéria W.</i>	2070 <i>Spinácia W.</i>
611 <i>Chenopódium W.</i>	28 <i>Blitum W.</i>	917 <i>Galénia W.</i>	2138 <i>A'triplex W.</i>
609 <i>Salsóla W.</i>	26 <i>Corsipérum W.</i>	1071 <i>Phytolácca W.</i>	2139 <i>Rhagóda R. Br.</i>
610 <i>Kóchia Roth.</i>	253 <i>Rivína W.</i>	1937 <i>Ceratocápus W.</i>	2072 <i>Acnída W.</i>
612 <i>Béta W.</i>			

ORDER CXXVII. POLYGONEÆ.

Herbaceous or suffrutescent fleshy-leaved plants, chiefly natives of the northern hemisphere; a few *Polygonums* and *Coccolóbas* are found to the south, the former in barren places, the latter on sea shores. A great part of the order consists of worthless weeds. Some of the *Polygonums*, and all the *Eriogonums*, are handsome plants; the *Rhémus* are famous in medicine. The root of *Rheum* is tonic and purgative; most of the *Rúmexes* and *Polygonums* are also tonics. The juice of the *Coccolóbas* is very astringent. The young leaves and shoots of several species of *Rúmex* and *Rhémus* are eaten either raw or baked, under the name of sorrel, French sorrel, and tart rhubarb. For the sake of its seeds, *Polygonum Fagopýrum* is cultivated by farmers under the name of buck-wheat; the seeds of *P. aviculáre* are very emetic and purgative. The fleshy calyx of the *Coccolóbas* is colored; and, the fruit growing in clusters, the genus has received the name of the sea-side grape.

228 <i>Kenígia W.</i>	857 <i>Oxýria Dec.</i>	937 <i>Eriogonum M.</i>	1106 <i>Calligonum W.</i>
838 <i>Atrapháxis W.</i>	921 <i>Polygonum W.</i>	938 <i>Rhémum W.</i>	2090 <i>Triplaris W.</i>
856 <i>Rúmex W.</i>	922 <i>Coccolóba W.</i>	1052 <i>Brunnichia W.</i>	

ORDER CXXVIII. BEGONIACEÆ.

The acid qualities, sheathing stipules, and alternate leaves of these tropical herbs approximate them to *Polygonææ*, notwithstanding the very different structure of their fructification. Most of the species are pretty, some very handsome; all requiring great heat and humidity to be grown in perfection.

1989 *Begónia W.*

ORDER CXXIX. LAURINEÆ.

Noble trees or shrubs with handsome foliage and inconspicuous flowers. They are chiefly natives of hot countries, where they constitute some of the most valuable of the productions known under the name of spice. By botanists they are readily recognized by the singular circumstance of their anthers having each four cells, the valves of which are hinged as it were to the upper edge of each cell, and do not open longitudinally like those of most other plants. It is well known that the cinnamon is the produce of the *Laúrus cinnamómum*, and that its properties are eminently aromatic, warm, and stomachic. The same peculiarities, but in a less degree, exist also in *Laúrus cássia*, *L. malabáthrica*, and *L. culilában*, which are all occasionally substituted for true cinnamon; they are found in the leaves of *Laúrus parvifólia*, in the bark of the species which produces the *Pichurim* bean; in that of *L. cupuláris*, which is the Isle of France cinnamon; of *L. quixos*, which yields the Peruvian cinnamon; in *L. Benzoin*, which was used as spice in the United States during the American war; and finally, in the common bay tree of our plantations. *Laúrus sassafra*s yields the *sassafras* chips of the shops, but its bark is much more powerful. The fruit of many *Laurineæ* are extremely aromatic; that of *Laúrus Pérsæa* is an agreeable West Indian fruit, called the alligator pear. *Camphor* is the produce of *Laúrus cámphora*, and of another or two; this substance is found indeed in small quantities in the roots of almost all the order; one of the cinnamons is even named *Capuru Carundu*, which signifies camphorated cinnamon.

934 <i>Laúrus W.</i>	936 <i>Cassýtha W.</i>	1942 <i>Hernándia W.</i>	1077 <i>Agathophýllum W.</i>
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ORDER CXXX. MYRISTICÆÆ.

Closely allied to the last, especially in sensible properties. The arillus of *Myristica* is the mace of the shops, and its nut, the famous nutmeg. It is well known that this abounds with oil; in *Viróla sébifera* the oily secretion is so copious, that it is readily separated by immersion in boiling water under the form of fat.

2120 *Myristica W.*

ORDER CXXXI. PROTEACEÆ.

Favorite shrubs with gardeners, both on account of the neatness of their foliage and the beauty of their flowers. With very few exceptions, they are confined to the southern promontory of Africa, and to New Holland, where they adorn large tracts of country. They are shrubby or arborescent plants with an arid habit. The leaves are simple, evergreen, narrow, entire or serrated. The flowers generally grow in clusters, and are green, yellow, or red, sometimes in true *Proteas* surrounded by colored bractææ with dark hairy margins. Their stamens are four, with distinct anthers, which rarely adhere together. The pollen is triangular; the stigma undivided and usually oblique. Their fruit is of various kinds, either a solitary nut or a sort of cone consisting of many nuts immersed among the indurated remains of abortive flowers. Of their properties, little is known. Some of the *Rhópalas* afford tolerable timber; the bark of *Prótea speciósa* and *grandiflóra* is astringent and useful in diarrhoeas. The seeds of *Embóthrium tinctórium* yield a powder which is employed for dying pink. The *Próteas* of the Cape, and the *Banksias* and *Dryándras* of New Holland, are the finest plants of the order.

229 <i>Petróphila R. Br.</i>	233 <i>Mimétes R. Br.</i>	239 <i>Grevillea R. Br.</i>	245 <i>Lomátia R. Br.</i>
229 <i>Isoopon R. Br.</i>	234 <i>Serrória R. Br.</i>	240 <i>Háklea R. Br.</i>	246 <i>Rhópala R. Br.</i>
231 <i>Prótea R. Br.</i>	235 <i>Nivénia R. Br.</i>	241 <i>Stenocápus R. Br.</i>	247 <i>Bánkisa R. Br.</i>
232 <i>Leucospérmum R. Br.</i>	236 <i>Sorocéphalus R. Br.</i>	242 <i>Lambórtia R. Br.</i>	248 <i>Dryándra R. Br.</i>
152 <i>A glax R. Br.</i>	237 <i>Spatálla R. Br.</i>	243 <i>Xylomélum R. Br.</i>	2142 <i>Brabéjum W.</i>
2053 <i>Leucadéndron R. Br.</i>	238 <i>Persóonia R. Br.</i>	244 <i>Telopéa R. Br.</i>	

ORDER CXXXII. THYMELÆÆ.

Nearly all shrubby plants, found in all parts of the world, but most abundantly in the south of Africa. The flowers are white, yellow, or red, most commonly in clusters, and often fragrant; the foliage is entire, either smooth or silvery, and generally very neat. Their wood is particularly soft; their inner bark easily separable, and in *Dáphne Lagetta*, pulls out by the division of the vertical fibres into a sort of network resembling lace. Their bark is extremely acrid, acting as a vesicatory when applied to the skin, and if chewed, producing extreme heat and torture in the mouth; a decoction of it has been used with some success in venereal diseases. The seeds of these plants are poisonous to man, but birds eat them with impunity. The fibres of *Dírca* and *Lagétta* are used for cordage; those of *Dáphne gnídium* and *Passerina tinctória* are employed in the south of Europe for staining wool yellow, which is converted into green by the addition of *Isátis*.

73 <i>Pimelæa B. P.</i>	910 <i>Dáphne W.</i>	913 <i>Stelléra W.</i>	915 <i>Lachnæa W.</i>
249 <i>Struthiála W.</i>	911 <i>Dírca W.</i>	914 <i>Passerina L.</i>	1032 <i>Dáís W.</i>
909 <i>Lagétta J.</i>	912 <i>Gnídia W.</i>		

ORDER CXXXIII. SANTALACEÆ.

Trees or dwarf herbs, with inconspicuous or unattractive flowers. They are chiefly natives of the Cape, New Holland, and India, a few only being found in Europe and North America. Their virtues are few. The wood of *Sántalum álbum* has a sweet aromatic flavor, and a slightly bitter taste: it is chiefly known as a perfume, although it is said to possess mild sudorific properties. The leaves of *Myoschílos* are purgative, of *Osyris japonica* eatable as salad; *Thésium* is slightly astringent.

307 <i>Sántalum W.</i>	908 <i>Memécylon W.</i>	2051 <i>Osyris W.</i>	2161 <i>Nýssa W.</i>
569 <i>Thésium W.</i>	1033 <i>Bucída W.</i>	2141 <i>Fusánuş L.</i>	2162 <i>Hamiltonía W.</i>

ORDER CXXXIV. ELÆAGNEÆ.

Hardy shrubs or small trees, with deciduous leaves, covered, as well as the bark, with minute silvery scales: their flowers are inconspicuous, but sometimes agreeably fragrant. They occupy but little space; a few inhabiting China and Japan, and the remainder Europe, North America, and Guiana. The berries of *Hippóphæe rhannoides*, which are slightly acid, are used as a kind of sauce by the Swedes.

259 <i>Elæágnus W.</i>	2057 <i>Shephérdia Nutt.</i>	2058 <i>Hippóphæe W.</i>
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ORDER CXXXV. ARISTOLOCHIÆ.

Here we are on the limits of Monocotyledones and Dicotyledones. The species are herbaceous or half shrubby plants, with simple, often reniform, leaves; and mottled grotesque flowers, usually brownish purple. Their roots are all bitter, and possessed of tonic and stimulating properties; but the degree in which they exist in different species is not at present ascertained. The *Aristolóchias* have been in former days praised as emmenagogues, and many are still used in South America as a remedy for the bite of serpents. A *sarum* europeum is a purgative and emetic when fresh, but its powers are much diminished by drying; its dried leaves are occasionally used by the country people in some parts of England as a sternutatory.

1072 <i>A'sarum W.</i>	1934 <i>Aristolóchia W.</i>
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ORDER CXXXVI. EUPHORBIACEÆ.

Weeds and lofty trees, of such varied appearance and property, that it is scarcely possible to frame a brief character by which they can be expressed. Their vegetation in cold countries is mostly herbaceous, in hot countries frutescent or arborescent; their juice is milky, and their flowers mostly inconspicuous. It is for their medicinal properties that they are chiefly known, and these are as various as their aspect; mostly, however, dangerous, and always to be suspected. In a few of them, the smell and taste are aromatic; but in most, there is either no smell or it is nauseous, and the taste constantly acrid and pungent. Some possess also an acrid limpid fluid, which is given out by the leaves when touched. Many of them act strongly upon the kidneys, as several species of *Phyllánthus*, the leaves of *Mercuriális ánnua*, and the root of *Rícinus commúnis*. Many are said to be powerful medicines in cases of dropsy. The bark of several *Crótons*, the wood of *Cróton Tiglium* and *Búxus*, the leaves of the same, and also of *Cicca dísticha*, several *Euphórbias*, and others, are recorded as sudorifics, and useful against syphilis; as emetics, we find the roots of the *Euphórbias*, the juice of *Cómmia*, *A'nda*, *Mercuriális perénis*, &c. A great number are purgative, especially the leaves of *Búxus* and *Mercuriális*, the juice of *Euphórbia*, *Cómmia*, *Hóra*, the seeds of *Rícinus*, *Cróton Tiglium*, *A'nda*, and *Játropha*. The effects of some others are so dangerous, particularly *Hippómane*, that it is not advisable to administer them even in very small doses; even in many *Euphórbias* it is difficult to draw a line between the quantity in which they are poisonous, and that in which they are harmless or useful. The nature of their poison is mostly acrid, occasionally, however, mixed with something narcotic, as is apparent from the effect of those which are used for poisoning or rather stupefying fish. The purgative oil in which the seeds of many are found to abound, has been determined to reside wholly in the albumen; hence the embryo of some, as *Omphálea díándra*, is eaten as nuts. Boiling or roasting has also the effect of dissipating their noxious effects; *Játropha Manihot*, than which there scarcely exists a more dangerous poison, affords a food when submitted to fire, called cassava, than which few are reputed to be more wholesome. But the most curious of all the products of *Euphorbiacæe* is the *Caoutchouc*, that singular substance which, although the produce of dangerous acrid trees, possesses nothing whatever which has been found capable of acting upon the human system in whatever way applied, which is unalterable either in air, in water, or in spirits, although it softens at a high temperature. It is chiefly produced by *Siphónia elástica*, but also exists in the juice of very many others, as *Excæcária Agallocha*, *Hippómane Mancinella*, *Hóra crépitans*, *Sápium aucupárium*, *Plukenétia volúbilis*, the *Játrophas*, *Mábea*, *Ompháleas*, and many others. Tournesole, another curious chemical preparation, is the juice of *Cróton tinctórium*, but is also found in several others. Many other properties belong to this order, which it would be too long to detail in this place. The curious reader will find ample information in the medical division of M. Adrian de Jussieu's monograph of the order, from which most of the foregoing remarks are taken.

SECTION I.

1963 <i>Pachysándra M.</i>	1957 <i>Búxus W.</i>	1978 <i>Securinéga W.</i>	2071 <i>Flúggea W.</i>
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SECTION II.

1958 <i>Cicca W.</i>	2092 <i>Kiggelária W.</i>	2122 <i>Cluýtia W.</i>
<i>Phyllánthus W.</i>	2025 <i>Andráchne W.</i>	2148 <i>Bridélia W.</i>

SECTION III.

2032 <i>Cróton W.</i>	2105 <i>Rottléra Roxb.</i>	2034 <i>Rícinus W.</i>	2028 <i>Aleurites W.</i>
2118 <i>Adélia W.</i>	2104 <i>Gelónium Roxb.</i>	2033 <i>Játropha W.</i>	2097 <i>Hyænáche H. K.</i>
2044 <i>Bórya W.</i>	2119 <i>Loureira W.</i>		

SECTION IV.

2038 <i>Acálypha W.</i>	2088 <i>Mercuriális W.</i>	2040 <i>Plukenétia W.</i>	1944 <i>Trágia W.</i>
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SECTION V.

2031 *Sápium W.* 2030 *Hippómane W.* 2035 *Húra W.* 2029 *Omphálea W.*
2026 *Stillingia W.* 1992 *Acidóton W.* 2117 *Excæcária W.*

SECTION VI.

2039 *Dalechám pia W.* 1103 *Euphórbia W.* 1104 *Pedilánthus Neck.*

ORDER CXXXVII. RESEDACEÆ.

Weeds of no interest, except the *Réseda odoráta* for its delicious fragrance. *R. lutéola*, a common annual in waste places, yields a yellow color fit for dyeing.

1102 *Réseda W.* 2099 *Datísca W.*

ORDER CXXXVIII. CALYCANTHÆ.

Handsome grateful deciduous shrubs, with deliciously fragrant flowers, natives of North America and Japan. They are not known to possess any medicinal virtues, but their odour insures them a place in every garden, notwithstanding the uninviting look of the blossoms themselves.

1157 *Calycánthus L.* 1158 *Chimonánthus Lindl.*

ORDER CXXXIX. ATHEROSPERMÆ.

Allied to the last in sensible and botanical qualities: they are shrubs, natives of America and New Holland, of which little is known either to gardeners or botanists.

2103 *Peúmus Pers.*

ORDER CXL. EMPETREÆ.

Dwarf heath-like shrubs, with obscure red flowers and berries, natives of Europe and North America.

2045 *Empétrum L.*

ORDER CXLI. URTICEÆ.

Few are the objects in this order deserving the care of the cultivator; it is rather extraordinary, however, that those few are abundantly so. Among worthless weeds and shabby half herbaceous shrubs, some of which are covered with rough points, and others defended by stinging hairs, we find the fig, the mulberry, the hemp, the hop, and the bread-fruit, all objects of the first consequence to the world. Here also is placed the half fabulous *Upas*, with which lying travellers and credulous naturalists have long deluded Europe. The *Upas* tree is now known to be the *Antiáris toxicária*, the inspissated juice of which is indeed a frightful poison, but the baneful effects of whose branches are purely imaginary. Similar, though inferior, qualities have been found to exist in *Ficus toxicária*, and some of the *Artocarpuses*. The root of the black mulberry is bitter, acrid, and purgative; of *Dorsténia brasiliénsis*, emetic; of *D. contrayérba*, bitter, aromatic, hot, and stimulant. A decoction, or the dried leaves, of hemp, is eminently narcotic, and forms the basis of the well known intoxicating Turkish drug called *Bang* or *Haschisch*. The tenacious nature of the fibres of the hemp is also found in other plants of the order, especially *Urtica cannabina*, the hop, the bread-fruit tree, the common stinging-nettle, and others.

1962 <i>Urtica W.</i>	1993 <i>Thelygónum W.</i>	2043 <i>Cecrópia W.</i>	75 <i>Gunnéra W.</i>
1961 <i>Pilea Lindl.</i>	2059 <i>Broussonétia W.</i>	19-39 <i>Maclúra Nutt.</i>	2158 <i>Brósinum W.</i>
2137 <i>Pariétária W.</i>	2073 <i>Cánnabis W.</i>	1959 <i>Mórus W.</i>	1973 <i>Franzéria Cav.</i>
1960 <i>Bœhméria W.</i>	2074 <i>Húmulus W.</i>	1935 <i>Artocárpus W.</i>	2063 <i>Tróphis W.</i>
933 <i>Forskóhlea W.</i>	2167 <i>Ficus W.</i>	257 <i>Dorsténia W.</i>	2050 <i>Stilágo W.</i>

ORDER CXLII. AMENTACEÆ.

Here is the group in which all the timber trees of Europe, and most of those of all cold countries, are stationed. Every genus consists of plants important to the wants of man. The alder, the birch, the willow, the poplar, the oak, the chestnut, the hornbeam, and the plane, are all collected in this place, to which they have been brought by the coincidence of similar fructification existing in all of them. This similarity depends upon their producing flowers of one sex only, the males of which are always arrayed in catkins, of which the flowers are destitute of calyx or corolla, in the place of which is produced a single scale. Their bark is furnished with an astringent principle, which has rendered them valuable either for staining black, as in the alder and the oak gall; or for tanning, as in the oak; or as febrifuges, as the alder, the birch, the oak, most of the willows, and also *Pópulus tremuloides*, which is well known in North America as a tonic and stomachic febrifuge. The substance called *tacamahaca* was formerly supposed to be produced by some of the poplars, but it is now believed to be obtained from a very different plant, *Fagára octándra*. The fruit of many *Amentacæ* contains a considerable proportion of *fecúla*, which renders it fit for the food of man and other animals, as the acorns of the oak, the mast of birch, the nut of *Castánea* and *Córylus*, &c.

1955 <i>A. Inus W.</i>	2001 <i>Liquidámbar W.</i>	1995 <i>O strya W.</i>	1997 <i>Fágus W.</i>
1956 <i>Bétula W.</i>	2002 <i>Plátanus W.</i>	1966 <i>Carpinus W.</i>	19-8 <i>Córylus W.</i>
2042 <i>Sálix W.</i>	2003 <i>Salisbúria L. T.</i>	1994 <i>Castánea W.</i>	2060 <i>Quercus W.</i>
2087 <i>Pópulus W.</i>			

ORDER CXLIII. ULMACEÆ.

Many of the observations upon the last order are also applicable to this, which differs rather in certain technical characters, than in any arrangement of nature. The elm is its representative, from which the others only slightly differ.

616 *Planéra Mich.* 615 *Ulmus L.* 2145 *Céltis W.*

ORDER CXLIV. CASUARINEÆ.

These are nearly related to *Coniferæ*, than which they are dwarfer, and of far less importance. By various writers they have been tossed about between *Amentacæ* and *Coniferæ*, and have at last settled in a place by themselves. The leaves of *Comptónia asplenifolia* are employed in the United States against diarrhœa. The berries of *Myrica cerifera* yield, on boiling, an abundance of wax which is manufactured into candles; the nuts of *Ephédra distáchya* are eatable; the wood of some of the *Casuarinas* is remarkably hard and durable.

1936 <i>Casuarína W.</i>	1941 <i>Comptónia W.</i>	2056 <i>Nagèia Gärtn.</i>
2115 <i>Ephédra W.</i>	2055 <i>Myrica W.</i>	

ORDER CXLV. CONIFERÆ.

These bear the same relation in point of consequence to resinous trees, that *Amentacæ* bear to those that are not resinous. They are well known as lofty timber, yielding valuable wood and abundance of resin.

Among them is now numbered the loftiest tree in the world, a species of pine found by Mr. Douglas in California, which grows 220 feet high, with a circumference of 60 feet. Pitch, turpentine, Venice turpentine, are produced by various species. Gum Sandarach, by *Thúja quadrivalvis*; a matter like olibanum, by *Juniperus lycia*; a sort of liquid storax, by *Altingia excelsa*. The *Juniperuses* in which the resin is "incompletely oxygenized," are more fragrant, and also stimulating in a greater degree; as the savin for example. The berries of many of these plants possess similar qualities. Their seeds are all oily; those of *Pinus Pinea*, *Cembra*, and *Lambertiána*, and *Salisbúria adiantifolia*, are eatable as nuts. The fleshy fruit of the ivy, which is poisonous, is an exception to the general innoxious character of the order. *Coniferae* are mostly inhabitants of the northern parts of the world, where they form immense forests, and supply with their dense persistent leaves the place occupied by the evergreen trees of warmer climates. A few are found in the southern hemisphere.

2012 <i>Pinus W.</i>	2017 <i>Cuprèssus W.</i>	2112 <i>Araucária J.</i>	1970 <i>Exocárpus Lab.</i>
2013 <i>A'bies Salisb.</i>	2018 <i>Thúja W.</i>	2010 <i>Bélis Salisb.</i>	2016 <i>Podocárpus L'her.</i>
2014 <i>Lárix Salisb.</i>	2113 <i>Juniperus W.</i>	2011 <i>A'gathis Salisb.</i>	2114 <i>Táxus W.</i>
2015 <i>Schubértia Mirb.</i>			

ORDER CXLVI. CHLORANTHÆÆ.

Obscure Asiatic weeds of no known use, and wholly destitute of interest for gardens.

25 *Chloránthus W.*

ORDER CXLVII. PIPERACEÆ.

The peppers are far more valuable in commerce than interesting in cultivation, their flowers being in all cases very insignificant, and their leaves so uniform in appearance, as to create but little variety. Nearly the whole indeed of the herbaceous species or *Peperónias*, as they are sometimes called, are mere weeds. The berry of the pepper is well known to be hot, aromatic, pungent, and stimulating; not only in the common peppers of the shops, but also in *P. cubéba*, *carpónga*, and *heterophýllum*. The *Piper anisatum* yields a strong smell of anise; a decoction of its berries is used in Spanish America for washing ulcers. The *Piper Bétel* and *Siribóa* afford the Malays a powerfully acrid and exciting preparation, which, they suppose, invigorates and enables them to withstand the debilitating influence of their climate. In the South Sea Islands, an inebriating beverage is procured by the mixture of the leaves and stems of *P. inébrians* with water. No pepper has yet been found beyond the limits of the tropics. *Saurúrus* is the representative of the order in extra-tropical countries.

77 *Piper W.*

872 *Saurúrus W.*

ORDER CXLVIII. CYCADEÆ.

The true station of this very curious order is extremely uncertain. Although placed here in conformity with the common practice, it is to be supposed that its true station is in the immediate vicinity of ferns, with which the species agree in veneration, and in many curious particulars. All are natives of countries beyond the reach of frosts, chiefly of the Cape of Good Hope and equinoctial America. With a low trunk which rarely exceeds the height of a few inches, they have the fronds and appearance of pigmy palms, and the inflorescence of gigantic *Equisétums*. The trunk of *Cýcas* contains a great quantity of *fæcula*, which is manufactured into a kind of spurious sago; and a similar substance, it has lately been ascertained, may be obtained from the stem of *Cýcas*. (*Gard. Mag.*, vol. iv.)

2107 *Cýcas W.*

2108 *Zámia W.*

CLASS II. MONOCOTYLEDONES.

The physiological peculiarities of this class of plants have been already explained in the general remarks which precede this arrangement of natural orders. To what is there stated, little remains to be added, except that in these northern regions, every thing included in it is herbaceous, and that in hotter latitudes, few deserve the name of either bush or tree, except the palms, and a few *Aroidæ* and *Asphodeleæ*.

SECTION I. STAMENS EPIGYNOUS.

ORDER CXLIX. HYDROCHARIDÆÆ.

Floating white-flowered plants, of which *Stratiótes* is the most majestic. They possess no known properties, but have the singular character in *Monocotyledones* of being in some cases lactescent. The species are natives of various parts of the world.

308 *Trápa W.*

859 *Damasónium W.*

2089 *Hydrocháris W.*

2096 *Stratiótes W.*

ORDER CL. ORCHIDÆÆ.

Of all tribes of plants, this is the most singular, the most fragrant, and the most difficult of culture. The flowers are often remarkable for their grotesque configuration, which has been likened to heads and bodies of animals, and for the strange character of their stems, which are sometimes attenuated into a degree of gracefulness scarcely equalled even among grasses, and sometimes contracted into a clumsy goutiness of figure such as is known no where else. The species are found inhabiting the mountains and meadows of the cooler parts of the globe, or adhering by their tortuous roots to the branches of the loftiest trees of the tropical forest, to which their blossoms often lend a beauty not their own. Vulgarly, this last description of plants is called parasitic; they are, however, not so, deriving no support from the juices of the plants on which they grow; but on the contrary, are epiphytes, merely adhering to other plants for support, and vegetating amidst the rich black soil which collects at the foot of all trees growing in a hot humid climate. It is very singular that the pollen of these plants has no parallel, except among the very different and distinct order of *Asclepiadææ*. The only medical properties of the order exist in the roots of some of the *O'rchises*, from which the nutritious substance called *salop* is prepared. The *Vanilla* of the shops is the pod of the genus called *Vanilla*. From the boiled stems of some of the Brazilian species a tenacious glue is obtained, which is employed in many useful purposes.

Tribe 1. NEOTTIÆÆ. *Lindl.*

1870 *Goodyéra R. Br.*
1871 *Diáris Sw.*

1872 *Ponthiéva R. Br.*
1873 *Neóttia L.*

1876 *Listéra R. Br.*
1874 *Spiránthes Rich.*

1875 *Stenorhynchus Rich.*

Tribe 2. ARETHUSEÆÆ. *Lindl.*

1877 *Arethúsa L.*
1878 *Calopógon R. Br.*

1879 *Pogónia R. Br.*
1881 *Caleána R. Br.*

1880 *Epipáctis Sw.*
1882 *Coralorrhiza Haller.*

Tribe 3. GASTRODIEÆÆ. *R. Br.*

1926 *Prescótia Lindl.*

1930 *Vanilla Sw.*

Tribe 4. OPHRYDEÆ. *Lindl.*

1859 <i>O'rchis L.</i>	1865 <i>A'ceras R. Br.</i>	1861 <i>Habenária R. Br.</i>	1868 <i>Hermínium R. Br.</i>
1863 <i>Glóssula Lindl.</i>	1866 <i>O'phrys L.</i>	1858 <i>Gymnadénia R. Br.</i>	1862 <i>Barthollina R. Br.</i>
1864 <i>Anacamptis Rich.</i>	1869 <i>Seráphus R. Br.</i>	1837 <i>Platanthéra Rich.</i>	1856 <i>Satyrium W.</i>
1860 <i>Nigritélla Rich.</i>	1855 <i>Disa Sw.</i>	1867 <i>Chamórchis Rich.</i>	

Tribe 5. VANDEÆ. *Lindl.*

1923 <i>Calánthe R. Br.</i>	1917 <i>Aérides Sw.</i>	1887 <i>Lissochilus R. Br.</i>	1920 <i>Eulóphia R. Br.</i>
1913 <i>Octoméria R. Br.</i>	1916 <i>Vánda R. Br.</i>	1858 <i>Geodórium Jacks.</i>	1891 <i>Xylóbiium Lindl.</i>
1892 <i>Maxillária Fl. per.</i>	1915 <i>Sarcánthus Lindl.</i>	1895 <i>Oncídium Sw.</i>	1908 <i>Polystáchya Hooker</i>
1901 <i>Camaridium Lindl.</i>	1922 <i>Aeránthes Lindl.</i>	1898 <i>Macradénia R. Br.</i>	1890 <i>Trizeúxia Lindl.</i>
1902 <i>Ornithídium Salisb.</i>	1921 <i>Angræcum Pet. Th.</i>	1886 <i>Brássia R. Br.</i>	1883 <i>Rodriguezia Fl. per.</i>
1904 <i>Pholidóta Lindl.</i>	1919 <i>Ionópsis Kth.</i>	1896 <i>Cyrtopódium R. Br.</i>	1884 <i>Goméza R. Br.</i>
1910 <i>Ornithocépalus Hook.</i>	1918 <i>Renánthéra Lour.</i>	1889 <i>Catasétum Rich.</i>	1893 <i>Notýlia Lindl.</i>
1909 <i>Cryptarrhéna R. Br.</i>	1885 <i>Cymbididium Swz.</i>		

Tribe 6. EPIDENDREÆ. *Lindl.*

1911 <i>Blétia Fl. per.</i>	1907 <i>Epidéndrum L.</i>	1905 <i>Broughtónia R. Br.</i>
1914 <i>Brassavóla R. Br.</i>	1906 <i>Cátteya Lindl.</i>	1903 <i>Isochilus R. Br.</i>

Tribe 7. MALAXIDEÆ. *Lindl.*

1912 <i>E'ria Lindl.</i>	1897 <i>Cælogyne Lindl.</i>	1928 <i>Líparis Rich.</i>	1894 <i>Pleurothállis R. Br.</i>
1900 <i>Dendróbiium H.K.</i>	1925 <i>Maláxis L.</i>	1929 <i>Calýsso Salisb.</i>	1924 <i>Stélis Sw.</i>
1899 <i>Anisopétalum Hooker</i>	1927 <i>Micróstylis Nutt.</i>		

Tribe 8. CYPRIPEDEÆ.

1931 *Cypripédium W.*

ORDER CLI. SCITAMINEÆ.

These are distinguished from the last by their pollen not cohering in masses, their seeds not being winged, and their plurilocular ovarium. Their sensible qualities are also widely different. The species are natives only of the tropical parts of the world, where they form stemless or caulescent herbaceous plants, with long broad leaves, and flowers of white, yellow, or red, often possessing great fragrance, and generally much beauty. Their sensible qualities reside either in the root or the seeds. The former is the part used of the Ginger, the Galangale, the Cóstus, Turmeric, Zedoary, and others, all of which are more or less aromatic. The root of turmeric is also well known as affording a yellow dye, a property which it possesses in common with some others. The seeds of Cardamom are well known for their aromatic stimulating powers.

6 <i>Hedýchiium W.</i>	9 <i>Hellénia R. Br.</i>	12 <i>Kæmpféria W.</i>	15 <i>Glóbbia Rosc.</i>
7 <i>Roscóea Sm.</i>	10 <i>Zíngiber Rosc.</i>	13 <i>Amómum Rosc.</i>	16 <i>Mautisia Sims</i>
8 <i>Alpínia W.</i>	11 <i>Cóstus Rosc.</i>	14 <i>Curcúma W.</i>	

ORDER CLII. CANNEÆ.

Differing from the preceding, in the absence of aromatic principles, in the petaloid nature of the filament, and the single cell of their anther, they wholly resemble them in external appearance and geographical distribution. The Cánnas are well known for their beautiful flowers, and the Maránta arundinácea is celebrated for the abundance of nutritive fæcula which is prepared from it, and imported to Europe under the name of arrow-root.

1 <i>Cánna W.</i>	4 <i>Thália W.</i>	3 <i>Calathéa Meyer.</i>
2 <i>Maránta W.</i>	5 <i>Phryníum W.</i>	

ORDER CLIII. MUSACEÆ.

A noble order of plants, resembling the two last in appearance, but of far more gigantic stature, different geographical distribution, and sensible qualities. All the species, without exception, are among the grandest in the vegetable world, whether the breadth and beauty of their foliage, or the surpassing grandeur of their flowers, be considered. They are not, like Scitamineæ and Canneæ, confined to the tropics, but approach in many points towards the cooler latitudes of either hemisphere. While the Strelitzias, resplendent with orange and scarlet and white, are peculiar to the Cape of Good Hope, the plantain is laden with its enormous masses of wholesome pleasant fruit, in the mild climate of Madeira; the *Helicónias* and *Uránias* appear in the sultriest forests of Madagascar and Guiana. The fruit of the *Músa* is, as just stated, pleasant and wholesome; the leaves of the same plant form a valuable thatching for cottages; and the fibres of a particular species are manufactured into a fine hemp, from which the most delicate muslins of India are prepared.

570 <i>Helicónia W.</i>	571 <i>Strelitzia H. K.</i>	721 <i>Músa W.</i>	722 <i>Uránia W.</i>
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ORDER CLIV. HÆMODOURACEÆ.

The name of this order, derived from *αἷμα*, blood, indicates its most striking peculiarity; the roots of several species of *Hæmodórum*, *Wachendorfia*, and *Hertiéra* yielding a brilliant crimson dye. The species have equitant leaves, and six stamens, with anthers turned towards the ovarium; in which last character they differ from the closely allied order of Irideæ. They are found, with very few exceptions, in the Cape of Good Hope and New Holland.

108 <i>Xiphídium W.</i>	111 <i>Hæmodórum Sm.</i>	718 <i>Lophíola B. M.</i>	720 <i>Anigozánthos Lab.</i>
110 <i>Wachendorfia Ker</i>	113 <i>Dilátris Ker</i>	719 <i>Argoláisia Juss.</i>	

ORDER CLV. IRIDEÆ.

The peculiarity of this order exists in the superior six-cleft perianthium, three stamens opposite the outer segments, and the anthers so inserted that the line of their bursting is towards the outside of their flower. Occasionally, they are still called by the old appellation of *Ensatæ*. Most of the species are extremely beautiful; and as they are generally very easily cultivated, they have become universal favorites in gardens. Many of the species are found by the side of streams, or in rich pastures in Europe, Siberia, and America; others adorn the most barren deserts of the same countries, with their perishable flowers; a third set, consisting for the most part of *Sisyrinchium* and its allies, are found in cool parts of the islands in the South Seas; and, lastly, a large proportion of the order contributes to the herbage of Southern Africa, that indescribable charm which has captivated all observers. Their medicinal virtues are trifling. *Iris florentina* and *germánica* have roots, which, when dry, smell like violets, and are slightly stimulant, acting as sternutatories or purgatives, according as they are employed. The stigmas of the *Crócus* form the well-known saffron, which differs from the general character of the order, in being aromatic, and possessing a valuable coloring matter, which has the singular property of entirely disappearing under the influence of the sun's rays.

93 <i>Crócus Ker</i>	95 <i>I'xia Ker</i>	97 <i>Geissorhiza Ker</i>	99 <i>Sparáxis Ker</i>
94 <i>Witsénia Ker</i>	96 <i>Trichonéma Ker</i>	98 <i>Hesperántha Ker</i>	100 <i>Tritónia Ker</i>

101 <i>Watsónia Ker</i>	105 <i>Gladiolus Ker</i>	115 <i>Iris Ker</i>	1450 <i>Patersónia R. Br.</i>
102 <i>Babiána Ker</i>	106 <i>Anomathéca Ker</i>	116 <i>Moræa Ker</i>	1451 <i>Ferrária Ker</i>
103 <i>Lapeyrolásia Ker</i>	107 <i>Antholýza Ker</i>	117 <i>Márica Ker</i>	1452 <i>Tigrídia J.</i>
104 <i>Melasphe' rula Ker</i>	112 <i>Aristéca Ker</i>	118 <i>Fardánthus Ker</i>	1453 <i>Galaxia W.</i>

ORDER CLVI. AMARYLLIDÆ.

Here we have another group of vegetation so lovely as to have excited admiration from the days of Solomon, who called them the lilies of the field, down to our own period. Their roots are all bulbous. In stature they seldom exceed a foot or two: in *Doryánthes*, and some species of *Crinum* alone, much surpassing such a size; in foliage they possess a uniformity of figure which is very singular; in color they vary from white and yellow to deep scarlet and azure blue; in fragrance they vie with the violet and the primrose. Some of the species are natives of thickets in the cooler provinces of Europe and Asia; others are found deep rooted in the burning shores of islands where scarcely a blade of grass interposes itself between them and the torrid rays of a scorching sun; many spring up in the gloomy, damp, and sultry woods of equinoctial America; and another set intermingles with the *Ixias* and *Gladioluses* of Southern Africa. Several of the *Narcissi*, independent of their beauty, possess emetic qualities; from the viscid juice of *Hæmánthus toxicárius*, the *Hottentots* procure a poison wherewith to smear their arrows.

711 <i>Narcíssus W.</i>	731 <i>Hæmánthus W.</i>	737 <i>Brunsvígia Heist.</i>	743 <i>Zephyránthes' Herb</i>
712 <i>Pancrátium W.</i>	732 <i>Galánthus W.</i>	738 <i>Nerine Herb.</i>	744 <i>Habránthus Herb.</i>
713 <i>Eucrósia B. Reg.</i>	733 <i>Leucójum W.</i>	739 <i>Amarýllis W.</i>	745 <i>Doryánthes R. Br</i>
714 <i>Erycýtes Satib.</i>	734 <i>Strumária Jacq.</i>	740 <i>Vallóta Herb.</i>	746 <i>Gethýllis H. K.</i>
715 <i>Calostémma R. Br.</i>	735 <i>Crinum W.</i>	741 <i>Griffínia Ker</i>	748 <i>Alstromécria W.</i>
716 <i>Chlidánthus Herb.</i>	736 <i>Cyrtánthus H. K.</i>	742 <i>Sternbérgia W.</i>	749 <i>Conantheta Fl. per.</i>
717 <i>Chryspíhala Ker</i>			

ORDER CLVII. HYPOXIDÆ.

America, New Holland, the Cape of Good Hope, Polynesia, and the Indian Archipelago give birth to these plants, which have sweet yellow flowers and linear leaves, protected by long weak hairs. Nothing is known of their medicinal qualities.

750 <i>Hypóxis W.</i>	751 <i>Curcúligo H. K.</i>
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ORDER CLVIII. DIOSCOREÆ.

A climbing stem, and broad, cordate, or angular leaves, inconspicuous yellowish flowers, and a large fleshy root, are the obvious characteristics of this order, of which the yam is the representative; the roots of this plant yield one of the most important articles of food in the tropical countries.

2083 <i>Testudinária Burch.</i>	2084 <i>Rajánia W.</i>	2085 <i>Dioscóra W.</i>
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SECTION II. STAMENS PERIGYNOUS.

ORDER CLIX. HEMEROCALLIDÆ.

These are fine showy plants, bearing their flowers in umbels or racemes, either white, yellow, red, or blue; they are mostly inhabitants of temperate zones, and are of little utility, with the exception of the *Aloe*, the purgative powers of which need not be insisted on. This genus is, besides, remarkable among *Monocotyledones* for its fleshy leaves, in which, and its woody stem, it offers a striking deviation from the usual structure of these plants.

747 <i>Poliánthes L.</i>	769 <i>Hemerocállis W.</i>	777 <i>Trítoma B. M.</i>	780 <i>Tulbághia W.</i>
767 <i>Agapánthus W.</i>	770 <i>A'loe W.</i>	778 <i>Vertheímia H. K.</i>	792 <i>Brodie'a Sm.</i>
768 <i>Blandfórdia R. Br.</i>	776 <i>Alétris W.</i>	779 <i>Sansevíria W.</i>	

ORDER CLX. ASPHODELEÆ.

Different from *Hemerocallidæ* in their expanded flowers and dark crustaceous seed-coat; the only characters which have yet been discovered to distinguish them. The species are all pretty, many very handsome, some bulbous, some with fasciculated roots, a few with arborescent stems. They are uncommon in tropical countries, very abundant in temperate latitudes, and not unfrequent in the cooler regions of the world. Among the prettiest are *Gágea*, *Scilla*, and *Hyacinthus*; the least interesting are *Chlorophýtum* and *Zuccágnia*. *Aspáragus* and *Dracæ'na* have berried fruits; the former is diuretic, and when young is employed as a favorite food; the same properties are possessed by *Scilla* and *A'llium*. The stamens of *Arthropódium* are remarkable for their tuft of yellow hairs, of *Dianélla* for the thickening of the filaments. Many of the *A'lliums* are very pretty, and admired notwithstanding their unpleasant odor; their roots are all eatable, and those of some among the most useful articles of food. *Thysanótus*, the fringed violet of New Holland, has rich purple blossoms, with long delicate fringes which sparkle in the sun, as if continually bedewed with minute particles of water. From *Phórmium ténac* the strong fibrous substance called New Zealand flax is prepared. *Xanthorrhæa* has an arborescent stem which abounds in resin.

808 <i>Asphódelus W.</i>	815 <i>Eustréphus R. Br.</i>	795 <i>Sowerbæ'a L. T.</i>	818 <i>Uropétalon Ker</i>
807 <i>Bulbine W. en.</i>	805 <i>Massónia W.</i>	798 <i>Xanthorrhæ'a R. Br.</i>	819 <i>Hyacinthus B. M.</i>
806 <i>Eremúrus Bieb.</i>	803 <i>Scilla W.</i>	791 <i>Eúcomis W.</i>	820 <i>Zuccágnia Th.</i>
809 <i>Anthéricum W.</i>	804 <i>Puschkinia Bieb.</i>	799 <i>Thysanótus R. Br.</i>	821 <i>Muscária B. M.</i>
810 <i>Arthropódium R. Br.</i>	802 <i>Ornithógalum W.</i>	794 <i>Aphyllánthes W.</i>	822 <i>Lachenália W.</i>
811 <i>Chlorophýtum Ker</i>	801 <i>Gágea Sal.</i>	775 <i>Phyllóma B. M.</i>	823 <i>Phórmium W.</i>
812 <i>Cæ'sia R. Br.</i>	800 <i>Eriospérmum W.</i>	774 <i>Dracæa W.</i>	824 <i>Cyanálla W.</i>
813 <i>Narthécium B. M.</i>	796 <i>A'llium W.</i>	816 <i>Aspáragus L.</i>	793 <i>Peliosánthes B. R.</i>
814 <i>Dianélla Lam.</i>	797 <i>Albúca W.</i>	817 <i>Drimia Jacq.</i>	2111 <i>Rúscus W.</i>

ORDER CLXI. SMILACÆÆ.

These scarcely differ from the bacate *Asphodeleæ*, except in their usually trifid style, and the membranous integuments of the seed. Many are interesting plants, especially the lily of the valley, a species of *Convallária*, the odor of which is perhaps the most grateful in the vegetable kingdom. Several others, as *Uvulária*, *Smilacina*, *Polygonátum*, and *Trillium* are objects of ornament. *Smilax* is remarkable for its twining stems, and its leaves, which resemble those of *Dicotyledones*; the roots of several species form the *sarsaparilla* of the shops, a drug, the nature of which is mucilaginous and rather bitter, and which is employed as diaphoretic and diuretic. *Medéola* is also an active diuretic. The roots of *Támus* are purgative and dangerous.

785 <i>Uvulária W.</i>	788 <i>Smilacina Desf.</i>	843 <i>Myrsiphýllum</i>	2082 <i>Támus W.</i>
786 <i>Streptópus M.</i>	789 <i>Polygonátum Desf.</i>	846 <i>Medéola W. en.</i>	850 <i>Trillium W.</i>
787 <i>Convallária Desf.</i>	790 <i>Ophiopógon Ker</i>	2081 <i>Smilax W.</i>	729 <i>Páris W.</i>

ORDER CLXII. BROMELIACÆÆ.

Of these the eatable pine-apple is the representative, from which the other genera differ more in the want of a fleshy fruit than in general appearance. Their habit is acid, their leaves rigid and toothed with spines, and covered with minute scales, their bractæ often colored with scarlet, and their flowers either white or blue.

They are all natives of tropical countries, with the exception of Tillandsia, which, in the humid woods of Carolina, forms dense festoons among the branches of the trees; this, like many others of the order, is an epiphyte, vegetating among the black mould that collects upon the bark of trees in hot damp countries; others are inhabitants of deep and gloomy forests; and others form, with their spiny leaves, an impenetrable herbage in the extensive pampas of Buenos Ayres and Brazil. From the *Agave mexicana* a fermented beverage is prepared, from which a strong colorless spirit, resembling the best Scotch whiskey, is distilled.

726 Bromélia <i>W.</i>	727 Guzmánia <i>Fl. per.</i>	723 Bonapártea <i>F. P.</i>	725 Furcraea <i>V.</i>
728 Pitcairnia <i>W.</i>	729 Tillandsia <i>W.</i>	724 Agave <i>H. K.</i>	

ORDER CLXIII. LILIACEÆ.

It is doubted whether several of the preceding orders are not rather sections of this; until, however, the combination of these shall be effected by some hand yet more masterly than those by which they have been divided, it is best to let them remain as they are. The beauty of the plants composing the Liliaceæ, strictly so called, is universally acknowledged; the rich colors of the branching lilies, the vivid hues of the painted tulip, the modest graces of the humble Erythrónium, and the portly forms of the Yúccas are all attractions of which no good garden should be destitute. The species are all inhabitants of either cold or temperate latitudes.

771 Lílium <i>W.</i>	773 Fritillária <i>W.</i>	782 Erythrónium <i>W.</i>
772 Túlipa <i>W.</i>	781 Yúcca <i>W.</i>	

ORDER CLXIV. MELANTHACEÆ.

These, too, are pretty herbs, although destitute of the grandeur of the preceding, which, however, they far surpass in the potency of their virtues. The flowers of many are inconspicuous, and of a dull-green or yellow color, sometimes assuming a livid hue, which will bespeak the nature of their powers. A dangerous or poisonous acid juice is their characteristic, which is particularly active in some of them, such as the Cólchicum and Verátrum. The roots of the former are the basis of the eau médicinale, and are now used in cases of gout with much success. The root of Verátrum is believed to have been the hellebore of the ancients, an active drug, which, administered in small doses, is a drastic purgative, in more abundance a violent emetic. The root of Helónias dioica, infused in water, is anthelmintic, but, steeped in spirits, yields a bitter and tonic tincture. The leaves of Cólchicum and Verátrum often produce vomiting and severe pain in the animals that eat them; the flowers of the first are also said to be poisonous, and its seeds to possess the same properties as the roots, but in a milder degree. Groves and pastures in Europe and Siberia and North America are the most frequented by Melanthaceæ, several are found at the Cape, and Gloriósa is a native of the woods of middle Africa.

851 Cólchicum <i>W.</i>	847 Xerophýllum <i>Mich.</i>	849 Androcymbium <i>W.</i>	858 Nolina <i>Mich.</i>
784 Bulbocódiium <i>W.</i>	842 Lichtensteina <i>W.</i>	844 Tofiéldia <i>Hud.</i>	2128 Verátrum <i>W.</i>
845 Melánthium <i>L.</i>	848 Wúrmbea <i>L.</i>	852 Helónias <i>L.</i>	783 Gloriósa <i>W.</i>

ORDER CLXV. BUTOMEÆ.

Fine water plants, of which Bútomus, by general consent the most beautiful of British plants, has purple flowers; and Limnocháris, a native of the marshes of Brazil, has yellow ones.

939 Bútomus <i>W.</i>	1175 Limnocháris <i>Rich.</i>
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ORDER CLXVI. ALISMACEÆ.

Handsome water plants, with white flowers, and many ovaria. Some are common in our English ditches, others are found in similar situations in the tropics.

860 Actinocárpus <i>R. Br.</i>	1988 Sagittária <i>W.</i>	861 Alisma <i>W.</i>
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ORDER CLXVII. COMMELINEÆ.

Mostly inhabitants of marshy ground, in either hemisphere, but not known in Europe except in cultivation. America is their grand station. Many are insignificant creeping plants, especially the Commelinas; others, as the Pontedérias are very handsome; and the Dichorizándras are exceedingly noble caulescent plants, with large thyrses of blue flowers: this color is the prevailing one of the order.

84 Callisia <i>W.</i>	89 Aneiléma <i>B. P.</i>	730 Pontedéria <i>W.</i>	766 Dichorizándra <i>Vand.</i>
88 Commelina <i>B. P.</i>	90 Cartonéma <i>R. Br.</i>	765 Tradescántia <i>W.</i>	

ORDER CLXVIII. JUNCEÆ.

Inconspicuous, rigid, worthless weeds, for the most part; Xýris and Philydrum, which have pretty yellow flowers, if belonging to the order, being exceptions. They clothe the barren ground in most parts of the world, and are the first approach to the formation of a regular perianthium, as we ascend in the scale of vegetation. Xerótes has the habit of a low palm.

86 Xýris <i>L.</i>	761 Lúzula <i>Dec.</i>	2076 Xerótes <i>R. Br.</i>
760 Júncus <i>L.</i>	839 Flagellária <i>W.</i>	17? Philydrum <i>R. Br.</i>

ORDER CLXIX. ERIOCAULEÆ.

Pretty interesting little bog plants, found in all parts of the world. The order consists of Eriocaúlon only, many of whose species are easily cultivated, though seldom seen in gardens. The Eriocaúlon septanguláre, found in a lake in the Isle of Skye, is, perhaps, the rarest of European plants. They are not known to possess any medical virtues.

223 Eriocaúlon <i>W.</i>

ORDER CLXX. PANDANEÆ.

With the habit of palms, and the inflorescence of Aroidæ, this fine order stands very distinctly separated from all others. The stem is an arborescent caudex, either growing to a considerable height, or weak, and lying on the ground. The leaves of some are formed into a coarse cordage; the flowers of *P. odoratissimus*, and the fruit of some others, are eaten. All are tropical.

2004 Carludóvica <i>Fl. per.</i>	2041 Pandánus <i>W.</i>
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ORDER CLXXI. NAIADES.

Floating uninteresting plants, scarcely susceptible of cultivation: they form a close approach to Cellulares.

1938 Zannichéllia <i>W.</i>

ORDER CLXXII. RESTIACEÆ.

Rigid, inelegant, often leafless plants, with split vagina, and the habit of some Cyperaceæ, or true Junceæ. They are all inhabitants of the southern hemisphere, especially of the Cape of Good Hope and New Holland.

2046 Willdenóvia <i>Th.</i>	2047 Réstio <i>W.</i>	2048 Elégia <i>W.</i>	2110 Leptocárpus <i>R. Br.</i>
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ORDER CLXXIII. PALMÆ.

These were well named by Linnæus, the princes of the vegetable world; for they far surpass all other plants in the grandeur and majesty of their port. Their lofty stem, supported by a mass of fibrous roots, which frequently creep along the surface of the ground, consists of wood with longitudinal fibres, soft in the centre, but hard as horn itself at the circumference; it is almost always unbranched, bearing a tuft of leaves at the summit; in a very few cases it is dichotomous, always round, and it terminates by a single bud; by the fall of the petioles of the leaves, which sheath it in a greater or less degree at the base, it is covered with large scars. The leaves, technically called fronds, are pinnate or flabelliform, never simple; and, in a young state, before they expand, they are folded up in plaits from the base to the apex. The flowers are small, with bractæ at their base, either sessile or seated in some cavity, of a pallid color, and contained in a large bag called a spatha; when they open, the mass of inflorescence, called a spadix, bursts suddenly through the under side of the spatha, generally evolving the most fragrant odors. Impregnation takes place rapidly, through the injection of the pollen upon the humid surface of the stigmas, which gape open to receive it. The fruit is perfected in a period varying from six months to a year; when ripe it is a drupe or berry, with either a fibrous or fleshy coat; the mass of its kernel consists of oily albumen, which, in the case of the cocoa nut, is soft enough to be eaten, but which in most species is as hard as horn. Dr. von Martius, the celebrated traveller in Brazil, to whom the world is indebted for nearly all that is known of these plants, concludes his remarks upon the characters of the order in the following words:—"Palms, the noble offspring of Terra and Phebus, are natives of those happy countries within the tropics, where the rays of the latter are ever beaming. In all such climates they are to be found, with this limitation, however, that in the southern hemisphere they do not overstep the 35th degree of latitude, nor in the northern the 40th. Most species are confined within fixed and narrow bounds, for it comes to pass that wherever a district is characterized by striking peculiarities of soil or climate, those species exist which are not found elsewhere; but few, on the contrary, extend over a large extent of surface, as the *Cocos nucifera*, *Acrocinia sclerocarpa*, *Borassus flabelliformis*, &c. It is probable that the number of palms existing on the face of the earth, will be found by future travellers to amount to as many as a thousand species. Most of them love the margins of springs and streams, but few establish themselves on the shores of the ocean, and yet a smaller number ascend into the alpine regions of their country; some collect in large forests; some are scattered singly or in clusters, among woods and plains. In the most ancient periods of the world, when the genera of plants were beginning to be formed, palms scarcely existed; they were preceded in the creation by the more ancient Ferns, Cycadææ, Grasses, and Equisetaceæ. Some of their remains have, however, been found in variegated sandstone, and in limestone of the third order (Ietzalkalk), part of which belong to unknown species, and part to species still in existence. But in the times succeeding the deluge, they appear, from the written evidence of historians and poets, to have followed the footsteps of man, to whom their fruit yielded food, drink, and oil; their stems houses, arms, utensils, flour, and wine; and their leaves cordage and roofs for habitations. In cultivation their soil should be slightly saline; they are propagated by seeds more readily than by truncheons of the stem; when cultivated they undergo no alteration, except in producing more fleshy or stemless fruit: it is extremely difficult to transplant them beyond their own country; naturally their migration is absolutely opposed by the barriers of the ocean."

762 <i>Corypha W.</i>	1982 <i>Ságus W.</i>	2008 <i>Nipa Th.</i>	2079 <i>Borassus W.</i>
763 <i>Licuála W.</i>	1983 <i>Cócos W.</i>	2009 <i>Arca W.</i>	2080 <i>Mauritia W.</i>
764 <i>Thrinax W.</i>	1984 <i>E'late W.</i>	2049 <i>Phe'nix W.</i>	2109 <i>Latánia J.</i>
855 <i>Sábal P. S.</i>	1985 <i>Báctris W.</i>	2077 <i>Eláís W.</i>	2153 <i>Rhápis W.</i>
753 <i>Cálamus W.</i>	2007 <i>Caryóta W.</i>	2078 <i>Chamædorea W.</i>	2154 <i>Chamærops W.</i>

SECTION III. STAMENS HYPOGYNOUS.

ORDER CLXXIV. GRAMINEÆ.

The order of grasses is beyond doubt the most natural of all that the ingenuity of systematic botanists has contrived; it is also the most numerous in species. The inflorescence is very much alike throughout the order, and the floral envelopes, which are bractæ in a progressive state to the form of calyx and petals, offer few striking characters by which the genera can be characterized. Hence it is that the classification of the order, and its division into genera, has not only been found extremely difficult, but has given rise to much difference of opinion among botanists; some of whom, adhering to the synthetical arrangement of Linnæus, admit but a small number of genera, while others, admitting the analytical principles of modern science, divide it into a vast number. The middle course in this, as in most other cases, is probably the just one. A subdivision of the order into tribes, has been attempted by Palisot, Trinius, Dumortier, Raspail, Kunth, Link, and others; that of M. Kunth is here adopted. The general habit of grasses is so familiar to every one, that it may be passed over in silence. They are remarkable for exhibiting, in no case, properties that are actually poisonous; possessing on the contrary, in almost all cases, wholesome and nutritive qualities. These latter are especially obvious in their seeds, which always contain a farinaceous substance, mixed with a certain proportion of glutinous matter. No one is ignorant of the various and important uses of the seeds of wheat, rye, barley, oats, maize, rice, and others, and in general of all the larger kinds of grass. It must however be remarked, that if the smaller sorts are not employed in like manner, it is merely on account of their minuteness, and not on account of any difference in their nature; in fact, in times of scarcity, and in half cultivated countries, use has advantageously been made of *Festúca flutans*, *Zizánia aquática*, *Avéna fítua*, *Pánicum sanguinále*, *Avéna elátiór*, *Brómus secalinus*, and *Elymus arenárus*. It is also to be noted, that the particular uses for which the seeds of certain grasses are employed, are not peculiar to them, but may be obtained from all the others, with slight modifications. Thus beer is made, not only from barley but also from wheat; spirituous liquors not only from our European cerealia, but also from rice. But it must be remarked, that a singular exception to the generally wholesome properties of grasses, appears to exist in *Lólium temuléntum*, the seed of which is reported to be narcotic and inebriating, and even poisonous; there is no doubt, however, that these qualities have been greatly exaggerated; for in the first place they disappear in bread or beer manufactured from *Lólium temuléntum*; and secondly, in times of scarcity, people have frequently lived upon it. But even supposing all that has been stated upon the subject to be true, this plant will still be found to be little different from wheat, when long exposed to wet; so well, indeed, is this known by country people, that a belief exists, that in wet summers wheat is actually transmuted into rye grass. The exciting properties of the oat, which are very unusual in this order, have been found to reside in the husk and not in the seed, and to depend upon the presence of a minute quantity of an aromatic principle, analogous to Vanilla, lying imbedded in the envelope of the seed, and capable of being extracted by aid of alcohol. As to the deleterious effects of the ergot of rye, these do not depend certainly upon any such property in the rye itself, but is caused either by the ergot disease, or, as is believed, by the parasitic fungus, from the attack of which it arises. Now let us pass from the seeds of Gramineæ to their stems, and we shall find a no less remarkable uniformity of nature in them. They all contain, especially before flowering, a sweet sugary mucilage, which varies in quantity in different species. The sugar cane, in which this is found in greatest abundance, not only constantly exists in the most favorable condition for producing it, as it rarely flowers, but is also one of the largest grasses known. The maize also abounds in sugar; and the same substance is secreted in such abundance by the *Sórgum saccharátum*, that attempts have actually been made in Italy to cultivate it as the sugar cane. The creeping roots of grasses, which are generally mucilaginous and demulcent, are sometimes used in medicine; but they are of more importance for retaining in banks the sand of the sea shore, so as to form artificial cliffs on flat coasts, to restrain the inroads of the sea. The stems of *Andropógon schenánthus*, the leaves of *Andropógon citrárum*, the roots of *Andropógon nárdus*, and the whole plant of all the species of *Anthoxánthum*, exhale an aromatic odor, and possess slightly tonic properties. To conclude, the epidermis of grasses has been found to contain a considerable quantity of silex.

Tribe 1. PANICEÆ.

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|------------------------------|-----------------------------|----------------------------------|-----------------------------|
| 139 Páspalum <i>W.</i> | 143 Digitária <i>P. S.</i> | 146 Echinochlóa <i>P. de B.</i> | 119 Lappágo <i>W.</i> |
| 140 Axónopus <i>P. de B.</i> | 144 Pánicum <i>B. P.</i> | 147 Orthópogon <i>P. de B.</i> | 134 Cénchrus <i>P. S.</i> |
| 141 Miliun <i>W.</i> | 145 Setária <i>P. de B.</i> | 148 Penicillária <i>P. de B.</i> | 135 Pennisétum <i>Rich.</i> |
| 142 Knáppia <i>E. B.</i> | | | |

Tribe 2. STIPACEÆ.

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|---------------------|----------------------------|
| 150 Stipa <i>W.</i> | 138 Oryzopsis <i>Mich.</i> |
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Tribe 3. AGROSTIDÆÆ.

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|--------------------------------|-----------------------------|----------------------------|---------------------------------|
| 151 Muhlenbérkia <i>Schr.</i> | 156 Agróstis <i>W.</i> | 161 Cinna <i>P. de B.</i> | 164 Alopecúrus <i>W.</i> |
| 152 Chetúrus <i>Lk.</i> | 157 Trichódium <i>Mi.</i> | 136 Spartina <i>W.</i> | 165 Phléum <i>W.</i> |
| 153 Lagúrus <i>W.</i> | 158 Tristegis <i>Nees.</i> | 162 Psámma <i>P. de B.</i> | 166 Achnodónton <i>P. de B.</i> |
| 154 Polypógon <i>W. en.</i> | 159 Sporóbolus <i>B. P.</i> | 163 Crýpsis <i>W.</i> | 167 Chilochlóa <i>P. de B.</i> |
| 155 Gastrídium <i>P. de B.</i> | 160 Airópsis <i>Desv.</i> | 133 Cornucópia <i>L.</i> | 168 Phálaris <i>W. en.</i> |

Tribe 4. BROMEÆ.

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|----------------------------------|------------------------------|----------------------------------|---------------------------------|
| 169 Corynéphorus <i>P. de B.</i> | 176 Chrysúrus <i>P. S.</i> | 184 Brómus <i>W.</i> | 192 Beckmánnia <i>Hort.</i> |
| 76 Anthoxánthum <i>W.</i> | 177 Sesléria <i>P. de B.</i> | 185 Brachypódium <i>P. de B.</i> | 193 Mélica <i>W.</i> |
| 170 Aíra <i>W.</i> | 178 Cynosúrus <i>P. S.</i> | 186 Uniola <i>W.</i> | 194 Molínia <i>P. de B.</i> |
| 171 Avéna <i>P. S.</i> | 179 Kaeléria <i>P. S.</i> | 187 Tricópsis <i>P. de B.</i> | 195 Bríza <i>W.</i> |
| 172 Trisétum <i>P. S.</i> | 180 Dáctylis <i>W. en.</i> | 188 Dipláchne <i>P. de B.</i> | 196 Póa <i>W.</i> |
| 173 Danthónia <i>P. de B.</i> | 181 Glycéria <i>R. Br.</i> | 189 Ceratochlóa <i>P. de B.</i> | 197 Eragróstis <i>P. de B.</i> |
| 174 Gaudínia <i>P. de B.</i> | 182 Festúca <i>W.</i> | 190 Schismus <i>P. de B.</i> | 198 Megastáchya <i>P. de B.</i> |
| 175 Arúndo <i>With.</i> | 183 Mygalúrus <i>Lk.</i> | 191 Triódia <i>R. Br.</i> | |

Tribe 5. CHLORIDÆÆ.

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|---------------------------------|------------------------------------|-----------------------------|----------------------------|
| 199 Sclerochlóa <i>P. de B.</i> | 201 Dactyloctécium <i>P. de B.</i> | 203 Cýnodon <i>P. S.</i> | 205 Echinária <i>Desv.</i> |
| 200 Eleusine <i>R. Br.</i> | 202 Lactochlóa <i>P. de B.</i> | 204 Dinébra <i>P. de B.</i> | |

Tribe 6. HORDEACEÆ (or CEREALÆ.)

- | | | |
|------------------------|------------------------------|------------------------------|
| 206 Triticum <i>W.</i> | 209 Secále <i>W.</i> | 212 Ophiúrus <i>P. de B.</i> |
| 207 Lólium <i>W.</i> | 210 Hórdeum <i>W.</i> | 213 Monérma <i>P. de B.</i> |
| 208 Elymus <i>W.</i> | 211 Microchlóa <i>R. Br.</i> | 137 Nárdus <i>W.</i> |

Tribe 7. SACCHARINÆÆ.

- | | | |
|--------------------------|-------------------------|--------------------------|
| 214 Perótis <i>H. K.</i> | 215 Sáccharum <i>W.</i> | 216 Imperáta <i>Cyr.</i> |
|--------------------------|-------------------------|--------------------------|

Tribe 8. ORYZEÆ.

- | | | |
|---------------------------|-----------|-----------------------|
| 217 Leérsia <i>R. Br.</i> | 837 Orýza | 754 Ehrháta <i>W.</i> |
|---------------------------|-----------|-----------------------|

Tribe 9. OLYREÆÆ.

- | | | | |
|-------------------------------|---------------------------|----------------------------|---------------------------|
| 1950 Zéa <i>W.</i> | 1954 Olyra <i>W.</i> | 2130 Chlóris <i>W.</i> | 2132 Hólcus <i>W. en.</i> |
| 1951 Cóix <i>W.</i> | 1979 Zizánia <i>W.</i> | 2131 Sórghum <i>W. en.</i> | 2134 Ægilops <i>W.</i> |
| 1952 Tripsacum <i>W.</i> | 1980 Phárus <i>W.</i> | 2133 Ischæmum <i>W.</i> | 2135 Manisúris <i>W.</i> |
| 1953 Heteropógon <i>Rich.</i> | 2129 Andropógon <i>W.</i> | | |

Tribe 10. BAMBUSACEÆ.

- | | | | |
|----------------------------|-------------------------|---------------------------|-----------------------|
| 218 Diarrhéna <i>Mich.</i> | 131 Remiréa <i>Aub.</i> | 219 Arundinária <i>W.</i> | 752 Bambúsa <i>W.</i> |
|----------------------------|-------------------------|---------------------------|-----------------------|

Station Uncertain.

- | |
|----------------------|
| 132 Lygéum <i>W.</i> |
|----------------------|

ORDER CLXXV. CYPERACEÆ.

The sedges, as these may be called in English, differ from grasses not only in their comparative worthlessness, and the different development of the parts of fructification, but also in the sheath, at the base of the leaves, being closed up, not slit. As objects of ornament they are of no value, and as subjects of agricultural interest of but little; they are, moreover, of little utility to man. They are chiefly valuable for covering, with the appearance of herbage, waste, and barren, marshy, or sandy tracts, in which little else will thrive. The roots of *Carex arenaria*, *disticha*, and *hirta*, possess diaphoretic and demulcent properties, whence they are sometimes called German sarsaparilla. Some of the *Scirpus* and *Cyperus* have eatable nutty roots; the stems of *Scirpus lacustris*, *Eleocharis palustris*, *Cyperus textilis*, and others, are manufactured into mats and the bottoms of chairs; the roots of *Cyperus esculentus* abound in oil, a very unusual circumstance; the papyrus of the ancients was manufactured from the stem of *Cyperus papyrus*; finally, the roots of *Cyperus longus*, *odoratus*, and others, are fragrant.

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|------------------------------|------------------------------|-------------------------------|--------------------------|
| 74 Cládium <i>Schr.</i> | 122 Isolépis <i>R. Br.</i> | 126 Trichóphorum <i>P. S.</i> | 130 Maríscus <i>Vahl</i> |
| 119 Schœnus <i>Vahl</i> | 123 Scípus <i>R. Br.</i> | 127 Phórum | 1947 Cárex <i>W.</i> |
| 120 Rhynchospora <i>Vahl</i> | 124 Eleocharis <i>R. Br.</i> | 128 Papýrus <i>Lk.</i> | 1948 Cobrécia <i>W.</i> |
| 121 Fimbristylis <i>Vahl</i> | 125 Erióphorum <i>P. S.</i> | 129 Kyllinga <i>Lk.</i> | 1949 Uncia <i>Rich.</i> |

ORDER CLXXVI. AROIDEÆ.

Herbaceous, stemless, or caulescent plants, with broad fleshy leaves, approaching very nearly to those of Dicotyledons. Their flowers are enclosed within a spathe, and are imbedded on a simple cylindrical spadix. Some are natives of Europe and of similar latitudes, but the greater number inhabit the tropics, where they often climb by their rooting stems to the tops of lofty trees. They have thick fleshy roots, which, when fresh, contain an acrid stimulating principle, which is so volatile that it passes off freely upon the application of heat; whence the roasted roots of many species are among the most common articles of negro food. The leaves of *Arum* *seguinum* are so paralyzing, that if chewed they deprive one of the power of utterance; whence in the West Indies it is called the *dumb cane*; the leaves of *Dracontium pertusum* are acrid; fresh gathered, and applied all over the surface of the body, they produce a slight inflammation and blistering, and are used in Demerara, by the natives, in dropsical cases. The root of *Arum triphyllum*, boiled in milk, has been found efficacious in consumption. The flowers of many species are highly fetid. Typhineæ, or bull-rushes are very like Cyperaceæ in habit. Pistiacæ are floating plants, in which the organs of fructification are reduced to the very simplest state. Juncagineæ are obscure marsh or river plants.

Tribe 1. GENUINE

- | | | | |
|------------------------|-------------------------|--------------------------|---------------------------|
| 232 Póthos <i>W.</i> | 758 Tácca <i>W.</i> | 868 Dracontium <i>W.</i> | 876 Roxbúrghia <i>Dr.</i> |
| 755 Acorus <i>W.</i> | 2006 A'rum <i>W.</i> | 869 Cállia <i>W.</i> | 769 Aspidistra <i>Ker</i> |
| 756 Oróntium <i>W.</i> | 2005 Caládium <i>W.</i> | — | 757 Tupistra <i>B. M.</i> |

Tribe 2. TYPHINEÆ.

1946 *Týpha W.*1946 *Spargánium W.*

Tribe 3. PISTIACEÆ.

1939 *Lémna W.*

Tribe 4. JUNCAGINEÆ.

109 *Leptánthus Mich.*
854 *Aponogéton W.*840 *Scheuchzéria W.*
317 *Potamogéton W.*841 *Triglóchin W.*

ORDER CLXXXVII. FLUVIALES.

With these the Vasculares and Monocotyledones terminate; it has long been apparent that we have been descending in the scale of vegetation; and hence, the last order exhibited a structure the most simple of all vascular plants. In the present order, *Zostéra* and *Rúppia* are so closely allied to *Algae*, that they may be mistaken for them.

24 *Zostéra L.*318 *Rúppia W.*

II. CELLULARES.

The characteristics of this division have already been explained in the preliminary observations upon the natural orders; and the remarks which were required for each natural order of Cellulares have already been given in *Cryptogamia* in the body of the work. It has, therefore, been thought advisable to adopt from Professor Agardh such observations as he has made upon the orders, as a sort of contrast to those already given.

CLASS I. FOLIACEÆ.

ORDER I. FILICES.

Of these the stem is perennial, often subterraneous and creeping, and occasionally becoming arborescent and leafy above the ground. The fronds or leaves are usually pinnatifid, and more or less compound; sometimes nearly simple and entire, with reticulated veins. The capsules are minute, one-celled, seldom many-celled, brown, membranous, and surrounded by a thick articulated elastic ring, irregularly bursting, and either clustered on the lower surface of the frond, or compound in spikes. Their veneration is circinate, and some are propagated by bulbs. The old botanists denied any fruit whatever to Ferns; believing the seeds of these plants to be so rare as to invest any body with invisibility who could collect them. Afterwards, their capsules were believed to be their seeds. Linneus, and some others, doubted whether their fructification were seeds or pollen. Finally, the experiments of Ehrhart and Lindsay proved, beyond all cavil, that they were really seeds. As to the male organs nothing is known; some suppose them to be glands of the frond, others the elastic ring, some the indusium, and others the pores of the epidermis; lastly, Martius has supposed them to be the membrane including the spiral vessels. Ferns are chiefly inhabitants of the torrid zone, becoming rarer as we approach the poles. They delight in a humid soil, and they often grow parasitically upon trees. The medicinal virtues of some are highly astringent, of others anthelmintic, of others purgative; some have acquired celebrity for their pectoral, others for their corroborant qualities. The young leaves and roots of some constitute an article of food; beer is obtained from the roots of others, and, finally, *Aspidium* frágans has been used as tea.

Tribe 1. POLYPODIACEÆ.

2168 <i>Polybótrya H. & B.</i>	2177 <i>Nothochlæ'na R. Br.</i>	2186 <i>Asplénium L.</i>	2195 <i>Cheilánthes Swz.</i>
2169 <i>Acróstichum L.</i>	2178 <i>Onoclea L.</i>	2187 <i>Allantodia R. Br.</i>	2196 <i>Davallia Sm.</i>
2170 <i>Hemionitis L.</i>	2179 <i>Struthiopteris W.</i>	2188 <i>Scolopéndrium Sm.</i>	2197 <i>Dicksónia L'Her.</i>
2171 <i>Gymnogramma Desv.</i>	2180 <i>Alloëorus Bernh.</i>	2189 <i>Diplázium Swz.</i>	2198 <i>Balántium Kaulf.</i>
2172 <i>Meniscium Schreb.</i>	2181 <i>Ellobocárpus Kaulf.</i>	2190 <i>Pteris L.</i>	2199 <i>Aspidium Swz.</i>
2173 <i>Xiphópteris Kaulf.</i>	2182 <i>Lomária W.</i>	2191 <i>Vittária Sm.</i>	2200 <i>Woodsia R. Br.</i>
2174 <i>Céterach W.</i>	2183 <i>Blechnum L.</i>	2192 <i>Lonchitis L.</i>	2201 <i>Cyathéa Sm.</i>
2175 <i>Polypódium L.</i>	2184 <i>Woodwárdia Sm.</i>	2193 <i>Antróphyum Kaulf.</i>	2202 <i>Trichómanes L.</i>
2176 <i>Tæ'nitis Swz.</i>	2185 <i>Doódia R. Br.</i>	2194 <i>Adiantum W.</i>	2203 <i>Hymenophýllum Sm.</i>

Tribe 2. OSMUNDACEÆ.

2204 <i>Tódea W.</i>	2205 <i>Osmúnda L.</i>	2206 <i>Lygódium Swz.</i>	2207 <i>Anémia Swz.</i>
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Tribe 3. OPHIOGLOSSÆÆ.

2208 <i>Botrychium Swz.</i>	2209 <i>Ophioglossum L.</i>	2210 <i>Maráttia Swz.</i>
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ORDER II. EQUISETACEÆ.

¹¹ Marsh plants, with a verticillate arrangement of their branches, and a highly indurated epidermis. Their seeds are remarkable for a hygro-metrical movement. The quality of some is said to be hurtful to cattle, which is denied by others. Formerly they were used in medicine as astringents and diuretics. *Equisetum hyemale* has been employed for tea, and as a polishing material for furniture, under the name of Dutch rushes.

2211 *Equisetum L.*

ORDER III. LYCOPODINEÆ.

¹² With the habits of mosses they have the seeds of ferns. They are herbaceous prostrate plants, with imbricated simple leaves. *Lycopodium complanatum*, *Selágo*, and *clavátum* as used as dyes; the spores of *Lycopodium clavátum* are said to be employed for ameliorating wine, and are also used in making fire-works, on account of their inflammable nature. The herb of *Lycopodium clavátum* and *Selágo* is emetic, and produces abortion. *Lycopodium plegmária* is reputed an aphrodisiac.

2212 *Lycopódium L.*2213 *Psilótum Swz.*

ORDER IV. MARSILEACEÆ.

Floating or erect simple-leaved plants of no known use. The Marsileas, which are to some countries what *Lémna* is to this, are not known in cultivation.

2214 *Isoetes L.*2215 *Pilulária L.*

CLASS II. APHYLLÆ

ORDER V. MUSCI.

Winter plants, reviving in humid air, abundant about the poles, rare at the equator. They cover the mountains of the earth as high as the limits of perpetual snow; growing in patches, they clothe the most barren spots with verdure, preserve trees from heat and cold, prepare the earth for nourishing more perfect plants, and fill up bogs and morasses with vegetable matter. To the economy of nature they are, therefore, more subservient than to the purposes of man. Medicinal astringent properties were formerly ascribed to some few, but they are now neglected or forgotten.

Tribe 1. EVAGINULATI.

2216 Sphágnum L.

Tribe 2. VAGINULATI OLOCARPI.

- | | | | |
|-------------------------|---------------------------|------------------------|------------------------|
| 2217 Pháscum L. | 2226 Trichóstomum Hedw. | 2235 Diphýscium Mohr. | 2244 Leúcodon Schwægr. |
| 2218 Schistostéga Mohr. | 2227 Cinclidótus P. de B. | 2236 Buxbaúmia L. | 2245 Fontínalis L. |
| 2219 Gymenóstomum Hedw. | 2228 Tórtula Ehr. | 2237 Funária Hedw. | 2246 Anómodon Hook. |
| 2220 Hymenóstomum R.Br. | 2229 Pterogónium Swz. | 2238 Bartrámia Hedw. | 2247 Neckéra Hedw. |
| 2221 Tétraphis Hedw. | 2230 Didýmodon Hedw. | 2239 Póhlia Hedw. | 2248 Daltónia Hook. |
| 2222 Encalypta Hedw. | 2231 Spláchnum L. | 2240 Brým Hedw. | 2249 Hookéria Sm |
| 2223 Grimmia Hedw. | 2232 Conostomum Swz. | 2241 Polýtrichum L. | 2250 Leskea Ehr. |
| 2224 Weissia Hedw. | 2233 Orthotríchum Hedw. | 2242 Anictángium Hedw. | 2251 Hýpnum L. |
| 2225 Dieránium Hedw. | 2234 Zýgodon Hook. | 2243 Fissidens Hedw. | |

Tribe 3. VAGINULATI SCHISTOCARPI.

2252 Andræa Hedw.

ORDER VI. HEPATICÆ.

Creeping small plants, with their leaves arranged in an imbricated manner. They differ from Lichens in structure, color, and fruit; from Musci, in the dehiscence of their capsule. Their qualities are mild, if any; some of them are fragrant.

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|-----------------------|-----------------------|-------------------------|
| 2253 Jungermánia L. | 2255 Riccia E. B. | 2257 Targiónia E. B. |
| 2254 Marchántia Mich. | 2256 Anthóceros E. B. | 2258 Sphærocárpus E. B. |

ORDER VII. ALGÆ.

Plants ascending from the simplest form known in vegetation to a very compound state. The lowest are filiform, leafless, with their fructification immersed; the highest are leafy, with the fructification included in an indehiscent wart-like pericarpium. Some copulate like animals, others have a spontaneous motion like worms. Their color is lively, in the lowest grades green, in the highest red or purple. Some are ephemeral and microscopical, annual or perennial, and others extend to the length of many fathoms. They grow at the bottom of the sea, or in fresh water, the depths of which they clothe with vegetation, as the higher orders of plants cover the earth with forests. They grow on stems in the water only, or on each other. Some exhale oxygen, others are scented like violets. Their taste is mild; their substance gelatinous, membranous, or coriaceous, usually covered externally with mucus. The structure of the lowest is articulated; of the highest fibrous.

Tribe 1. DIATOMÆ.

- | | | |
|---------------------|----------------------|---------------------|
| 2259 Achnánthes Ag. | 2261 Fragillária Ag. | 2263 Desmídium Ag. |
| 2260 Diátoma Ag. | 2262 Meloseira Ag. | 2264 Schizonéma Ag. |

Tribe 2. NOSTOCHINÆ.

- | | | | |
|--------------------|----------------------|----------------------|----------------------|
| 2265 Palmélla Ag. | 2267 Alcyonídium Ag. | 2269 Corynéphora Ag. | 2271 Chætóphora Ag. |
| 2266 Echinélla Ag. | 2268 Nóstoc Ag. | 2270 Rivulária Ag. | 2272 Scythyménia Ag. |

Tribe 3. CONFEROIDÆ.

- | | | | |
|-----------------------|--------------------------|-----------------------|-------------------------|
| 2273 Byssocládium Ag. | 2281 Leptomítus Ag. | 2289 Zygneúma Ag. | 2297 Griffithsia Ag. |
| 2274 Mycinéma Ag. | 2282 Mesogléia Ag. | 2290 Mougeotia Ag. | 2298 Chætospóra Ag. |
| 2275 Chroolépus Ag. | 2283 Batrachospérnum Ag. | 2291 Hydrodictyon Ag. | 2299 Polysiphónia Græv. |
| 2276 Trentepóhlia Ag. | 2284 Draparnaldia Ag. | 2292 Conferva Ag. | 2300 Rytiphléa Ag. |
| 2277 Scytonéma Ag. | 2285 Oscillatória Ag. | 2293 Bulbocháeta Ag. | 2301 Ectocárpus Ag. |
| 2278 Stigonéma Ag. | 2286 Cálotrix Ag. | 2294 Nitélla Ag. | 2302 Sphacellária Ag. |
| 2279 Protonéma Ag. | 2287 Lýngbya Ag. | 2295 Chára L. | 2303 Cladostéphus Ag. |
| 2280 Hygrocrocis Ag. | 2288 Bángia Ag. | 2296 Cerámium Ag. | |

Tribe 4. ULVACEÆ.

- | | | |
|--------------------|-------------------|------------------|
| 2304 Vauchéria Ag. | 2306 Bryópsis Ag. | 2308 U'va L. |
| 2305 Córdium Ag. | 2307 Solémia Ag. | 2309 Pórbhya Ag. |

Tribe 5. FLORIDÆ.

- | | | | |
|-------------------|---------------------|-----------------------|------------------------|
| 2310 Polyídes Ag. | 2312 Rhodomélla Ag. | 2314 Sphærocóccus Ag. | 2316 Bonnemaisónia Ag. |
| 2311 Ptilóta Ag. | 2313 Chóndria Ag. | 2315 Halyménia Ag. | 2317 Delesséria Ag. |

Tribe 6. FUCOIDÆ.

- | | | | |
|----------------------|---------------------|--------------------|----------------------|
| 2318 Lemána Ag. | 2321 Sporóchnus Ag. | 2324 Zonária Ag. | 2327 Furcellária Ag. |
| 2319 Chordária Ag. | 2322 Haliseris Ag. | 2325 Laminária Ag. | 2328 Fúcus L. |
| 2320 Scytosiphon Ag. | 2323 Encélium Ag. | 2326 Lichína Ag. | 2329 Cystoseira Ag. |

ORDER VIII. LICHENS.

Lichens are not only most useful in the Economy of Nature, as preparing the surface of the earth for the reception of larger vegetables, but they are, moreover, of great utility to man. Many, as Cetrária islándica, are eatable, having a bitter principle, and giving out a styptic tincture, if immersed in alcohol. Others, steeped in urine or salts, are used for dying; crustaceous species of this kind are Variolária oreína, Lecanóra tartára, Leprária chlorina, &c.; foliaceous species, Parmélie saxátilis, Sticta pulmonácea, Solorina crócea, Gyrophora deústa and pustuláta, &c.; and branched kinds, Roccélla tinctoria (the common Orchal), U'snea plicáta, Alectória jubáta, and others. In medicine, Cetrária islándica and nivális, Sticta pulmonácea, Alectória usneoides are tonic and nutritive; Parmélie parietina, Borréria purpurácea, Evérnia prunástri, &c., are astringent and febrifugal; Feltidæ aphthósa, anthelmintic; Evérnia vulpina, pisonous. Some yield a gum, as Evérnia prunástri; Sticta pulmonácea may be employed for bittering beer instead of hops, and Ramalina

scopulorum instead of scap. The various species give the grey hue to old walls and stones, cover desert heaths, and mottle the bark of ancient trees.

Tribe 1. IDIOTHALAMI.

- | | | |
|--------------------|--------------------|----------------------|
| 2330 Spilóma Ach. | 2332 Lecídea Ach. | 2334 Gyróphora Ach. |
| 2331 Solorina Ach. | 2333 Calícium Ach. | 2335 Endocárpou Ach. |

Tribe 2. CENOTHALAMI.

- | | | | |
|----------------------|--------------------|--------------------|------------------------|
| 2336 Thelotréma Ach. | 2341 Parmélia Ach. | 2346 Nephróma Ach. | 2350 Baomýces Ach. |
| 2337 Pyrénula Ach. | 2342 Borréfa Ach. | 2347 Roccélla Ach. | 2351 Isídium Ach. |
| 2338 Variolária Ach. | 2343 Cetrária Ach. | 2348 Evérnia Ach. | 2352 Stereocáulon Ach. |
| 2339 Urceolária Ach. | 2344 Sticta Ach. | 2349 Cenómyce Ach. | 2353 Sphæróphoron Ach. |
| 2340 Lecanóra Ach. | 2345 Peltidéa Ach. | | |

Tribe 3. HOMOTHALAMI.

- | | | |
|---------------------|------------------------|-------------------|
| 2354 Alectória Ach. | 2356 Corniculária Ach. | 2358 Colléma Ach. |
| 2355 Ramalina Ach. | 2357 U'snea Ach. | |

Tribe 4. ATHALAMI.

- 2359 Leparía Ach.

Tribe 5. PSEUDO-LICHENES.

- | | | |
|----------------------|--------------------|-------------------|
| 2360 Opégrapha Ach. | 2362 Porina Ach. | 2364 Gráphis Ach. |
| 2361 Verrucária Ach. | 2363 Arthónia Ach. | |

ORDER IX. FUNGI.

We have now reached the lowest station of vegetable existence, in arriving where the vesicles which compose the vegetable fabric are combined in various forms, according to the contingent circumstances under which they are developed. The mould on the cheese, the ergot of corn, the rust of the rose, and the huge Bolétus, which, in Java, spreads out its many-handed body from the trunks of ancient trees like a vegetating demon, differ only in the number of the vesicles of which they are composed. Many species are eatable, as Agáricus campéstris; others are deadly, as Bolétus scáber; some are used medicinally, as Dædálea suavólenis in coughs; Agáricus túba reginæ in diarrhœa; Agáricus piperátus in calculous disorders; Phállus Mokúsín against cancer; Polypórus annósus against the bites of serpents. Some Coprini are used for healing ulcers; Polypórus officinális as a purgative; Polypórus igniárius as a styptic; Polypórus destrúctor, and a number of others, constitute dry rot. For the poison of fungi, the roots of garlic, the leaves of parsley, and tincture of lacmus, are said to be remedies: so also is common spirit. Fungi swarm in all the coldest countries of the world, but as we approach the equator they are extremely rare; the place where they most flourish is Sweden, and the adjacent regions.

Tribe 1. HYMENOMYCETES.

§ 1. Hymenini.

Div. 1. Pileati.

- | | | | |
|--------------------------|---------------------------|----------------------|-------------------------|
| 2365 Agáricus L. | 2369 Merúlius Haller. | 2373 Bolétus Dill. | 2376 Sistostréma Fries. |
| 2366 Coprinus Lk. | 2370 Schizophýllum Fries. | 2374 Fistulina Bull. | 2377 Phlébia Fries. |
| 2367 Gómphus Fries. | 2371 Dædálea Pers. | 2375 Hýdnum L. | 2378 Theléphora Ehr. |
| 2368 Cantharéllus Adams. | 2372 Polypórus Micheli. | | |

Div. 2. Clavati.

- | | | | |
|-----------------------|-----------------------|---------------------|-------------------------|
| 2379 Clavária Vaill. | 2381 Geoglóssum Pers. | 2383 Mitrula Fries. | 2385 Pistillária Fries. |
| 2380 Calóccera Fries. | 2382 Spatulária Pers. | 2384 Týphula Fries. | |

§ 2. Uterini v. Elvellaceæ.

Div. 1. Mitrati.

- | | | | |
|----------------------|------------------|-----------------|-------------------|
| 2386 Morchélla Dill. | 2387 Helvélla L. | 2388 Vérpa Swz. | 2389 Leótia Hill. |
|----------------------|------------------|-----------------|-------------------|

Div. 2. Cupulati.

- | | | | |
|----------------------|----------------------|--------------------|----------------------|
| 2390 Peziza Dill. | 2392 Bulgária Fries. | 2394 Cenángium Fr. | 2396 Cryptomýces Fr. |
| 2391 Ascóbolus Pers. | 2393 Ditiola Fries. | 2395 Stictis Pers. | |

§ 3. Tremellini.

- | | | |
|--------------------|-----------------------|--------------------|
| 2397 Tremélla L. | 2399 Dacrymýces Nees. | 2401 Hymenélla Fr. |
| 2398 Exídia Fries. | 2400 Agýrium Fr. | 2402 Næmatélla Fr. |

§ 4. Sclerotiacei.

- | | | |
|------------------------|-----------------------|--------------------------|
| 2403 Acrospérmum Tode. | 2405 Rhizoctónia Dec. | 2407 Acínula Fr. |
| 2404 Sclerótium Tode. | 2406 Perióla Fr. | 2408 Erysíbe Rebentisch. |

Tribe 2. GASTEROMYCETES.

§ 1. Angiogastres.

Div. 1. Phalloidæ.

- | | |
|--------------------|---------------------|
| 2409 Phállus Mich. | 2410 Batárrea Pers. |
|--------------------|---------------------|

Div. 2. Tuberaceæ.

- | | |
|------------------|---------------------|
| 2411 Túber Plin. | 2412 Rhizopógon Fr. |
|------------------|---------------------|

Div. 3. Nidulariaceæ.

- | | | |
|----------------------|----------------------|---------------------|
| 2413 Nidulária Bull. | 2414 Myriocóccum Tr. | 2415 Polyángium Lk. |
|----------------------|----------------------|---------------------|

Div. 4. Carpoboli.

- | | | | |
|-------------------------|-----------------------|----------------------|------------------------|
| 2416 Atractóbolus Tode. | 2417 Thelébolus Tode. | 2418 Pilóbolus Tode. | 2419 Sphæróbolus Tode. |
|-------------------------|-----------------------|----------------------|------------------------|

§ 2. Pyrenomycetes.

Div. 1. Sphæriacei.

- | | | | |
|----------------------------|--------------------------|--------------------------|---------------------|
| 2420 Xylária Hill. | 2422 Cucurbitária Gray. | 2424 Heterosphæria Grev. | 2426 Lóphium Fries. |
| 2421 Stromatosphæria Grev. | 2423 Cryptosphæria Grev. | 2425 Sphæria Haller. | |

Div. 2. *Cytisporci.*

2427 *Sphæronæ'ma Fries.* 2428 *Septária Fries* 2429 *Cytispóra Ehr.* 2430 *Phóma Fr.*

Div. 3. *Phacidiacci.*

2431 *Dothidéa Tr.* 2432 *Rhytisma Fries.* 2433 *Phacidium Fries.* 2434 *Hystérium Tode.*

Div. 4. *Xylomacci.*

2435 *Actinothýrium Kunz.* 2437 *Xylóma Pers* 2439 *Asteróma Dec.*
2436 *Leptostróma Fr.* 2438 *Lasiobótrys Kunz.*

§ 3. *Trichospermi.*

Div. 1. *Lycoperdinei.*

2440 *Onygéna Pers.* 2442 *Sclerodérma Pers.* 2444 *Bovísta Pers.*
2441 *Tulóstoma Pers.* 2443 *Lycoperdon Mich.* 2445 *Geástrum Mich.*

Div. 2. *Trichocisti.*

2446 *Cratérium Trent.* 2449 *Dictýdium Schrad.* 2452 *Trichia Pers.* 2454 *Phýsarum Pers.*
2447 *Stemonitis Pers.* 2450 *Arscfýria Pers.* 2453 *Didérma Pers.* 2455 *Leocárpus Lk.*
2448 *Cribrária Schrad.* 2451 *Leángium Lk.*

Div. 3. *Fuliginoidei.*

2456 *Lycogála Mich.* 2457 *Spumária Pers.*

Div. 4. *Liceoidei.*

2458 *Dichospórium Nees.* 2459 *Licea Schrad.*

§ 4. *Mucoroidei.*

2460 *Múcor Pers.* 2461 *Thamnídium Lk.* 2462 *Ascóphora Tode.*

§ 5. *Perisporia.*

2463 *Eurótium Lk.* 2464 *Amphispórium Lk.*

Tribe 3. *HYPHOMYCETES.*

§ 1. *Cephalotrichi.*

2465 *Cerátium Albertini.* 2466 *Isária Pers.*

§ 2. *Stilboidei.*

2467 *Stilbum Tode.*

§ 3. *Inomycetes.*

Div. 1. *Byssacei.*

2468 *Tórula Lk.* 2470 *Racóidium Pers.* 2472 *Cladospórium Lk.* 2474 *Ozónium Lk.*
2469 *Monília Pers.* 2471 *Demátium Pers.* 2473 *Helicospórium Nees.* 2475 *Rhizomórpha Roth.*

Div. 2. *Mucedines.*

2476 *Sepedónium Lk.* 2479 *Trichothécium Lk.* 2482 *Aspergillus Mich.* 2484 *Penicillium Lk.*
2477 *Acremónium Lk.* 2480 *Acrospórium Nees.* 2483 *Stachylidium Lk.* 2485 *Trichodérma Pers.*
2478 *Sporótrichum Lk.* 2481 *Bótrytis Mich.*

§ 4. *Phylleriaceæ.*

2486 *Rubígo Lk.* 2487 *Eríneum Pers.*

Tribe 4. *CONIOMYCETES.*

§ 1. *Tuberculariæ.*

2488 *Tuberculária Tode.* 2489 *Fusárium Lk.* 2490 *Exospórium Lk.*

§ 2. *Entophytæ.*

Div. 1. *Stilbosporci.*

2491 *Fusídium Lk.* 2493 *Stilbospóra Hoffn.* 2495 *Næmaspóra Pers.*
2492 *Polythrincium Kunz.* 2494 *Sporidérmium Lk.*

Div. 2. *Hypodermia.*

2496 *Cylindrospórium Grev.* 2497 *Urédo Pers.* 2498 *Æcidium Pers.* 2499 *Puccinia Mich.*

After the most perfect classification which the present state of botanical knowledge renders practicable, there still remain a few genera which are incapable of having their true station assigned to them, either in consequence of their structure being incompletely known, or of their affinity not having yet been discovered. As far as this work is concerned, they are the following, all of which are Dicotyledones.

1966 <i>Aúcuba W.</i>	1462 <i>Aitónia W.</i>	2121 <i>Nepéntes W.</i>
405 <i>Bréxia Nor.</i>	2068 <i>Antidésma W.</i>	2163 <i>Laurophýllus W.</i>
442 <i>Vallésia Fl. per.</i>	2098 <i>Eúclea W.</i>	1986 <i>Ceratophýllum W.</i>

GLOSSARY

OF

TERMS USED IN THE GENERIC AND SPECIFIC DESCRIPTIONS, IN THE GENERAL OBSERVATIONS ON THE CLASSES, AND IN THE NOTES.

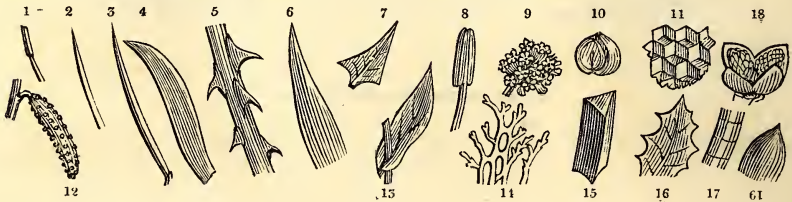
The figures between parentheses () refer to the engravings at the bottom of the page.

After each term a reference is given to an example of its application in the body of the work : in these references, g. signifies genus, s. species, p. page.

A.

A, in composition, signifies without, as *Aphyllus*, without leaves; *Acaulis*, without stem. s. 1339.
Abbreviate (*abbreviare*, to shorten). Used in comparative descriptions, to indicate that one part is shorter than another. *Sálvia crassifolia*, s. 420.
Aberrant, deviating from the natural or direct way; applied in Natural History to species or genera that deviate from the usual characters of their neighbours. p. 408.
Abortion (1) signifies an imperfect development of any given organ. *Cephalánthus*, g. 275. p. 78.
Abraded, rubbed or worn off. *Acácia*, g. 2127. (note.)
Abstergent, cleansing, having a cleansing quality. *Sapindus*, g. 926. (note.)
Accessory, something added to the usual number of organs, or their parts. *Phálaris*, g. 168. p. 32.
Accretion, the growing of one thing to another. p. 748.
Accumbent, lying on, prostrate, supine; this term is employed in Cruciferae, to signify a radicle, which lies upon the edge of the Cotyledons. p. 536.
Acerose, (2) needle-pointed; fine and slender, with a sharp point. *Bánkisia pulchella*, s. 1449.
Acetous, sour, tart, acid. *Pinguicula*, g. 52. (note.)
Acetarious, any thing belonging to the salad tribes of vegetables. *Lactúca*, g. 1628. (note.)
Actous, something that produces acidity. *Triticum*, g. 206. (note.)
Acicular, (3) needle-shaped. *Leptospermum triloculare*, s. 6931.
Acinaciform, (4) scimitar-shaped. *Ehrháta*, g. 754. p. 238.
Acini, the small stones in grapes, strawberries, &c. *Cecrópia*, g. 2043. (note.)
Aculeate, (5) being furnished with aculei or prickles, as distinguished from spines. *Spartina polystachya*, s. 920.
Aculei, prickles, sharp hard processes of the epidermis falling off when old; by which character they are distinguished from spines, which do not fall off. *Medicóg mürex*, s. 10910.
Acuminate, (6) taper-pointed. *Cánna indica*, s. 2.
Acutangular, (7) having sharp angles. *Córchorus acutangulus*, s. 7722.
Adnate, (8) adhering to a thing. Anthers are called adnate when they are attached to the filament by their whole length. *Anthoxánthum amárum*, s. 498.
Adult, the full-grown of any thing; full-grown leaves are adult leaves. *Prótea obtúsa*, s. 1318.
Æruginous, having a color like that of ærugo or verdigris. *Curcúma ærugínosa*, s. 82.
Agglomerated, collected in a heap or head. *Æcidium Jacobea*, s. 16669.
Aggregate, (9) gathered together; usually applied to a dense sort of inflorescence. *Calyménia aggregáta*, s. 570.
Agrumi, a name given by the Italians to any kind of lemons or oranges. *Citrus*, g. 1615. (note.)
Akenium, (10) a hard pericarpium, containing a single

seed, which does not adhere to it; it is the same as the Linnæan *nux*. *Hippophæa*, g. 2058. p. 817.
Albumen, the substance under the inner coat of the testa, surrounding the embryo; it is sometimes absent. *Résecla*, g. 1102. (note.)
Alenbick, a vessel used in distilling, or acting like a still. *Phœnix*, g. 2049. (note.)
Alexipharmic, that which counteracts poisons, antidotal. *Maránta*, g. 2. (note.)
Alexiteric, having the power of doing away poisons. p. 1065.
Alkalescent, having the properties or effects of alkali. *Rámex aretósa*, g. 856. (note.)
Alkali, any substance which, when mingled with acid, produces fermentation. *Viola*, g. 540. (note.)
Alveolate, (11) resembling a honeycomb. *Borkháusia*, g. 1637. p. 661.
Alvine, of or belonging to the intestines. *Acácia*, g. 2127. (note.)
Amentum, (12) a catkin; mode of inflorescence. *Aponogéton*, g. 854. p. 240.
Amplexicaul, (13) stem-clasping; the base of the leaf surrounding the stem. *Céstrum auriculátum*, s. 2465.
Amylaceous, having the properties of starch. p. 1065.
Anastomosing, (14) uniting, or insinuation, of vessels. *Cinclidótus*, g. 2227. p. 896.
Androgynous, producing both male and female sexes on the same root, or in the same flower. *Uncinia*, g. 1949. p. 768.
Anfractuose, full of turnings and winding passages. *Ochróma*, g. 1458. p. 560.
Angular, (15) composed of, or furnished with, angles. *Lopézia coronáta*, s. 103.
Angulo-dentate, (16) angularly toothed, or angular and toothed. *Lapsána communis*, s. 11324.
Annulations, (17) rings or circles. *Rivulária*, g. 2270. p. 925.
Anterior, growing in front of some other thing. *Hákea acanthophýlla*, s. 1434.
Anthelmintic, capable of killing worms. *Geoffróya*, g. 1317. (note.)
Antheriferous, (18) bearing anthers. *Lopézia*, g. 18. p. 1.
Antiaphrodisiacal, any thing which checks the desire of sexual intercourse. *Vitex*, g. 1317. (note.)
Anti-pestilential, efficacious against pestilence. *Angélica*, g. 664. (note.)
Antiphrasis, the use of words in a sense opposite to that of some neighbouring parallel sentence. *Globulária*, g. 260. (note.)
Anti-scrophulous, antiscorbutic; efficacious against scurvy. *Cynogóssum*, g. 336. (note.)
Antiseptic, efficacious against putrefaction. *Artemisia*, g. 1721. (note.)
Aperient, having a slight purgative quality. *Curcúma*, g. 14. (note.)
Apetalous, being without petals. p. 1.
Aper, (19) the summit; generally applied to any thing terminating in a point. *Thália dealbáta*, s. 26.
Aphrodisiacal, any thing which excites a desire for sexual intercourse. *Justícia*, g. 47. (note.)



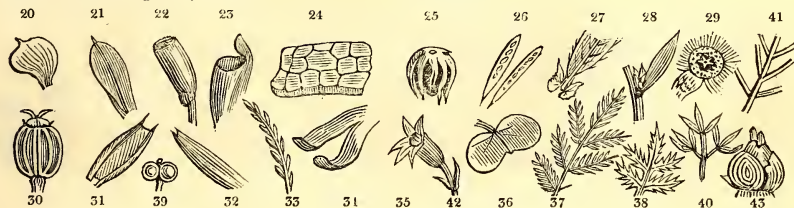
- Aphthous*, resembling something covered with little ulcers. *Acácia*, g. 2127. (note.)
- Apiculate*, (20) terminating in an apiculus or little point. *Rósa microphýlla*, s. 7512.
- Apiculus*, (21) a small point. This term is generally used when the midrib projects beyond the leaf, forming a little point, or when a small point is very suddenly and abruptly formed. *Tórtula unguiculáta*, s. 14751.
- Apophysis*, (22) a swelling beneath the theca of a moss. *Spáchnum*, g. 2231. p. 896.
- Appendix*, (23) that which is attached. *Sarracénia róbra*, s. 7675.
- Appense*, being hung up as a hat is upon a pin; an approach to pendulous. *Piménta*, g. 1123. p. 409.
- Appressed*, placed close upon something else; when hairs lie flat upon the surface of a plant, they are said to be appressed. *Stachytárfheta hirsutíssima*, s. 337.
- Approximated*, near together. *Sálvia truncáta*, s. 445.
- Apicious*, without wings, or the membranous margins which botanists call wings. *Pinguicula*, g. 52. (note.)
- Aquatic*, growing in or belonging to water. p. 1.
- Arboreous*, being a tree, as distinguished from frutescent or shrubby. *Pelargónium discípies*, s. 9633.
- Arborescent*, having a tendency to become a tree. *Piper tomentósum*, s. 517.
- Arcuate*, curved or bent like a bow. *Hypécoum procúbens*, s. 1815.
- Areolæ*, (24) little spaces or areas on the surface of a thing: the surface of crustaceous lichens is often cracked in every direction; the spaces between the cracks are the areolæ. *Lecidéa coracína*, s. 15378.
- Areolated*, the adjective of the last term. *Solénia*, g. 207. p. 925.
- Aridity*, dryness. *Xerótes*, g. 2076. (note.)
- Arillate*, having that peculiar appendage called the Arillus. The term is only applied to seeds. p. 751.
- Arillus*, (25) a process of the placenta adhering to the hilum of seeds, and sometimes enveloping them. *Phryníum*, g. 5. p. 1.
- Aristate*, bearded, as the glumes of barley. Many grasses.
- Aroma*, the spicy quality of a thing. *Justícia*, g. 47. (note.)
- Articulation*, the place where one thing is joined with another, another word for joint. *Corynéphorus*, g. 169. (note.)
- Asci*, (26) small tubes in which the spores of Cryptogamic plants are placed. p. 978.
- Ascigerous*, having asci. p. 982.
- Ascending*, rising upward. *Phlox amœna*, s. 2113.
- Attenuate*, made thin or slender. *Lopézia racemósa*, s. 102.
- Auriculated*, (27) having an ear-like base. *Jasmínium auriculátum*, s. 174.
- Awns*, the beard or arista of corn. *Salsólia muricáta*, s. 3404.
- Axil-flowering*, flowering in the axilla. *Chionánthus axilláris*, s. 154.
- Axilla*, literally the armpit; in plants applied to the angle formed by the union of the leaf and stem. *Dipsácus*, g. 262. (note.)
- Axillary*, (28) placed in the axilla. *Pollíchia campéstris*, s. 113.
- Axis*, the line, real or imaginary, that passes through any thing. *Actinocárpus*, g. 860. (note.)
- Beak*, any thing which resembles the beak of a bird; hard short points. *Briza*, g. 195. p. 33.
- Bearded*, having long hair like a beard. *Wulfénia*, g. 50. p. 9.
- Beardletted*, having small awns. *Cinna arundinácea*, s. 1010.
- Bicuspidate*, (31) twice pointed. *Cárex lagopodióides*, s. 13081.
- Bidentate*, (32) double-toothed, or having two teeth. *Alantódia axilláris*, s. 14527.
- Biennial*, a plant is said to be biennial which requires two seasons to mature its fruit, and then dies. *Phylidrum*, g. 17. (note.)
- Bifarious*, (33) placed in two rows. *Alpínia tubuláta*, s. 50.
- Bifid*, (34) half divided in two; two cleft. *Cánna lútea*, s. 4.
- Biglandular*, double-glanded. *Malpíghia glandulósa*, s. 6374.
- Bilabiate*, (35) having two lips. *Dicliptera*, g. 48. p. 9.
- Bilobed*, (36) divided into two lobes. *Oxális filicáulis*, s. 6518.
- Binate*, growing two together. *Córnus suécica*, s. 1791.
- Bipartite*, capable of being parted in two. *Prótea*, g. 231. p. 77.
- Bipinnate*, (37) a mode of foliation; twice pinnate. *Petróphila pulchélla*, s. 1306.
- Bipinnatifid*, (38) twice pinnatifid, a mode of foliation. *Verónica Jacquinii*, s. 238.
- Bisaccate*, having two little sacks, bags, or pouches. *Mathiola*, g. 1381. p. 536.
- Biscutate*, (39) resembling two bucklers (*scuta*) placed side by side. *Biscutélla*, g. 1413. p. 537.
- Bitermæ*, (40) divided in three twice over. *Chærophýllum Claytóni*, s. 3491.
- Bi-tri-crenate*, crenate twice or thrice. *Jungermánnia pusilla*, s. 11958.
- Bi-tri-pinnatifid*, pinnatifid twice or thrice over. *Petróphila diversifólia*, s. 1307.
- Bi-tri-ternate*, growing in three twice or thrice over. *Actæa americána*, s. 7650.
- Bivalved*, two-valved. p. 877.
- Blanching*, made white by being grown in a dark place. *Lactúcia*, g. 1628. (note.)
- Bland*, fair, beautiful. *Mesembryánthemum blándum*, s. 7348.
- Blight*, a vague term, signifying a pestilence among plants caused by the attack of insects or of parasitical fungi, or by some endemic affection of the atmosphere. *Húmulus*, g. 2074. (note.)
- Blistered*, having the surface raised as the skin is when blistered. *Sálvia micráutha*, s. 293.
- Bole*, trunk of a tree. *O'nicra*, g. 69. (note.)
- Boragineous*, of or belonging to the natural order Boraginææ. *Rhèxia*, s. 900. (note.)
- Brachiate*, (41) having arms or branches usually placed opposite to each other, nearly at right angles with the main stem, and crossing each other alternately. *Phillyréa angustifólia*, s. 143.
- Bracteate*, furnished with bractææ. p. 443.
- Bractœolæ*, little bractææ. *Geropógon*, g. 1620. p. 661.
- Bractææ*, (42) small leaves placed near the calyx. *Maránta obliqua*, s. 19.
- Branchlets*, small branches. *Agróstis vulgáris*, s. 993.
- Bristles*, rigid hairs. *Ghínia*, g. 65. p. 10.
- Bulbiferous*, bulb-bearing. *Glóbbá marantína*, s. 96.
- Bulbous*, having bulbs. *Cypérus*, g. 127. p. 31.
- Bulbs*, (43) underground buds resembling roots, and consisting of numerous fleshy scales placed one over the other. *Allium*, g. 795. p. 272.
- Burry*, covered with hooked stiff hairs, like the heads of Bur or Burdock. *Pisónia*, g. 864. (note.)
- Byssoid*, having the appearance of Byssi. p. 979.

B.

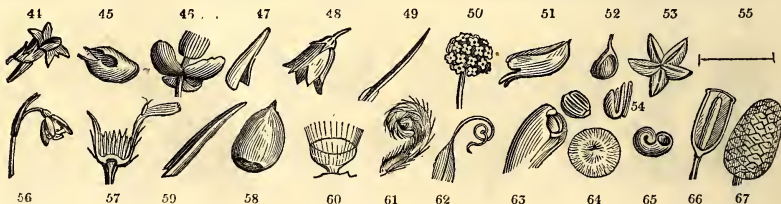
- Baccate*, berried, having a fleshy coat or covering. *Gmélina*, g. 1311. p. 493.
- Bagged*, resembling a bag or sack. *Ceanóthus*, g. 510. p. 113.
- Ball*, (29) the round central part of the flower of the *Stapétia*. p. 199.
- Bands*, (30) or vittæ, are the spaces between the elevated lines or ribs of the fruit of umbelliferous plants. *Bábon*, g. 640. p. 116.
- Barred*, crossed by a paler color in spaces resembling bars. *Sanseviéra gláucia*, s. 4540.

C.

- Caducous*, falling off soon. *Epimédium*, g. 297. p. 79.
- Cæsious*, grey. *Curcúma cæsía*, s. 84.
- Cespitose*, growing in little tufts. *Erínus alpinus*, s. 8825.



- Calcarate*, (44) spurred, or spur-shaped. *Alpínia cardamómum*, s. 48.
- Calcareous*, chalky, or growing on chalk. *O'lea*, g. 32. (note.)
- Calceiform*, (45) formed like a little shoe. *Pedilánthus*, g. 1104. p. 393.
- Calli*, small callosities, or rough protuberances. *Sálvia amaríssima*, s. 397.
- Calous*, hardened. *Bránia ericoídes*, s. 3005.
- Calycine*, of or belonging to a calyx. *Cartonéma*, g. 90. p. 30.
- Calyculated*, (46) having bracteolæ resembling an external or additional calyx. *Myóseris*, g. 1640. p. 661.
- Calyptra*, (47) literally an extinguisher; applied to the body which tips the theca of a moss, and the like. p. 895.
- Calyptrate*, having a covering resembling an extinguisher. *Erica coarctata*, s. 5330.
- Calyptrate*, having a calyptra. *Actinophýllum*, g. 697. p. 117.
- Calyptriiformis*, shaped like a calyptra. *Marcgraávia*, g. 1163. p. 456.
- Campanulate*, (48) bell-shaped. *Cóstus*, g. 11. p. 1.
- Canaliculate*, channelled or furrowed. *Weíssia acúta*, s. 14714.
- Cancellate*, latticed; resembling lattice-work. *Trigonélla cancellata*, s. 10882.
- Canescent*, hoary, approaching to white. *Selágo canescens*, s. 8662.
- Capillary*, (49) very slender; resembling a hair. *Trichóporum*, g. 126. p. 31.
- Capitate*, (50) growing in a head. *Chloránthus*, g. 25. p. 1.
- Capitular*, growing in small heads. *Brýum*, g. 2240. (note.)
- Capituli*, small heads. *Réseda*, g. 1102. (note.)
- Capitiform*, formed like a small head. *Centomýce*, g. 2349. p. 949.
- Carbonised*, burned to a coal. *Quércus súber*, g. 2000. (note.)
- Carina*, (51) a keel like that of a boat; also the two lower petals of papilionaceous flowers. *Pongámia*, g. 1514. p. 598.
- Carinatæ*, keel-shaped. *Utriculária minor*, s. 329.
- Cariopsis*, (52) a one-celled, small, indehiscent pericarpium adhering to the seed which it contains, as the grain of grasses. *Hydrástis*, g. 1341. p. 459.
- Carious*, decayed. *Juniperus*, g. 2113. (note.)
- Carminative*, medicines which promote perspiration. *Pimpinélla ánisum*, s. 3562.
- Carnose*, fleshy. *Gymnóstomum Griffithsiánum*, s. 14671.
- Carpella*, (53) the small parts out of which compound fruit are formed. *Actinocárpum*, g. 860. (note.)
- Carpology*, the science which treats of the structure of fruits and seeds. p. 1056.
- Cartilage*, gristle. *Róchea odoratíssima*, s. 3863.
- Cartilaginous*, gristly. *Aspicárpia*, g. 29. p. 1.
- Cataplasma*, a plaster, or more properly a poultice. *Zíngiber*, g. 10. (note.)
- Catarrhal*, of or belonging to a cold. *Acácia*, g. 2127. (note.)
- Cathartic*, purgative. *Gratiola*, g. 43. (note.)
- Catkin*, (12) inflorescence of the natural order *Amentææ*. *Artocárpum*, g. 1935. p. 768.
- Caudate*, tailed, being like a tail. *Strophánthus*, g. 416. p. 111.
- Caudex*, the trunk or stem. *Cócos aculeáta*, s. 13321.
- Caudicula*, (54) a small membranous process on which the pollen of orchideous plants is fixed. *Rodriguezia*, g. 1883. p. 749.
- Caulescens*, acquiring a stem. *Trichónema caulescens*, s. 642.
- Cauline*, produced on the stem. *Centránthus calcitrápa*, s. 112.
- Causiticity*, having a burning quality. *Plumbágo*, g. 324. (note.)
- Cautery*, that which burns. *Artemisia*, g. 1721. (note.)
- Cellular*, composed of cells. *Eriocacílon septanguláre*, s. 1295.
- Centimetre* (55) is a French measure equal to 4 lines $\frac{432}{1000}$ or near $4\frac{1}{2}$ lines. *Palmélla*, g. 2265. (note.)
- Centuriæ*, hundreds. *Buxbaúmia*, g. 2236. (note.)
- Cephalic*, medicinal to the head. *Kæmpferia*, g. 12. (note.)
- Ceraceous*, wax-like. *Peziza erómpens*, s. 16273.
- Cernuous*, (56) nodding, drooping, or pendulous. *Cánna iridióflora*, s. 17.
- Chaffy*, (57) bearing processes resembling chaff. *Erióphorum*, g. 125. p. 31.
- Chalaza*, (58) a spot on the seed, indicating where the vessels of the raphe terminate. *Eriobótrya*, g. 1137. p. 409.
- Channel-leaved*, (59) folded together so as to resemble a channel for conducting water. *Trichónema bulbocódiúm*, s. 640.
- Charlatanry*, quackery. *Mandragóra*, g. 447. (note.)
- Charring*, blackening by fire. *Quércus*, g. 2000. (note.)
- Chlorosis*, the green sickness, a disease so called. *A'nthemis*, g. 1778. (note.)
- Cilia*, (60) hairs like those of the eyelash. *Plantágo subuláta*, s. 1707.
- Ciliary processes*, like eyelash hairs. p. 907.
- Ciliated*, eyelash-haired. *Lopézia cordáta*, s. 104.
- Ciliato-dentate*, toothed and fringed with hairs like eyelashes. *Cnicus heterophýllus*, s. 11405.
- Cinereous*, ash-colored, grey. *Grevillea cinérea*, s. 1417.
- Cingalese*, inhabitants of, or belonging to, Ceylon. *Plumbágo zeylánica*, s. 1861.
- Circnately*, (61) curled round like a sharp crook. p. 539.
- Cirrhiferous*, bearing tendrils. *Glóriosa supérba*, s. 4574.
- Cirrhose*, or *Cirrhous*, (62) tendrilled. *Bignónia únguis*, s. 8531.
- Clammy*, viscid, sticky. *Boerhaávia viscosa*, s. 109.
- Clathrate*, latticed, divided like lattice-work. *Solénia compréssa*, s. 15270.
- Clavate*, club-shaped. *Curcúma comósa*, s. 85.
- Clavellose*, clubbed, or having club-like processes. *Chóndria clavellósa*, s. 15290.
- Clavus*, a name for the ergot, a disease in corn. *Festúca duríscula*, g. 182. (note.)
- Claus*, (63) the taper base of a petal. *Cánna limbáta*, s. 8.
- Clinandrium*, (63) that part of the column of orchideous plants in which the anther lies. *Listéria*, g. 1876. p. 749.
- Clypeate*, (64) shaped like a Roman buckler. *Tupístia*, g. 757. p. 238.
- Cobwebbed*, covered with loose hairs, as if with a cobweb. *Anacámperos arachnoídes*, s. 6630.
- Cochleate*, (65) resembling the shell of a snail. *Rhéxia*, g. 900. p. 300.
- Cohering*, connected. *Prótea*, g. 231. p. 77.
- Collapsion*, the act of closing or falling together. *Sphæ'ria hydróphora*, s. 16436.
- Columella*, (66) the axis of the fruit of mosses. p. 874.
- Columnar*, formed like columns. *I'xia fucáta*, s. 623.
- Comminuted*, pulverised or pounded. *Línium*, g. 701. (note.)
- Comose*, this term is used to express a kind of inflorescence, which is terminated by sterile bractæe. *Maránta comósa*, s. 24.
- Compact*, close, solid. *Cypérus végétus*, s. 895.
- Complicate*, folded together. *Rhopáta dentata*, s. 1447.
- Complicato-carinate*, folded together so as to form a sort of keel. *Fontinális antipyretica*, s. 14848.
- Compound*, used in botany to express the union of several things in one: thus, a compound umbel is formed by several simple umbels, a compound flower by several simple flowers, &c. *Alpínia nútans*, s. 43.
- Compressed*, pressed together. *Salicórnia*, g. 22. p. 1.
- Concave*, hollow. *Zíngiber mióga*, s. 54.
- Concentric*, points or lines at equal distances from a common centre. *Eárycles amboinénsis*, s. 4077.
- Concrete*, hardened or formed into one mass. *O'rnus*, g. 69. (note.)
- Cone*, (67) a particular kind of compound fruit. *Petróphila*, g. 229. p. 76.
- Conferruminate*, united together, so as to be undistinguishable. *Olynthia*, g. 1124. p. 409.

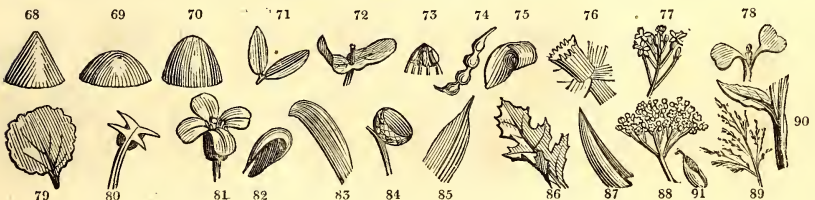


Confervoid, like confervæ. *Sporóchnus*, g. 2321. p. 926.
Confluent, running into one another. *Jasminum grandiflorum*, s. 181.
Conglobated, collected into a spherical form. *Dacrymyces moriformis*, s. 16300.
Conical, (68) resembling a cone. *Hedýchium heteromallum*, s. 16300.
Conico-hemispherical, (69) between conical and round. *Bryum cuspidatum*, s. 14830.
Conico-ovate, (70) between conical and ovate. *Pinus sylvestris*, s. 13502.
Conjugate, (71) joined in pairs: a term chiefly applied to leaves. *Piper cuneifolium*, s. 524.
Connate, (72) joined together at the base. *Calceolaria paralia*, s. 320.
Connivent, (73) converging. *Læfingia*, g. 82. p. 30.
Conoid, cone-like. *Silène conoidea*, s. 6223.
Constricted, (74) tightened or contracted in some particular place. *Salix lanceolata*, s. 13691.
Converging, approaching together. *Datúra férox*, s. 2164.
Convex, rising in a circular form. *Piper rubellum*, s. 543.
Convexo-plane, plane on one side, convex on the other. *Cárex vulpina*, s. 13084.
Convolute, (75) rolled together. *Crócus*, g. 93. p. 30.
Coralloid, like coral. *Chónndria kaiifórmis*, s. 15291.
Cordate, heart-shaped. *Cánna variabilis*, s. 9.
Coriaceous, leathery. *Chionánthus virginicus*, s. 152.
Corneous, horny, of the consistence of horn. *Sphærococcus córneus*, s. 15301.
Corniculate, having processes like small horns. *Mesembryánthemum procumbens*, s. 7251.
Cornute, horned. *Eucalyptus cornúta*, s. 7003.
Corona, (76) literally a crown: applied in botany to the crown-like cup which is found at the orifice of the tube of the corolla in *Narcissus*, *Pancrátium*, and others. *Brodiaea*, g. 114. p. 31.
Corpuscle, a small body; a particle of any thing. *Secamóne*, g. 577. p. 114.
Corroborant, strengthening, having the power to give strength. *Melissa*, g. 1278. (note.)
Corrosive, having the power of wearing away. *Sapindus*, g. 926. (note.)
Corrugated, wrinkled or shrivelled. *Páspalum stoloniferum*, s. 926.
Cortical, of or belonging to the bark. *Línium*, g. 701. (note.)
Corymb, (77) a raceme or panicle in which the stalks of the lower flowers are longer than those of the upper, so that the flowers themselves are all on the same level. *Centránthus rúber*, s. 110.
Corymbose, formed or arranged after the manner of a corymb. *Lopézia coronáta*, s. 103.
Corymbulose, formed or arranged in many small corymbs. *Crássula corymbulósa*, s. 887.
Cosmetic, beautifying. *Dipsácus*, g. 262. (note.)
Costæ literally ribs: applied by botanists sometimes to the midrib of a leaf, and sometimes to any projecting round elevations having the same direction as the axis of the fruit. *Morchélla*, g. 2386. (note.)
Costate, ribbed. *Jungermánia furcáta*, s. 15004.
Cotyledons, (78) seed leaves. *Hórdeum*, g. 210. (note.)
Cowled-leaved, a thing is said to be cowled or cucullate when its end is curved inwards in such a manner as to represent the cowl or hood of a monk. *Lachénalia bifólia*, s. 4898.
Crenæ, notches. *Saxifraga umbrósa*, s. 6063.
Crenate, (79) notched. *Cánna limbáta*, s. 8.
Crenature, the notching. *Prásium mínus*, s. 8518.
Crenulate, full of notches. *Sátvia pomifera*, s. 370.
Crest, (80) applied to some elevated appendage terminating a particular organ: a stamen is crested when the filament projects beyond the anther, and becomes dilated. *Kæmpféria*, g. 12. p. 1.
Cribiform, riddled with holes like a sieve. *Peziza cribrosa*, s. 16265.
Cribrose, perforated like a sieve. *Parinárium*, g. 870. p. 297.
Crisp, when leaves are very much undulated at the

margin, they are called crisp or curled. *Cóstus villosimus*, s. 66.
Cruciate, (81) shaped like a Maltese cross: a flower is said to be cruciate when four equal petals are placed opposite each other at right angles. *Gentiána septemfida*, s. 3360.
Cruciferous, the name of a particular family of plants bearing cruciate flowers. p. 536.
Crustaceous, having a hard brittle shell. *Hellénia*, g. 9. p. 1.
Crystalline, consisting of, or resembling, crystals. *Mesembryánthemum lanceolátum*, s. 7382.
Cucullate, (82) hooded, cowled; see *Cowled*. *Calathéa*, g. 3. p. 1.
Culm, the stem of grasses, scitamineous plants, and the like. *Maránta arundinácea*, s. 18.
Culmiferous, producing culms. *Triticum spélta*, s. 1235.
Cultrate, (83) shaped like a pruning-knife. *Crássula cultráta*, s. 3880.
Cuneate, wedge-shaped. *Teúcrium cubense*, s. 8117.
Cup, the same as corona; see that word, g. 711. p. 236.
Cupule, (84) the cup of an acorn, and of all amentaceous plants. p. 1017.
Cupuliform, or *Cupulate*, shaped like a reversed bell. p. 982.
Cuspidate, (85) like the point of a spear, a leaf is cuspidate, when it is suddenly tapered to a point. *Tritónia rósea*, s. 664.
Cutaneous, relating to the skin. *Scabiosa*, g. 264. (note.)
Cuticle, the scarf skin, or epidermis. *Chára*, g. 2295. (note.)
Cut-toothed, (86) cut and toothed at the same time. *Plantago macrorhiza*, s. 1708.
Cyathiform, cup-shaped, concave. *Narcissus pulchellus*, s. 4025.
Cylindrical, having the form of a cylinder. *Diránum Scottiánum*, s. 14724.
Cylindrical, cylinder-shaped. *Salicórnia rádicans*, s. 116.
Cylindrico-campanulate, cylindrically bell-shaped. *Encalypta*, g. 2222. p. 896.
Cymbiform, (87) boat-shaped. *Vallésia glábra*, s. 2456.
Cyme, (88) a mode of inflorescence, resembling a flattened panicle. *Scirpus lacóstris*, s. 861.
Cymose, flowering in cymes. *Róchea cymósa*, s. 3866.

D.

Decandrous, having ten stamens. *Phytolácca abyssinica*, s. 6573.
Deciduous, falling off. Leaves which are shed annually are said to be deciduous: as are also trees that annually lose their leaves. *O'lea excélsa*, s. 141.
Declinate, curved downwards. *Zíngiber zerúmbet*, s. 56.
Decoction, a preparation or digest by boiling water. *Cúnila*, g. 58. (note.)
Decomound, (89) a leaf is said to be decomound when it is twice pinnated; a panicle when its branches are also pinnated. *Linociera compácta*, s. 474.
Decorticated, disbarbed. *Amýgdalus*, g. 1128. (note.)
Decumbent, lying down. *Chloránthus inconspicuus*, s. 121.
Decurrent, (90) running down. *Lopézia coronáta*, s. 103.
Decursive, having a tendency to run down. *Actinóthus heliánthi*, s. 3591.
Decussated, when two right lines cross each other at right angles they are said to decussate; leaves are often placed in this position. *Ixóra parvisfóra*, s. 1746.
Deflexed, turned downwards. *Schizánthus pinnátus*, s. 272.
Dehiscent, (91) gaping; an expression applied to the mode in which the anthers or the fruit burst open and discharge their contents. p. 896.
Deliquescent, melting away upon exposure to air. p. 979.



Delta-leaved, Deltoid, (92) shaped like the Greek Δ . *Mesembryanthemum*, g. 1146. p. 437.

Demulcent, having the property of softening any thing. *Málva*, g. 1472. (note.)

Dentate, (93) having the margin divided into incisions resembling teeth. *Verónica acúta*, s. 196.

Dentato-ciliate, having the margin dentate and tipped with cilia. *Sónchus arvensis*, s. 11106.

Dentato-sinuate, (94) scolloped and toothed. *Hypochæris glabra*, s. 11319.

Denticulate, being finely dentate. *Circæa lutetiána*, s. 457.

Denticulations, small toothings. *Bossia'a scolopendrium*, s. 10121.

Dentiform, tooth-shaped. *Barbaréa plantaginea*, s. 8380.

Dentifrice, powder made to scour the teeth. *Acácia*, g. 2127. (note.)

Deobstruent, having the power of removing obstructions, a term of medicine. *Agrimónia*, g. 1101. (note.)

Dependent, hanging down. *Moræ'a spathácea*, s. 826.

Depressed, pressed downward. *Hálala*, g. 4. p. 1.

Depurated, purified, cleansed. *O'xalis*, g. 1063. (note.)

Despumate, to throw off in froth or scum. *Cecrópia*, g. 2043. (note.)

Detergent, Detersive, having the power of cleansing. *Physalis*, g. 448. (note.)

Diandrous, having two stamens. *Boerhaávia hirsúta*, s. 107.

Diaphanous, transparent. *Encalýpta ciliáta* β alpína, s. 14785.

Diaphoretic, promoting perspiration. *Sambúcus*, g. 680. (note.)

Dichotomous, (95) a stem that ramifies in pairs. *Phrynum dichotómum*, s. 28.

Dicocous, having two cocci. p. 78.

Didymous, two united. *Príva mexicana*, s. 8675.

Didynamous, (96) having two long stamens and two short ones in the same flower, each pair being collateral. *Stenochilus*, g. 1333. p. 493.

Dietetics, relating to food or diet. *Sácccharum*, g. 215. (note.)

Difform, two forms; used to express irregularity. *Anacámperos rotundifolia*, s. 6629.

Diffuse, scattered, widely spread. *Verónica saxátillis*, s. 226.

Diffusible, such as may be spread. *Amýgdalus*, g. 1128. (note.)

Digitated, (97) fingered, shaped like the hand spread open. *Verónica digitáta*, s. 255.

Digitiform, formed like fingers. *Mesembryanthemum mecmptum*, s. 7408.

Dignous, two styles or female organs. *Sálvia crética*, s. 401.

Diluent, something diluting. *Melissa*, g. 1278. (note.)

Dimidiate, (98) halved, divided into two parts. p. 895.

Diccious, when a plant bears female flowers on one individual, and males on another, it is called diccious. *Valeriána dioica*, s. 544.

Discoid, (99) When in *Compositæ* the florets are all tubular, the head of flowers is said to be discoid. In other cases, when the florets of the centre of a head of flowers are more perfect than the rest, they are called discoid. Finally, when any thing is dilated into something which may be compared to a disk, the term discoid is also made use of. *Valerianella discoidea*, s. 563.

Discus, or *Disk*, the fleshy annular process that surrounds the ovary of many flowers: also the surface of a leaf; also the centre of a head of flowers of *Compositæ*. *Ænóplia*, g. 504. p. 113.

Discutient, having the power to scatter the matter of tumours. *Artemisia*, g. 1721. (note.)

Dissepiment, (100) the partitions by which a seed vessel is divided internally. *Elytrária*, g. 45. p. 9.

Distichous, (101) two-rowed: producing leaves or flowers in two opposite rows. *Schœnus*, g. 119. p. 31.

Ditrichotomous, (102) divided in twos or threes; a stem continually dividing into double or treble ramifications. *Trichódium caninum*, s. 1001.

Diuretic, having the power of promoting the flow of urine. *Bromélia*, g. 726. (note.)

Divaricate, growing in a straggling manner. *Verónica pinnáta*, s. 219.

Dodecandrous, having twelve stamens. *Rivina dodecándra*, s. 1511.

Dolabriform, (103) axe-shaped. *Stizolóbium*, g. 1551. p. 599.

Dorsal, growing on the back. *Kæmpféria rotúnda*, s. 67.

Drastic, applied to medicines which act violently. *Dictamnus*, g. 997. (note.)

Drupe, (104) a kind of fruit consisting of a fleshy succulent rind, and containing a hard stone in the middle. *Olea*, g. 52. p. 9.

Dyspepsia, difficulty of digestion. *Artemisia*, g. 1721. (note.)

E.

Echinated, (105) covered with prickles like an echinus or hedgehog. *Amómum subulátum*, s. 79.

Eddie, eatable. *Eleusine*, g. 200. (note.)

Effuse, (106) literally poured forth; applied to inflorescence; it means a kind of panicle with a very loose one-sided arrangement. *Juncus effusus*, s. 437.

Electuaries, a medicine of conserves and powders in the consistence of honey. *Prúnus doméstica*, s. 7045.

Elephantiasis, a disease in which the limbs become prodigiously swollen and finally fall off. *Smilax*, g. 2081. (note.)

Ellipsoid, (107) like an ellipsis. *Nastúrtium amphíbium*, s. 8970.

Elliptic-lanceolate, (108) a form between elliptical and lanceolate. *O'lea americana*, s. 140.

Elongated, lengthened. *Cánná gigantéa*, s. 6.

Emarginate, (109) having a small notch in the end. *Cánná coccinea*, s. 3.

Embossed, (110) projecting in the centre like the boss or umbo of a round shield or target. *Prótea umbonális*, s. 1327.

Embracing, (11) a leaf is said to embrace a stem when it clasps it round with its base. *Sálvia amplexicaúlis*, s. 428.

Emetic, that which produces vomiting. *Primula vulgaris*, s. 2020.

Emmenagogue, any medicine that promotes menstruation. *Ligústicum*, g. 665. (note.)

Emollient, softening. *Triumfetta*, g. 1087. (note.)

Emulsions, medicines made of bruised oily seeds and water. *Amýgdalus*, g. 1128. (note.)

Ensate, or *Ensisiform*, (111) shaped like a sword with a straight blade. *A'loe cáncianus*, s. 4444.

Epidermis, the outer skin of the bark. *La'rus*, g. 934. (note.)

Epiphyllous, (112) growing upon a leaf. *Jungermannia epiphylla*, s. 15003.

Epiphytes, plants which grow upon other plants without deriving any nutriment from them. *Catastium*, g. 1889. (note.)

Equidistant, equally distant. *Ægopódium*, g. 652. p. 116.

Equilateral, having equal sides. *A'loe reticuláta*, s. 4392.

Equitant, (113) a mode of veneration, or of arrangement of leaves with respect to each other, in which the sides or edges alternately overlap each other. *Moræ'a iridioides*, s. 827.

Erecto-patent, between erect and spreading. *Dicranum glaucum*, s. 14715.

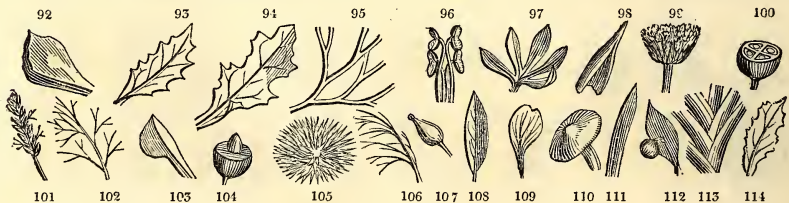
Eroded, (114) gnawed, bitten; a term used to express a particular kind of irregular denticulation. *Sálvia pinnáta*, s. 377.

Eroso-dentate, the toothing being eroded. *Lycopódium clavátum*, s. 14632.

Errhine, promoting a discharge of mucus from the nostrils. *A'sarum*, g. 1072. (note.)

Escharotic, having the power to scar or burn the skin. *Juniperus*, g. 2113. (note.)

Esculent, good for food. *Oxystélma esculéntum*, s. 3226.



Estuaries, arms of the sea, mouths of a river. Poly-
gonum amphibium, s. 5568.
Eliolated, whitened by being kept from air and light.
Triticum spelta, p. 70. (note.)
Eanescent, quickly vanishing. Heracleum, g. 672.
p. 117.
Evolved, unfolded. Anelema, g. 89. (note.)
Excavated, hollowed out. Borago, g. 340. p. 109.
Excentrical, (115) flying off from the centre. Agaricus
ulmarius, s. 15924.
Excoriate, stripped of the bark or skin. Bromelia
Karatas, g. 726. (note.)
Excurrent, projecting or running beyond the edge or
point of any thing. Tortula subulata, s. 14751.
Erotic, foreign, p. 1.
Expectorant, any thing that promotes the discharge
of mucus from the chest. Sambucus nigra, p. 225.
(note.)
Exserted, (116) projecting beyond something else.
Jasminum revolutum, s. 179.
Esciccated, dried up. Papaver, g. 1170. (note.)
Extra-axillary, above or on the outside of the axils.
Mesembryanthemum, g. 1146. (note.)
Extra-foliaceous, away from the leaves, or inserted in
a different place from them. Echites bispinosa,
s. 2360.
Exuvia, whatever is cast off by plants or animals.
Cactus, g. 1111. (note.)

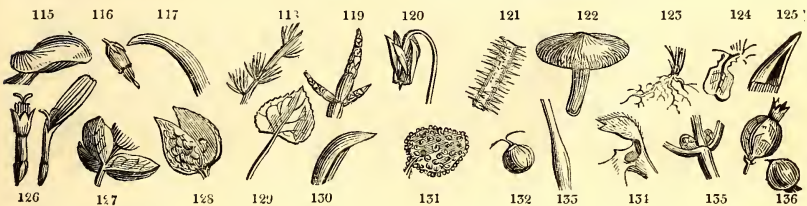
F.

Faecula, the nutritious powder of wheat or of other
things. Codarium, g. 30. p. 8.
Falcate, or *Falciform*, (117) bent like a sickle. Dacty-
lotenium, g. 201. p. 33.
Falcato-secund, bent on one side like a sickle. Dicran-
num longifolium, g. 1528.
Falsely two-valved, having two valves which are not
of the same nature as other valves. Hakea, g. 240.
p. 77.
Farinaceous, full of flour. Triticum, g. 206. (note.)
Fascicles, parcels or bundles. Maranta obliqua, s. 19.
Fasciculate, (118) arranged in bundles or parcels.
Aspalathus, g. 1528. (note.)
Fastigate, (119) tapering to a narrow point like a py-
ramid. Salicornia procumbens, s. 118.
Fauces, (120) the jaws; the gaping part or orifice of
a monopetalous flower. Acacia, g. 2127. (note.)
Favose, (11) pitted or excavated like the cells of a ho-
neycomb. Thrinia, g. 1633. p. 661.
Feathery, resembling a feather. Arundinaria, g. 219.
p. 35.
Febrifuge, efficacious in moderating fever. Swietenia
febrifuga, s. 5867.
Feculent, muddy, thick with sediment. Aloe, g. 770.
(note.)
Fecundation, the act of making fruitful. Jasione,
g. 547. (note.)
Feroces, (121) thickly set with spines, p. 443.
Ferruginous, iron-colored, rusty. Sideritis, g. 1252.
(note.)
Fibrillose, (122) covered with little strings or fibres.
p. 989.
Fibrous, (123) being composed of fibres. Scirpus mul-
ticaulis, s. 858.
Fiddle-tipped, (124) having a lip resembling the figure
of a fiddle. Zingiber panduratum, s. 53.
Filiform, shaped like a thread. Mantisia, g. 16. p. 1.
Fimbriate, (125) fringed. Eleusine, g. 200. p. 33.
Finger-parted, (97) divided into lobes having a fanciful
resemblance to the five fingers of a human hand.
Veronica verna, s. 254.
Fistular, or *Fistulous*, hollow like a pipe. Monarda
media, s. 356.
Flaccid, feeble, weak. Canna flaccida, s. 15.
Flexile, capable of being bent in different directions,
pliable. Paullinia, g. 923. (note.)
Flexuose, having a bent or undulating direction. Al-
pinia carlaminum, s. 48.
Flexuose-recurved, bent backward in a flexuose or
undulated manner. Dieracium crispum, s. 14723.

Flocci, little tufts like wool. p. 983.
Flora horologica, flowers which expand at particular
hours, whence they are a sort of timekeepers. Ana-
gallis, g. 357. (note.)
Floral envelopes, the calyx, bractea, and corolla, which
envelope the inner parts of the flower are all so
called. p. 1.
Florets, (126) little flowers; chiefly applied to those
which constitute what were formerly called com-
pound flowers. Festuca vivipara, s. 1093.
Floriferous, that which bears flowers. Colchicum,
g. 851. (note.)
Flosculus, compound flowers, consisting of many
tubulose monopetalous florets. Carduus, g. 1663.
p. 680.
Foliaceous, (127) having the form of leaves. Pinck-
neya, g. 492. p. 113.
Follicle, (128) a particular kind of seed-vessel. Hakea,
g. 240. p. 177.
Footstalks, (129) the stalks of either flowers or leaves.
Avena, g. 171. (note.)
Fornicate, (130) arched. Roscoea, g. 7. p. 1.
Fragmentary, composed of fragments. Lecidea mi-
crophylla, s. 15440.
Fringed, (125) having a border like a fringe. Canna
glauca, s. 16.
*Fron*d, the leaves of palms. Sabal, g. 855. p.
292.
Frontal, that which is in front. Kämpferia rotunda,
s. 67.
Frosted, (131) covered with glittering particles, as if
fine dew had been congealed upon it. Anoma-
thea, g. 106. p. 31.
Fructification, all those parts composing the flower
and fruit of plants. Poa alpina, p. 67. (note.)
Frutescent, or *Fruticose*, shrubby. Piper, g. 77.
(note.)
Fugacious, that which lasts but for a short time.
Utricularia, g. 53. (note.)
Fulvous, tawny yellow or fox-colored. Sansevieria
fulvo cincta, s. 4545.
Fungous, having the substance of fungi or mushrooms.
Cachrys, g. 677. p. 177.
Funicle, (132) the little stalk by which a seed is at-
tached to the placenta. Cardamine, g. 1392. p. 536.
Furcate, forked. A'juga furcata, s. 8099.
Furfuraceous, scaly, mealy, scurfy. Agaricus granu-
losus, s. 15745.
Fuscous, blackish-brown. Bronia ericoides, s. 3005.
Fusiform, (133) spindle-shaped. Selinum palastre,
s. 3669.

G.

Galeate, (134) helmeted; the upper lip of a ringent
corolla is the galea of that corolla. Touréttia,
g. 1299. p. 492.
Gelatinic, jelly; a term of chemistry. p. 924.
Gelatinous, consisting of jelly. Chrysophyllum, g. 424.
(note.)
Geminate, doubled. Didymodon, g. 2230. (note.)
Gemmae, (135) leafy buds as distinguished from al-
bastra or flower buds. Bryum, g. 2240. (note.)
Geoponic, relating to agriculture. Columella, g. 1785.
(note.)
Germ, or *Germen*, the old name of the ovarium.
Muscari, g. 821. (note.)
Germen inferior, (136) fruit below the flower. p. 1.
Germination, the first act of vegetation in a seed.
Triticum spelta, p. 70. (note.)
Gibbous, protuberant. Maranta gibba, s. 23.
Glabrous, smooth. Asperula laevigata, s. 1611.
Gladiate, (111) shaped like a short straight sword.
Eringium aquaticum, s. 3495.
Glandular, having glands. Schwencckia, g. 42. p. 9.
Glaucouscent, or *Glaucine*, having something of a
bluish hoary appearance. Mesembryanthemum
glaucescens, s. 7273.
Glaucous, having a decided hoary grey surface.
Canna glauca, s. 16.
Globose, or *Globular*, (136) round or spherical. Pin-
guicula lusitanica, s. 322.



Glochidate, having hairs, the ends of which are split and hooked back, so that the hook is double. *Thrinacia hispida*, s. 11175.
Glomerate, (137) gathered into a round heap or head. *Conyza glomerata*, s. 11850.
Glottis, the throat. *Acácia*, g. 2127. (note.)
Glumaceous, plants are said to be glumaceous when their flowers are like those of grasses. *Cládium*, g. 74. p. 11.
Glume, (138) a part of the floral envelopes of a grass. *Anthoxáthum*, g. 76. p. 11.
Gluten, a chemical principle. *Triticum*, g. 206. (note.)
Glutinous, adhesive. *Sálvia glutinosa*, s. 398.
Grained, (139) the segments of the flowers of *Rumex* have tubercles which are called grains. *Rúmex patientiá*, s. 4997.
Graniform, formed like grains of corn. *Mesembryáthemum parvifólum*, s. 7441.
Granular, covered as if with grains. *Gálium ánglicum*, s. 1616.
Gregarious, herding together. *Agáricus fúsipes*, s. 15857.
Grooved, furrowed, channelled, marked with grooves. *Cáucalis*, g. 626. p. 115.
Grumous, clubbed, knotted, contracted at intervals into knots. *Aconítum napéllus*, g. 1205. (note.)
Gynandrous, (140) having the stamens and style combined in one body. *O'rchis*, g. 1859.
Gyrose, turned round like a crook. *Urédo gyrósa*, s. 16640.

H.

Habit, features or general appearance of a plant. *Diclíptera*, g. 48. p. 9.
Hæmorrhages, copious bleeding. *Acácia*, g. 2127. (note.)
Hæmorrhoid, a kind of disease. *Ornithógalum*, g. 802. (note.)
Hastate, (141) formed like the head of a halbert. *Sálvia canariénsis*, s. 372.
Hastato-lanceolate, between halbert shaped and lanceolate. *Dicránum váríum*, s. 14728.
Hastato-sagittate, between halbert-shaped and arrow-shaped. *A'rum maculátum*, s. 13472.
Hautm, dead stems of herbs. *Dioscórea*, g. 2085. (note.)
Helmet, (134) the same as *Galea*; see *Galeate*. *Monárda*, g. 60. p. 10.
Herbaceous, a plant the stem of which perishes annually. *Maránta arundinácea*, s. 18.
Hermaphrodite, consisting of two sexes. *Hippúris*, g. 23. (note.)
Hexagonal, six-sided. *I'ris ochroleúca*, s. 782.
Hexandrous, (142) having six stamens. *Gardénia hexáandra*, s. 2834.
Hexangular, six-angled. *I'ris gramínea*, s. 795.
Hexapetalous, having six petals. *Furcræa cubénsis*, s. 4105.
Húm, (143) the scar or mark on a seed which indicates the place by which it adhered to the placenta. *A'chras*, g. 427. p. 111.
Hirsute, rough with soft hairs. *Pánicum miliáceum*, s. 948.
Hispid, rough with stiff hairs. *Justícia ciliáris*, s. 288.
Hairy, covered with white down. *O'lea oleáster*, s. 135.
Homogeneous, having a uniform nature, or principle, or composition. *Draparnáldia ténuis*, s. 15105.
Honey-pore, (144) the pore in flowers which secretes honey. *Geissórhiza rochénsis*, s. 646.
Honey-scales, (145) the scales in flowers which secrete honey. *Cotyledón*, g. 1060. p. 341.
Honey-spots, the spots in flowers which secrete honey. *Rúta*, g. 998. p. 339.
Hooded, (130) being curved or hollowed at the end into the form of a hood. *Hippocratéa*, g. 83. p. 30.
Horn, (146) any long subulate process in a flower is called a horn. *Zingiber*, g. 10. p. 1.

Husks, the dry envelopes of either flowers or fruits. *Sporóbolus*, g. 159. (note.)
Hyaline, crystalline, transparent. *Diatóma*, g. 2260. p. 924.
Hybrid, mule; partaking of the nature of two species. *Syringa chinénsis* ♂ *rothomagénsis*, s. 161.
Hydragogue, that which removes dropsy. *Euphórbia*, g. 1102. (note.)
Hygrometrical, indicating the approach of moisture. *Avéna stérilis*, p. 60. (note.)
Hypercatharsis, a medicine that produces too powerful effects as a purgative. *Verátrum*, g. 2128. (note.)
Hypocrateriform, salver-shaped. *Galipéa*, g. 41. p. 9.
Hypogynous, (147) situated below the ovarium. *Serúria*, g. 234. p. 77.
Hypophyllous, (148) under the leaf. *Eríneum gríseum*, s. 16592.

I.

Iced, (131) covered with particles like icicles. *Mesembryáthemum pisifórme*, s. 7210.
Ice-drops, transparent processes resembling icicles. *Mesembryáthemum glaciále*, s. 7377.
Imbricate, (149) laid one over another like tiles. *Maránta obliqua*, s. 19.
Incised, (150) cut, separated by incisions. *Verónica austriaca*, s. 239.
Incrassated, (151) becoming thicker by degrees. *Tétraphis Browniána*, s. 14682.
Incurved, bending inward. *Roscóea*, g. 7. p. 1.
Incurve-recurved, bending inwards and then backwards. *Mesembryáthemum lineolátum*, s. 7302.
Indehiscent, not dehiscing. *Néslia*, g. 1426. p. 537.
Indigenous, native of a country. *Crocus*, g. 93. (note.)
Indurated, hardened. *Milium*, g. 141. p. 32.
Indusium, (152) the membrane that encloses the theca of ferns. *Polybótuya*, g. 2168. p. 876.
Inflated, blown up. *Amómum sylvéstre*, s. 78.
Inflexed, bending inward. *Diclíptera*, g. 48. p. 9.
Inflorescence, disposition of flowers. *Chloránthos*, g. 25. (note.)
Infundibuliform, funnel-shaped. *Tritónia fenestráta*, s. 672.
Innocuous, harmless. *Gomphocárpus*, g. 587. p. 115.
Inspissated, thickened; spoken of sap or other liquor. *A'tropa*, g. 446. (note.)
Intenerating, having the power of making tender or softening. *Cárica*, g. 2095. (note.)
Internodes, the space between the joints of plants. *Bambúsa*, g. 752. (note.)
Interpetiolar, between the petioles or leafstalks. *Microlóma*, g. 578. (note.)
Interstices, spaces between one thing and another. *Pimpinélla*, g. 635. p. 116.
Intramarginal, within the margin. *Listéra*, g. 1876. p. 749.
Inverse, inverted. *Sántalum*, g. 307. p. 79.
Involucels, (153) the partial involucre of umbelliferous plants. *Cáucalis platycárpus*, s. 3528.
Involucral, having an involucre. *Ammóbium*, g. 1681. (note.)
Involucrated, covered with an involucre. *Penicillária*, g. 148. p. 32.
Involucre, or *Involucrum*, (154) the bractee which surround the flowers of *Umbellifera* in a whorl. *Cáucalis platycárpus*, s. 3528.
Involute, rolled inwards. *Moræa*, g. 116. p. 31.

J.

Joints, the places at which the pieces of the stem are articulated with each other. *Boerháavia erécta*, s. 105.
Juliform, (155) formed like an amentum or catkin. *Bryum iuláceum*, s. 14816.



K.

Kaliform, formed like *Salsola kali*, a sea-coast plant. *Chondria kaliformis*, s. 15291.
Keel, (51) when the midrib of a leaf or petal is sharp and elevated externally it is called a keel. p. 31.
Kneed, or *Knee-jointed*, bent like the knee-joint. *Aconitum tortuosum*, s. 7867.

L.

Labellum, (156) the front segment of an orchideous or other flower. *Ionopsis*, g. 1919. p. 750.
Lacinie, segments of any thing. *Parmelia cyclosclis*, s. 15581.
Laciniate, cut or divided into segments. *Phlomis laciniata*, s. 8365.
Lactescent, yielding milky juice. *Maclura aurantiaca*, s. 13256.
Lacunae, little pits or depressions. p. 948.
Lacunose, covered with little pits or depressions. *Helvella crispa*, s. 16200.
Laevis, smoothed. *Oenothera glauca*, s. 5459.
Lamelated, (157) divided by plates internally. *Musa*, g. 721. (note.)
Lamina, literally a plate; it is mostly applied to the leaf of a plant considered without its petiole. *Beta cicla*. p. 207. (note.)
Lanceolate, (158) lance or spear shaped. *Costus*, g. 11. p. 1.
Lanceolato-subulate, between lanceolate and subulate. *Sphagnum cuspidatum*, s. 14653.
Lateral, on one side. *Alpinia nutans*, s. 43.
Lar, loose, not compact. *Zingiber roseum*, s. 59.
Leaflets, (159) small parts of compound leaves. *Cordium acutifolium*, s. 133.
Legume, or *Legumen*; (160) a pod; the fruit of leguminous plants. *Gompholobium*, g. 954. (note.)
Leguminous, plants which bear legumes, such as the pea, the bean, the kidneybean. p. 8.
Lenticular, shaped like a lens. *Kyllinga*, g. 129. p. 31.
Lentiform, in form like a lens. *Rivina*, g. 253. p. 78.
Leprous, covered with spots or scales. *Rhododendron ferrugineum*, s. 5923.
Lid, (161) the calyx which falls off from the flower in a single piece. *Eucalyptus*, g. 1126. p. 409.
Ligula, (162) the membrane at the top of the petiole of grasses and other plants. *Zingiber panduratum*, s. 53.
Ligulate, (163) strap-shaped. *Anellima sinicum*, s. 595.
Limbate, having a colored or dilated surface. *Erica oppositifolia*, s. 5265.
Linear, when the two sides are parallel. *Canna*, g. 1. p. 1.
Linear-ensate, long sword-shaped. *Márica californica*, s. 833.
Linguiform, or *Lingulate*, (164) tongue-shaped. *Hæmanthus coccineus*, s. 4149.
Lipped, (156) having a distinct lip or labellum. *Roscoea*, g. 7. p. 1.
Lithontriptic, having the power of breaking the stone in the bladder. p. 1075.
Lobelites, (165) small lobes. *Geranium sanguineum*, s. 9644.
Lochial, relating to the natural discharges consequent upon childbirth. *Aristolochia*, g. 1934. (note.)
Locomotion, motion from place to place. *Mimosa*, g. 2124. (note.)
Loculaments, partitions or cells of a seed vessel. *Cystosira*, g. 2329. p. 927.
Locular, (166) a fruit is called unilocular if it contains but one cell (a), bilocular if two cells (b), trilocular if three (c), and so on. *Fedia*, g. 72. p. 11.
Loment, (167) a kind of legume falling in pieces when ripe. *Mullera*, g. 1567. p. 597.
Lomentaceous, bearing pericarpia, called lomenta. *Erucaria*, g. 1445. p. 530.
Lorate, (163) shaped like a thong or strap. *Pan-crátium littorale*, s. 4062.

M.

Lubricate, to make slippery. *Acacia*, g. 2127. (note.)
Lucid, bright, shining. *Sálvia lineatifolia*, s. 399.
Lunate, or *Lunulate*, (168) shaped like a half moon. *Cestrum auriculatum*, s. 2465.
Lurid, a color between purple, yellow, and grey. *Morpha lúrida*, s. 828.
Lymphatic, of or belonging to lymph or sap. p. 874.
Lyrate, (169) lyre-shaped. *Sálvia lyrata*, s. 450.
Macerate, to decompose by steeping in water or other liquid. *Méntha*, g. 1254. (note.)
Marginal, relating to the margin. *Hellénia*, g. 9. p. 1.
Masticatory, grinding or chewing with the teeth. *Pimpinella*, g. 635. (note.)
Math, an old term for crop. *Alopecurus*, g. 164. (note.)
Matrix, a place where any thing is generated or formed. *Calothrix*, g. 2256. p. 925.
Medulla, the pith of a plant. p. 1053.
Medullary, relating to the pith of plants. *Mimosa*, g. 2124. (note.)
Melastomaceous, partaking of the nature or appearance of *Melastoma*. p. 300.
Melliferous, honey-bearing. *Anchusa*, g. 332. (note.)
Membranaceous, or *Membranous*, having the texture of a membrane. *Chionanthus maritima*, s. 153.
Menstruum, a liquor used as a dissolvent. *Rantunculus*, g. 1233. (note.)
Meshes, the openings in any tissue. *Mougeotia*, g. 2290. p. 925.
Micacious, glittering, shining. *Watsónia*, g. 101. (note.)
Midrib, (170) the large vein which passes from the petiole to the apex of a leaf. *Póthos*, g. 252. (note.)
Miliary, granulate resembling many seeds. *Citrus medica*, p. 655. (note.)
Mitiform, (171) formed like a mitre. p. 895.
Mobility, the power of motion. *Mimosa*, g. 2124. (note.)
Monadelpous, (172) having the filaments cohering in a tube. *Yxia monadelpa*, s. 629.
Monandrous, (173) having one stamen. *Alchemilla Aphanes*, s. 1519.
Moniliform, formed like a necklace, that is to say, with alternate swellings resembling beads and contractions. *Heliophila amplexicaulis*, s. 9312.
Monocotyledons, having one seed leaf. p. 236.
Monocious, having the one sex in one flower, and the other in another. *Schœnus monoicus*, s. 847.
Monopetalous, having one petal. p. 9.
Monosepalous, having one sepal or division of the calyx. *Pontedéria*, g. 730. p. 237.
Mordant, that which enables vegetable matter or tissue to receive dyes or coloring matter, and to retain them. p. 1064.
Mottled, marked with blotches of color of unequal intensity passing insensibly into each other. *Syringa persica*, s. 162.
Mucilage, a turbid slimy fluid. *Sálvia*, g. 62. (note.)
Mucronate, (174) pointed sharp. *Corispermum intermedium*, s. 127.
Mucronifolius, having a little hard point. *Banksia integrifolia*, s. 1459.
Mulch, a gardener's term for the placing manure about the roots of trees on the surface of the ground. *Rosa*, g. 1148. (note.)
Multifarious, very numerous; or arranged in many rows. *Aloe rigida*, s. 4387.
Multiparite, much divided. *Pteronia stricta*, s. 11492.
Multiplex, much multiplied. *Selágo fasciculata*, s. 8657.
Muricated, covered with short sharp points. *Panicum muricatum*, s. 949.
Muricato-hispid, covered with short sharp points and rigid hairs or bristles. *Bryonia scabrilla*, s. 13588.

156

157

158

159

160

161

162

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164

165



166 a



166 b



166 c



167



168



169



170



171



172



173



174

N.

Naiades, nymphs of the springs and fountains; a particular order of Monocotyledonous plants. p. 772.
Narcotic, producing sleep or torpor. *Brómus*, g. 184. (note.)
Navicular, (175) boat-shaped. *Airópsis*, g. 160. p. 32.
Neck, the upper tapering end of bulbs is called the neck. *Crinum sumatránium*, s. 4184.
Nectariferous, bearing honey. *Swértia*, g. 599. p. 115.
Nectary, or *Nectarium*, (144, 145.) that part of a flower which produces honey. *Alpinia Allóghas*, s. 51.
Nerves, the strong veins upon leaves or flowers. *Cánna rubricáulis*, s. 11.
Nervinotion, the power of motion in leaves. *Mímósa*, g. 2124. (note.)
Nervose, or *Nervine*, composed of nerves. *Eránthem pulchellum*, s. 312.
Neuter, neither male or female. *Anthoxánthum*, g. 76. p. 11.
Nidulant, nestling; lying among any thing as a bird in its nest. *Samýda*, g. 1034. p. 340.
Nidus, the nest of any thing. *Alcyonidium*, g. 2267. (note.)
Nodding, (177) having a drooping position. *Verónica complicata*, s. 190.
Nodi, (178) the articulations of plants: the place where one joint is articulated with another. *Sporóchnus villósus*, s. 15333.
Nodose, having many nodi or knots. *Póa serótina*, s. 1187.
Nodules, small hard knots. *Ischæmum aristátum*, s. 14230.
Notch-flowered, having the flower notched at the margin. *Verónica crenuláta*, s. 185.
Nucamentaceous, producing nuts. *Bánias*, g. 1444. p. 539.
Nucleus, the kernel. *Myrica Fáya*, s. 13869.

O.

Ob is used in the composition of Latin technical terms, to indicate that a thing is inverted; for instance, obovate is inversely ovate, obcordate inversely cordate, and so on.
Occidental, coming from the west. *Alpinia occidentális*, s. 42.
Ochraceous, having the color of clay or yellow ochre. *Oscillatoria ochracea*, s. 15118.
Octandrous, (179) having eight stamens. *Rivina octándra*, s. 1511.
Octogynous, (180) having eight styles. *Phytolácca octándra*, s. 6572.
Officinal, any thing that is, or has been, used in the shops. *Kæmpféria Galánga*, s. 68.
Oleaginous, having the qualities of oil. *Rivina*, p. 253. (note.)
Oleraceous, esculent, eatable. *Ranúnculus*, g. 1233. (note.)
Olivaceous, having the qualities of olives. p. 924.
Opercular, (161) covered with a lid. p. 749.
Operculariform, having the figure and position of a round lid of something. *Operculária*, g. 250. p. 78.
Operculum, (161) a lid. p. 874.
Opiate, having the power of opium. *Dictámnus*, g. 997. (note.)
Orbicular, or *Orbiculate*, a plane surface circumscribed by a circle. *Farsétia*, g. 1397. p. 586.
Orchideous, of or belonging to the natural order of Orchideæ. p. 748.
Orifice, an opening. *Schwénkia*, g. 42. p. 9.
Ossified, become like bone. *Cóix*, g. 1951. p. 768.
Ova, the eggs of any thing. *Palmélla*, g. 2265. (note.)
Oval, having the figure of an ellipse. *Corispérmum*, g. 26. p. 1.
Ovarium, or *Ovary*, (176) the part of the flower in which the young seeds are contained. *Hæmódórum*, g. 111. p. 31.
Ovate, (181) egg-shaped. *Maránta Tónchat*, s. 22.
Ovato-acuminate, (182) egg-shaped, and tapering to a point. *Cárex ovalis*, s. 13080.
Ovato-cylindrical, (183) egg-shaped, with a convolute cylindrical figure. *Didýmonon purpúreum*, s. 14762.
Ovato-deltoid, triangularly egg-shaped. *Bétula álba*, s. 13188.
Ovato-rotundate, roundly egg-shaped. *Pháscum múcticum*, s. 14660.
Overlapping, when the margin of one thing lies upon that of another, it is said to overlap. *Cýclamen vérnum*, s. 2051.
Ovoid, (181) egg-like. *Psorálea Lupinélus*, s. 10758.
Ovules, (176) the young seeds of plants contained in the ovarium. *Nemóphila*, g. 386. p. 110.

P

Palate, (184) the mouth of a ringent flower. *Pin-guicula edéntula*, s. 327.
Paleaceous, abounding with chaffy scales. *Bromélia Karátas*, s. 4114. (note.)
Palmed, or *Palmatifid*, (185) divided so as to resemble a hand. *Curcúma Zedoária*, s. 80.
Panduriform, (186) having the figure of a fiddle. *Kæmpféria panduráta*, s. 70.
Panicled, (187) loose-spiked. *Maránta*, g. 2. p. 1.
Pannary, useful for making bread. *Triticum*, g. 206. (note.)
Papilionaceous, (188) butterfly-shaped flowers. p. 338
Papilose, producing small glandular excrescences like nipples. *Onosómódium hispidum*, s. 1930.
Pappus, (189) the crown of the fruit of *Compósítæ*, and similar plants. *Centránthus*, g. 20. p. 1.
Papulose, producing small glands like pimples. *Mesembryanthemum parvifólium*, s. 7442.
Parabolically, in form like a parabola. *Aloe brevifólia*, s. 4435.
Parenchyma, all the parts of plants which consist of cellular tissue only. *Solorína*, g. 2331. p. 948.
Parietal, being attached to the sides of an ovarium instead of its axis. *Glóbbá*, p. 15. p. 1.
Patent, spread out or expanded. *Lycopódium anótinum*, s. 14636.
Patent-reflexed, spread out and turned back. *Cárex pauciflóra*, s. 13069.
Patulous, slightly spreading. *Centauréa babýlónica*, s. 12613.
Pectinate, (190) resembling the teeth of a comb. *Verónica orientális*, s. 237.
Pectoral, relating to the breast. *Trápa*, g. 308. (note.)
Pedatifid, (191) cut into lobes, the lateral ones of which do not radiate from the petiole like the rest. *Saxí-fraga pedatifida*, s. 6089.
Pedicellate, slightly stalked. *Céstrum tinctórium*, s. 2475.
Pedicels, small footstalks of flowers. *Commelina cælestis*, s. 592.
Peduncle, the common footstalk of flowers. *Cánna Lambérti*, s. 5.
Pellicle, a thin skin. *Papýrus*, g. 128. (note.)
Pellucid, bright, transparent. *Mesembryanthemum réptans*, s. 7278.
Peltate, (192) when the petiole is fixed in the disk instead of the margin. *Piper peltátum*, s. 514.
Pencilled, (193) marked in lines as if with a pencil. *Crócus lagenæfórus* γ *penicillátus*, s. 612.
Pendulous, drooping, hanging down. *Curcúma angustifólia*, s. 91.
Pentagonal, having five angles. *Piquéria*, g. 1704. p. 663.
Pentagynous, (194) having five styles. *Phytolácca abyssínica*, s. 6373.
Pentandrous, (194) having five stamens. *Portlándia grandiflóra*, s. 2632.
Pentapetalous, (194) having five petals. p. 115.
Perennial, lasting many years without perishing. *Aspicárpá órens*, s. 132.
Perfoliate, (195) when the stem passes through the base of the leaf. *Verónica perfoliáta*, s. 251.
Perianthium, the envelope that surrounds the flower; this term is applied when the calyx cannot be distinguished from the corolla. *Gomphréna perennis*, s. 3178.



Pericarp, the seed vessel. Deeringia, g. 563. (note.)
Perichætal, (196) leaves which in mosses surround the base of the stalk of the theca. p. 895.
Perigynous, (197) inserted into the calyx. Larbræa, g. 1069, p. 341.
Peristome, (198) the rim which surrounds the orifice of the theca of a moss. p. 895.
Perithecium, *Peridium*, or *Perisporium*, different kinds of envelopes of the reproductive organs of Fungi. Pyrénula, g. 2337, p. 948.
Persistent, remaining, not falling off. Codárium, g. 30, p. 8.
Pervious, having a passage through which anything can be transmitted. Primula, g. 350, p. 110.
Petaloid, like a petal. Damasónium, g. 859, p. 241.
Petals, (194) divisions of the corolla. p. 1.
Petiolate, having footstalks. Alpinia malaccénsis, s. 46.
Petioles, footstalks of leaves. Cissus heterophýlla, s. 1780.
Petioletes, little petioles. Erythrína, g. 1521. (note.)
Pezizoid, like a Peziza; a kind of fungus resembling a cup in figure. p. 1021.
Phænogamous, such plants as are visibly furnished with sexual organs. p. 108.
Phagedenic, eating, corroding; a gnawing of the stomach; also applied to ulcerous sores. Anthemis, g. 1778. (note.)
Pharmaceutical, relating to the art of pharmacy. Astráglus Tragacantha, p. 637. (note.)
Phthisis pulmonalis, consumption of the lungs. Acácia, g. 2127. (note.)
Pileate, (199) having a cap or lid like the cap of a mushroom. Cúscuta chilénsis, s. 1811.
Pileus, the cap of a mushroom. p. 978.
Piliferous, bearing hairs. Sphenogyne dentata, s. 1928.
Piliform, formed like down or hairs. Grímmia pulvinata, s. 14690.
Pilose, slightly hairy. Monárda Kalmiána, s. 363.
Pimpled, covered with minute pustules resembling pimples. Saxifraga ligulata, s. 6051.
Pinnæ, or *Pinnule*, the segments of a pinnated leaf. Calceolária pinnata, s. 315.
Pinnate, (200) a leaf is so called when it is divided into numerous smaller leaves or leaflets. Codárium acutifolium, s. 133.
Pinnatifid, (201) a leaf is so called when it is divided into lobes from the margin nearly to the midrib. Centránthus calcitrápa, s. 112.
Piquancy, sharpness, pungency. Spilánthes, g. 1605. (note.)
Pisiform, formed like peas. Lagétta, g. 909, p. 300.
Pistillum, or *Pistil*, (202) the columnar body situate in the centre of a flower, consisting commonly of three parts, viz. the ovarium, style, and stigma. Knáppia, g. 142, p. 32.
Pitchers, (203) hollow leaves so called. Nepénthes distillatória, s. 14077.
Pith, medulla occupying the centre of a stem or shoot. Mélica, g. 193. (note.)
Pituitous, discharging mucus. Pánax, g. 2166. (note.)
Plane, flat. Matricária, g. 1771, p. 664.
Plano-compressed, compressed down to a flattish surface. Poinciána, g. 977, p. 339.
Plethoric, having a full habit. Juníperus, g. 2113. (note.)
Plicate, (204) plaited. Nicotína repánda, s. 2206.
Plumose, (205) feathery, resembling feathers. Centránthus, g. 20, p. 1.
Plumula, (206) the young leaves in the embryo. p. 1053.
Plurilocular, (207) having many cells. p. 1085.
Pod, (160) a kind of seed vessel such as that of the pea tribe. Epimédium, g. 297, p. 79.
Polyandrous, (208) having more stamens than 20. Royéna ambigua, s. 6037.
Polygamous, a plant is said to be polygamous when some flowers are male, others female, and others hermaphrodite. Rhagódia, g. 562, p. 114.
Polygynous, (208) having numerous styles. Royéna ambigua, s. 6037.
Potypetalous, (209) having many separate petals. p. 10.

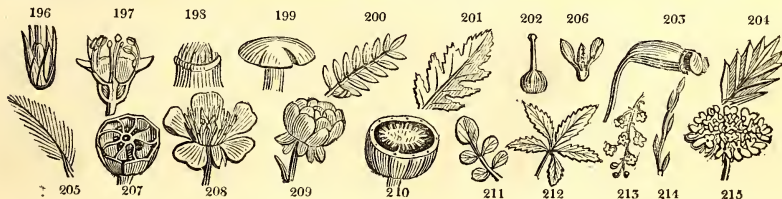
Polyspermous, (210) having many seeds. p. 1066.
Pome, an apple. Pýrus, g. 1133.
Pores, apertures in the cuticle through which transpiration takes place. Lasiopétalum, g. 523, p. 113.
Porrect, extended forward. Bauhinia aurita, s. 5768.
Pouch, a little sack or bag at the base of some petals and sepals. Nigritélla, g. 1860.
Prænomen, the first name of several; in plants it is the same as the generic name. Crócus, g. 93. (note.)
Precocity, ripe before the usual time. Dáphne Mezéreum, p. 323. (note.)
Prismatic, formed as a prism. Polycnémum arvénse, s. 599.
Processes, protrusions either natural or monstrous. Orthotrichum, g. 2233, p. 896.
Proliferous, a plant is said to be proliferous when it forms young plants in abundance about its roots. Scírpus Lúzule, s. 867.
Prominences, protuberant risings from the surface. Colutéa arboréscens, s. 10484.
Propendent, hanging forward and downward. Cæsia vittata, s. 4831.
Prurient, stinging. p. 1061.
Pubescence, down, closely pressed to the surface. Fragária véscá, s. 7566.
Pullulating, budding. Conférva párens β prolifera, s. 15177.
Pulverised, reduced to powder. Crócus, g. 93. (note.)
Pulvinate, become cushion-shaped. Grímmia pulvinata, s. 14690.
Pulvinuli, little cushions. p. 948.
Punctiform, formed like points. Peziza punctata, s. 16267.
Pungent, stinging or pricking. Corispérmum Redówskii, s. 126.
Pustular, or *Pustulate*, covered with glandular excrescences like pustules. Pelargónium pustulósum, s. 9621.
Pustules, pimples or little blisters. Brunsvígia Rádula, s. 4215.
Pyriform, shaped like the fruit of a pear. Paullinia pinnata, s. 5612.

Q.

Quadrangular, four-angled. Dorsténia Houstóni, s. 1526.
Quadrifarious, arranged in four rows or ranks. Struthiola imbricatá, s. 1487.
Quadrifid, divided four times. Plantágo, g. 278, p. 78.
Quadriglandular, having four glands. Malpighia glandulifera, s. 6373.
Quartz, a species of stone. Laúrns cinnamómum, s. 5640.
Quaternary, succeeding by fours. p. 76.
Quaternate-pinnate, (211) pinnate; the pinnæ being arranged in fours. Anthýllis tetraphýlla, s. 10211.
Quinate, in fives. Póthos pentaphýlla, s. 1506.
Quinquedid, (212) divided into five. Cissus, g. 305. (note.)
Quintuple, five times multiplied. Ephédra, g. 2115, p. 819.

R.

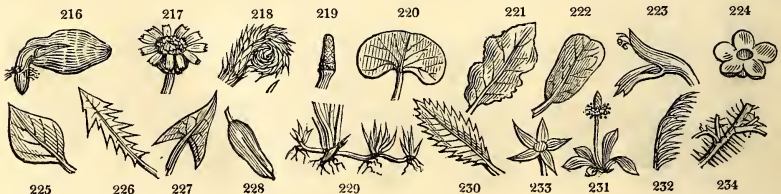
Racemes, (213) a particular arrangement of flowers, when they are arranged around a filiform simple axis, each particular flower being stalked. Alpinia nútans, s. 43.
Racemose, flowering in racemes. Verónica Barreliéri, s. 212.
Rachis, (214) that part of a culm which runs up through the ear of corn, and consequently the part that bears the flowers in other plants. Páspalum, g. 139, p. 31.
Radiant, or *Radiate*, (215) a flower is said to be radiant, when, in a cluster or head of florets, those of the circumference or ray are long and spreading, and unlike those of the disk. Scabiósa canéscens, s. 1569.



- Radical**, proceeding from the root. *Phrynium capitatum*, s. 27.
- Radical**, producing roots from the stem. *Marcgraavia*, g. 1163. (note.)
- Radicule**, (216) that end of the embryo which is opposite to the cotyledons. p. 537.
- Radius**, (217) the ray of compound flowers. *Solidago canadensis*, s. 12066.
- Ramenta**, little brown withered scales with which the stems of some plants, especially ferns, are covered. *Rhodoméla lycopodioides*, s. 15280.
- Ramentaceous**, (218) covered with ramenta. *Euphórbia fragifera*, s. 6793.
- Ramifications**, subdivision of roots or branches. *Eragrostis pilosa*, s. 1207.
- Ramosa**, branchy. *Tlex*, g. 315. (note.)
- Ramuli**, twigs or small branches. *Draparnaldia*, s. 2284, p. 925.
- Raphe**, in seeds this is the channel of vessels which connects the chalaza with the hilum; in umbelliferous plants it is the line of junction of the two halves of which their fruit is composed. *Bábon*, g. 640, p. 116.
- Rationale**, the reason of a thing. *Solánium*, g. 451. (note.)
- Receptacle**, (219) that part of the fructification which supports the other parts. *Pollichia*, g. 21. p. 1.
- Recesses**, the bays or sinuses of lobed leaves. *Sisymbrium obtusángulum*, s. 9169.
- Rectangular**, right-angled. *Teúcrium asiáticum*, s. 8114.
- Rectilinear**, right-lined. *Bómbax eriánthos*, s. 9942.
- Rectum**, an intestine. *Anthemis*, g. 1778. (note.)
- Recurved**, bent backward. *Zingiber*, g. 10. p. 1.
- Recurvo-patent**, bent back and spreading. *Grimmia apocárpa*, s. 14657.
- Reflexed**, bent backward. *Cánna gigantéa*, s. 6.
- Reflexed recesses**, sinuses of leaves which are bent backward from the ordinary direction of the surface of a leaf. p. 165.
- Refrigerant**, producing coolness. *Oxális*, g. 1065. (note.)
- Reniform**, (220) kidney-shaped. *Leptánthium renifórmis*, s. 736.
- Repand**, (221) a leaf having a margin undulated and unequally dilated is said to be repand. *Eránthemum bicolor*, s. 313.
- Repando-dentate**, repand and toothed. *Dorónicum Pardaliánches*, s. 12189.
- Repellant**, that which turns you away from any thing. *A'tropa*, g. 445. (note.)
- Replicate**, folded back. *Cyclóphia*, g. 946. (note.)
- Resolutive**, or **Resolutive**, having the power to dissolve. *Argemóne*, g. 1172. (note.)
- Resolvent**, having the power of dissolving. *Curcúma*, g. 14. (note.)
- Restricting**, astringent. *Bérberis*, g. 829. (note.)
- Resupinate**, inverted in position, so that that which was in front becomes at back. *Hedýchium*, g. 6. p. 1.
- Reticulated**, resembling a net. *Hákea unduláta*, s. 1435.
- Retuse**, (222) abruptly blunt. *Hedýchium flavum*, s. 36.
- Revolvete**, rolled back. *Cánna speciósa*, s. 13.
- Rhomboidal**, (225) like a rhombus. *Sálvia mexicána*, s. 385.
- Rhomboid-ovate**, rhomboidally egg-shaped. *Chenopodium atriplicis*, s. 3416.
- Rib**, (170) the projecting vein of any thing. *Curcúma rubéscens*, s. 83.
- Rigid**, stiff. *Notelá'a rígida*, s. 157.
- Ringed**, (223) gaping. *Justicia*, g. 47. p. 9.
- Ring**, making an incision resembling a ring all round a branch. *Liriódendron*, g. 1216. (note.)
- Rotate**, (224) a monopetalous corolla, the limb of which is flat and the tube very short, is called rotate. *Valerianélla discoidea*, s. 563.
- Rotundo-ovate**, roundly egg-shaped. *Cárex fúlva*, s. 13123.
- Rubefacient**, any thing which reddens the skin, or raises slight cutaneous inflammation. *Euphórbia*, g. 1103. (note.)
- Rudiment**, when an organ is imperfectly developed, botanists call such development a rudiment. *Molinia*, g. 194. p. 33.
- Rufous**, reddish orange-colored, or rusty. *Cánna gláucia β rúfa*, s. 16.
- Rugose**, rough or coarsely wrinkled. *Calceolária rugósa*, s. 317.
- Rugulose**, finely wrinkled. *Sálvia chamædryóides*, s. 586.
- Runcinate**, (226) hooked back, applied to the lobes of leaves. *Hesperis runcináta*, s. 9161.
- Runcinato-dentate**, hooked back and toothed. *Apárgia taráxaci*, s. 11166.
- Runners**, (229) procumbent shoots which root at their extremity. *Ranúnculus saguginósus*, s. 8037.
- Rusty**, rust-colored. *Curcúma ferrugínea*, s. 87.

S.

- Saccate**, bagged; having a bag or pouch; as many petals. *Calótropis*, g. 584. p. 115.
- Sagittate**, (227) shaped like an arrow-head. *Dorsténia arifólia*, s. 1523.
- Salivation**, a discharge of saliva from the glands of the mouth. *Plumbágo*, g. 324. (note.)
- Samara**, (228) a kind of winged seed vessel; the same as what the English call key. *O'trus*, g. 69. p. 11.
- Sapid**, agreeable to the palate. *Nelúmbium*, g. 1213. (note.)
- Saponaceous**, soapy. *Æsculus*, g. 866. p. 296.
- Sarmentose**, (229) producing sarmenta or runners. *Echites biflóra*, s. 2355.
- Sawed**, resembling the teeth of a saw. *Coldénia procúmbens*, s. 1833.
- Scabrous**, rough with little asperities. *Sálvia runcináta*, s. 459.
- Scales**, any small processes resembling minute leaves; also the leaves of the involucrem of *Compositæ*. *Pollichia*, g. 21. p. 1.
- Scandent**, climbing. *Piper*, g. 77. (note.)
- Scape**, (231) a stem rising from the root and bearing nothing but flowers. *Maránta comósa*, s. 24.
- Scarioso**, or **Scarioso**, membranous and dry. *Buñónia tenuifólia*, s. 1813.
- Schistous**, rocky, formed of the rock called schist. *O'lea*, g. 32. (note.)
- Scion**, a shoot intended for a graft. *Caméllia*, g. 1476. (note.)
- Scorie**, cinders. *Caméllia*, g. 1476. (note.)
- Scrobiculate**, excavated into little pits or hollows. *Antennária*, g. 1725. p. 663.
- Scrotiform**, formed like a double bag. *Ellisia*, g. 432. p. 111.
- Scurfy**, covered with scales resembling scurf. *Eústoma*, g. 365. p. 110.
- Scutate**, formed like an ancient round buckler. *Ptilóta*, g. 2311. p. 925.
- Secund**, (232) arranged on one side only: the same as unilateral, which is better. p. 917.
- Sedges**, a tribe of marsh plants so called. p. 31.
- Segments**, parts of any thing. p. 1.
- Semi-**, half.
- Seminal**, belonging to the seed. *Scabiósa*, g. 264. (note.)
- Semination**, seeding. *Crócus*, g. 93. (note.)
- Sepals**, (233) the segments of the calyx. *Sebá'a*, g. 281. p. 98.
- Septa**, (166) the partitions that divide the interior of the fruit. *Rulingia*, g. 704. p. 118.
- Serriferous**, bearing septa. *Ramónada*, g. 374. p. 110.
- Serrated**, (230) like the teeth of a saw. *Mayténus boária*, s. 134.
- Serrulations**, notchings like those of a saw. *Agáve yuccæfólia*, s. 4093.
- Sessile**, without footstalks. *Zostéra*, g. 24. p. 1.
- Setaceo-rostrate**, having a beak with the figure of a bristle. *Cárex ampullácea*, s. 13162.
- Setaceous**, resembling a bristle in shape. *Justicia nigricans*, s. 282.
- Setæ**, bristles. *Schœ'nus nigricans*, s. 845.
- Setiform**, (234) formed like a bristle. *Rósa hibérnica*, s. 7501.

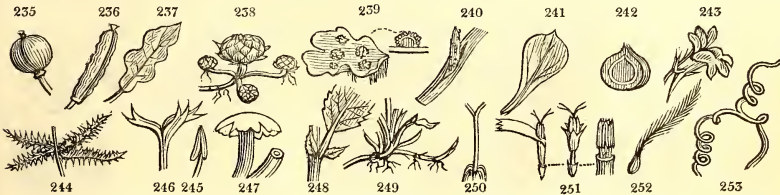


Setigerous, or *Setose*, covered with bristles. *Knáppia*, g. 142. p. 32.
Sheath, the lower part of the leaf that surrounds the stem. *Zostera*, g. 24. p. 1.
Sherds, the fragments of potting employed by gardeners to drain their flower-pots. *Prótea*, g. 231. (note.)
Shield, (29) a broad table-like process in the flower of *Stapélia* and its allies. *Huérnia clavígera*, s. 3351.
Sialagogue, having the power of exciting saliva. p. 536.
Silicated, coated or mixed with flint. *Astrágalus tragacantha*, p. 637. (note.)
Siliceous, flinty. *Laúrns cinnamómum*, g. 934. (note.)
Silicle, (235) the small round pod of *Cruciferae*. *Lunária*, g. 1395. p. 536.
Siliqua, (236) the long taper pod of *Cruciferae*. *Brásica*, g. 1432.
Simple, the reverse of compound. p. 1.
Sinuate, or *Sinuose*, (237) bending in and out. *Lycopus europæus*, s. 338.
Sinuato-dentate, sinuate and toothed. *Leóntodon palústris*, s. 11156.
Sinus, the bays or recesses formed by the lobes of leaves or other bodies. *Hammamélis virginica*, s. 1814.
Soboliferous, (238) producing young plants from the root. *Aloe brevis*, s. 4415.
Soddened, soaked. *Prótea*, g. 231. (note.)
Soporiferous, causing sleep. *Primula véris*, s. 2022.
Somnifer, causing sleep. *Hámulus*, g. 2074. (note.)
Sorediferous, (239) bearing soredia. *Ramalína*, g. 2355. p. 949.
Sori, (152) the patches of fructification on the back of the fronds of ferns. p. 925.
Spatha, (240) a spike protracted from a spatula. *Zostera*, g. 24. p. 1.
Spatha, a broad sheathing leaf enclosing flowers arranged upon a spadix. *Hedýchium spicátum*, s. 34.
Spathaceous, furnished with a spatula. p. 1.
Spathulate, (241) shaped like a spatula, a knife so called. *Cánna gigantéa*, s. 6.
Sphaecate, withered or dead. *Senécio ægyptius*, s. 1911.
Spherical, round like a sphere. *Alpínia nántans*, s. 43.
Spheroidal, almost like a sphere. *Cáctus latispínus*, s. 6852.
Spherules, (242) minute spheres. *Stromatosphæria concentrica*, s. 16360.
Spike, (214) flowers sessile upon a long rachis. *Maránta lítea*, s. 50.
Spine, indurated branches or processes formed of woody fibre, and not falling off from the part that bears them. *Ancistrum*, g. 68. p. 10.
Spiniform, formed like a spine. *Mesembryánthemum spinifórmis*, s. 7363.
Spinous, full of spines. *Alpínia érnua*, s. 44.
Spinulescent, having a tendency to produce small spines. *Mesembryánthemum spinuliferum*, s. 7421.
Spinulose, covered with small spines. *Rhéum Ribes*, s. 5667.
Spiral, (253) circularly involved. *Cóstus spiráilis*, s. 65.
Sporules, that part in *Cryptogamous* plants which answers to the seeds of other plants. p. 874.
Sporuliferous, bearing sporules. *Phállus impudicus*, s. 16336.
Spyrious, counterfeit. *Iris spúria*, s. 781.
Spurs, (243) long processes resembling horns produced by various parts of the flower. *Cureóma*, g. 14. p. 1.
Squamiform, like scales. *Sántalum*, g. 307. p. 79.
Squarrose, (244) spreading rigidly at right angles, or in a greater degree. *Zíngiber squarrosúm*, s. 60.
Squinancy, an inflammation in the throat. *Aspérula*, g. 268. (note.)
Stamen, (245) the male organ of a flower. p. 1.
Staminiferous, producing stamina. *Campánula*, g. 463. p. 112.
Standard, (188) the upper segment of the flower of *Leguminosæ*. *Thermópásis*, g. 944. p. 378.
Stellate, in the manner of a star. *Schwénkia*, g. 42. p. 9

Stellate, resembling little stars. *Onósma taúricum*, s. 1907.
Sterile, barren. *Amómum grandifórum*, s. 74.
Sternutatory, qualities which provoke sneezing. *Primula vulgaris*, g. 350. (note.)
Stigma, (246) the female organ of a flower. *Cánna*, g. 1. p. 1.
Stimulating, exciting. *Cinna*, g. 161. (note.)
Stimuli, stinging hairs. *Urtica árdens*, s. 13230.
Stipes, (247) the stalk of *Fúngi*. p. 978.
Stipitate, having a short stalk. *Aspidistra*, g. 759. p. 238.
Stipulaceous, having appendages called stipule. *Solanum peruvíanum*, s. 2516.
Stipulary, occupying the place of stipule. *Paliurus austrális*, s. 2896.
Stipules, (248) small scales at the base of the petiole of certain leaves. *Spermacóce stylósa*, s. 1653.
Stoloniferous, (249) having creeping roots. *Sesleria elongata*, s. 1075.
Stolons, root shoots. *Agrostis*, g. 156. (note.)
Stomachic, relating or agreeable to the stomach. *Kæmpferia*, g. 12. (note.)
Strangury, a disease, and produced on plants by tight ligatures. *Oriuthógalum*, g. 802. (note.)
Strata, layers, beds. *Cápsicum*, g. 453. (note.)
Striae, small streaks, channels, or furrows. p. 877.
Striated, having striae. *Alpínia racemósa*, s. 41.
Strigæ, little, rigid, unequal, irregular hairs. *Chára hispida*, s. 15199.
Strigose, having strigæ. *Lithospérum arvénse*, s. 1895.
Strophiolate, surrounded by protuberances. *Hóvea*, g. 1536. p. 599.
Struma, a wen or protuberance. p. 903.
Strumose, or *Strumous*, covered with strumæ. *Mesembryánthemum gróssum*, s. 7422.
Style, (250) the stalk which intervenes between the ovarium and stigma, bearing the latter. p. 1.
Styptic, having the power to staunch blood. *Rhús*, g. 681. (note.)
Sub, in composition, signifies subordinate, or somewhat.
Succedaneum, coming in the place of another. *Tácca*, g. 758. (note.)
Succulent fleshy and filled with juice. *Blítum*, g. 28. (note.)
Sudorific, having the power of producing perspiration. *Sílvia*, g. 62. (note.)
Suffruticose, shrubby in a slight degree. *Spermacóce suffruticósa*, s. 1656.
Sulcate, furrowed. *Vibórgia*, g. 1523. p. 599.
Supernatant, floating on the surface of any thing. *Aloe*, g. 770. (note.)
Suppurate, to generate matter. *Rhús*, g. 681. (note.)
Supra-decompound, doubly compounded. *Scírpis sylvática*, s. 863.
Surculi, young shoots. *Erythrónium*, g. 782. (note.)
Suture, the line formed by the cohesion of two parts. *Mirbélia*, g. 967. p. 338.
Syngenesious, (251) belonging to the nineteenth class of the sexual system. *Plhóx*, g. 369. (note.)
Synthetical, combining; opposed to analytical. *Gilénia*, g. 1142. (note.)
Syphilitic, useful in the cure of syphilis. *Chenopódium*, g. 611. (note.)

T.

Tails, (252) the long feathery or hairy terminations of certain fruits. *Clematis chinénsis*, s. 7968.
Tap-root, a root which penetrates deep and perpendicularly into the ground without dividing. *Crinum defixum*, s. 4182.
Tartareous, consisting of tartar. *Lecidéa cónfluens*, s. 15384.
Teated, resembling the figure of the teat of animals. *A'chras*, g. 427. p. 111.
Tendrils, (253) the curling twining organs by which some plants lay hold of others. *Vitis índica*, s. 2588.



Tenesmus, a disposition to go to stool, without the power of evacuation. *A'nthemis*, g. 1778. (note.)
Tejpa, lukewarm. *A'nthemis*, g. 1778. (note.)
Terebinthinate, consisting of turpentine. *A'bies balsamea*, p. 805. (note.)
Terete, taper, round and long. *Hákea obliqua*, s. 1423.
Terminal, ending, or at the top. *Maránta lútea*, s. 20.
Ternary, consisting of threes. *Valeríana*, g. 78. (note.)
Ternate, (254) growing together in threes. *Hedýchium elátum*, s. 31.
Tessellated, variegated by squares. *Sarcocéphalus*, g. 498. p. 113.
Testa, the skin or integument of the seed. *Psidium*, g. 1118. p. 409.
Testaceous, having a pale brown color. *Mesembryánthemum testáceum*, s. 7430.
Tetrachotomous, (255) a stem that ramifies in fours. *Euphórbia*, g. 1103. (note.)
Tetrandrous, (256) having four stamens. *Collinsónia anisáta*, s. 469.
Tetrapetalous, (256) having four petals. p. 1069.
Tetrasepalous, (256) having four sepals. p. 1069.
Thalamus, (258) that part of a flower which rises from below the ovarium and sometimes supports the outer envelopes. p. 539.
Thallus, (257) that part which bears the fructification of Lichens. p. 874.
Thecae, the cases that contain the spores of Cryptogamic plants. p. 874.
Threads, long delicate hairs. *Anacámperos filamentosa*, s. 6632.
Throat, (120) the orifice of a flower. *Justicia píeta*, s. 285.
Thyrse, (259) a kind of dense panicle like that of the lilac. *A'juga furcáta*, s. 8029.
Thyrsoid, resembling a particular kind of panicle called a thyrus. p. 85.
Tomentose, densely and closely hairy. *Thýmus tomentosus*, s. 8414.
Tomentum, dense close hair. *Grevillea buxifolia*, s. 1418.
Tonic, bracing, corroborative. *Sálvia*, g. 62. (note.)
Toothed, (260) divided so as to resemble teeth. *Políchia*, g. 21. p. 1.
Toothletted, furnished with little teeth. *Sálvia paniculáta*, s. 402.
Topical, local, confined to some particular place. *Papáver*, g. 1170. (note.)
Torose, uneven; alternately elevated and depressed. *Papáver híbridum*, s. 7659.
Tortuose, twisted. *Heliánthemum Fumána*, s. 7773.
Torulose, slightly torose. *Echites torúsa*, s. 2357.
Torus, (258) the same as thalamus, which see. *Sisýmbrium*, g. 1422. p. 537.
Trapeziform, in the shape of a trapezium. *Borónia serruláta*, s. 5031.
Trapezoid, like a trapezium. *Adiántum villósum*, s. 14554.
Triandrous, (261) having three stamens. p. 50.
Trichotomous, (102) branches divided in threes. *Trichódium decumbens*, s. 1000.
Tricuspidate, (262) having three points. *A'llium Pórrum*, s. 4617.
Trifarious, arranged in triple rank. *A'loe tortuúsa*, s. 4386.
Trifid, divided in three. *Mantisia*, g. 16. p. 1.
Trilocular, (166) having three cells. *Leptospermum triloculáre*, s. 6931.
Tripetaloid, appearing as if furnished with three petals. *Tillándsia xiphioídes*, s. 4144.
Tripetalous, having three petals. *Elatine hydropiper*, s. 5635.
Triquetrous, having three sides or angles. *A'loe reticuláta*, s. 4392.
Triturated, reduced to powder by pounding. *Amýgdalus*, g. 1128. (note.)
Tropical, belonging to the torrid zone. *Conocárpum*, g. 544. (note.)
Truncate, (263) blunt, as if cut off. *Hedýchium spícátum*, s. 34.
Taberculate, covered with knobs or tubercles. *Ranúnculus parviflorus*, s. 8073.

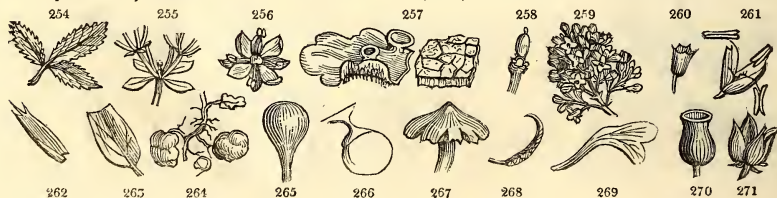
Tuberous, (264) bearing solid fleshy roundish roots like the potato. *Cánna edúlis*, s. 12.
Tubers, roots so called. *Curcúma*, g. 14. (note.)
Tumid, swelling. *Secále orientále*, s. 1267.
Tunic, a coat. *Crócus pusillus*. s. 606.
Tunicated, having a coat. *A'llium Pórrum*, s. 4617.
Turbinate, (265) having the figure of a top. *Salicórnia*, g. 22. p. 1.
Turgid, swollen, puffed up. *Brómus praténsis*, s. 1132

U.

Umbellules, (153) divisions of an umbel. *Caúcalis daucoides*, s. 3524.
Umbels, (154) the round tuft of flowers produced by the carrot, &c. *Boerhaávia scándens*, s. 108
Umbilicus, (266) the cord which attaches the seed to the receptacle. *Bérberis*, g. 829. p. 239.
Umbonate, (267) having a top in the centre like that of the ancient shield. *Cucúrbita Melopépo*, s. 13566.
Unarmed, destitute of prickles or spines, which are the arms of plants. *Corispermum hyssopifolium* s. 124.
Uncinate, (268) hooked. *Píper adúncum*, s. 502.
Uncuous, fat, oily. *Anchúsa*, g. 333. (note.)
Undulate, waved. *Sálvia pomifera*, s. 370.
Undulato-rugose, rugose or rugged and waved. *Stromatosphæria deústa*, s. 16361.
Unguiculated, furnished with a short unguis. *Alpinia galána*, s. 40.
Unguis, (269) the taper base of a petal. *Diánthus*, p. 372. (note.)
Unilateral, one-sided. *Brachypódium lolíaceum*, s. 1147.
Unilocular, (166) one-celled. *Calepina*, g. 1441. (note.)
Unisexual, being of one sex. *Próckia*, g. 1179. (note.)
Urceolate, (270) pitcher-shaped. *Camphorósmá*, g. 254. p. 78.
Uterine, belonging to the womb. *Acácia*, g. 2127. (note.)
Uterus, the womb. p. 981.
Utricle, or *Utriculus*, a little bottle or bladder. *Salicórnia*, g. 22. p. 1.
Uvula, the gland of the throat. *Acácia*, g. 2127. (note.)

V.

Valvular, (271) or *Valved*, consisting of valves or seed cells. p. 895.
Varicose, (272) swollen here and there. *Pterocárpum*, g. 1515. p. 598.
Vascular, (273) consisting of tissue in a very succulent enlarged state. *Potamogetón*, g. 317. (note.)
Vaulted, (274) formed or placed like the roof of a vault. *Gladiolus namaquénsis*, s. 709.
Veneering, the art of covering one kind of wood with thin plates of another kind. *Spártium scopárium*, p. 611. (note.)
Ventricose, (275) inflated. *Gratídium*, g. 155. p. 32.
Veratrine, the active principle of *Verátrum*. *Verátrum*, g. 2128. (note.)
Vermifuge, that which expels worms. *Hellébórus*, g. 1237. (note.)
Vernacular, native. *Zingiber*, g. 10. (note.)
Vernal, belonging to the spring. *Verónica vérna*, s. 254.
Versatile, (276) swinging lightly on a stalk so as to be continually changing direction. *Sternbérgia*, g. 742. p. 237.
Vertex, the uppermost point. *Róméria*, g. 1168. p. 456.
Vertical, perpendicular. *Nivénia*, g. 235. p. 77.
Vertically compressed, that is depressed. *Salicórnia*, g. 22. p. 1.
Vertilinear, the same as rectilinear; in a straight line. *Viola campéstris*, s. 3037.
Vesicatories, blistering plasters. *Ranúnculus*, g. 1233. (note.)



Vesicles, (277) hollow excrescences resembling bladders, g. 310. (note.)
Vexillum, (188) a standard; the upper petal of a papilionaceous flower. *Petalostemum*, g. 1501. p. 598.
Villosus, (278) shaggy, with long loose hair. *Costus villosissimus*, s. 66.
Virescent, green, flourishing. *Mesembryanthemum virescens*, s. 7275.
Virgate, twiggy. *Verbascum cyprium*, s. 2152.
Viscid, or *Viscous*, adhesive, clammy. *Boerhaavia viscosa*, s. 109.
Vivacious, lively. *Carduus*, g. 1663. (note.)
Viviparous, (279) bearing young plants in the place of flowers and seed. *Márica cærulea*, s. 841.
Vulnerary, useful in the cure of wounds. *Symphytum*, g. 334. (note.)
Vulviform, like a cleft with projecting edges. *Melampodium*, g. 1828. p. 665.

W.

Wattled, having processes like the wattles of a cock. *Rhinanthus alectorolophus*, s. 8746.
Wetted, flaccid, drooping. *Carduus acanthoides*, s. 11575.
Whorls, (280) leaves inserted round a stem. *Hippuris*, g. 23. (note.)
Wing, (281) in botany, signifies a membranous border, wherewith many seeds are supported in the air when floating from place to place. *Amomum delbátum*, s. 77.

Z.

Zones, (282) stripes or belts. *Zonária pavónia*, s. 15338.

○ signifies wanting or absent. p. 79.
 ○ ○, very numerous.

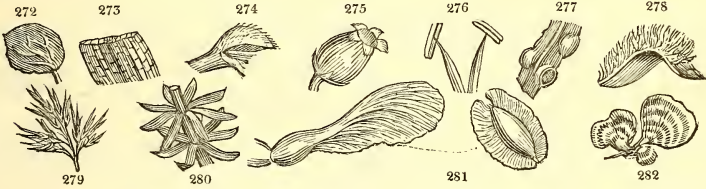


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650	1609	- - - -	- - - -	Ambrome	Die abrome
614	1546	- - - -	Wild liquorice	Liane à réglisse	Der abrusstrauch, <i>or</i> giftbohne
856	2127	Mimōsa	- - - -	- - - -	- - - -
814	2038	- - - -	Three-seeded Mercury	La ricinelle	Zeckel, <i>or</i> brennkraut
516	1301	- - - -	Bear's breech	Branc-ursine	Die bärenklau
864	2143	- - - -	Maple	L'éérable	Der ahorn
752	1865	O'phrys	Man orchis	- - - -	- - - -
726	1781	- - - -	Milfoil	L'achilléo	Das achillenkraut
		- - - -	Yarrow	Millefeuille	Die schaafarbe, <i>or</i> garbenkraut
	12383	- - - -	- - - -	- - - -	- - - -
150	427	Nisberry tree	Sapodilla	Le sapotier	Der breyapfelbaum
190	552	- - - -	- - - -	Le cadélar	Die spreublume
834	2072	- - - -	Virginian hemp	Acnie de Virginie	Der Virginische hanf
474	1205	- - - -	Wolf's-bane	L'aconit	Der sturmhut
256	755	Calamus aromaticus	Sweet rush	L'acore odorant	Der kalmus, <i>or</i> calmus
878	2169	- - - -	- - - -	L'acrostique	Der vollblühende farn
460	1164	- - - -	Herb-Christopher	L'actée	Schwarzwurz
294	860	Alisma	- - - -	- - - -	- - - -
598	1276	Thymus	- - - -	Basilique sauvage	Kleine bergmünze
592	1471	- - - -	Ethiopia sour gourd, <i>or</i> monkey's bread	Le baobab, <i>or</i> le pain du singe	Die adansonie, <i>or</i> der affenbaum
850	2118	- - - -	- - - -	L'adehe	Quästchen
180	518	Diósma	- - - -	- - - -	- - - -
350	982	- - - -	Bastard flower fence	Le condori	Der trüsenbeutel
884	2194	- - - -	Maidenhair	Adianthe	Venushaar
98	286	Naúclea	- - - -	- - - -	- - - -
494	1230	- - - -	Pheasant's eye	Adonide	Die adonisblume, <i>or</i> adonisrose
328	930	Musk crowfoot	Moschatel	Moscatelline	Das bisamkräutchen
862	2134	- - - -	Hard grass	L'égilope	Das zeisensauge
96	274	- - - -	- - - -	Ægiphile	Das giegenbäumchen
468	1196	Cratæva	Bengal quince	- - - -	Der schleimapfelbaum
216	652	- - - -	Gout weed	Boucage	Geissfuss
762	1917	- - - -	Air plant	- - - -	- - - -
192	560	- - - -	- - - -	Aerve	- - - -
630	1582	- - - -	Bastard sensitive plant	L'eschynoméne	Die unächte sinnpflanze
296	866	Pàvia	Horsechestnut	Le marronnier d'Inde	Die rosskastanie
218	661	Lesser hemlock	Fool's parsley	Æthuse	Der gartenschierling
260	767	Crinum africanum	African lily	Crinole d'Afrique	Die Afrikanische hakenblume
986	2365	- - - -	Mushroom	L'agaric	Der blätterschwamm
802	2011	Pinus	Dammar	- - - -	- - - -
182	520	Diósma	- - - -	- - - -	- - - -
244	724	Aloe	- - - -	L'agavé	Die baum-aloe
690	1687	- - - -	- - - -	L'agérate	Das ageratum
398	1101	Liverwort	Agrimony	L'aignemoine	Der odermennig
388	1066	- - - -	Rose-campion	La nielle	Der raden
56	156	- - - -	Bent grass	Agrostis	Das strausgrass
866	2150	- - - -	- - - -	Le langit	- - - -
58	170	- - - -	Hair grass	Canche	Schmellen, <i>or</i> schmielen
428	1144	- - - -	- - - -	La languette	Das immergrün
494	1242	- - - -	Bugle	La bugle	Günsel
274	797	- - - -	Bastard star of Bethlehem	- - - -	Dass weissleder
88	255	- - - -	Ladies' mantle	L'alchimille	Der sinau
812	2023	- - - -	- - - -	L'aleurit	Der mehlabaum
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814	Netelkruid			
516	Beerenklaauw	Acanto	Acanto	Acanto <i>Port.</i>
864	Ahorn	Acero	Arce	Acero <i>Port.</i>
726	Duizendblad Hetgemeene dui- zenblad	Achillea Millefolgie	Aquila	
150	Sapdilleboom	- - -	Sapote	Zapota menor <i>Port.</i> Sapolitetræ <i>Dan.</i>
190	Käfbloem			
834	Kennip	- - -	Cañamo de Vir- ginia	
474	Monnikskappen	Aconito	Aconito	Aconito <i>Port.</i>
256	Kalmus	Acoro	Acoro calamo	Acoro calamo <i>Port.</i> Waambu <i>Malab.</i> Cassabel <i>Egypt.</i>
878	Plakvaren	Acrostico	Acrostico	Acrostico <i>Port.</i> Pletbrægne <i>Dan.</i>
460	Kristoffelkruid	Actea	Actea	Actea <i>Port.</i>
508	Vold mynte	- - -	Albahaca menor	Serpao <i>Port.</i>
592	Meloenboom, aa- penbrood boom, or baobaboom	- - -	- - -	Iciboica <i>Brazil.</i>
350	Klierenbloem	Adenantera	Adenantera	Adenantera <i>Port.</i>
884	Venushaar	Adianto	Adianto	Adianto <i>Port.</i> Cay Duoi chon <i>China.</i>
484	Adonisbloem	Fiore d' Adono	Adonis	Adonis <i>Port.</i>
328	Muskuskruid	Moscatellina	Moscatelina	Moscatelina <i>Port.</i> Desmerurt <i>Dan.</i> Desmansört <i>Swed.</i>
862	Geitenoog	Egilope	Ejilope	Egilopee <i>Port.</i> Gedeöye <i>Dan.</i> Getöga <i>Swed.</i>
96	Het geitenboompje	Egifila	Ejifila	Egiphila <i>Port.</i> Lidet geedetræ <i>Dan.</i>
468	Slymappelboom	- - -	- - -	Marmeleiro da India <i>Port.</i> Covalam <i>Malab.</i>
216	Gerardskruid	Podagraria	Egopodio	Egopodio <i>Port.</i> Snit <i>Russ.</i> Podagrycznik <i>Pol.</i>
762	- - -	- - -	- - -	Fum-län <i>China.</i> Phaong lon <i>Cochinch.</i>
192	- - -	- - -	- - -	Aerva <i>Arab. Jel.</i> Sedjaret ennaghi <i>Cairo.</i>
630	Schaamboom			
296	Paardenkarstenge- boom	L' ippocastano	Esculo castána de caballo	Esculo <i>Port.</i> Kònskoi kastán <i>Russ.</i>
218	Tuinscheerling	Cicuta minore	Cicuta menor	Cicuta menor <i>Port.</i> Medwjschei kòren <i>Russ.</i>
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986	Kampernoelje	Agarico	Agarico	Agarico <i>Port.</i> Fastacki <i>Jap.</i> Bladsvamp <i>Dan. & Swed.</i>
244	Boomaloe	Aloe grande, or agave	Agave	Agave <i>Port.</i> Den træeloe, or agave <i>Dan.</i>
690	Geurkruid	Agerato	Agerato	Agerato <i>Port.</i> Ageratum <i>Dan., &c.</i>
398	Agrimonia	- - -	- - -	Agrimonia <i>Port.</i> Daikon so <i>Jap.</i> Repnik <i>Russ.</i>
388	Koornvlam	- - -	- - -	Agrostema <i>Port.</i> Drema <i>Russ.</i> Firlетка <i>Pol.</i>
56	Struisgras	- - -	- - -	Agrostis <i>Port.</i> Hven <i>Dan. & Swed.</i>
866	- - -	- - -	- - -	Tong-yen-tsaou, or Tchean-theum <i>China.</i>
58	Rietgras	- - -	- - -	Sivegras <i>Dan.</i> Tatalen <i>Swed.</i> Reygresse <i>Iceland.</i>
428	- - -	- - -	- - -	Aizoa <i>Port.</i>
494	Senegroen	Bugola	- - -	Edel vundurt <i>Dan.</i> Käringkruka <i>Swed.</i>
274	Stiftbloem	- - -	- - -	Albuca <i>Port.</i>
88	Leeuwenvoet	Alchimilla	Alchemila	Alchimilla <i>Port.</i> Mariä kápa <i>Swed.</i> Synov <i>Dan.</i>
294	Water weegbree	- - -	- - -	Guldblomme <i>Dan.</i> Stäckra <i>Swed.</i>

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		- - - -	<i>A. Millefolium</i> L.	Millefeuille	Der schaaufgarbe, or garbenkraut
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100	532	- - - -	- - - -	Le cadéari	Die spreblume
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916	652	- - - -	Gout weed	Boucage	Geissfuss
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192	560	- - - -	- - - -	Aerve	Die unächte sinnpflanze
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182	530	Diadma	- - - -	- - - -	- - - -
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56	136	- - - -	Bent grass	Agrostis	Das strausgrass
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	Het gemeene duizenblad	Millefolgie	- - -	- - -
130	Sapodilleboom	- - -	Sapote	Zapota menor <i>Port.</i> Sapotilletrae <i>Dan.</i>
190	Kafloem	- - -	- - -	- - -
634	Kennip	- - -	- - -	Canamo de Virginia
474	Monnikskappen	Aconito	Aconito	Aconito <i>Port.</i>
536	Kalmus	Acoro	Acoro calamo	Acoro calamo <i>Port.</i> Waembu <i>Malab.</i> Cassabel <i>Egypt.</i> Acrostico <i>Port.</i> Pletbrægne <i>Dan.</i>
578	Plakvaren	Acrostico	Acrostico	Acrostea <i>Port.</i>
490	Kristoffelkruid	Actea	Actea	Actea <i>Port.</i>
568	Vold mynte	- - -	Albahaca menor	Serpao <i>Port.</i>
592	Meloenboom, aapenbrood boom, or baobaboom	- - -	- - -	Iciboica <i>Brazil.</i>
330	Klierenbloem	Adenantera	Adenantera	Adenantera <i>Port.</i>
834	Venushaar	Adianto	Adianto	Adianto <i>Port.</i> Cay Duöi <i>chon China.</i>
634	Adonisbloem	Fiore d' Adono	Adonis	Adonis <i>Port.</i>
228	Muskuskruid	Moscatellina	Moscatellina	Moscatellina <i>Port.</i> Desmercurt <i>Dan.</i> Desmansört <i>Sued.</i>
622	Geitenoog	Egiploe	Egiploe	Egiploe <i>Port.</i> Gedöye <i>Dan.</i> Felleka <i>Sued.</i>
96	Het geitenboompje	Egiploe	Egiploe	Egiploe <i>Port.</i> Lidet gedetree <i>Dan.</i>
93	Slymappelboom	Egiploe	Egiploe	Marmeleiro da India <i>Port.</i> Covalam <i>Malab.</i>
416	Gerardskruid	Podagraria	Egopodio	Egopodio <i>Port.</i> Snit <i>Russ.</i> Podagrycznik <i>Pol.</i>
192	- - -	- - -	- - -	Fum-lan <i>China.</i> Phaug ion <i>Cochinch.</i>
630	Schaamboom	- - -	- - -	Aerva <i>Arab. fol.</i> Sedjaret ennaghi <i>Cairo.</i>
426	Paardenkarstengeboom	L' ippocastano	Esculo castána de caballo	Esculo <i>Port.</i> Könskoj kastán <i>Russ.</i>
610	Tuinscheerling	Cicuta minore	Cicuta menor	Cicuta menor <i>Port.</i> Medwjeschei köden <i>Russ.</i>
630	Afrikaanse haaklelie	- - -	- - -	- - -
636	Kampernoelje	Agarico	Agarico	Agarico <i>Port.</i> Fastacki <i>Jap.</i> Bladsvamp <i>Dan.</i> & <i>Sued.</i>
644	Boomaloe	Aloe grande, or agave	Agave	Agave <i>Port.</i> Den træaloe, or agave <i>Dan.</i>
400	Geurkruid	Agerato	Agerato	Agerato <i>Port.</i> Ageratum <i>Dan.</i> , & <i>c.</i>
368	Agrimonia	- - -	- - -	Agrimonia <i>Port.</i> Daikon so <i>Jap.</i> Rennik <i>Russ.</i>
368	Koornvlam	- - -	- - -	Agrostema <i>Port.</i> Drema <i>Russ.</i> Felleka <i>Pol.</i>
368	Struisgras	- - -	- - -	Agrostis <i>Port.</i> Hven <i>Dan.</i> & <i>Sued.</i>
636	- - -	- - -	- - -	Tong-yen-tso, or Thean-theum <i>China.</i>
393	Rietgras	- - -	- - -	Sivegras <i>Dan.</i> Tatelen <i>Sued.</i> Reyrgrese <i>Iceland.</i>
428	- - -	- - -	- - -	- - -
444	Senegroen	Bugola	- - -	Aizoa <i>Port.</i>
714	Stiftbloem	- - -	- - -	Edel vundurt <i>Dan.</i> Käringkruka <i>Sued.</i>
68	Leeuwenvoet	Alchimilla	Alchemila	Alchimilla <i>Port.</i> Mariä kapa <i>Sued.</i> Synov <i>Dan.</i>
294	Water weegbrec	- - -	- - -	Guldbloem <i>Dan.</i> Stäckra <i>Sued.</i>

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272	<i>Allium L.</i> 796	- - - -	Garlic	L'ail	Der lauch
	1. <i>ascalonicum L.</i> sp. 4664	- - - -	Shallot, or scallion	Echalote, or ail sterile	Die schalotte, or aschlauch
	2. <i>Porrum L.</i> sp. 4617	- - - -	Leek	Porreau, or l'ail à tuniques	Der Spanische lauch, or der Spanische lauch
	3. <i>Schenoprasum L.</i> sp. 4688	- - - -	Chives	Ciboulette	Der binsenlauch, or schnittlauch
	4. <i>Cepa L.</i> sp.	- - - -	Onion	L'oignon	Die zwiebel
780	<i>Alnus Tou.</i> 1955	<i>Bétula Alnus</i>	Alder	L'aune	Die erle
534	<i>Alonsoa R. & P.</i> 1377	Hemimeris	- - - -	- - - -	- - - -
	56 <i>Alopecurus L.</i> 164	- - - -	Fox-tail grass	Le vulpin	Der fuchsschwanz
518	<i>Aloësia Or.</i> 1313	<i>Verbena</i>	- - - -	- - - -	- - - -
228	<i>Alsine L.</i> 688	- - - -	Chickweed	La morgeline	Der hühnerbiss
192	<i>Alternanthera R. Br.</i> 556	- - - -	- - - -	L'alternante	- - - -
584	<i>Althæa L.</i> 1474	- - - -	Marsh mallow	La guimauve	Der eibisch
544	<i>Alyssum L.</i> 1401	Alysson	Madwort	L'alyse	Das stinkkraut
786	<i>Amarantus L.</i> 1975	Velvet flower	Amaranth	L'amaranthe	Der amarant
252	<i>Amaryllis L.</i> 739	- - - -	Daffodil lily	L'amaryllis	Die narissenlilie
788	<i>Ambròsia L.</i> 1977	- - - -	- - - -	L'ambrosie	Das traubenkraut
725	<i>Amellus L.</i> 1785	<i>Aster</i>	- - - -	L'œil de Christ	- - - -
	20 <i>Amethystea L.</i> 56	- - - -	Blue amethyst	L'améthyste	Die amethystpflanze
214	<i>Ammi L.</i> 639	- - - -	Bishop's weed	- - - -	- - - -
	4 <i>Amomum Rosc.</i> 13	- - - -	Cardamoms	L'amome	Die kardamomen
614	<i>Amorpha L.</i> 1545	- - - -	Bastard indigo	L'amorpha	Der unform
148	<i>Amsônia Wait.</i> 419	Tabernamontana	- - - -	- - - -	- - - -
420	<i>Amygdalus Tou.</i> 1128	- - - -	Almond	L'amandier	Der mandelbaum
	<i>A. Persica L.</i> sp. 7020	- - - -	Peach	Le pêcher	Der pfirschenbaum
304	<i>Amÿris L.</i> 889	- - - -	Balm-tree	Le balsamier	Der balsamtrauch
204	<i>Anabasis L.</i> 608	- - - -	Berry-bearing glasswort	L'anabase	Die salzbeere
334	<i>Anacardium Rox.</i> 935	- - - -	Cashew nut	L'acajou	Der acajoubaum
724	<i>Anacyclus L.</i> 1777	- - - -	Ring-flower	L'anacycle	Der scheibenring
128	<i>Anagallis L.</i> 337	- - - -	Pimpernel	Le mouron	Das gauchheil
342	<i>Anagyris Tou.</i> 943	- - - -	Bean trefoil	Le bois puant	Der stinkbaum
548	<i>Anastatica L.</i> 1416	- - - -	Rose of Jericho	La jérosee hygrométrique	Die Jerichorose
120	<i>Anchusa L.</i> 333	- - - -	Bugloss	La buglosse	Die ochsenzunge
810	<i>Andrachne L.</i> 2025	- - - -	Bastard orpine	L'andrachne	Die spaltblume
860	<i>Andropogon W.</i> 2129	- - - -	- - - -	Le barbou	Das bartgras
126	<i>Androsace L.</i> 349	- - - -	- - - -	L'androsacé	Das mannschild
676	<i>Andryala L.</i> 1642	- - - -	- - - -	L'andriale	Derzüllich, or zülch
886	<i>Anémia Swz.</i> 2207	<i>Osmunda</i>	- - - -	- - - -	- - - -
482	<i>Anemone L.</i> 1226	<i>Pulsatilla</i>	Pasque-flower	L'anémone	Die anemone
218	<i>Anethum L.</i> 654	- - - -	Dill	Anith	Das dillkraut
220	<i>Angélica L.</i> 664	- - - -	Herb archangel	Angélique	Die angelika, or engelwurz
912	<i>Anictanglum Hedw.</i> 2242	<i>Gymnóstomum</i>	- - - -	- - - -	- - - -
494	<i>Anisómeles R. Br.</i> 1243	<i>Népeta</i>	- - - -	- - - -	- - - -
480	<i>Annona Adan.</i> 1220	- - - -	Custard apple	Le corossol	Der flaschenbaum
912	<i>Anómodon Hook.</i> 2246	<i>Hýpnum</i>	- - - -	- - - -	- - - -
724	<i>Anthemis L.</i> 1778	- - - -	Chamomile	La camomille	Die kamille
280	<i>Anthriscum L.</i> 809	- - - -	- - - -	L'anthéric	Das spinkraut
	44 <i>Antholyza L.</i> 107	- - - -	- - - -	L'antholise	Die steinblume
832	<i>Anthospermum L.</i> 2062	- - - -	Amber tree	L'anthosperme	Der amberstrauch
	28 <i>Anthoxanthum L.</i> 76	- - - -	Spring grass	La floue	Das ruchgras
208	<i>Anthriscus Pers.</i> 620	<i>Scándix</i>	Rough chervil	Cerfeuil à fruits courts	Der rauhe kerbel
612	<i>Anthyllis L.</i> 1542	- - - -	Kidney vetch	L'anthyllide	Die wollblume
834	<i>Antidésma L.</i> 2068	- - - -	- - - -	L'antidésme	Die schlangenbeere
526	<i>Antirrhinum L.</i> 1343	<i>Toadflax</i>	Snap dragon	Le muftier	Der dorait
832	<i>Antróphyum Kaulf.</i> 2193	<i>Vittaria</i>	- - - -	- - - -	- - - -
518	<i>Aphelandra R. Br.</i> 1306	<i>Justicia</i>	- - - -	- - - -	- - - -
272	<i>Aphyllánthes L.</i> 794	- - - -	Lily pink	- - - -	Die blattlose
	<i>A. monspeliensis L.</i> sp. 4614	- - - -	- - - -	Bragalou de Montpellier	- - - -
216	<i>Apium L.</i> 651	- - - -	Parsley	Le persil	Die petersilie
	<i>A. graveolens L.</i> sp. 3618	- - - -	Celery	Céleri	Der celeri
194	<i>Apocynum L.</i> 572	- - - -	Dog's bane	L'apocin	Der hundekohl
292	<i>Aponogeton Thun.</i> 854	- - - -	- - - -	L'aponoget	Der schwimmer
476	<i>Aquilegia L.</i> 1208	- - - -	Columbine	Ancolie	Der ackeley
540	<i>Arabis L.</i> 1390	- - - -	Wall cress	L'arabette	Der gänsekraut
614	<i>Arachis L.</i> 1543	<i>Pindars, or ground nuts</i>	Earth nut	L'arachide	Die erdnuss
230	<i>Aràlia L.</i> 696	- - - -	Angelica tree	L'aralie	Die aralie
360	<i>Arbutus L.</i> 1019	<i>Arctostáphylos</i>	Strawberry tree	L'arousier	Der erdbeerbaum
680	<i>Aretium L.</i> 1660	<i>Clof-burr</i>	Burdock	Bardane	Die klette
872	<i>Arctópus L.</i> 2165	- - - -	- - - -	L'arctope	Der bärenfuss
734	<i>Arctotheca Wnt.</i> 1815	<i>Arctótis</i>	- - - -	- - - -	- - - -
740	<i>Arctótis L.</i> 1831	- - - -	Bear's ear	L'arctotide	Das bärenohr
800	<i>Aréca L.</i> 2009	- - - -	Cabbage tree	L'arec, or chou palmiste	Die arekapalme
378	<i>Arenaria L.</i> 1050	- - - -	Sandwort	La sablonière	Das sandkraut
462	<i>Argemone Tou.</i> 1172	- - - -	Prickly poppy	L'argemone	Der stachelmohn
766	<i>Aristolochia L.</i> 1934	- - - -	Birthwort	L'aristolochie	Die osterluzey
234	<i>Armèria W. en.</i> 705	<i>Státice Armèria</i>	Thrift	Státice	Das seegras

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
272	Look	Aglio	Ajo	Alho <i>Port.</i> Tum <i>Indian.</i> Sir <i>Pers.</i> Tschesnok <i>Russ.</i> Scalotlögen <i>Dan.</i> Čhalotentök <i>Swed.</i> Ossleych <i>Boh.</i>
	1. Chalotte	Scalogni, or cipolle malige	Escalónia, or chalote	Mogyoró-hagyma <i>Hung.</i> Cay-nen <i>Cochinch.</i>
	2. Prey, or porreye	Porro, or porreta	Puerro	Alho porro <i>Port.</i> Furio <i>Swed.</i> Pras <i>Russ.</i> Plodziszek <i>Pol.</i> Pár-hagyma <i>Hung.</i> Chazir <i>Heb.</i> Korrat <i>Cairo.</i>
	3. Bieslook, or sny-prey	Cipolletta maligia	Cibollino de Inglaterra	Cebolinha de Inglaterra <i>Port.</i> Graslög <i>Dan.</i> Luczer lunny, or Szczypiorek <i>Pol.</i>
	4. Uijen	Cipolla	Cebolla	Bhazal <i>Hebr.</i> Pias <i>Pers.</i> Sochan <i>Turk.</i> Sogan <i>Tatar.</i>
780	Elzeboom	Ontano	Aliso	Alemo <i>Port.</i> Olcha <i>Russ.</i> Olsza <i>Pol.</i> Ell <i>Dan.</i>
	56 Vossestaart	Alopecuro	Alopecuro	Alopecuro <i>Port.</i> Ræverumpe <i>Dan.</i> Raffvants <i>Swed.</i>
228	Muur	Morgellina	Alsine	Kávar el abid <i>Arab. fel.</i> Hámel, in <i>Rosetta.</i>
192	-	-	-	-
584	De heemst	Altea	Althea	Althéa <i>Port.</i>
544	Tanddraad	Aliso	Aliso	Aliso <i>Port.</i>
786	Amaranth	Amaranto	Amaranto	Amaranto <i>Port.</i> Krowawłec <i>Russ.</i>
252	Lelie-narcis	Giglio narciso	Amarylis	Amarylis <i>Port.</i> Amaryllis <i>Dan. & Swed.</i>
788	Druifkruid	-	-	Ambrosia-Urt <i>Dan.</i> Ambrosia-ört <i>Swed.</i>
	20 Amethystkruid	-	-	-
214	-	-	-	-
4	Kardamom	Cardamomo	Cardamomo	Asperokephalos <i>Tenedos.</i> Chælle <i>Egypt.</i>
614	Amorpha, or bastaard indigo	Indaco bastardo	Indigo, or anil bastardo	Cardamomo menor <i>Port.</i> Anileira bastarda <i>Port.</i> Bastard Indigo <i>Dan.</i>
420	Amandelboom	Il mandorlo	Almendro	Him ho gin <i>Chin.</i> Mindalnoe derevo <i>Russ.</i>
	Persikboom	Pesco, or persico	El melocoton	Scheptals <i>Russ.</i> Baratsk-fa <i>Hung.</i>
304	Balsemboom	Il balsamino	El balsamo	O balsamo <i>Port.</i> Abu scham <i>Arab.</i>
204	Zoutdruf	-	-	-
334	Catsjoe-appelboom	Il albero acaju	Anacardio occi-dental	Anacardo da America <i>Port.</i> Kapa-mava <i>Malab.</i>
724	Ringbloem	Anacielo	Anacielo	Anacielo <i>Port.</i> Ringblomster <i>Dan.</i> Ringsk'fvan <i>Swed.</i>
128	Het guichelheil	Anagalide	Anagalide	Murriao <i>Port.</i> Kurjatschja nogà trawa <i>Russ.</i>
342	Stinkboompje	Anagiride	Leno hediondo	Anagyro de Hespanha <i>Port.</i> Bob kamienny <i>Pol.</i>
548	Roos van Jericho	Rosa di Jerico	Rosa de Jericó	Rosa de Jericó <i>Port.</i> Kaf marjam <i>Egypt.</i> Roza Jerychónska <i>Pol.</i>
120	Ossetong	Ancusa	Anchusa	Andrachne <i>Dan. & Swed.</i>
810	Andrachne	-	-	Andropogon <i>Port.</i> Skæggegræs <i>Dan.</i>
860	Baardgras	Andropogon	Andropogon	Pereloinaja trawa <i>Russ.</i> Rzesa skalna <i>Pol.</i> Hilsko <i>Sw.</i>
126	-	-	-	-
676	Woldistel	-	-	-
482	Anemone	Anemone	Anemone	Anemone <i>Port.</i> Ollina gusa <i>Jap.</i> Wjetreniza <i>Russ.</i>
218	Dille	Aneto	Eneldo	Endro <i>Port.</i>
220	Engelwortel	Angelica	Anjelica	Angelica <i>Port.</i> Angelika <i>Russ.</i> Dziegiel ogrodny <i>Pol.</i>
	-	-	-	-
480	Annona	-	Annona	Guanambao <i>Port.</i>
724	Kamille	La camomilla	La manzanilla	A macella <i>Port.</i>
280	Anthericum	Anterico	Anterico	Anterico <i>Port.</i> Kosatki <i>Pol.</i>
44	Antholyza	-	-	-
832	Amberstruik	Antospermo	Antospermo	Antospermo <i>Port.</i> Ambratræ <i>Dan.</i> Ambrabuske <i>Swed.</i>
28	Geelbloem	Antoxanto	Antoxanto	Gul ax <i>Dan.</i> Vårbrådd <i>Swed.</i>
208	Wilde kervel	-	-	-
612	Wundkruid	Antillide	Antillide	Vundurt <i>Dan.</i> Ullblomster <i>Swed.</i>
834	Vlaschboom	-	-	Cordueira <i>Port.</i> Noeli-tali <i>Malab.</i>
526	Leeuwebek	Antirrino	Antirrino	Antirrino <i>Port.</i>
	-	-	-	-
272	Bies-anjelier	-	-	-
216	Peterselie	Petroselino	Perejil	Baqdunis <i>Egypt.</i> Petruschka <i>Russ.</i> Pietruszka <i>Pol.</i>
	Sellery	Appio	Apio hortense	Kerafs <i>Egypt.</i> Selderi <i>Russ.</i> Zelerya <i>Pol.</i>
194	Hondsdood	Apocino	Apocino	Hundedöd <i>Dan.</i>
476	Akeley	Acquilegia	Pajarilla	Odamaki <i>Jap.</i> Koloköltshiki <i>Russ.</i> Orlik <i>Pol.</i>
540	Honigschub	-	Arabide	Gaseurt <i>Dan.</i> Akerleukojer <i>Swed.</i>
614	Aardeikel	Pistacchie di terra	Mani	Amenduinias <i>Port.</i> Mundubi <i>Brazil.</i> Cay dau phung <i>Cochinch.</i>
230	Aralia	-	-	-
360	Arbutus	Arbuto	Madroño	Ljesnaja jablon <i>Russ.</i> Jezowka wloska <i>Pol.</i>
680	Klissen	Lappola	Lampazo	Lapa <i>Port.</i> Lopuschnik <i>Russ.</i> Lopian <i>Pol.</i>
872	Gedoord	-	-	Biörneföd <i>Dan.</i>
740	Beerenoor	-	Arctotis	Arctotis <i>Port.</i> Biörneore <i>Dan.</i> Björnora <i>Swed.</i>
800	De koolboom	-	-	-
378	Zandmuur	Arenaria	Arenaria	Arenaria <i>Port.</i> Sandurt <i>Dan.</i> Sandört <i>Swed.</i>
462	Klepheul	Aristolochia	Aristolochia	Pigvalmue <i>Dan.</i> Piggvalmoge <i>Swed.</i>
766	Osterlucie	Statice	Statice	Liden biernellike <i>Dan.</i> Strandblomster <i>Swed.</i>
234	Zegras	-	-	-

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French	German.
716	<i>A. rnicula</i> L.	1749	- - - -	Le doronic	Die wolverley
696	<i>Artemisia</i> L.	1721	- - - -	Wormwood	Der weremuth
	<i>A. Dracunculua</i> L.	-	- - - -	Tarragon	Dragonkel
	sp. 11739	-	- - - -	-	-
280	<i>Arthropodium</i> T. Br.	810	Anthéricum	-	-
770	<i>Artocarpus</i> L.	1935	- - - -	Bread fruit	Der brodbaum
800	<i>Arum</i> L.	2006	- - - -	Wake robin	Der aronswurz
74	<i>Arundinaria</i> Mx.	219	- - - -	Cane-brake	-
60	<i>Arundo</i> With.	175	- - - -	Reed	Das rohr
392	<i>Asarum</i> L.	1072	- - - -	Asarabacca	Die haselwurz
196	<i>Asclépias</i> L.	588	- - - -	Swallow-wort	Die seidenfrucht
658	<i>Ascyrum</i> L.	1618	- - - -	-	-
480	<i>Asimna</i> Adan.	1923	Hypéricum	-	-
506	<i>Aspalathus</i> L.	1528	Anona	African broom	Witschen
282	<i>Asparagus</i> L.	816	- - - -	Sparrowgrass	Der spargel
124	<i>Asperula</i> L.	342	Wild bugloss	German madwort	Das scharfkraut
94	<i>Asphodelus</i> L.	268	- - - -	Woodruff	Das megerkraut
280	<i>Asphodelus</i> L.	808	- - - -	Asphodel	Der affodil
	<i>A. luteus</i> L. sp. 4793	-	- - - -	Wishbone	-
	<i>A. rambusus</i> L. sp. 4795	-	- - - -	King's rod	-
884	<i>Aspidium</i> Swz.	2199	- - - -	Shield fern	Der streifenfarren
880	<i>Asplenium</i> L.	2186	- - - -	Spleenwort	Die sternblume
706	<i>Aster</i> L.	1739	- - - -	Starwort	Tragant
626	<i>Astragalus</i> L.	1594	- - - -	Milk vetch	Astranz
222	<i>Astrantia</i> L.	674	- - - -	Masterwort	Die hirschwurz
212	<i>Athamanta</i> L.	634	- - - -	Spignel	Die athanasie
696	<i>Athanasia</i> L.	1717	- - - -	-	Die athanasie
686	<i>Atractylis</i> L.	1670	- - - -	Distaff thistle	Das spindelkraut
288	<i>Atraphaxis</i> L.	838	- - - -	-	Die strauchmelde
882	<i>Atriplex</i> L.	2138	- - - -	Orache	Die melde
154	<i>A. triplex</i> L.	446	- - - -	Dwale	Die wolfskirche
828	<i>A. triplex</i> Berg.	2052	Deadly nightshade	-	-
58	<i>Avana</i> L.	171	Prötea	Oat grass	Der hafer
350	<i>Averrhoa</i> L.	1058	- - - -	Carambolier à fruits ronds	Zuurknoopboom
144	<i>Azulea</i> L.	403	- - - -	-	-
42	<i>Babiana</i> Ker.	102	Fxia	L'avoine	Der felsenstrauch
702	<i>Baccharis</i> L.	1732	- - - -	Carambolier à fruits ronds	Der felsenstrauch
			- - - -	L'azalée	Der felsenstrauch
884	<i>Balanitium</i> Kauf.	2198	Dicksönia	Plowman's spike-nard	Die baccharis
504	<i>Ballota</i> L.	1265	Black horehound	La ballote	Die zahnlose
696	<i>Balsamita</i> Desf.	1718	Tanacetum	Costmary	Die frauenmünze
256	<i>Bambusa</i> Schr.	752	Arundo Bambos	Bamboo cane	Das bambus-rohr
342	<i>Baptisia</i> Ven.	947	Podalýria	Le roseau d'Inde	Das bambus-rohr
540	<i>Barbarea</i> R. Br.	1386	Erysimum	Winter cress	Die winterkresse
596	<i>Barringtonia</i> Forst.	1497	Butönica	- - - -	Le butonic
752	<i>Bartholina</i> R. Br.	1862	Arethusa	- - - -	- - - -
524	<i>Bartsia</i> L.	1341	- - - -	-	-
228	<i>Basella</i> L.	693	- - - -	Malabar nightshade	Die beerblume
346	<i>Bauhinia</i> Pluk.	970	- - - -	Mountain Ebony	Die bergebenholz
66	<i>Beckmannia</i> Hort.	192	Cynosurus	-	-
802	<i>Bélis</i> Sal.	2010	Pinus	-	-
718	<i>Bellis</i> L.	1756	- - - -	Daisy	La paquerette
684	<i>Berardia</i> Vil.	1667	Arctium	-	-
286	<i>Berberis</i> L.	829	- - - -	Barberry	Der sauerdorn
206	<i>Beta</i> L.	612	- - - -	Beet	Mangold
502	<i>Betonica</i> L.	1262	- - - -	Betony	Die letonika
780	<i>Bétula</i> L.	1956	- - - -	Birch	Die birke
692	<i>Bidens</i> L.	1697	- - - -	-	Der zweyzahn
514	<i>Bignonia</i> L.	1294	- - - -	Trumpet flower	Die trompetenblume
546	<i>Biscutella</i> L.	1413	- - - -	Buckler mustard	Das doppelschild
638	<i>Biserrula</i> L.	1595	- - - -	Hatchet vetch	Das sägekraut
164	<i>Bixa</i> L.	1178	- - - -	Anotta	Der Orleansbaum
880	<i>Bléchnum</i> L.	2183	- - - -	-	Der rippenfarn
518	<i>Bléchnum</i> J.	1305	Ruellia	Blégne	-
762	<i>Blétia</i> R. & P.	1911	Limodorum	-	-
302	<i>Blighia</i> H. K.	885	- - - -	Akee tree	-
8	<i>Blitum</i> L.	28	- - - -	Strawberry blite	Die beermelde
392	<i>Boccönia</i> L.	1073	- - - -	Celandine tree	-
6	<i>Boerhaavia</i> L.	19	- - - -	Hogweed	Die burhavie
1008	<i>Bolétus</i> Dil.	2373	- - - -	Spunk	Der löcherschwamm
592	<i>Bombax</i> L.	1472	- - - -	Silk cotton tree	Der wollsame
524	<i>Böntia</i> L.	1334	- - - -	Barbadoes wild olive	Der wilde olivenbaum von Barbados
122	<i>Borago</i> L.	340	- - - -	Borage	Borago
836	<i>Borassus</i> L.	7079	- - - -	Fan palm	Die weinpalm
826	<i>Borya</i> W.	2044	Adèlia, Bigelövia	-	-
206	<i>Bösea</i> L.	613	- - - -	Golden rod	Der goldruthenbaum
886	<i>Botrychium</i> Swz.	2208	Osmunda	Moonwort	Die mondraute
152	<i>Bourreria</i> Gae.	431	Ehretia	-	-
98	<i>Bouvardia</i> Sal.	287	Houstonia	-	-
864	<i>Brabéum</i> L.	2142	- - - -	African almond	Der scepterbaum
762	<i>Brasavola</i> R. Br.	1914	Epidéndrum	-	-
756	<i>Brassia</i> R. Br.	1886	Malaxis	-	-

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
716	Valkruid	- - -	- - -	Volverley <i>Dan.</i> Fibler <i>Swed.</i>
696	Aisem	Assenzio	Ajenjo	Polin <i>Russ.</i> Malurt <i>Dan.</i>
	Dragon	Dragoncello	Estragon	Torun <i>Pol.</i> Kigyótiang <i>Hung.</i>
770	Broodboom	Artocarp	Zucco	Eeroo <i>Otaheite.</i> Brødtræe <i>Dan.</i>
800	Kalfsvoet	Aro	Yaro	Munskesvands <i>Dan.</i>
60	Riet	Canna	Cana	Trost <i>Russ.</i> Trcina <i>Pol.</i> Rör <i>Dan.</i> & <i>Swed.</i>
392	Mans-oor	Asaro	Asaro	Wodolci <i>Russ.</i> Kopytnick <i>Pol.</i>
396	Zydevrucht	Asclepiade	Asclepiada	- - -
658	- - -	- - -	- - -	Ascyro <i>Port.</i>
282	Aspergie	Sparagio	Esparrago	Sparsa <i>Russ.</i>
124	Scherpkruid	Asperugine	Asperugo	Rapette, or brevtaske <i>Dan.</i> Ormjügen <i>Swed.</i>
94	Ruuwkruid	- - -	- - -	Schwedopetschenaja trawa <i>Russ.</i> Myseka <i>Dan.</i>
280	Afodil	Asfodelo	Afodelo	Asfalt <i>Russ.</i> Kozle jayka <i>Pol.</i> Beenrud <i>Dan.</i>
880	Miltkruid	Asplenio	Asplenio	- - -
706	Sterrebloem	Astero	Aster	Stiernblomst <i>Dan.</i> Stjernört <i>Swed.</i>
636	Kootkruid	Astragalo	Astragalo	Hvirvelurt <i>Dan.</i> Strutschkowaja trawa <i>Russ.</i>
922	Sterrekruid	- - -	- - -	Astrancia <i>Port.</i> Zápótza <i>Hung.</i>
512	Beerswortel	Atamanta	Atamanta	Hiorterod <i>Dan.</i> Süßerrot <i>Swed.</i>
696	Duurbloem	Atanasia	Atanasia	Atanasia <i>Port.</i>
686	Staalkop	Atrattile	- - -	Acarna de Creta <i>Port.</i> Spindelurt <i>Dan.</i>
288	Atraphaxis	- - -	- - -	Atraphaxis <i>Dan.</i> & <i>Swed.</i>
862	Melde	Atripice	Armuelles	Lebeda <i>Russ.</i> Loboda <i>Pol.</i> Molla <i>Swed.</i>
154	Doodkruid	Atropa	Atropia	Belladonna <i>Port.</i> Beschenaja wischnja <i>Russ.</i>
58	Havor	Vena	Avena	Avea <i>Port.</i> Owès <i>Russ.</i> Owies <i>Pol.</i>
380	Zuurknoopboom	- - -	- - -	Cheramela <i>Port.</i> Bilimbi <i>Malab.</i> Billingham <i>Cey.</i>
144	Azalea	- - -	- - -	Tsususi <i>Jap.</i> Odur rshawnoi <i>Russ.</i> Azalea <i>Dan.</i>
702	Roerkruid	- - -	- - -	- - -
504	Ballote	Marrobio	Marrubia	Marroyo <i>Port.</i> Szanta czarna <i>Pol.</i>
696	Tuinbalsam	Costo ortense	Hierba de Santa Maria	Balsamita <i>Port.</i> Hanegræs <i>Dan.</i> Svens salvia <i>Swed.</i>
256	Bamboesriet	Canna bambu	Cana bambos	E. owhe <i>Otaheite.</i> Ily <i>Malab.</i> Bambusör <i>Dan.</i>
94	Winterkers	Barbarea	Hierba de Santa Barbara	Herva de S. Barbara <i>Port.</i> Barbra <i>Pol.</i> Vinterkers <i>Dan.</i>
524	- - -	- - -	- - -	Bergskülle <i>Swed.</i> Lokasiods broder <i>Iceland.</i>
228	Beetklim	- - -	- - -	Murasakki <i>Jap.</i> Loquei <i>Chin.</i> Cay boung toi <i>Cochinch.</i>
346	Bauhinia	- - -	- - -	- - -
718	Madelieven	Margheritina	Maya	Bonina <i>Port.</i> Barchatnaja zwietöschka <i>Russ.</i>
286	Berberis	Crespino	Berberis	Tomara soo <i>Jap.</i> Barbaris <i>Russ.</i> Ciernie biale <i>Pol.</i>
206	Beete	Bieta	Acelga	Acelga <i>Port.</i> Sweklà <i>Russ.</i> Cwikla <i>Pol.</i>
502	Betonie	Betonico	Betonica	Betonica <i>Port.</i> Bukwiza <i>Russ.</i>
780	Berk	Betulla	El abedul	Berésa <i>Russ.</i> Brzoza <i>Pol.</i> Birk <i>Dan.</i> Biork <i>Swed.</i>
692	Tandzaad	Bidente	Bidente	Brönsel <i>Dan.</i> Brunskiär <i>Sw.</i>
514	Bignonia	Bignonia	Bignonia	Bignonia <i>Port.</i> Jacaranda <i>Brazil.</i>
546	Brilkruid	- - -	- - -	- - -
638	Zaagpeul	- - -	- - -	- - -
464	Orleane	- - -	- - -	Urucu <i>Port.</i> Achiotl <i>Mexico.</i> Bixa <i>Dan.</i> & <i>Swed.</i>
880	Ribvaren	- - -	- - -	- - -
8	Bes-melde	Blito	Bledo	Zminda <i>Pol.</i> Bærmeld <i>Dan.</i> Bärmolla <i>Swed.</i>
6	Boerhaavia	- - -	- - -	Folhas de pitao <i>Port.</i> Nuna-nuna <i>Otah.</i> Vuddjef <i>Arab.</i>
1008	Zwam	Boleto	Boleto	Boleto <i>Port.</i> Grib <i>Russ.</i> Grzyb <i>Pol.</i>
592	Kapokboom	- - -	Bombasi	Ostræe <i>Dan.</i> Osträd <i>Swed.</i>
524	Barbadoesche wilde olyfboom	- - -	- - -	- - -
122	Bernagie	Borragine	Borraja	Borragem <i>Port.</i> Oguretschnaja trawa <i>Russ.</i> Borak <i>Pol.</i>
836	Wyngeevende palmboom	- - -	- - -	Palmeira macha brava <i>Port.</i> Ampaña <i>Malab.</i>
206	Bosea	- - -	Hierba-mora	Bosea <i>Dan.</i> & <i>Swed.</i>
886	Maankruid	Lunaria minore	Lunaria menor	Lunaria bastarda <i>Port.</i> Bogoroditschka rutschka <i>Russ.</i>
864	Kransboom	- - -	- - -	Brabyla <i>Port.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
552	<i>Brássica L.</i>	1432	Cole, colewort	Le chou	Der kohl
	<i>B. o. α. capitata</i>	-	White	Chou cabus blanc	
	<i>B. o. ζ. c. rubra</i>	-	Red	Chou cabus rouge	
	<i>B. o. γ. bullata</i>	-	Savoy	Chou de Milan	
	<i>B. o. c. bullata</i>	-	Brussels sprouts	Chou de Bruxelles à jets	
	<i>B. o. δ. acéphala</i>	-	Borecole	Choux verts	
	<i>B. o. ε. Bótrytis</i>	-	Cauliflower	Chou-fleur	
	<i>B. o. ζ.</i>	-	Broccoli	Chou-brocoli	
	<i>B. Napus L. sp. 9247</i>	-	-	Navet	
	<i>B. Erúca</i>	-	-	Roquette	
	<i>B. o. vaccina</i>	-	-	Chou cavalier	
	<i>B. o. fimbriata</i>	-	-	Chou frisé du nord	
	<i>B. Nāpo-brássica</i>	-	-	Chou-navet	
	<i>B. rutabāga</i>	-	-	Chou-rutabaga	
	<i>B. o. campéstris</i>	-	-	Chou-colza	
	<i>B. Nāpus sylvéstris</i>	-	-	Navette	
	<i>B. Rāpa L. sp. 9246</i>	-	-	Navet turnep	
66	<i>Briza L.</i>	195	Quaking grass	Brize	Das zittergras
246	<i>Broméla L.</i>	726	Ananas	L'ananas	Die ananas
64	<i>Bromus L.</i>	184	Brome grass	Brome, or droue	Die trespe
870	<i>Brosimum Swz.</i>	2158	Bread nut	-	-
760	<i>Broughtonia R. Br.</i>	1905	Dendrobium	-	-
134	<i>Brugmānsia Pers.</i>	377	<i>Datura</i>	-	-
250	<i>Brunsvigia Heir.</i>	737	<i>Amaryllis</i>	-	-
810	<i>Bryonia L.</i>	2024	Wild hops	Bryony	Bryone, or couleavré
214	<i>Bubon L.</i>	640	-	Bubon	Die zaunrübe
650	<i>Bubrona W.</i>	1608	<i>Theobroma Guazuma</i>	Bastard cedar	Orme d'Amerique
			<i>Buceras</i>	Olive-bark tree, or black olive	Le grignon
364	<i>Bucida L.</i>	1033	-	-	Die kätzchentrage mangle
270	<i>Bulbocodium L.</i>	784	-	Campanette	Die uchtblume
558	<i>Bunias L.</i>	1444	Sea rocket	-	Das zackenkraut
212	<i>Bunium L.</i>	631	Earth nut	La terre-noix	Die erdnuss
728	<i>Buphthalmum L.</i>	1797	Ox eye	Le buphthame	Das rindsauge
218	<i>Bupleurum L.</i>	657	Hare's ear	Le buplevre	Das hafenöhrchen
182	<i>Bursaria Cav.</i>	530	-	La bursaire	Der beutelwurm
872	<i>Bursera Jac.</i>	2164	Jamaica birch tree	Le gomarit d'Amerique	Die gummitirgende bursere
336	<i>Butomus L.</i>	939	Water gladiole	Flowering rush	Butome
780	<i>Buxus L.</i>	1957	Box tree	Le buis	Der bucht
692	<i>Cacalia L.</i>	1701	-	La cacalie	Die pestwurzel
224	<i>Cachrys L.</i>	677	-	L'armarinte	Die nussdolle
410	<i>Cactus L.</i>	1111	Cochineal fig	Le cactier	Die koschenillpflanze
350	<i>Cadia Forsk.</i>	983	-	-	-
350	<i>Cæsalpīna (brasiliensis) Pluk.</i>	978	-	Brasiletto	Le brésillet
548	<i>Cakite Tou.</i>	1417	<i>Bunias</i>	-	Caquille
798	<i>Caladiv. Ven.</i>	2005	<i>Arum</i>	-	-
508	<i>Calamintha Ph.</i>	1277	Melissa	Calamint	Le calament
256	<i>Calamus L.</i>	753	Rotang	Le rotin	Der rotang
18	<i>Calceolaria L.</i>	51	-	Slipperwort	La calcéolaire
148	<i>Caldasia W.</i>	{ 422 1324 }	<i>Bonplandia</i>	-	-
520				-	-
740	<i>Caléndula L.</i>	1830	Marigold	Le souci de jardin	Die ringelblume
298	<i>Calla L.</i>	869	-	Calle	Das schlangenkraut
96	<i>Callicarpa L.</i>	272	-	Callicarpe	Die wirbelbeere
406	<i>Calligonum L.</i>	1106	-	Le calligon	Der hackenknopf
36	<i>Callisia L.</i>	87	-	Callise	Der zärtling
8	<i>Callitriche W.</i>	27	Vernal star-headed chickweed	Water starwort	Le callitric
466	<i>Calophyllum L.</i>	1189	American calaba	Le calaba	Der kalababaum
756	<i>Calopogon R. Br.</i>	1878	<i>Limodorum</i>	-	-
196	<i>Calotropis R. Br.</i>	584	<i>Asclépias</i>	-	-
490	<i>Caltha L.</i>	1239	-	Marsh marigold	Le populage
454	<i>Calycánthus L.</i>	1157	-	Allspice	Le calycant
764	<i>Calypso Sal.</i>	1929	<i>Limodorum</i>	-	-
140	<i>Calystègia R. Br.</i>	387	<i>Convólulus</i>	Bearbind	Le liseron des haies
550	<i>Camelina Crz.</i>	1425	<i>Mýagrum</i>	Gold of pleasure	La cameline
592	<i>Camellia L.</i>	1476	Japan rose	La rose du Japon	Die sinesische, or japanische rose
148	<i>Cameraria L.</i>	417	-	Bastard mauchineel	-
162	<i>Campánula L.</i>	463	-	Bell flower	La campanule
88	<i>Camphorosma L.</i>	254	-	-	La camphrée
288	<i>Canarina L.</i>	834	-	Canary bell-flower	-
394	<i>Canella P. Br.</i>	1085	-	-	Cannelle blanche
2	<i>Canna L.</i>	1	Flowering reed	Indian shot	Le balisier
834	<i>Cannabis L.</i>	2073	-	Hemp	Le chanvre
458	<i>Cápparis L.</i>	1162	-	Caper tree	Le caprier
552	<i>Capraria L.</i>	1363	Sweet weed	-	Capraire
170	<i>Caprifolium R. & S.</i>	474	<i>Lonicera</i>	Honeysuckle	-
546	<i>Capsella Moen.</i>	1409	<i>Thlaspi</i>	Shepherd's purse	-
160	<i>Capsicum L.</i>	453	-	Guinea or Indian Pepper	Le piment
626	<i>Caragana Lam.</i>	1569	<i>Robinia</i>	-	-
202	<i>Caralluma R. Br.</i>	598	<i>Stapelia</i>	Siberian pea-tree	-

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
552	Kaal	Cavolo	Berza	Verça <i>Port.</i> Kapusta <i>Russ.&Pol.</i> Kaal <i>Dan.</i> Kål <i>Swed.</i>
66	Trilgras	Briza	Briza	Bevegræs <i>Dan.</i> Båfvegräs <i>Swed.</i>
246	Ananas	Ananas	Pina de Indias	Ananas <i>Port.</i> Kapa-tsjakka <i>Malab.</i>
64	Zwenkgras	Bromo	Bromo	Bromo <i>Port.</i> Kosterj <i>Russ.</i> Hejre <i>Dan.</i>
810	Bryone	Brionia	Nueza	Norca branca <i>Port.</i> Przestep biały <i>Pol.</i>
214	Gomeppe	Bubon	Bubon	
650	Bastard-ceder			
364	Leertouwersboom	- - -	- - -	Mangle bastarda <i>Port.</i>
270	Klokbol	- - -	Colchico de la primavera	
558	Knodsvrugt			
212	Aardnoot	Castagna di terra	Castano de tierra	Castanha de terra <i>Port.</i> Jordolden <i>Dan.</i> Jordnöt <i>Swed.</i>
728	Koe-oog	Buifalmo	Buifalmo	Oxe-öye <i>Dan.</i> Oxöga <i>Swed.</i>
218	Haazenoor	Bupleuro	Buplero	Bupleuro <i>Port.</i> Buplewr <i>Russ.</i>
182	- - -	- - -	- - -	Pungen <i>Dan.</i>
372	Gom elemniboorn	- - -	Almacigo americano	
336	Zwaanebloem	Butomo	Butomo	Susak <i>Russ.</i> Sit kwitnacy <i>Pol.</i> Blomstersiv <i>Dan.</i>
780	Palm	Busso	El box	Schimschat <i>Persia.</i> Samschit <i>Russ.</i> Bukspan <i>Pol.</i>
692	Dokkeblad	Cacalia	Cacalia	Pestrod <i>Dan.</i> Pestrot <i>Swed.</i>
224	Nootekroon	- - -	Tuero	Nöddkrone <i>Dan.</i> Nöthrona <i>Swed.</i>
410	Cocheniljedraagende vygplant	Planta di cocciniglia	Cardon de cochinitilla	Cochenilheira <i>Port.</i> Nupalnochezli <i>Mexico.</i>
350	- - -	- - -	- - -	Kadi <i>Arab.</i>
350	Brasile-hout boom	Legno di Fernambuco	Fernambuco	Pao Brasil <i>Port.</i> Ibiri-pitanga <i>Brazil.</i>
548	Europische knodsvrugt	Cachile	Cakile	Strandkarse <i>Dan.</i> Strandsenap <i>Swed.</i>
508	Berg-kalaminth	Calaminta	Calaminto	Melissa <i>Russ.</i> Melisa <i>Pol.</i>
256	Rottingewas	- - -	- - -	Rotang <i>Dan. & Swed.</i> Rotan <i>Matcj.</i>
18	Klompbloem			
740	Goudbloem	Calendula	Calendula	Nogotki <i>Russ.</i> Nogietek <i>Pol.</i>
298	Slangekruid	Calla	Calla	Calla <i>Port.</i> Smei trawa <i>Rus.</i> Mysse <i>Dan.</i> Drakröt <i>Swe.</i>
8	Sterrekruid	Callitrica	Calitriche	Callitriche <i>Port.</i> Kaldunowa trawa <i>Russ.</i>
466	Geele gom-appelboom			
490	Moerassig geelbloem	Sposa del sole	Hierba centella	Nogietek <i>Pol.</i> Kabeleye <i>Dan.</i> Kalfleka <i>Swed.</i>
454	Kelkbloem			Malmequer dos brejos <i>Port.</i>
140	Haagwinde	Il vilucchio	Correguela	Trepadeira <i>Port.</i>
550	Vlaschdotter	Miagro	Miagro	Ryschik <i>Russ.</i> Krowia <i>Pol.</i> Hörurt <i>Dan.</i> Dodra <i>Swed.</i>
592	Chineesche roos	- - -	- - -	Tsubakki <i>Jap.</i>
162	Klokjes	Campanella	Campanula	Kolokoltshik <i>Russ.</i>
88	Kamferkruid	Canforata	Canforada	Campherplante <i>Dan.</i> Kamphervask <i>Swed.</i>
2	Bloemriet	Canna	Cana	Cana <i>Port.</i> Racua-canga <i>Brazil.</i> Katu-bala <i>Malab.</i>
824	Hennip	Canapa	Cañamo	Canhamo <i>Port.</i> Konapli <i>Russ.</i>
458	Kappers	Cappari	Alcaparro	Alcapparra <i>Port.</i> Kapersowoy kust <i>Russ.</i>
532	Geitenkruid	Capraria	Capraria	Capraria <i>Port.</i> Hiertebloemster <i>Dan.</i> Hjertblomster <i>Swe.</i>
160	Spaanschepeper	Il peberone	El pimentero	Pimentao <i>Port.</i> Vallia-Capo-Molago <i>Malab.</i> Perez <i>Russ.</i>
626	- - -	- - -	- - -	Gorochnnik <i>Russ.</i> Karagan Tartar

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542	<i>Cardamine L.</i>	1392	Lady's smock	Le cresson	Die gauchblume
328	<i>Cardiospermum L.</i>	925	Heart-pea	La corinde	Die herzsame
680	<i>Carduus L.</i>	1663	Thistle	Le chardon	Die distel
774	<i>Carex L.</i>	1947	- - - -	La laiche	Das riedgras
842	<i>Cárica L.</i>	2095	Papaw tree	La papayer	Der papayabaum
152	<i>Carissa L.</i>	438	- - - -	Le calac	- - - -
684	<i>Carlina L.</i>	1689	Carline thistle	La carline	Die eberwurz
592	<i>Carolinea L.</i>	1490	- - - -	Le pachirier	Der wilde kakao baum
702	<i>Carp^sium L.</i>	1731	Nodding starwort	La carpésie	Die kragenblume
792	<i>Cárpinus L.</i>	1996	Hornbeam	Le charme	Die hagebuche
686	<i>Carthamus L.</i>	1675	Safflower	Le carthame	Die büstenpflanze
218	<i>Carum L.</i>	655	Caraway	Le carvi	Der kümmel
416	<i>Caryophyllus L.</i>	1120	Clove tree	Le giroflier	Gewürznäglein
800	<i>Caryota L.</i>	2007	- - - -	Caryote	Die brennpalme
348	<i>Cássia L.</i>	974	- - - -	La casse	Kassien
792	<i>Castanea Tou.</i>	1994	- - - -	Le chataignier	Der kastanienbaum
772	<i>Casuarina L.</i>	1936	- - - -	Le filao	Der kasuarbaum
678	<i>Catanáche L.</i>	1655	- - - -	La cupidone	Die rasselblume
100	<i>Catesbæa W.</i>	289	Lily thorn	La catesbée	- - - -
350	<i>Cathartocárpus Pers.</i>	975	- - - -	- - - -	- - - -
210	<i>Caucalis L.</i>	626	Bastard parsley	La caucalide	Die haftdolde
178	<i>Ceanóthus L.</i>	510	- - - -	Céanote d'Afrique	Die seckelblume
826	<i>Cecropia L.</i>	2043	Trumpet tree	Le coulequin	Der trompetenbaum
182	<i>Cedrela L.</i>	531	Bastard cedar	- - - -	- - - -
178	<i>Celastrus L.</i>	507	Staff-tree	- - - -	- - - -
192	<i>Celasia L.</i>	565	Cock's comb	Le passevelours	Die celosia
534	<i>Celsia L.</i>	1736	- - - -	- - - -	- - - -
864	<i>Celtis L.</i>	2145	Nettle tree	Le micocoulier	Der lotusbaum
52	<i>Cénchrus L.</i>	134	- - - -	La racle	Das klebgras
734	<i>Centauria L.</i>	1819	Centauray	La centauree	Die fockenblume
96	<i>Centunculus L.</i>	277	Bastard Pimpernel	Centenille bassetto	Der centunkel
96	<i>Cephalánthus L.</i>	275	Button-wood	Cephalante d'Ame-rique	Der knopfbaum
388	<i>Cerástium L.</i>	1068	Mouse-ear chick-weed	Le ceraiste	Das hornkraut
772	<i>Ceratocárpus L.</i>	1937	- - - -	Ceratocarpe	Die hornfrucht
66	<i>Ceratochloa Beauv.</i>	189	Horn grass	- - - -	- - - -
868	<i>Ceratonia L.</i>	2156	Carob tree	Le caroubier	Die sodschoten
790	<i>Ceratophýllum L.</i>	1986	Hornwort	La corniffe	Das hornblatt
148	<i>Cérbera L.</i>	420	Indian mango tree	L'ahoual	Der schellenbaum
346	<i>Cercis L.</i>	968	Judas tree	Le gaminier	Der Judasbaum
122	<i>Cerinthe L.</i>	339	Honeywort	Le mélinet	Die wachsbume
154	<i>Céstrum L.</i>	445	- - - -	Le cesteau	Der hammerstrauch
878	<i>Cétérach W.</i>	2174	- - - -	- - - -	- - - -
208	<i>Charophýllum L.</i>	621	Chervil	Le cerfeuil	Der küllerkropf
868	<i>Chamærops L.</i>	2154	Palmetto	Le palmier nain	Die zwergpalme
936	<i>Cha^ra L.</i>	2295	- - - -	La charagne	Der armleuchter
538	<i>Cheiránthus L.</i>	1382	Wallflower	La girofiée	Die leucje
460	<i>Chelidónium Bauh.</i>	1167	Celandine	La chélidoine	Das schölkraut
516	<i>Chelone L.</i>	1298	Tortoise flower	Galane, or tortue	Die schildblume
206	<i>Chenopódium L.</i>	611	Goosefoot	L'anserine	Der gänsefuss
362	<i>Chimaphila Ph.</i>	1023	- - - -	- - - -	- - - -
172	<i>Chiocecca W.</i>	490	Snow berry	Chiocoque	Die schneebeere
12	<i>Chionánthus L.</i>	34	Snowdrop tree	Chionante	Die schneeblume
316	<i>Chlora L.</i>	894	Yellow wort	La chlore	Das bikerkraut
670	<i>Chondrilla L.</i>	1629	Gum succory	- - - -	- - - -
424	<i>Chrysobálanus L.</i>	1130	Cocoa plum	L'caquier	Die ikakopflume
694	<i>Chrysócoma L.</i>	1705	Goldlocks	La ciscocome	Das goldhaar
150	<i>Chrysophýllum L.</i>	424	Star apple	Le caimitier	Der sternapfel
366	<i>Chrysosplénium L.</i>	1040	Golden saxifrage	Dorine	Die goldmilz
624	<i>Cicer Tou.</i>	1564	Chick pea	Le pois chiche	Die kichern
678	<i>Cichórium L.</i>	1657	Succory	La chicorée	Die cichorie
	<i>C. Endivia L.</i>		Endive	La scarole	Die endivie
	sp. 11338		- - - -	- - - -	- - - -
216	<i>Cicuta L.</i>	648	Water hemlock	La ciculaire	Der wütherich
476	<i>Cimicifuga L.</i>	1207	Bugbane	Cimicaire	Das wanzenkraut
904	<i>Cinclidótu Beauv.</i>	2227	- - - -	- - - -	- - - -
712	<i>Cinéraria L.</i>	1741	Ragwort	La cineraire	Die aschenpflanze
26	<i>Circæa L.</i>	71	Enchanter's night-shade	La circée	Das hexenkraut
848	<i>Cissampelos L.</i>	2116	Wild vine	Liane à coeur	Die grieswurzel
102	<i>Cissus L.</i>	305	Wild grape	L'achit	Klimmen
468	<i>Cistus Tou.</i>	1197	Rock-rose	Le ciste	Das cistenröschen
520	<i>Citharéxyllum L.</i>	1329	Fiddle-wood	Le cotelet	Das geigenholz
652	<i>Citrus L.</i>	1615	Orange tree	L'oranger	Der pomeranzenbaum
26	<i>Cládium Schr.</i>	74	- - - -	- - - -	- - - -
1012	<i>Clavaria Vail.</i>	2379	- - - -	La clavaire	Der keulenschwamm
184	<i>Claytonia W.</i>	537	Purslan tree	Claytone	Der portulakbaum
482	<i>Clematis L.</i>	1227	Traveller's joy	La clematite	Die waldrebe
558	<i>Cleome W.</i>	1448	- - - -	Le mosambe	Die pillenblume
520	<i>Clerodéndrum J.</i>	1325	- - - -	Le fortuné	Der losbaum
362	<i>Cléthra L.</i>	1020	- - - -	- - - -	Die amerikanische else
506	<i>Clinopódium L.</i>	1272	Wild basil	Le clinopode	Die wirbeldeste
618	<i>Clitória L.</i>	1556	Clitoris flower	La clitore	Die klitorisblume
866	<i>Clusia L.</i>	2151	Balsam tree	- - - -	- - - -
544	<i>Clypeola Gae.</i>	1402	Treacle mustard	Clypeole	Das schildkraut

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
542	Schuimblad	Cardamindo	Cardamina	Lugobii kres <i>Russ.</i> Rzezucha polna <i>Pol.</i>
328	Hartvrugt	Cardiospermo	Cardiospermo	Blere-erter <i>Dan.</i>
680	Distel	Cardo	Cardo	Osèt <i>Russ. & Pol.</i> Tidsel <i>Dan.</i>
774	Rietgras	La caretta	El carex	O carrigo <i>Port.</i> Stargræs <i>Dan.</i> Starr <i>Swed.</i>
842	Papajaboom	Il papaio	El papayo	Papayo <i>Port.</i> Pino-guacu <i>Brazil.</i> Papaya-maram <i>Mal.</i>
684	Everwortel	Carlina	Carlina	Koliutschka <i>Russ.</i> Lepczyca <i>Pol.</i> Korstom <i>Dan.</i>
592	- - -	- - -	- - -	Xiloxochitl <i>Mexico.</i>
702	Kraagbloem	Carpesio	Carpesio	Carpesio <i>Port.</i> Kraveblomster <i>Dan.</i> Krageblomster <i>Sw.</i>
792	Haagbeuk	Carpino	Charmilla	Carpe <i>Port.</i> Asad <i>Pers.</i> Grab <i>Russ. & Pol.</i> Avenbö <i>Dan.</i>
686	Saffloer	Cartamo	Cartamo	Cartamo <i>Port.</i> Chartam <i>Arab.</i> Polewoi <i>Rus.</i> Krokos <i>Pol.</i>
218	Karwey	Il carvi	Alearavea	Alearavia <i>Port.</i> Timon <i>Russ.</i> Karny <i>Pol.</i> Kommen <i>Dan.</i>
416	Kruidnagel-boom	Il garofano aromatico	El clavo aromatico	Cravaria <i>Port.</i> Chanke <i>Java.</i> Gwosditschka <i>Russ.</i>
800	Sagueerboom	- - -	- - -	Schunda-panna <i>Malab.</i> Nibun <i>Malej.</i> Kettle <i>Cey.</i>
348	Kassie	Cassia	Cassia	Chairaxambar <i>Egypt.</i> Cassie <i>Dan.</i>
792	Kastanjeboom	Castagno	Castano	Riits <i>Jap.</i> Keschtan <i>Russ.</i> Kasztan owoc <i>Pol.</i>
772	- - -	- - -	- - -	Kajo tsjammara <i>Malej.</i>
678	Dwangkruid	Catananche	Catananche	Catananche <i>Port.</i>
210	Doornzaad	Caucali	Caucalide	Beterluus <i>Dan.</i> Kaukalis <i>Swed.</i>
826	Trompetboom	Ambaiba	Ambaiba	Trompettræe <i>Dan.</i> Trumpetträd <i>Swed.</i>
178	- - -	- - -	- - -	Kuro gani <i>Jap.</i> Celastertræe <i>Dan.</i> Celasterträd <i>Swed.</i>
192	Der hahnenkamm	Celosia	Celosia	Hanekam <i>Dan.</i> Hankam <i>Swed.</i>
534	- - -	Arturo di Candia	- - -	- - -
864	Lotusboom	Il loto	El almaz	Temur-agatsch <i>Pers.</i> Lotustræe <i>Dan.</i> Lotusträd <i>Swed.</i>
52	Kleeftgras	Cencro	Cencro	Cencro <i>Port.</i> Burregræs <i>Dan.</i> Eorregræs <i>Swed.</i>
734	Santorie	Centaurea	Centaurea	- - -
96	Zeer klein guichel-muur	- - -	- - -	Knaptræe <i>Dan.</i> Knapptäd <i>Swed.</i>
96	Kogelboom	- - -	- - -	- - -
388	Hoornbloem	- - -	- - -	Hornurt <i>Dan.</i> Hornört <i>Swed.</i>
772	Hoornvrugt	Ceratocarp	Ceratocarp	Ustelipole <i>Russ.</i> Hornfrugt <i>Dan. & Swed.</i>
868	Karobenboom	Carobola	Algarrobo	Alfaroba <i>Port.</i> Johannisbröd <i>Dan. & Swed.</i>
790	Hoornblad	Ceratofilo	Ceratofila	Ceratofilo <i>Port.</i> Hornblad <i>Dan. & Swed.</i>
148	Rinkelboom	- - -	- - -	- - -
346	Judasboom	Siliquastro	Algarrobo loco	Siliquastre <i>Port.</i> Fanna suwo <i>Jap.</i> Judastræe <i>Dan.</i>
122	Waschkruid	Cerinte	Ceriflor	Chupamel <i>Port.</i> Voxurt <i>Dan.</i> Vaxört <i>Swed.</i>
208	Kervel	Cerfoglio	Perifollo	Cerofolho <i>Port.</i>
868	Laage palmboom	Palma di S. Pier martire	Palmitos	Palmeira des vassoiras <i>Port.</i> Dvergpalm <i>Dan.</i>
936	Kaarskroon	Chara	Chara	Dvirgipalm <i>Swed.</i>
538	Violier	Leucojo	Aiheli	Chara <i>Port.</i> Armstage <i>Dan.</i> Ljusarm <i>Swed.</i>
460	Schellkruid	Celidonia	Celidonia	Goiveiro <i>Por.</i> Nageisi <i>Arab.</i> Gwosditschnüja fialke <i>Rus.</i>
516	Schildbloem	- - -	- - -	Svaleurt <i>Dan.</i>
206	Ganzevoet	- - -	- - -	Skjöldblomster <i>Dan.</i> Sköldblomster <i>Swed.</i>
172	Sneeuwbesie	- - -	- - -	Guaesofod <i>Dan.</i>
12	Sneeuwbloem	Albero di neve	Arbol de nieve	Sneebær <i>Dan.</i> Snöbär <i>Swed.</i>
				Sneebloemster <i>Dan.</i> Snöblomster <i>Swed.</i>
424	Icacopruim	Albero icaco	icaco arbol	Ikakobloem <i>Dan.</i> Ikakoplommon <i>Swed.</i>
694	Pronkblom	Crisocoma	Crisocoma	Guldhær <i>Dan.</i>
150	Star-appelboom	Crisofilo	Chrysophyllo	Chrysophyllo <i>Port.</i> Stjerneæble <i>Dan.</i> Stjerneäple <i>Swed.</i>
366	Goudveil	- - -	- - -	Gylden steenbræk <i>Dan.</i> Gul stenbräcka <i>Swed.</i>
624	Cicers	Ceci	Garbanzo	Ervanço <i>Port.</i> Ciecierzycza ogrodna <i>Pol.</i> Museært <i>Dan.</i>
678	Suikerey	Cicoria	Achicoria	Zikoria <i>Russ.</i>
	Endivie	Endivia	Endibia	Endibia <i>Port.</i> Andiwija <i>Russ.</i> Sterbák <i>Boh.</i>
216	Water-scheerling	- - -	- - -	Cegude <i>Por.</i> Omeg <i>Rus.</i> Vand-skarntyde <i>Dan.</i>
476	Wantsdruyer	- - -	- - -	Tageurt <i>Dan.</i>
712	Aschkruid	- - -	- - -	Aske-urt <i>Dan.</i> Ask-ört <i>Swed.</i>
26	St. Stevenskruid	- - -	- - -	Kaldunowa trawa <i>Russ.</i> Czarownik <i>Pol.</i>
848	Touwdruif	- - -	- - -	Caapeba <i>Port.</i>
102	Boschtouw	- - -	- - -	- - -
468	Veldroosje	Cistio	Jara	Cisto <i>Port.</i> Cistusrose <i>Dan.</i> Cistusros <i>Swed.</i>
520	Vedelhoutboom	- - -	- - -	Fiolintræe <i>Dan.</i> Fiolträd <i>Swed.</i>
652	Oranjeboom	Melarancino	Naranjo	Cay cam <i>Cochinch.</i> Pomeranez <i>Russ.</i>
1012	Knodszwam	- - -	- - -	Klubban <i>Swed.</i> Köllesop <i>Dan.</i>
482	Clematis	Clematite	Clematide	Powoy <i>Pol.</i> Clematis <i>Dan. & Swed.</i>
558	Hederik	- - -	- - -	Tarenaya <i>Port.</i>
520	Lotboom	- - -	- - -	Pinna <i>Cey.</i>
362	Clethra	- - -	- - -	- - -
506	Borstelkrans	Clinopodio	Albahaca silvestre	Clinopodio <i>Port.</i> Blossinza <i>Russ.</i> Storzyszek <i>Pol.</i>
618	Kittelbloem	Clitoria	Clitoria	Clitoria <i>Port.</i> Clitorisblomster <i>Dan. & Swed.</i>
866	Lymbloom	- - -	- - -	- - -
544	Schildzaad	Rotella	Hierba rodela	Escudinha <i>Port.</i> Skiold-urt <i>Dan.</i> Sköld-ört <i>Swed.</i>

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36			Widow wail	La camelée	Der zeyland
682			Thistle	Le cnichaut	Das kratzkraut
778		Carex			
326			Seaside grape	Le raisinier de mer	Die see Traube
844		Menispermum			
546			Scurvy grass	Le cranson	Das löselkraut
788			Cocoa-nut tree	Le cocotier	Die kakospalme
10			Black tamarinds		
170			Coffee tree	Le caffayer	Der kaffeebaum
778			Job's tears	Larmille	Das thränengras
476		Hibbertia			
292			Meadow saffron	Colchique d'automne	Die zeitlose
24			Aniseed tree		
626			Bladder senna	Le baguenaudier	Der blasenbaum
452			Marsh cinquefoil	Le comaret	Das fünfblatt
36			Maiden plum	Comocladia à feuilles entières	Die astlose
934				La conferve	Der wasserfaden
216			Hemlock	La cigue	Der schierling
188			Button tree	Le conocarpe	Der zirbelbaum
270		May lily	Lily of the valley	Le muguet	Die mayblume
140			Bind weed	Le liseron	Die winde
702			Flea-bane	La couise	Die dürrwurz
356			Wampee tree		
350			Balsam of capevi	Le copaier	Der kopaiwabaum
488		Hellborus			
756		Ophrys			
466			Jew's mallow	La corete	Die muspflanze
150		Sebesten		Le sebestier	Der sebestenbaum
732			Tickseed sunflower	La coriope	Das käppchen
208			Coriander	La coriandre	Der koriander
482			Myrtle-leaved sumach	Le redoul	Der gerberstrauch
130				Le coris	Der erdkiefer
8			Tickseed	Le corisperme	Der wanzensame
52			Horn of plenty grass	Le coqueluchiole	Das füllhorngras
102			Dogwood	Le cornouiller	Der kornelbaum
520		Cornelian cherry		L'agnaithe	
628			Scorpion senna	La coronille	Die kronwicke
550			Wart cross, star of the earth		
228		Bastard knotgrass	Strapwort	La corrigiole	Das lingenkraut
128			Bear's-ear sanicle	La cortuse	Die kortuse
600		Fumaria			
792			Nut tree	Le noisetier	Die haselstaude
58			Club grass		
258			Fan palm	Coryphe	Die schirmpalme
722			Mayweed	La cotule	Die laugenblume
382		Kidneywort	Navel-wort	Le cotylet, or cotylier	Die nabelflanze
556			Sea Kail	Le crambé	Der meerkohl
230				La crassule	Das dickblatt
424			Hawthorn	L'aubépine	Der hagedorn
396			Garlic pear	Le tapier	Der tapiabaum
674			Succory hawkweed	Crépide	Pippau
524			Calabash tree	Le calabassier	Der kürbisbaum
250			African lily	La crinole	Die hakenlilie
212			Samphire	La bacille	Der meerfenchel
36			Saffron	Le safran	Die safranpflanze
608				La crotalaire	Die klapperschote
812		Cascarilla			
94		Petty madder	Crosswort	La crucianelle	Das kreuzblatt
734		Arctotis			
372			Bladder campion	Le behen	Das behen
808			Cucumber	Le concombre	Die gurke
808			Gourd	La courge	Der kürbis
732		Berckhèya			
214			Cumin	Le cumin	Der kümmel
806			Cypress	Le cyprès	Die cyresse
6			Turmeric	Le curcuma	Kurkuma
100			Hassagay tree		
104			Dodder	Cuscute	Die flachsseide
236				La cyanelle	Das hängblatt
846			Sago tree	Le cyas des Indes	Der sagoubaum
128			Sow bread	Cyclame	Die erdscheibe
426			Quince	Coignassier	Der quittenbaum
534				Cymbaire	Das nachenkraut
196			Dog's bane	La cyanaque	Der huiidswürger
684			Artichoke	L'artichaut	Die artichoke
			Cardoons	Cardon	Kardonen
122			Hound's tongue	Cynoglosse	Die hundszunge
348				Le cynomètre	Die hundscham
62			Dog's-tail grass	Crételle	Das kammgras
50				Le souchet	Das cyperngras
				Amande-de-terre	

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
36	Chamaelea	Camelia	Olivilla	Citocacio <i>Port.</i> Chamaelea <i>Dan. & Swed.</i>
632	Distel	- - -	- - -	Krattstidse! <i>Dan.</i> Krattstisel <i>Swed.</i>
326	Druiveboom	Grappoliere	Coccoloba	Druetræe <i>Dan.</i> Drusveträd <i>Swed.</i>
546	Lepelkruid	Coclearia	Cochlearia	Skee-urt <i>Dan.</i>
788	Kokosboom	Albero del cocco	El coco	Inaiaguacuiba <i>Brasil.</i> Cay dua <i>Cochinch.</i>
170	Koffyboom	Il caffè	El café	Cay càphe <i>Cochinch.</i> Kofé <i>Russ.</i> Kawa <i>Pol.</i>
778	Traangras	Lacrime di Giobbe	Lagrimas de Moises	Lagrymas de N. Senhora <i>Port.</i> Jobs taarer <i>Dan.</i>
292	Wildi saffraan	Colchico	Villorita	Colchico <i>Port.</i> Beswremnenno! zwjet <i>Russ.</i> Rozsiad <i>Pol.</i>
626	Senneboom	Solatro	Espanta-lobes	Colutea <i>Port.</i> Linsetræe <i>Dan.</i> Linseträd <i>Swed.</i>
452	Rood waterbezie	- - -	- - -	Sabelnik <i>Russ.</i> Pieciornik <i>Pol.</i> Krakfottis <i>Swed.</i>
36	Maagden-pruimboom	- - -	- - -	- - -
934	Flap	- - -	- - -	Thachhoa <i>Cochinch.</i> Vandträd <i>Dan.</i>
216	Scheerling	Cicuta	Ceguda	Boligolow <i>Russ.</i> Swinia wesz <i>Pol.</i> Skarntyde <i>Dan.</i>
188	Knopboom	- - -	- - -	Knaptræe <i>Dan.</i> Knappräd <i>Swed.</i>
270	Lelictjes van den dale	Il mughetto	Azucena del valle	Landisch <i>Russ.</i> Konwalia <i>Pol.</i>
140	Winde	Il viluchio	La correguela	O liserão <i>Port.</i> Snerli <i>Dan.</i>
702	Tonderkruid	La conizza	La coniza	A coniza <i>Port.</i> Cattuschiragum <i>Malab.</i> Troidurt <i>Dan.</i>
350	Balsem copayveboom	Copaiba	Copai	Copiba <i>Port.</i> Ccoaiba <i>Brasil.</i> Copaivatræe <i>Dan.</i>
466	Moeskruid	- - -	- - -	Melochia <i>Arab.</i> Madurt <i>Dan.</i>
150	Sebestenboom	Il sebesten	El sebesto	Sebesteira <i>Port.</i> Vidi-maram <i>Malab.</i> Sebestentræe <i>Dan.</i>
732	Wantszaad	- - -	- - -	Tagefrö <i>Dan.</i> Väggluströ <i>Swed.</i>
208	Koriander	Coriandro	Cilantro	Coentro <i>Port.</i> Koriander <i>Russ.</i> Ghad <i>Hebr.</i>
432	Lederboom	- - -	Rulda	Lædertræe <i>Dan.</i> Læderträd <i>Swed.</i>
130	Zeethym	Il cori	Hierba pinul	A corea <i>Port.</i> Korisurt <i>Dan.</i> Korisört <i>Swed.</i>
8	Wantz.zaader	Corisperma	Corispermo	Væggelussaad <i>Dan.</i>
52	Trechtergras	Cornucopia	Cornucopia	Frugthorn-græs <i>Dan.</i> Fruckthorn-gräs <i>Swed.</i>
102	Kornoeljeboom	Il corniola	El cornizo	Cornisolo <i>Port.</i> Kuroslejeppnik <i>Russ.</i>
628	Kroonkruid	Coronilla	Coronilla	Kroneurt <i>Dan.</i> Kronört <i>Swed.</i>
228	Riempjes	La coregiuola	La correguela	A correjola <i>Port.</i> Remurt <i>Dan.</i> Remört <i>Swed.</i>
128	Kortusa	- - -	- - -	- - -
792	Hazelaar	El nocciuolo	El avellano	Avelleira <i>Port.</i> Frandik <i>Turk.</i> Oreschnik <i>Russ.</i>
258	Saribochoom	- - -	- - -	Arvore dos sombreiros <i>Port.</i> Codda-panna <i>Malab.</i>
722	Koedille	- - -	- - -	Luudblomster <i>Dan.</i>
332	Nav. kruid	Cotiledone	Ombliqüera	Cotyledone <i>Port.</i> Rzesa wietrzna <i>Pol.</i>
556	Zeekool	Crambe marina	Col marina	Strandkaal <i>Dan. & Norw.</i>
230	Dikblad	- - -	- - -	Tykblad <i>Dan.</i> Tjockblad <i>Swed.</i>
424	Haagdoorn	Bianco spino	Espino blanco	Bodlak <i>Pol.</i> Bojarischnik <i>Russ.</i>
396	Stinkappelboom	- - -	- - -	Tapia do Brasil <i>Port.</i> Tapia <i>Brasil.</i> Nurrvala <i>Malab.</i>
674	Hondsbloem	- - -	- - -	- - -
524	Kalabasboom	Cuiete	Cuiete	Cuiete <i>Port.</i> Kalabastræe <i>Dan.</i> Kalabasträd <i>Swed.</i>
250	Haaklelie	Crino	Crino	Crino <i>Port.</i> Kroglilie <i>Dan.</i>
212	Zeevenkel	Critto	Hinojo marino	Funcho marinho <i>Port.</i> Sjöfenkel <i>Dan.</i> Sjöfenkäl <i>Swed.</i>
86	Saffraan	Zafferano	Azafran	Açafrao <i>Port.</i> Zati phra <i>Arab.</i> Schafran <i>Russ.</i> Szafran <i>Pol.</i>
608	Rammelaar	Crotalaria	Crotalaria	Crotalaria <i>Port.</i> Klapperbæige <i>Dan.</i> Skallerskida <i>Swed.</i>
94	Kruisblad	- - -	- - -	Korsblad <i>Dan. & Swed.</i>
372	Wit been	Il been bianco	Colleja	Herva traqueira <i>Port.</i> Skum-neglike <i>Dan.</i>
808	Komkommer	Cetriuolo	Pepino	Pepino <i>Port.</i> Kira <i>Indian.</i> Ogurzi <i>Russ.</i> Ogorek <i>Pol.</i>
868	Kauwoeide	La zucca	Calabaza	Abobara <i>Port.</i> Kabak <i>Pers.</i> Tikwa <i>Russ.</i> Tykwia <i>Pol.</i>
214	Komyn	Comino	Comino	Cuminho <i>Port.</i> Timon <i>Russ.</i> Kmin <i>Pol.</i> Kummene <i>Dan.</i>
806	Cypresseboom	Cypresso	Ciprés	Cypreste <i>Port.</i> Elhami <i>Arab.</i> Kyparisnoe dwerow <i>Russ.</i>
6	Kurkuma	- - -	- - -	Mangella-kua <i>Malab.</i> Gurgumeye <i>Dan.</i>
104	Warkruid	- - -	- - -	Pawiliza <i>Russ.</i> Kania przedza <i>Pol.</i>
846	Sageboom	Il sago	El sagú	O sagüero <i>Port.</i> Todda-panna <i>Malab.</i> Sagutræe <i>Dan.</i>
128	Varkensbrood	Ciclamine	Panporcino	Pao de porco <i>Port.</i> Galteknappe <i>Dan.</i> Svinbröd <i>Swed.</i>
426	Kweboom	Cotogno	Membrillero	Marmeleiro <i>Port.</i> Haiwah <i>Pers.</i> Armud <i>Rus.</i> Figwa <i>Pol.</i>
534	Bootjesvrucht	- - -	- - -	- - -
196	Worgkruid	Cinanco	Cinanco	Cinanco <i>Port.</i> Hundemorder <i>Dan.</i> Hundstypæe <i>Swed.</i>
634	Artisjok	Carciofo	Alcachofa	Artischok <i>Russ.</i> Karciof <i>Pol.</i> Erteskok <i>Dan.</i>
122	Hondstong	Cinoglossa	La viniobla	Lingua de cão <i>Port.</i> Tscherednik <i>Russ.</i> Psi iezik <i>Pol.</i>
348	Teefjes-klink	- - -	- - -	Hanekamsgræs <i>Dan.</i> Kam-exing <i>Swed.</i>
62	Vingerpluim	- - -	- - -	Cipergræs <i>Dan.</i> Cipergräs <i>Swed.</i>
60	Cypergras	Cipero	- - -	- - -

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
766	Cypripedium L. 1931	- - -	Ladies' slipper	Sabot de la Vierge, or Soulire de Notre Dame	Der Venusschuh
624	Cytisus L. 1566	- - -	Cytisus	Le cytise	Der geissklee
62	Dactylis L. 180	- - -	Cock's-foot grass	Le dactile	Der knauelgras
718	Dahlia Cav. 1758	Georgina	- - -	- - -	- - -
294	Damasodium Schreb. 859	Alisma	- - -	Fluteau	Der froschloffel
322	Daphne L. 910	- - -	Spurge-laurel	Laureole	Der seidelbast
844	Datisca W. 2099	Bastard hemp	- - -	La cannabine	Das streichkraut
134	Datura L. 376	- - -	Thorn apple	Stramoine	Der stechapfel
210	Daucus L. 625	- - -	Carrot	La carote	Die möhre
384	Davallia Sm. 2195	Trichomanes	- - -	- - -	- - -
192	Deeringia R. Br. 565	Celsoia	- - -	- - -	- - -
472	Delphinium Tou. 1204	- - -	Larkspur	La dauphinelle	Der rittersporn
370	Dianthus L. 1046	- - -	Pink	L'ocillet	Die nelke
354	Dictamnus L. 997	- - -	Fraxinella	Dictame blanc	Der diptam
904	Dielymodon Hedw. 2230	Brÿum	- - -	- - -	- - -
170	Diervilla Tou. 477	Lonicera	St. Peter's wort	La dierville	Die akadische lomzere
530	Digitalis L. 1355	- - -	Fox-glove	La digitale	Der fingerhut
52	Digitaria Sco. 143	- - -	Finger-grass	- - -	- - -
478	Dillenia L. 1214	- - -	- - -	Le sialit	Der rosenapfel
302	Dimocarpus W. 883	Longan	Litchi	- - -	- - -
355	Dionaea L. 1009	- - -	Venus's fly-trap	L'attrape-mouche	Venus die fliegenfängerin
838	Dioscorea L. 2085	- - -	Yam	Igname	- - -
180	Diosma Walt. 517	- - -	Bucku plant	- - -	- - -
870	Diospyros L. 2159	- - -	Date plum	Le plaqueminier	Der pseudolotus
908	Diphyscium Mohr 2235	Buxbaumia	- - -	- - -	- - -
90	Dipsacus L. 262	Fuller's thistle	Teasel	Cardere à foulon	Die kardendistel
604	Dipterix Schreb. 1518	- - -	Tonquin bean	- - -	- - -
324	Direa L. 911	- - -	Leather wood	Le bois de cuir	Das lederholz
128	Dodecatheon L. 353	- - -	American cowslip	Gyroselle de Virginie	Die göttergabe
616	Dolichos L. 1559	- - -	Horse-eye bean	Le dolie	Faseln
716	Doronicum L. 1751	- - -	Leopard's bane	Le doronic	Gemenswurz
88	Dorstenia L. 257	Contrayerva	- - -	Dorstene	Die contrayerva
544	Draba L. 1445	- - -	Whitlow grass	La drave	Das hungerblümchen
266	Dracaena L. 774	- - -	Dragon tree	Le dragonier	Der drachenbaum
510	Dracoccephalum L. 1279	- - -	Dragon's head	Dracocéphale	Der drachenkopf
298	Dracontium L. 868	- - -	Dragon	Draconte	Zehrwurz
232	Drösera L. 702	- - -	Sundew	Le rosselle	Der sonnentau
454	Drÿas L. 1159	- - -	- - -	Driade	Das silberkraut
228	Drÿpis L. 687	- - -	- - -	La drypis	Das kronenkraut
210	Echinophora L. 624	Prickly parsnep	Sea-parsnep	L'echinophore	Die stacheldolde
746	Echinops L. 1850	- - -	Globe-thistle	Echinope	Die kugeldistel
146	Echites L. 413	- - -	- - -	L'echite	Der klammerstrauch
124	Echium L. 345	- - -	Viper's bugloss	La vipérine	Der natterkopf
340	Edwardsia Sal. 940	Sophora	- - -	- - -	- - -
152	Ehretia L. 430	- - -	- - -	Le cabrille	- - -
90	Elæagnus L. 259	- - -	Oleaster	L'olivier de Bohême	Der wilde oelbaum
468	Eleocarpus L. 1192	- - -	- - -	Le ganitre	Die ganiterbaum
180	Eleoëndrum Jac. 516	- - -	Olive wood	- - -	- - -
836	Elpis Jac. 2077	- - -	Oily palm	L'avoira de Guinée	Die oelpalme
790	Elate L. 1984	- - -	- - -	L'indèl asiatique	Die tannenpalme
328	Elatine L. 931	- - -	Waterwort	- - -	- - -
48	Eleocharis R. Br. 124	Scirpus	Spike rush	- - -	- - -
744	Elephantopus L. 1843	- - -	Elephant's foot	L'éléphantope	Der elephantenfuss
68	Eleusine Gae. 200	Cynosurus	- - -	- - -	- - -
700	Elichrysium Pers. 1730	Xeranthemum	- - -	- - -	- - -
880	Ellobocarpus 2181	Pteris	- - -	- - -	- - -
72	Elymus L. 208	- - -	Lyme grass	Elyme des sables	Das haargrass
826	Empetrum L. 2045	Black-berried heath	Crow-berry	Camarine	Die rauchbeere
848	Ephedra L. 2115	- - -	Shrubby horse-tail	L'uvette	Die see Traube
760	Epidendrum L. 1907	Vanilla	- - -	- - -	- - -
358	Epigaea L. 1015	- - -	Trailing arbutus	L'epigée	Der grundtrauch
318	Epilobium L. 903	- - -	Willow herb	L'épilobe	Der weiderich
100	Epimedium L. 297	- - -	Barrenwort	Le chapeau d'évêque	Die bischofsmütze
890	Equisetum L. 2211	- - -	Horse tail	Prêle	Das kannenkraut
68	Eragrostis Beauv. 197	- - -	Live grass	- - -	- - -
18	Eranthemum R. Br. 49	- - -	- - -	L'eranthème	Die frühblume
488	Eranthis Sal. 1236	Hellëborus	Winter aconite	- - -	- - -
304	Erica L. 892	Ling	Heath	La bruyère	Die heide
704	Erigeron L. 1736	- - -	- - -	La vergerette	Das scharfe
426	Eriobotrya Lindl. 1137	Mespilus	Loquat	- - -	- - -
76	Eriocadon L. 223	- - -	Pipewort	La joncinelle	Der kantenhalm
742	Erioccephalus L. 1837	- - -	- - -	- - -	Der wolkopf
50	Eriophorum L. 125	- - -	Cotton grass	La lainagrette	Das dungras
568	Erodium Herit. 1460	- - -	Heron's bill	- - -	- - -
556	Erva Tou. 1436	- - -	Rocket	- - -	- - -
624	Ervum L. 1562	True bitter vetch	Tare	L'ers ervillier	Die erve
	E. Léns L. sp. 10421	- - -	- - -	Lentillon	Die linse
558	Erucaria Gae. 1445	Condylocarpus	- - -	- - -	- - -
210	Eryngium L. 622	Holly	Eryngo	Panicaut	Die krausdistel
550	Erysimum L. 1424	- - -	Hedge mustard	Le vélar	Der hederich
604	Erythra L. 1521	- - -	Coral tree	L'erythrine	Der korallenbaum

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
766	Vrouweschoen	Pantoffola	Zueco	Calçado de Nuessa Senhora <i>Port.</i> Kokuschkinj Sa-pochki <i>Russ.</i>
624	Cytisus	Citiso	Citiso	
62	Krop-aair	Il dattilo	El dactilo	O dactylo <i>Port.</i> Hvasgræs <i>Dan.</i> Exing <i>Swed.</i>
294	Water-weegbree	Damasonio	- - -	Damasonio <i>Port.</i>
322	Zwart peper-boompje	Laureola maschio	Laureola macho	Loireola macho <i>Port.</i>
844	Weedaart			
134	Doornappel	Stramonio	Estramonio	Estramonia <i>Port.</i> Durman <i>Russ.</i>
210	Peen	Carota	Zanahoria	Morkow <i>Russ.</i> Marchew <i>Pol.</i>
472	Ridderspoor	Speronella	Espuela de ca-ballero	Esporeira <i>Port.</i> Kawalerskoi spor <i>Russ.</i> Ostrozka <i>Pol.</i>
370	Anjelier	Garofano	Clavél	Cravino <i>Port.</i> Gwosdika <i>Russ.</i> Gozdzik <i>Pol.</i>
354	Diptam	Dittamo bianco	Chitan	Dictamo branco <i>Port.</i> Badan <i>Russ.</i> Dyptan <i>Pol.</i>
170	Akadische Ionicera	Madreselva	Madreselva	Madresylva <i>Port.</i>
530	Vingerhoed	Digitale	Dijital	Digital <i>Port.</i> Naperstok <i>Russ.</i>
478	Roosappelboom	- - -	- - -	Fruta estrellada <i>Port.</i> Syalita <i>Malab.</i>
356	Vliegenknip	- - -	- - -	Moscapanha <i>Port.</i>
838	- - -	- - -	- - -	Oowhenote maowa <i>Otaheite.</i> Katsjil-kelengu <i>Malab.</i>
870	Basterd-lotus	- - -	- - -	Loto de Italia <i>Port.</i>
90	Vollers kaarden	Dissaco	Cardencha	Cardo penteador <i>Port.</i> Sukonnaja <i>Russ.</i> Szczeł <i>Pol.</i>
324	Lederstruik			
128	Afgodskruid			
616	Slingerboon			
716	Wolverley	Doronico	Doronico	Doronico <i>Port.</i> Geede-urt <i>Dan.</i> Vildget-ört <i>Swed.</i>
88	Contrajerva	- - -	- - -	Contraerva <i>Port.</i>
544	Taschkruid	Draba	Draba	Hungersblomst <i>Dan.</i> Hungerblomster <i>Swed.</i>
266	Draakboom	Dragone	Drago	Dragoneiro <i>Port.</i> Dragetrae <i>Dan.</i>
510	Draakscop	Dragocefalo	Dragocefalo	Dragocefalo <i>Port.</i> Cay co co <i>Cochinch.</i> Dragehoved <i>Dan.</i>
298	Speerwortel			
232	Zonnedauw	Rugiada del sole	Rociada	A rossolina <i>Port.</i> Solneznaja trawa <i>Russ.</i>
454	Hertenkruid	- - -	- - -	Holta-soley <i>Iceland.</i> Schingari <i>Tungus.</i>
228	Kroondoorn			
210	Stekelkroon	Echinofora	Echinofora	Echinofora <i>Port.</i>
746	Morgenster	Echinopo	Echinopo	Echinopo <i>Port.</i> Klottistel <i>Swed.</i>
146	Rooswinde	Echite	Echite	Echite <i>Port.</i>
124	Slangekruid	Echio	Hierba de la vi-bora	Viperina <i>Port.</i> Rumian <i>Russ.</i>
90	Olyfwilg	Olivo di Boemia	Arbol de paraíso	Kalaf <i>Pers.</i> Lochowina <i>Russ.</i> Oliwa lésna polna <i>Pol.</i>
468	Ganiterboom	- - -	- - -	Perin-kara <i>Malab.</i>
836	Palmietboom			
790	Wilde daadelboom	- - -	- - -	Tamara do mato <i>Port.</i> Hinindi <i>Cey.</i> Katou-indel <i>Malab.</i>
744	Olyphants-poot			
72	Zandig koorngras	Elimo	Elimo	Elimo <i>Port.</i> Sandhavre <i>Dan.</i> Strandrog <i>Swed.</i>
826	Besheide	- - -	- - -	Camarinhas do reyno <i>Port.</i> Wodäniza <i>Russ.</i>
848	Zeedruif	- - -	- - -	Stepnaja malina <i>Russ.</i> Kirsik <i>Kalmuk.</i>
358	- - -	- - -	- - -	Memeeylo da Canada <i>Port.</i>
318	Basterd-wederik	Epilobio	Epilobio	Kiprei <i>Russ.</i> Karamuk <i>Tartar.</i> Abragärest <i>Lapl.</i>
100	Muiltjesbloem	Epimedio	Epimedio	Epimedio <i>Port.</i> Ikaniso <i>Jap.</i>
890	Akkerig paardstaart	Equiseto	Equiseto	Equiseto <i>Port.</i> Ma hoang <i>Cochinch.</i> Chwostch <i>Russ.</i>
18	Vroegbloem	Erantemo	Erantemo	Erantemo <i>Port.</i>
304	Heide	Erica	Brezo	Weresk <i>Russ.</i> Wrzoz <i>Pol.</i> Lyng <i>Dan.</i> Liung <i>Swed.</i>
704	Scherp fynstraal	- - -	- - -	Blaa trolldurt <i>Dan.</i>
76	Kanthalm			
50	Wolgras	Erioforo	Erioforo	Erioforo <i>Port.</i> Ageruld <i>Dan.</i> ängull <i>Swed.</i>
624	Erven	Ervo	Yero	
	Lins	Lenticchia	Lenteja	Lentilha <i>Port.</i> Tschetschewiza <i>Russ.</i> Soczewika <i>Pol.</i>
210	Kruisdistel	Eringio	Cardo corredor	Sinaja golownik <i>Russ.</i>
550	Steenraket	Erisamo	Jaramago	Gortschitza polewaja <i>Russ.</i> Gorczyca polna <i>Pol.</i>
604	Koraalboom	Arvore corallo	Arbol der coral	Arvore coral <i>Port.</i> Koraaltræe <i>Dan.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
270	Erythrónium L. 752	-	Dog's-tooth violet	Le dent de chien	Der hunds Zahn
418	Eucalyptus Herit. 1126	-	Red gum tree	-	-
842	Euclea L. 2098	-	-	L'euclé	-
416	Eugenia L. 1119	-	Rose apple	Jambosier	Der jambusenbaum
178	Eúonymus Tou. 509	-	Spindle tree	Le fusain	Der spindebaum
688	Eupatorium L. 1685	-	Hemp agrimony	L'eupatoire	Abkraut
400	Euphòrbia L. 1103	-	Spurge	L'euphorbe	Das euphorbium
526	Euphrasia L. 1342	-	Eye-bright	L'eufrase	Der augentrost
228	Evolvulus L. 695	-	-	La liserole	Die kriechende winde
98	E'xacum L. 280	-	-	La gentianelle	Die kugelröhre
850	Excacària L. 2117	-	-	L'agalliche	Der blendbaum
102	Fagora L. 303	-	-	Le fagarier	Der fagara
354	Fagonia Tou. 995	-	-	-	-
792	Fagus L. 1997	-	Beech	Le hêtre	Die buche
542	Farsètia Turra 1397	Alýssum	-	-	-
26	Fedia Moen. 72	Valeriana	-	La mâche	Der ackersalat
866	Feronia Corr. 2149	-	Elephant apple	-	-
220	Ferula L. 668	-	Giant-fennel	La férule	Das ruthenkraut
62	Festuca L. 182	-	Fescue-grass	La fétuque	Schwingel
484	Ficaria Dil. 1232	Ranunculus	Pilewort	La petite chelidoine	Feigen-ranunkel
872	Ficus L. 2167	-	Fig tree	Le figuier	Der feigenbaum
742	Filago L. 1838	Cudweed	Cotton rose	La cotonniere commune	Das filzkraut
912	Fissidens Hedw. 2243	Dicranum	-	-	-
290	Flagellaria L. 839	-	-	La flagellaire	Die peitschenpflanze
630	Flemingia Rox. 1586	Hedýsarum	-	-	-
912	Fontinalis L. 2245	-	Water-moss	La fontinale	Das hüllmos
452	Fragaria Tou. 1151	-	Strawberry	Le fraisier	Die erdbeerpflanze
288	Frankenia L. 835	-	Sea heath	La franquette	-
868	Fraxinus L. 2157	-	Ash tree	Le frêne	Die esche
266	Fritillaria L. 773	-	Fritillary	La fritillaire mélagre	Das kiebitzey
	F. imperialis L. sp. 4513	-	-	Fritillaire imperiale	Die kaiserkrone
946	Fucus L. 2328	-	Sea wrack	Varec	Tang
602	Fumaria Tou. 1507	Earth-smoke	Fumitory	La fumeterre	Der erdrauch
246	Furcraea Ven. 725	Agave	-	-	-
276	Gagea Sal. 801	Ornithogalum	-	-	-
618	Galectia Br. 1555	Clitoria	-	-	-
248	Galanthus L. 732	-	Snowdrop	La galantine	Schneetropfen
634	Galega Tou. 1591	-	Goat's rue	Galega	Die geisraute
502	Galeobdolon Sm. 1261	Galeópsis	Dead nettle	L'ortie morte des bois	Die gelbe hanfnessel
502	Galeópsis L. 1260	Common dead nettle	Hemp nettle	Le galeope	Die taube nessel
92	Galium L. 266	Ladies' bed-straw	Bed-straw	Le gaillet	Das labkraut
394	Garcinia L. 1079	-	Mangosteen	Le mangoustan	Der mangostanbaum
172	Gardènia L. 487	-	Cape jasmine	Le jasmin du Cap	-
380	Garidèlia Tou. 1053	-	-	La garidelle	Die garidelle
40	Geissorhiza Ker 97	-	Tile-root	-	-
172	Genipa Tou. 488	-	Genip tree	-	Der genipabäum
610	Genista L. 1538	-	Broom	Le genêt	Der ginster
202	Gentiana L. 600	-	Gentian	La gentiane	Der enzian
756	Geodorum Jac. 1888	Maláxis	-	-	-
604	Geoffroya W. 1517	-	Bastard cabbage tree	-	-
578	Geranium Herit. 1463	-	Crane's bill	Le geranium	Der storchschnabel
666	Geropogon L. 1620	-	Old man's beard	-	Der weissbart
454	Gèum L. 1155	Herb bennet	Avens	Benoite commune	Das nelkenkraut
42	Glaucolus L. 105	-	Corn flag	Le glaycul	Der schwertel
460	Glaucium Tou. 1169	Chelidonium	Horn-poppy	-	Das gehörnte schölkraut
194	Glaux L. 568	Sea milkwort	Black saltwort	Glauc	Milchkraut
502	Gléchoma L. 1258	-	Ground ivy	La terrete	Gundelreben
868	Gleditschia L. 2155	Three-thorned Acacia	-	Le févier à trois épines	Der honigdorn
406	Glinus L. 1071	-	-	La gînole	Der glinus
6	Globba Rose. 15	-	Dancing girls	Globbée	-
90	Globularia L. 260	Blue daisy	Madwort	Globulaire	Die gloablume
270	Gloriosa L. 783	-	Superb lily	La méthonique	Die prachtilie
618	Glycyne L. 1552	-	Kidneybean tree	Glycine	Die glycine
628	Glycyrrhiza Tou. 1574	-	-	Régliste	Sissholz
518	Gmelina L. 1131	-	-	Gmelin	-
698	Gnaphalium L. 1722	Cotton weed	Everlasting	Gnaphale	Die ruhrpflanze
324	Gnidia L. 912	-	-	Gnidienne	Das schnabelkorn
196	Gomphocarpus R. Br. 587	Asclépias	-	-	-
194	Gomphrena L. 566	-	Globe Amaranth	L'amaranthine globuleuse	Der kugelamaranth
754	Goodyera R. Br. 1870	Neóttia	-	-	-
592	Gordonia El. 1474	-	Smooth lololly bay	-	-
588	Gossypium L. 1481	-	Cotton	Le cotonnier	Die baumwolle
866	Gouania L. 2146	-	Chaw-stick	La liane brulée	-
16	Gratiola L. 43	-	Hedge hyssop	La gratiote	Das gnadenkraut
466	Grias L. 1188	-	Anchovy pear	La grias	Die anschojebirn
384	Grièlum L. 1063	-	-	Le griel	Die kronranunkel
352	Guaiacum L. 993	-	Lignum-vitæ tree	Le gayac	Das franzosenholz
304	Guàrea L. 888	-	-	Gouaré	-
788	Guettdarda L. 1981	-	-	Le guettard	-
350	Guilandina J. 979	Yellow bonduc	Nicker tree	Le bonduc	Der schüsserbaum
750	Gymnadenia Rich. 1858	O'rchis	-	-	-
482	Gymnocladus Lam. 2094	Guilandina	-	Le chiot de Canada	-

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
270	Hondstand	Dente di cane	Diente de perro	Dente de cão <i>Port.</i> Kandik <i>Russ.</i> Hundetand <i>Dan. & Sw.</i>
842	-	-	-	Xe lin tsu <i>Chin.</i> Cay nhaoc <i>Cochinch.</i>
416	Jamboesboom	Giambosa	Jambosa	Bieslen <i>Bohm.</i> Swida <i>Russ.</i> Ukurgol <i>Tatar.</i>
178	Faapenhout	Fusaggine	Bonetero	Eupatorio <i>Port.</i> Griwa konskaja <i>Russ.</i> Sadziec <i>Pol.</i>
683	Boelkenskruid	Eupatorio	Eupatorio	Euphorbio <i>Port.</i>
400	Euphorbium	Euforbio	Euforbio	Euphorbia <i>Port.</i>
526	Oogentroot	Eufrasia	Eufrasia	Euphrasia <i>Port.</i> Otschnaja pomotsch <i>Rus.</i> Swieczki <i>Pol.</i>
228	Kruijwinde	-	-	-
93	Kogelpyp	Esaco	Esaco	Esaco <i>Port.</i>
850	Verblindboom	-	-	-
102	Zadelboom	Fagara	Fagara	Fagara <i>Port.</i>
354	-	-	-	Djæmdæ, Scheki <i>Arab.</i>
792	Buikboom	Il faggio	La haya	A faya <i>Port.</i> Buk <i>Russ. & Pol.</i>
26	Sprinkhaandkruid	Valerianella	Canonigos	Balderjan <i>Russ.</i> Kozlki <i>Pol.</i>
220	Holstok	Ferula	Canajebe	Canafrecha <i>Port.</i> Riisurt <i>Dan.</i> Risört <i>Swed.</i>
62	Dravik	Festuca	Festuca	Mannagræs <i>Dan.</i> Svingel <i>Swed.</i>
484	Speenkruid	Celidonia minore	Ficaria	Celidonia menor <i>Port.</i> Tschistak menschoi <i>Russ.</i>
872	Vygekruid	Fico	Higuera	Figueira <i>Port.</i> Tin <i>Arab.</i> Finik <i>Russ.</i> Figa <i>Pol.</i>
742	Beurkruid	-	-	-
290	-	-	-	Panambu valli <i>Malab.</i> May boac <i>Cochinch.</i>
912	Fonteinmoos	Fontinale	Fontinal	Fontinal <i>Port.</i> Aemoos <i>Dan.</i> Lonkemossa <i>Swed.</i>
452	Aardbezie	Fragaria	Fresera	Morangueiro <i>Port.</i> Semjaniza <i>Russ.</i>
868	Escheboom	Frassino	Fresno	Freixo <i>Port.</i> Jas <i>Russ.</i> Jesion <i>Pol.</i> Ask <i>Dan. & Swed.</i>
266	Kievitsbloem	Fritillaria	La fritillaria	A fritillaria <i>Port.</i> Vibezag <i>Dan.</i> Vipag <i>Swed.</i>
-	Keiserskroon	-	-	-
946	Zeeruy	Fuco	Fuco	Fuco <i>Port.</i> Si sj <i>Jap.</i> Tang <i>Dan. & Swed.</i>
602	Duivekervel	Fummosterno	Palomilla	Fumaria <i>Port.</i> Fingosakt <i>Jap.</i> Semlanja orech <i>Russ.</i>
246	Boomaloe	-	-	-
248	Wittertje	Galanto	-	Hó virág <i>Hung.</i>
634	Vlakkenkruid	Galega	Galega	Gallega <i>Por.</i> Pestilentsrod <i>Dan.</i> Pestilentsrot <i>Swed.</i>
502	Geelbloemige hondsnetel	-	-	-
502	Knoopige hondsnetel	Ortiga morta	Ortiga muerta	Ortiga morta <i>Port.</i> Rasnozwetnaja kropiwa <i>Russ.</i>
92	Walstroo	Gaglio	Cuaja leche	Calhaleite <i>Port.</i> Roschodnik <i>Boh.</i>
172	-	-	-	Cay deanh tau <i>Cochinch.</i> Cha tsu <i>Chin.</i>
610	Brem	Ginestra	Jinesta	Giesta <i>Port.</i> Genista <i>Dan. & Swed.</i>
202	Gentiaan	La genziana	La jenciana	Goretschafka <i>Russ.</i>
604	-	-	-	Camarinhas, Camarinheira de Brazil <i>Port.</i>
578	Oijevaarsbek	Geranio	Jerenio	Geranio <i>Port.</i> Schuratelinel nos <i>Russ.</i> Pychawiec <i>Pol.</i>
696	Grysaard	Geropogon	-	-
454	Gemeen nagelwortel	Erba benedetta	Islera	Cravoilha <i>Port.</i> Grebnik <i>Russ.</i> Zarzyczka <i>Pol.</i> Nelikerod <i>Dan.</i>
42	Gladiolus	Ghiaggiuolo	Españaña	Schpaschnaja trawa <i>Russ.</i> Mieczyk ziele <i>Pol.</i>
400	Gehoord schelkruid	-	-	-
194	Melkkruid	-	-	Melecznik <i>Pol.</i> Melkurt <i>Dan.</i> Mjolkört <i>Swed.</i>
502	Aardveil	Ellera terrestre	Hiedra terrestre	Krotowik <i>Russ.</i> Bluszcz poziemny <i>Pol.</i>
406	-	-	-	Haschfe <i>Arab.</i>
6	-	-	-	Jamma mjoga <i>Jap.</i>
90	Kogelkruid	Globularia	Siempre enjuta	Globularia <i>Port.</i> Kugleblomst <i>Dan.</i> Bergskubba <i>Swed.</i>
270	Pragtige-liepraal	-	-	Methonika <i>Malab.</i> Junglang <i>Java.</i> Nienghala <i>Cey.</i>
618	Kruipboom	-	-	-
628	Zoethout	Regolizia	Regaliz	Cam thao <i>Cochinc.</i> Dubez solotkoi <i>Rus.</i> Lakryca <i>Pol.</i>
518	Heilpeeren	-	-	Tani <i>Malab.</i> Dematha <i>Cey.</i> Doery radak <i>Java.</i>
698	Droogbloem	Gnafalio	Gnafalio	-
194	Rondbloem	-	Inocua	Perpetua roxa <i>Port.</i> Wadapu <i>Malab.</i> Hoa nua ngai <i>Cochinch.</i>
588	Katoen	Cotone	Algodon	Kopa <i>Indian.</i> Chloptscha taja bumaga <i>Russ.</i>
16	Genadekruid	Graziola	Graciola	Lieharodotschnaja trawa <i>Russ.</i> Konjtrud <i>Pol.</i>
334	Grootbloem	-	-	-
352	Pokhout	Guaiaco	Guayacan	Guaiaco <i>Port.</i> Bakant <i>Russ.</i> Franzostræe <i>Dan.</i>
304	-	-	-	Jito <i>Brazil.</i> Guara <i>Java.</i>
788	-	-	-	Tawhannov <i>Otaheite.</i> Rava pou <i>Malab.</i>
350	Balletjstruik	-	-	-

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
878	Gymnogramma 2171	Grammitis			
	<i>Desv.</i>				
368	Gypsóphila L. 1044	- - - -	- - - -	La gypsophie	Die gypsflanze
752	Habenaria R. Br. 1861	O'rchis			
248	Hæmáanthus L. 731	African tulip	Blood flower	L'hémánthe	Die blutblume
350	Hæmatóxylon L. 985	Campeachy wood	Logwood	Le campeche	Das campescheholz
394	Halésia L. 1081	- - - -	Snowdrop tree	L'halesier	
524	Halléria L. 1338	- - - -	African fly honey-suckle	L'haller	Die hallerie
630	Hállia Thun. 1584	Hedýsarum			
104	Hamamélis L. 312	Black Virginian pistachia	Witch-hazel	L'hamamelis	Die zauberstrauch
870	Hamiltónia Mhl. 2162	- - - -	Oil nut		
188	Hédéra L. 549	- - - -	Ivy	Le lierre	Der epheu
2	Hedýchium Kon. 6	- - - -	Garland flower	Le gandasuli	
630	Hedýsarum L. 1588	- - - -	French honeysuckle	La sulla	Die sulla
	<i>H. Onobrýchis L. sp. 10597</i>	- - - -	Sainfoin	Le sainfoin	Esparzette
716	Heléniam L. 1755	- - - -	Willow-leaved sun-flower	L'helenie	
470	Heliánthemum Tou. 1198	Cistus	Sun rose		
730	Heliánthus L. 1798	- - - -	Sun flower	L'hélianthe	Die sonnenblume
	<i>H. tuberósus L. sp. 12439</i>	- - - -	Jerusalem artichoke	Topinambour	Die erdäpfel
194	Helicónia L. 570	- - - -	- - - -	Le bihaj	
580	Helicteres L. 1466	- - - -	Screw tree	L'helictère	Der schraubenbaum
558	Helióphila L. 1446	- - - -	- - - -	- - - -	Die sonnenfreundin
118	Heliótropium L. 325	Heliotrope	Turnsole	L'heliotrope	Die sonnenwende
488	Hellébore L. 1237	- - - -	Hellebore	L'hellebore	Die nieswurz
1014	Helvélla L. 2387	- - - -	- - - -	L'helvellia en mitre	Der faltenschwamm
260	Hemerocállis L. 769	- - - -	Day lily	L'hémérocalle	Die lilienaffodill
878	Hemionitis L. 2170	- - - -	- - - -	L'hémionite	Der gitterfarrn
480	Hepática Dil. 1225	Anemòne	- - - -	L'anémone hepatiche	Die leberblume
222	Heraclèum L. 672	Hogweed	Cow-parsnep	La berce	Das heilkraut
814	Heritiera H. K. 2037	- - - -	Looking-glass plant		
866	Hérmás Thun. 2147	- - - -	- - - -	- - - -	Die stieldolde
754	Hermínium R. Br. 1868	O'phrys	Musk orchis		
772	Hernándia L. 1942	- - - -	Jack in a box	L'hernandier	Die hernandie
208	Herniária L. 614	- - - -	Rupture-wort	L'herniare	Das bruchkraut
532	Herpéstis R. Br. 1367	Gratiola			
	<i>40 Hesperántha Ker 98</i>	F'xia	Evening flower		
548	Héspéris L. 1421	Dame's violet	Rocket	La julienne	Die nachtviole
204	Heuchera L. 606	- - - -	- - - -	L'heuchère	
584	Hibiscus L. 1480	- - - -	- - - -	La ketmie	Hibiskus
672	Hierácium L. 1635	- - - -	Hawkweed	L'épervière	Das habichtskraut
628	Hippocrépis L. 1577	- - - -	Horseshoe vetch	Hippocrepe	Die hufeisenpflanze
812	Hippómane L. 2030	- - - -	Manchineel	Le mancenillier	Der manschinellbaum
832	Hippóphæe L. 2058	Sallow thorn	Sea buckthorn	L'argousier	Der haftdorn
	<i>6 Hippáris L. 23</i>	- - - -	Mare's tail	Pesse d'eau	Der schafthalm
174	Hirtélla W. 499	- - - -	- - - -	L'hirtelle	Der kräusler
860	Hólcus L. 2132	- - - -	Soft grass	Houque	Das dargras
74	Hólóstèum L. 220	- - - -	- - - -	Holosté	Spurle
72	Hórdeum L. 210	- - - -	Barley	L'orge	Die gerste
128	Hottónia L. 355	Water milfoil	Water-violet	L'hottonie aquatique	Die wasserviole
198	Hóya R. Br. 592	Asclépias			
202	Huérnia R. Br. 596	Stapelía			
834	Hùmulus L. 2074	- - - -	Hop	Houblon	Der hopfen
814	Húra L. 2035	- - - -	Sandbox tree	Le sablier	Der streubüchsenbaum
546	Hutchínsia R. Br. 1410	Cardámíne			
284	Hyacínthus L. 819	- - - -	Hyacinth	La jacinte	Die hyacinthe
482	Hyænánche H. K. 2097	- - - -	Hyæna poison		
1010	Hýdnum L. 2375	- - - -	- - - -	L'érinace	Der stachelschamm
490	Hýdrástis L. 1241	Yellow root	- - - -	Hydraste	
842	Hydrócharis L. 2089	- - - -	Frog-bit	Morene	Der froschbiss
208	Hydrocótyle L. 658	- - - -	Pennywort	Hydrocotyle	Der wassernabel
204	Hydrólea L. 601	- - - -	- - - -	Coutarde epineuse	Kleber
490	Hydropétis L. 1240	Brasénia			
132	Hydrophýllum L. 372	- - - -	Water-leaf	L'hydrophyllie	Das wasserblatt
346	Hymenæ'a L. 972	- - - -	Locust-tree	Le courbaril	Der heuschreckenbaum
886	Hymenophýllum Sm. 2203	- - - -	Filmy leaf		
898	Hymenostomum R. Brotm 2220	Gymnóstomum			
136	Hysocýamus L. 381	- - - -	Henbane	La jusquiame	Das bilsenkraut
676	Hýsöris L. 1645	- - - -	Swine's succory	Hyséride	Der schweinsalat
104	Hýpocöum L. 313	- - - -	- - - -	Le cumin cornu	Die lappenblume
350	Hyperanthera Vahl 980	Guilandina Moringa	Horseradish tree	Le ben oléifère	Der behenbaum
656	Hýpericum L. 1617	- - - -	St. John's wort	Le millepertuis	Das johanniskraut
914	Hýpnum L. 2251	- - - -	Feather moss	L'hypne	Das astmos
676	Hýpochæ'ris L. 1650	- - - -	Cat's ear	La porcelle	Das saukraut
254	Hýpóxis L. 750	- - - -	- - - -	L'hypoxis	Der hirling
486	Hýssöpus L. 1248	- - - -	Hyssop	Hysope	Der isop
546	Iðeris L. 1412	- - - -	Candy tuft	L'ibéride	Die iberpflanze

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
368	Gipsminner	- - -	- - -	Perekatipole <i>Russ.</i> Gipsurt <i>Dan.</i> Gipsört <i>Swed.</i>
248	Tulp van de Kaap der Goede Hoop	Emanto	Flor de la sangre	Flor do sangue <i>Port.</i>
350	Kampechehout	Legno di Campeggio	Palo de Campeche	Campecheiro <i>Port.</i> Campeschetree <i>Dan.</i> Campeschetrad <i>Swed.</i>
524	Afrikaansche kamperfolie			
104	Toverhazelaar			
188	Klimop	Edera	Hiedra	Hera <i>Port.</i> Bjcultu <i>Pers.</i> Bljustsch <i>Russ.</i> Bluszcz <i>Pol.</i>
630	Sierlyk haanekop Haanekammetjes	La sulla La cedrangola	Sulla Esparsita	Pipirigallo <i>Port.</i> Esparset <i>Dan. & Swed.</i>
730	Zonnebloem Aardpeeren	Girasole	Girasol	Soelblomster <i>Dan.</i> Podsolneschnik <i>Rus.</i>
580	Schroevenboom			
118	Zonnewende	Eliotropio	Heliotropio	Tornesol <i>Port.</i> Sakran <i>Egypt.</i>
488	Nieskruid	Elleboro	Eleboro	Heleboro <i>Port.</i> Nyseurt <i>Dan.</i> Prustrot <i>Swed.</i>
1014	Tolzwam	Pasta sciringa terrestre		
260	Dagschoon	Emerocale	Lirio-asfodelo	Hemerocallia <i>Port.</i> Bolschoi lädusch <i>Russ.</i>
878	Oorvaaren	- - -	Mularia	Hepatica nobre <i>Port.</i> Solotnikowa trawa <i>Russ.</i>
480	Leverkruid	Anemone fegatella	Anemone hepatica	
222	Heilkruid	Sfondilio	Esfondilio	Canabraz <i>Port.</i> Kulupär <i>Pers.</i> Putschki <i>Russ.</i>
772	- - -	- - -	- - -	Tooneenna <i>Otaheite.</i>
208	Duizendgrein	Erniaria	Milgranos	Herniaria <i>Port.</i> Sporyz trzeci <i>Pol.</i> Bridurt <i>Dan.</i>
548	Damast	Esperide	Hespero	Hesperina <i>Port.</i> Natfiol <i>Dan.</i> Natfiol <i>Swed.</i>
584	Hibiscus	Ibisco	Hibisco	Hibisco <i>Port.</i>
672	Havikskruid	Ieracla	Hieracio	Hieracio <i>Port.</i>
628	Hoefzyer	Ferro di cavallo	Hierba de la herredura	Ferradurina <i>Port.</i> Hesteskoe <i>Dan.</i> Hästsko <i>Swed.</i>
812	Manceniljeboom	- - -	Mancanila	
832	Duinbessen	- - -	Espino amarillo	Rakitnik <i>Russ.</i> Haftorn <i>Dan. & Swed.</i>
6	Kattestaart	Ippuride	- - -	Hesterumpe <i>Dan.</i> Hästsvans <i>Swed.</i>
860	Zorghzaad	- - -	- - -	Honninggræs <i>Dan.</i> Myskgräs <i>Swed.</i>
74	Heelbeen	Erba lucciuala	- - -	
72	Gerst	Orzo	Cebada	Cevada <i>Port.</i> Jetschmen <i>Russ.</i> Jeczmién <i>Pol.</i>
128	Waterviolier	- - -	- - -	Tisatschie Listnik <i>Russ.</i> Vandröllike <i>Dan.</i>
834	Hoppe	Lupolo	Hombrecillo	Lupulo <i>Port.</i> Hymel <i>Pers.</i> Chmel <i>Russ.</i> Chmiel <i>Pol.</i>
814	Ratelboom	- - -	- - -	Baruce <i>Indian.</i>
284	Hyacinth	Il giacinto	Jacinto	Jacintho <i>Port.</i> Hyacinth <i>Dan. & Swed.</i>
1010	Stekelzwamm	Stecherino	- - -	Braadvamp <i>Dan.</i> Gaddsvamp <i>Swed.</i>
842	Vorschenbeet	- - -	- - -	Liaguschnik <i>Russ.</i>
208	Waternavel	- - -	Sombrera de agua	
204	Waterolyf	- - -	- - -	Xiong fung <i>Chin.</i>
132	Waterblad	- - -	- - -	
346	Gom animé boom	- - -	- - -	Jataiba, itaiba <i>Brazil.</i>
136	Bilsenskruid	Giusquiamo	Beleño	Meimendro <i>Port.</i> Belena <i>Russ.</i> Bielun <i>Pol.</i> Bulme <i>Dan.</i>
676	Zwynenslaa	Trinciatella	- - -	
104	Lappenboom	- - -	Zadorija	
350	Kellerboom	- - -	- - -	Moringa <i>Port.</i>
656	St. Jans kruid	Pilatro	Corazoncillo	Melfurada <i>Port.</i> Sweroboi <i>Russ.</i>
914	Takmos	Ipno	Hipno	Hypno <i>Port.</i> Vægmosse <i>Dan.</i> Væggmos <i>Swed.</i>
676	Biggenkruid	- - -	Hierba del alcon	Kongpenne <i>Dan.</i> Véres lapu <i>Hung.</i>
496	Hysop	Isopo	Hisopo	Hyssopo <i>Port.</i> Esob <i>Heb.</i> Isop <i>Dan. & Swed.</i>
546	Bitter scheefbloem	- - -	Carraspique	

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146	<i>Ichnocarpus R. Br.</i> 414	<i>Apocynum</i>			
104	<i>Flex L.</i> 315	Hulver	Holly	Le houx	Die stechpalme
192	<i>Mlecebrum L.</i> 555	Whitloe wort	Knot-grass	Paronique	Das nagelkraut
478	<i>Illicium L.</i> 1215	- - - -	Aniseed tree	Le badian de la Chine	Der sternanis
184	<i>Impatiens Riv.</i> 538	Touch me not	Balsam	La balsamine	Der springsame
220	<i>Imperatoria L.</i> 662	- - - -	Masterwort	L'impératoire	Die meisterwurz
634	<i>Indigofera L.</i> 1589	- - - -	Indigo	L'indigotier	Die indigopflanze
854	<i>Inga Plu.</i> 2123	Mimosa			
362	<i>Inocarpus Forst.</i> 1024	- - - -	Otaheite chestnut	- - - -	- - - -
714	<i>Inula L.</i> 1744	- - - -	Elecampane	L'inule aunée	Der alant
188	<i>Ionidium Ven.</i> 541	<i>Viola</i>			
138	<i>Ipomoea L.</i> 383	- - - -	- - - -	Le quamoclit	Die trichterwinde
834	<i>Iresine L.</i> 2069	- - - -	- - - -	L'iresine	Die strausblume
44	<i>Iris L.</i> 115	- - - -	Flower de luce	L'iris	Die iris
552	<i>Isatis Bauh.</i> 1430	- - - -	Wood	Le pastel	Der färberwaid
760	<i>Isochilus R. Br.</i> 1903	<i>Epidendrum</i>			
894	<i>Isoetes L.</i> 2214	- - - -	Quillwort	L'isote des etangs	Der brachsemfarn
48	<i>Isoplepis R. Br.</i> 122	<i>Schœnus</i>			
80	<i>Isoptogon R. Br.</i> 230	<i>Prœtea</i>			
744	<i>Iva L.</i> 1841	Bastard Jesuit's bark tree	- - - -	Le faux quinquina	Der jesuitische rindenbaum
188	<i>Jasione L.</i> 547	- - - -	Sheep's scabious	La jasionne	Die jasionne
12	<i>Jasminum L.</i> 39	<i>Mogorium</i>	Jasmine	Le Jasmin	Der jasmin
812	<i>Jatropha L.</i> 2033	Barbadoes nut	Physic nut	Le medicinier	Die purgiernuss
298	<i>Jonèsia W.</i> 867	- - - -	Asoca tree	- - - -	- - - -
794	<i>Juglans L.</i> 1999	Hickory	Walnut	Le noyer	Die wallnuss
258	<i>Juncus L.</i> 760	- - - -	Rush	Jonc	Die binse
848	<i>Juniperus L.</i> 2113	- - - -	Juniper	Le génévrier	Der wachholderstrauch
18	<i>Justicia L.</i> 47	- - - -	Malabar nut	La carmentine	Die malabarische nuss
4	<i>Kæmpferia L.</i> 12	- - - -	Galangale	Zedoaire à feuilles obondes	Der grosse galgant
356	<i>Kalmia L.</i> 1011	- - - -	- - - -	- - - -	Der löffelbaum
618	<i>Kennedia Ven.</i> 1553	<i>Glycine</i>			
668	<i>Lactuca L.</i> 1628	- - - -	Lettuce	La laitue	Der salat
322	<i>Lagetta J.</i> 909	<i>Daphne</i>	Lace-bark tree	- - - -	- - - -
188	<i>Lagœcia L.</i> 548	- - - -	- - - -	Lagocie	Der wilde kümmel
54	<i>Lagurus L.</i> 153	- - - -	Hare's-tail grass	Lagure	Das sammetgras
502	<i>Lamium L.</i> 1259	Dead nettle	Archangel	Le lamier	Die taubnessel
518	<i>Lantana L.</i> 1312	- - - -	- - - -	Le camara	Der Surinamsche Thé
42	<i>Lapeyrouisia Ker</i> 103	<i>Ixia</i>			
678	<i>Lapsana L.</i> 1651	- - - -	Nipplewort	La lamsane commune	Der rainkohl
806	<i>Larix Sal.</i> 2014	<i>Pinus</i>	Larch	Le mélèze	Der larchenbaum
220	<i>Laserpitium L.</i> 669	- - - -	Laserwort	Le laser	Die laserpflanze
846	<i>Latania Com.</i> 2109	- - - -	Bourbon palm	- - - -	- - - -
524	<i>Lathraea L.</i> 1339	- - - -	Toothwort	La clandestine	Die schuppenwurz
620	<i>Lathyrus L.</i> 1558	Vetchling	Tare	La gesse	Die platterbse
332	<i>Laurus L.</i> 934	Bay tree	Laurel	Le laurier	Der lorbeerbaum
498	<i>Lavandula L.</i> 1251	- - - -	Lavender	La lavande	Der lavandel
584	<i>Lavatera L.</i> 1475	- - - -	Tree mallow	Lavatera	Der malvenbaum
316	<i>Lawsonia L.</i> 898	- - - -	Henna bush	L'henné	- - - -
358	<i>Ledum L.</i> 1012	- - - -	Wild rosemary	L'édier	Der porsch
772	<i>Lemna L.</i> 1939	- - - -	Duckweed	La lenticule	Die teichlinse
506	<i>Leonotis R. Br.</i> 1270	<i>Phlomis</i>	Lion's-tail	Queue de lion	Der löwenschwanz
286	<i>Leontice L.</i> 825	- - - -	Lion's leaf	La leontice	Das löwenblatt
670	<i>Leontodon L.</i> 1631	Piss-a-bed	Dandelion	Le pissenlit	Der löwenzahn
700	<i>Leontopodium R. Br.</i> 1723	<i>Gnaphalium</i>	Lion's-foot	- - - -	- - - -
506	<i>Leonurus L.</i> 1267	- - - -	Motherwort	L'agripaume	Das herzgespann
552	<i>Lepidium L.</i> 1428	- - - -	Pepperwort	La passeraie	Die kresse
	<i>L. sativum L.</i> sp. 9212	- - - -	Garden cress	Cresson alenois	Die gartenkresse
912	<i>Léskea Ehrh.</i> 2250	<i>Hypnum</i>			
626	<i>Lessertia Dec.</i> 1572	<i>Colutea</i>			
192	<i>Lestibudesia R. Br.</i> 561	<i>Celsia</i>			
830	<i>Leucadendron L.</i> 2053	<i>Prœtea</i>		L'arbre d'argent	Der silberbaum
506	<i>Leucas R. Br.</i> 1269	<i>Phlomis</i>			
912	<i>Leucodon Schwæ.</i> 2244	<i>Dicranum</i>			
248	<i>Leucopium L.</i> 733	- - - -	Snow-flake	Perce neige	Das weisse veichen
144	<i>Leucopogon R. Br.</i> 401	<i>Styphelia</i>			
80	<i>Leucospermum R. Br.</i> 232	<i>Prœtea</i>			
188	<i>Lightfootia Herit.</i> 546	<i>Campánula</i>			
220	<i>Ligusticum L.</i> 665	- - - -	Lovage	L'angelique à feuilles d'ache	Libstöckel
12	<i>Ligustrum L.</i> 36	Primprint	Privet	Troëne	Der liguster
264	<i>Lilium L.</i> 771	- - - -	Lily	Le lis	Die lilie
298	<i>Limeum L.</i> 871	- - - -	- - - -	Limeole	Der randknoten
356	<i>Limonia L.</i> 1003	- - - -	- - - -	Le limonellier	Limonelle
532	<i>Limosella L.</i> 1359	Bastard plantain	Mudwort	La limoselle	Das sumpfkraut
526	<i>Linaria Tou.</i> 1344	Antirrhinum	Toadflax	La linare	Das flackskraut
514	<i>Linnaea Gro.</i> 1292	- - - -	- - - -	- - - -	- - - -
232	<i>Linum Bauh.</i> 701	- - - -	Flax	Le lin	Der flachs
798	<i>Liquidambar L.</i> 2001	- - - -	Sweet gum	Le liquidambar	Der amberbaum
628	<i>Liquoritia Mönch.</i> 1575	<i>Glycyrrhiza</i>	Liquorice	La réglisse	Süssholz
478	<i>Liriodendron W.</i> 1216	- - - -	Tulip tree	Le tulipier	Der tulpenbaum
754	<i>Listera R. Br.</i> 1876	<i>Ophrys</i>			
120	<i>Lithospermum L.</i> 330	- - - -	Gromwell	Le gremlil	Der steinsame

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104	- - - -	Agrifoglio	Acebo	Azevinho <i>Port.</i> Waeoscheld <i>Russ.</i>
192	Schubbig hardkelk	- - - -	Nevadilla	- - - -
478	Steranys	Anice stellato	Anis de la China	Pa co huei hiam <i>Chin.</i> Stierneanis <i>Dan.</i>
184	Springzaad	Balsamina gialla	Balsama amarilla	Melindre naõ me toques <i>Port.</i> Springurt <i>Dan.</i>
220	Meesterwortel	Imperatoria	Imperatoria	Imperatoria <i>Port.</i> Mestaurt <i>Dan.</i> Mästererot <i>Swed.</i>
634	Indigo	Indaco	Indigo	Anleira <i>Port.</i> Houer <i>Arab.</i> Indigo <i>Dan.</i> & <i>Swed.</i>
362	- - - -	- - - -	- - - -	Hi <i>Otahette</i>
714	Gewoon alant	Enula	Enula campana	Dewjatschik <i>Russ.</i>
138	Trechterwinde	Ipomea	Ipomea	Ipomea <i>Port.</i>
44	Iris	Iride	Iris	- - - -
552	Verfweede	Guado	Pastel	Ljetnjak <i>Russ.</i> Sinilo <i>Pol.</i>
894	Priemkruid	- - - -	- - - -	Braksnagräs <i>Swed.</i>
188	Schaapskruid	- - - -	Jasione	Jasione <i>Port.</i> Monke <i>Swed.</i>
12	Jasmyñ	Il gelsomino	El jazmin	O jasmin <i>Port.</i> Jasmin <i>Arab.</i> Jasmin <i>Dan.</i> & <i>Swed.</i>
812	Purgeernooten	- - - -	Piñones de Indias	Pinhoes do Brasil <i>Port.</i> Munduy guacu <i>Brazil.</i>
794	Ockernootenboom	Il noce	Nogal	Cay Hach dao <i>Cochinch.</i> Grezkii orechi <i>Russ.</i>
258	Biezen	Giunco	Junco	Junco <i>Port.</i> Trostnik <i>Russ.</i> Sit <i>Pol.</i>
848	Geneverboom	Il ginepro	El enebro	Moschewelnik <i>Russ.</i>
18	Adhatoda	- - - -	- - - -	Wanaepala <i>Malab.</i> Adhatoda <i>Cey.</i>
4	Sinesche galanga	- - - -	- - - -	Katssula kelengu <i>Malab.</i> Thien lien <i>Cochinch.</i>
356	- - - -	- - - -	- - - -	Skedträäd <i>Swed.</i>
668	Salade	Lattuga	Lechuga	Alface <i>Port.</i> Handibe <i>Arab.</i> Laktuk <i>Russ.</i> Salata <i>Pol.</i>
188	Wilde komyñ	- - - -	- - - -	Cuminho bastardo <i>Port.</i>
54	Haazestaart	- - - -	- - - -	- - - -
502	Doove netel	Ortica morta	Ortiga muerta	Kargasina <i>Pers.</i> Rasnozvietnaja kopriwa <i>Russ.</i>
518	- - - -	- - - -	- - - -	Camara <i>Brazil.</i>
578	Akkermoes	Lampsana	Lampsana	Brzokiew polna <i>Pol.</i>
806	Lorchenboom	Larice	Alerce	Listweniza <i>Russ.</i> Lerketræe <i>Dan.</i>
220	Laserkruid	Laserpizio	Laserpicio	Laserpicio <i>Port.</i> Laserurt <i>Dan.</i> Laserört <i>Swed.</i>
524	Schubwortel	- - - -	La madrona	Dentaria bastarda <i>Port.</i> Petrow krest <i>Russ.</i>
620	Lathyrus	Latiro	Latiro	Latiro <i>Port.</i>
332	Laurierboom	Alloro	Laurel	Bobek drzevo <i>Pol.</i> Dafnä <i>Tart.</i>
498	Lavendel	Lavendola	Espiego	Alfazema <i>Port.</i> Lawendul <i>Russ.</i>
584	- - - -	- - - -	- - - -	Malvaiscaõ <i>Port.</i>
316	- - - -	- - - -	- - - -	Albenna <i>Arab.</i>
358	Wilde rosmaryñ	Ledo	Ledo	Bagunlik <i>Russ.</i> Rozmarin <i>Pol.</i> Vild rosmarin <i>Dan.</i>
772	Kroos	Lenticchia d'acqua	Lentejueala acuatica	Lentilha aquatica <i>Port.</i> Riäska <i>Russ.</i> Rzesa wodna <i>Pol.</i>
506	Leeuwestaart	- - - -	Aguavientos	- - - -
286	Leeuwenblad	- - - -	- - - -	- - - -
670	Paardbloem	Piscia in letto	Amargon	Molotschai trawa <i>Russ.</i> Papawa ziele <i>Pol.</i>
506	Hartgespan	Agripalma	Agripalma	Agripalma <i>Port.</i> Dikaja kropiwa <i>Russ.</i> Serdecznik <i>Pol.</i>
552	Peperkruid	Lepidio	Lepidio	- - - -
	Tuinkers	Crescione	Mastuerzo	Mastruço <i>Port.</i> Kres <i>Russ.</i> Nasturcyja <i>Pol.</i>
830	Zilverboom	- - - -	- - - -	- - - -
248	Tydeloos	Leucoio	Leucoio	Leucoio <i>Port.</i> Tözek viola <i>Hung.</i>
220	Lavaskruid	Ligustico	Ligustico	Ligustico <i>Port.</i> Loestilk <i>Dan.</i>
12	Liguster	Ligustro	Alheña	Alfena <i>Port.</i> Ibata <i>Jap.</i> Schost <i>Russ.</i> Ptasza zob <i>Pol.</i>
264	Lelie	Giglio	Azucena	Lilieja <i>Russ.</i> Lilia <i>Pol.</i>
356	- - - -	- - - -	- - - -	Cätusjeri-Narregam <i>Malab.</i> San peng lac <i>Chin.</i>
532	Slykertje	- - - -	- - - -	- - - -
526	- - - -	Linaria	Linaria	Linaria <i>Port.</i> Dikol len <i>Russ.</i>
514	- - - -	- - - -	- - - -	Marislegräs <i>Dan.</i> Vindgräs <i>Swed.</i>
232	Vlasch	Lino	Lino	Bad <i>Hebr.</i> Len <i>Russ.</i> & <i>Pol.</i> Hör <i>Dan.</i> Lin <i>Swed.</i>
798	Amberboom	- - - -	- - - -	Liquidambreiro <i>Port.</i> Xochiocotzo-quahuil <i>Mexico</i>
628	Zoethout	Regolizia	Regaliz	Lakrycyja <i>Pol.</i>
478	Tulpboom	- - - -	- - - -	Old wife's shirt <i>North Amer.</i>
120	Steenzaad	- - - -	Lithospermo	Aljofar <i>Port.</i> Worobiewa trawa <i>Russ.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
784	Littorëlla L.	1967	Grass-leaved plantain	Shore weed La littorelle	Der strändling
165	Lobëlia L.	464	- - - -	Cardinal's flower	Die kardinalsblume
70	Lòlium L.	207	- - - -	Darnel	Der jährige lolch
	L. perëne L. sp. 1245	- - - -	- - - -	Darnel	- - - -
84	Lomàtia R. Br.	245	Embòthrium	- - - -	- - - -
882	Lonchitis L.	2192	Aspidium	- - - -	Der buchtenfarn
170	Lonicëra R. & S.	475	- - - -	Honeysuckle	Das geisblatt
642	Lòtus L.	1601	- - - -	Bird's-foot trefoil	Der schotenklee
542	Lunària L.	1395	Moonwort	Honesty	Die mondviolen
640	Lupinàster Ph.	1599	Trifolium	Bastard lupine	Der sibirische lupinenklee
614	Lupinus Tou.	1544	- - - -	Lupine	Die lupine
258	Lùzula Dec.	761	Juncus	- - - -	- - - -
388	Lýchnis L.	1067	- - - -	Batchelors' buttons	Die lychnis
156	Lýcium L.	450	- - - -	Box-thorn	Wolfsdorn
1034	Lycopërdon Mr.	2443	Puff ball	- - - -	Der staubschwamm
892	Lycopodium L.	2212	Wolf's claw	Club moss	Kolbenmos
124	Lycòpsis L.	344	- - - -	Wild bugloss	Der krummhals
20	Lycòpus L.	55	- - - -	Water-horehound	Wolfsfuß
52	Lygëum L.	132	- - - -	- - - -	Das spartogras
886	Lygòdium Swz.	2206	- - - -	Snake's-tongue	- - - -
128	Lýsimachia L.	356	Willow herb	Loose-strife	Der gelbe weiderich
388	Lýthrum L.	1094	- - - -	Purple willow herb	Der braune weiderich
784	Maclòra Nut.	1969	Osage orange	- - - -	- - - -
478	Magnòlia L.	1217	- - - -	Evergreen laurel-leaved tulip tree	Der gurkenbaum
380	Malpìghia L.	1054	- - - -	Barbadoes cherry	Die malpighische pflanze
582	Málva L.	1472	- - - -	Mallow	Die malve
466	Mammia L.	1190	- - - -	Mam mee tree	Der mammybaum
154	Mandràgora Tou.	447	A'tropa	Mandrake	Der schlafapfel
180	Mangifera L.	513	- - - -	Mango tree	Der mangobaum
2	Marànta L.	130	Schœ'nus	Arrow root	- - - -
50	Mariscus Vahl	1365	- - - -	Horehound	Der weisse andorn
504	Marrubium L.	1267	- - - -	Stock	Das mutterkraut
538	Mathiola R. Br.	1381	Cheiránthus	Feverfew	Das virginische krolkraut
722	Matricària L.	1771	- - - -	- - - -	Das schneckenklee
290	Medèola L.	846	- - - -	- - - -	Die hopfluzerne
646	Medicògo L. M. lupulina L. sp. 10898	1605	Lucern	Medick Nonsuch	Der kajanputbaum Der geissfuß Der wachtelweizen
652	Melaleuca L.	1610	- - - -	- - - -	- - - -
740	Melampòdium L.	1828	- - - -	- - - -	- - - -
520	Melampýrum L.	1315	- - - -	Cow wheat	Der wachtelweizen
364	Melástoma L.	1029	- - - -	American goose-berry	Der beerenbaum
352	Mèlia L.	988	- - - -	Bread tree	Der zederach
514	Meliánthus L.	1293	- - - -	Honey-flower	Die honigblume
66	Mélica L.	193	- - - -	Melic grass	Das blaue perlgas
302	Melicòcea L.	884	- - - -	Honey berry	- - - -
640	Melilotus Tou.	1598	Trifolium	Melilot	Der gemeine steinklee
508	Melissa L.	1278	Calamint	Balm	Die melisse
510	Melittis L.	1280	Balm-leaved archangel	Bastard balm	Das melissenblatt
322	Memécylon L.	908	- - - -	- - - -	Der saffranbaum
844	Menispermum L.	2100	Wendländia	Moon seed	Der mondsame
500	Méntha L.	1254	- - - -	Mint	Die minze
130	Ményánthes L.	362	Marsh trefoil	Buck bean	Fiebersklee
316	Menzièsia Sm.	893	Erica	- - - -	- - - -
840	Mercuriàlis L.	2088	- - - -	Mercury	Das bingelkraut
430	Mesembryánthemum L.	1146	- - - -	Fig marigold	Die mittagsblume
424	Méspilus L.	1131	- - - -	Medlar	Der mispelbaum
216	Mèum Tou.	653	Æthusa	Bawd money	Der bärwurzel
480	Michèlia L.	1218	- - - -	- - - -	Der schampakbaum
72	Microchlòra R. Br.	211	Rottbòllia	- - - -	- - - -
196	Microblòra R. Br.	578	Ceròpegia	- - - -	- - - -
744	Micròpus L.	1839	- - - -	- - - -	Die falzblume
52	Milium L.	141	- - - -	Millet grass	Das milisgras
82	Mimètes R. Br.	233	Pròtea	- - - -	- - - -
854	Mimòsa L.	2124	Acàcia	- - - -	- - - -
528	Mimulus L.	1351	Bastard fox-glove	Monkey flower	Der gaukler
302	Mimusops L.	881	- - - -	- - - -	Die spitzenblume
118	Miràbilis L.	322	- - - -	Marvel of Peru	Die wunderblume
368	Mitèlla L.	1043	- - - -	- - - -	Die bischofsmütze
324	Mòehringia L.	920	- - - -	Mountain chickweed	Der bergmeyer
76	Mollùgo L.	225	- - - -	- - - -	Der weichling
506	Moluccèlla L.	1271	- - - -	Molucca balm	Die molukische melisse

TABLE OF SYNONYMES.

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Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
784	Oevergras	Litospermo		
166	Kardinaalsbloem	Fior cardinale	Escurripa	Cardealina <i>Port.</i>
70	Dolyk	Loglio	Joyo	Kukol <i>Russ.</i> Kakol <i>Pol.</i> Heyre <i>Dan.</i> Därrepe <i>Swed.</i> Renrepe <i>Swed.</i> Pschancez <i>Russ.</i>
170	Kamperfolie	Madreselva	Madreselva	Madresylva <i>Port.</i>
642	Rolklover	Il loto	El loto	O loteiro <i>Port.</i> Kierringtand <i>Dan.</i>
542	Maankruid	Lunaria	Lunaria	Lunaria <i>Port.</i> Maaneviol <i>Dan.</i> Maneflier <i>Swed.</i>
614	Vygeboon	Lupino	Altramuz	Tremoço <i>Port.</i> Temis <i>Arab.</i> Lupine <i>Dan.</i> Lupin <i>Swed.</i>
388	Lychnis	Licnide	Cruces de Jeru- salem	Cruz de Malta <i>Port.</i> Tatarskajo muilo <i>Russ.</i>
156	Boksdoorn	- - -	Espino africano	Licoperdo <i>Port.</i> Stövsvamp <i>Dan.</i> Klotsvamp <i>Swed.</i>
1034	Stuifzwamm	Licoperdo	Licoperdo	Licopodio <i>Port.</i> Ulvfoed <i>Dan.</i>
892	Wolfsklaauw	Licopodio	Licopodio	Liden oxetunge <i>Dan.</i> Aakerstik, Stikgras <i>Norw.</i>
124	Wolfschyn	- - -	- - -	Licopo <i>Port.</i> Vandmarru <i>Dan.</i> Vargföt <i>Swed.</i>
20	Wolfspoot	Licopo	Licopo	Esparto bastardo <i>Port.</i>
52	Nootgras	- - -	Albardin	
128	Weiderick	Lisimachia	Lisimaquia	Lysimachia <i>Port.</i> Werbuinik <i>Russ.</i>
398	Partyke	Salicaria	Salicaria	Salicaria <i>Port.</i> Plakun <i>Russ.</i> Sju <i>Jap.</i> Wrona <i>Bohem.</i>
478	- - -	- - -	- - -	Köbus <i>Jap.</i>
380	Barbados kersen			
582	Maluwe	Malva	Malva	Mamoeira <i>Port.</i>
466	Mammeboom	- - -	- - -	Koldunowa trawa <i>Russ.</i> Pokrzyk ziele <i>Pol.</i>
154	Appeldraagend doodkruid	Mandragola	Mandragora	Mangueira <i>Port.</i> Amb <i>Arab.</i> Can xu <i>Chin.</i> Po <i>Java.</i>
180	Mangasboom	- - -	- - -	
504	Gemeene malrove	Marrobio bianco	Marrubio blanco	Maroyo branco <i>Port.</i> Marrub ili schandra <i>Russ.</i>
722	Maartel	Matricaria	Matricaria	Maruna ziele <i>Pol.</i> Moderurt <i>Dan.</i>
646	Rupsklover Hoppige rupsklover	Medica	Mielga	Medicagem <i>Port.</i> Gunscha <i>Pers.</i> Snegleklever <i>Dan.</i>
652	Kajapoetie	- - -	- - -	Caju-kelan <i>Java.</i> Cay flam <i>Cochinch.</i>
520	Akkerig zwart- koom	Malampiro	Trigo de vaca	Trigo de vacca <i>Port.</i> Pwan <i>Russ.</i> Koehvede <i>Dan.</i>
364	Bessenboom	- - -	- - -	Skälle <i>Swed.</i>
352	Azedarach	Azedarac	El cinamomo	Fruta da Graíha <i>Port.</i> Muiva <i>Brazil.</i> Kadali <i>Malab.</i>
514	Honigbloem	- - -	Flor de miel	Amargoseira <i>Port.</i> Zænzalacht <i>Arab.</i> Jussura <i>Jap.</i>
66	Blaauwhavergras	- - -	- - -	Juki no fato <i>Jap.</i>
640	Melote	Meliloto	Meliloto	Blaacetoppet græs <i>Dan.</i> Blaabunke <i>Norw.</i> Blåslök <i>Swed.</i>
508	Melisse	Melissa	Melisa	Meliloto <i>Port.</i> Tschimaeu <i>Pers.</i> Gretscha dikaja <i>Russ.</i>
510	Melisschladig kruisbloem	- - -	- - -	Melissa <i>Port.</i> Melissa <i>Russ.</i> Melisa <i>Pol.</i>
322	Saffraanboom	- - -	- - -	Melissa bastarda <i>Port.</i> Vild hiertensryd <i>Dan.</i> Sjuvo <i>Jap.</i>
844	Gulpzaad	Menta	Menta	Walikaku <i>Cey.</i>
500	Munt	Meniante	Trifolio palustre	Miata <i>Russ.</i> Mietka <i>Pol.</i>
130	Driebladige ruig- bloem	- - -	- - -	Trilistnik <i>Russ.</i>
840	Bingelkruid	Mercorella	Mercurial	Mercurial <i>Port.</i> Proleska <i>Russ.</i>
430	Middagbloem	Ficoide	Ficoide	Ficoide <i>Port.</i> Ghasul <i>Arab.</i> Jisplante <i>Dan.</i> Isört <i>Swed.</i>
424	Mespelboom	Nespolo	Nispero	Nespereira <i>Port.</i> Aigil <i>Pers.</i> Tschiskis <i>Russ.</i> Niesplik <i>Pol.</i>
216	Beerwortel	Meu	Meu	Meon <i>Port.</i> Medwjeschei kören <i>Russ.</i> Olesnik <i>Pol.</i>
480	Sampaccaboom	- - -	- - -	Hapuphaha <i>Cey.</i> Hoa su nam <i>Cochinch.</i>
744	Kleinpoot	- - -	- - -	Leonpodio do reyno <i>Port.</i>
52	Hirsgras	Gramigna mig- liaria	Mijo esparcido	Mijo esparcido <i>Port.</i> Hirsegres <i>Dan.</i>
528	Potzer	Mimulo	Mimulo	Mimulo <i>Port.</i>
302	- - -	- - -	- - -	Elendi <i>Malab.</i> Munamal <i>Cey.</i> Kauki <i>Java.</i>
118	Wonderbloem	Fior di notte	Maravillas de noche	Maravilha do Peru <i>Port.</i> Hachal indi <i>Brazil.</i> Keso <i>Jap.</i>
368	Ruigbloem			
324	Mosachtig muur			
76	Zagtblad	Momordica	Momordica	Momordica <i>Port.</i> Ballesan <i>Arab.</i>
506	Molukje	- - -	- - -	

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
808	Momordica L. 2020	- - - -	Male balsam apple	Momordique	Der balsamapfel
20	Monarda L. 60	- - - -	Oswego tea	- - - -	- - - -
356	Monotropa L. 1008	Primrose-scented hypophitys	Yellow bird's-nest	Le sucepin	Der fichtensauge
76	Montia L. 224	Blinks	Chick weed	Montie	Die quellen-monti
174	Morinda L. 496	- - - -	Indian mulberry	Morinde	Der indianische maulbeerbaum
782	Morus L. 1959	- - - -	Mulberry	Le mûrier	Der maulbeerbaum
464	Muntingia L. 1184	- - - -	- - - -	Calabure soyeux	- - - -
244	Musa L. 721	- - - -	Plantain tree	Le bananier	Der pisang
284	Muscari Desf. 821	Hyacinthus	Grape hyacinth	Jacinte botride	Die traubenhacynth
552	Myagrum L. 1431	- - - -	Gold of pleasure	La caméiine	Der leindotter
64	Mygalurus Lk. 183	- - - -	Mouse-tail	- - - -	- - - -
362	Mylocaryum W.en. 1021	- - - -	Buckwheat tree	- - - -	- - - -
113	Myosotis L. 326	- - - -	Scorpion grass	Gremillet ou scor-pionne	Vergiss mein nicht
234	Myosurus L. 707	- - - -	Mouse-tail	Queue de souris	Das mäusechwänzen
830	Myrica L. 2055	- - - -	Candleberry-myrtle	Le cirier	Der wachsbaum
790	Myriophyllum L. 1987	- - - -	Water-milfoil	Le volant d'eau	Der federball
850	Myristica L. 2120	- - - -	Nutmeg	Le muscadier	Die muskatnuss
212	Myrrhis Mor. 630	- - - -	Myrrh	- - - -	- - - -
870	Myrsine L. 2160	- - - -	- - - -	Myrsine d'Afrique	Die afrikanische myrsine
416	Myrtus L. 1121	- - - -	Myrtle	Le myrthe	Die myrte
832	Nageia Gae. 2056	Myrica	- - - -	- - - -	- - - -
240	Narcissus L. 711	- - - -	- - - -	Narcisse	Die narcisse
52	Nardus L. 137	- - - -	Mat grass	Le nard serré	Das borstengras
280	Narthecium Mohr. 813	Anthéricum	Lancashire asphodel	Le brise-os	Der weinbrechgras
538	Nasturtium R. Br. 1383	Sisymbrium	Water-cress	Cresson de fontaine	Die brunnenkresse
182	Nauclea L. 521	- - - -	- - - -	- - - -	Der morgenstern
912	Neckera Hedw. 2247	Hypnum	- - - -	- - - -	- - - -
864	Negandium Dec. 2144	Acer	- - - -	L'erable à feuilles de frêne	Der aeschenahorn
476	Nelumbium J. 1213	Cyamus	Sacred bean	- - - -	- - - -
526	Nemesis Ven. 1346	Antirrhinum	- - - -	- - - -	- - - -
850	Nepenthes L. 2121	- - - -	Pitcher plant	Nepenthe	Der kannenträger
498	Nepeta L. 1249	Nep	Catmint	Chataire	Die nepte
786	Nepheleum W. 1971	- - - -	Rambutan	- - - -	- - - -
146	Nerium L. 411	Rose bay	Oleander	Le laurose	Der oleander
694	Neurolepis R. Br. 1710	- - - -	Halberd weed	- - - -	- - - -
136	Nicotiana L. 382	- - - -	Tobacco	Le tabac	Dez tabak
476	Nigella Tou. 1209	Devil in a bush	Fennel flower	La nielle	Der schwarzkümmel
396	Nitraria L. 1090	- - - -	Salt tree	Nitrée	Der salpeterstrauch
82	Nivenia R. Br. 235	Prætea	- - - -	- - - -	- - - -
880	Nothochlæna R. Br. 2177	Acróstichum	- - - -	- - - -	- - - -
540	Notoceras R. Br. 1385	Erysimum	- - - -	- - - -	- - - -
464	Nuphar Sm. 1176	Nymphaea	Yellow water lily	- - - -	- - - -
12	Nyctanthes L. 38	Jasminum	- - - -	L'arbre triste	Der traurige baum
462	Nymphaea Neck. 1174	Water rose	Water lily	Le nenuphar	Die seeblume
870	Nýssa L. 2161	- - - -	Tupelo	Le tupélo	Der tupelobaum
620	Ochrus Pers. 1559	Plum	- - - -	Ocre	Die ochtererbse
762	Ocotemeria R. Br. 1913	Dendrobium	- - - -	- - - -	- - - -
510	Ocymum L. 1281	- - - -	Basil	Basilic	Basilikum
212	Oenanthe L. 632	Wild parsley	Water dropwort	Oenanthe	Die rebendolde
318	Oenothera L. 901	Broad-leaved tree primrose	Evening primrose	L'onagre	Die nachtkerze
10	Olea L. 32	- - - -	Olive	L'olivier	Der oelbaum
122	Omphalodes Leh. 337	Cynoglossum	Venus's navelwort	- - - -	- - - -
758	Oncidium Swz. 1895	Epidendrum	- - - -	- - - -	- - - -
880	Oncoclea L. 2178	Osmunda	- - - -	L'orcanette sensible	Der fühlfarn
612	Ononis L. 1541	Cammock	Rest harrow	Bugrane	Die hauchchel
684	Onopordum L. 1666	Woolly thistle	Cotton thistle	Le chardon commun	Die zellblume
120	Onosma L. 332	- - - -	- - - -	L'orcanette jaune	Die ochsenzunge
888	Ophioglossum L. 2209	- - - -	Adder's tongue	Langue de serpent	Natterzünglein
272	Ophiopogon Ker. 790	- - - -	Snake's beard	- - - -	- - - -
144	Ophiorhiza L. 406	- - - -	Snake root	Racine de serpent	Die schlangenzwurzel
866	Ophioclyon L. 2152	- - - -	Snake-wood	Bois de couleuvre	Das schlangenhholz
72	Ophiurus Beauv. 212	Rottböhlia	Hard grass	- - - -	- - - -
752	Ophrys L. 1866	- - - -	Insect orchis	Ophrise	Die ophrys
750	Orchis L. 1859	- - - -	Dogstones	Orquis	Die orchis
506	Origanum L. 1274	- - - -	Marjoram	La marjolaine	Der majoran
760	Ornithidium Sal. 1902	Cymbidium	- - - -	- - - -	- - - -
276	Ornithogalum L. 802	- - - -	Star of Bethlehem	Ornithogale	Die vogelmilch
628	Ornithopus L. 1578	- - - -	Bird's foot	Pied d'oiseau	Der vogelfuss
26	Ornus Pers. 69	Fraxinus	Flowering ash	Le frêne à fleur	Die blühende esche
524	Orobancha L. 1335	Strangle-weed	Broom rape	Orobanche	Der erbsenwürger
618	Orobus Tou. 1557	- - - -	Bitter vetch	L'orobe	Die bergerbse
256	Orontium L. 756	- - - -	Floating arum	L'oronce	Die schwimmaron
54	Orthopogon R. Br. 147	Panicum	- - - -	- - - -	- - - -
288	Oryza L. 837	- - - -	Rice	Le ris	Der reiss
886	Osmunda L. 2205	- - - -	King fern	L'osmonde	Der traubenfarn
792	Ostrya Mx. 1995	Carpinus	Hop hornbeam	Charme à fruit de houblon	Der italienische hag-buche
828	Osyris Lam. 2051	- - - -	Poet's cassia	Le rouvet	Die poetenkasia

Page	Dutch	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
808	Balsemappel	- - -	- - -	
356	Europische bladloos	- - -	- - -	Lungört <i>Swed.</i>
76	Bronninnende montia	- - -	- - -	Mindste vand-arve <i>Dan.</i> Montü-ört <i>Swed.</i>
174	Braamboezenboom	- - -	- - -	Coda-pilava <i>Malab.</i> Maccondou <i>Java.</i> Baya <i>Macassar.</i>
782	Moerbezieboom	Moro	Moral	Tatai-iba <i>Brazil.</i> Tut <i>Pers.</i> Schelkowiza <i>Russ.</i>
464	Sjaftbloem	- - -	- - -	Mallam-toddali <i>Malab.</i>
244	Pisang	- - -	Bananas	Bananeira <i>Port.</i> Meiya <i>Otaheite.</i> Palla <i>Pers.</i> Bala <i>Malab.</i>
284	Druifhyacinth	Il giacinto	Jacinto	
552	Vlaschdotter	Miagro	Miagro	Miagro <i>Port.</i> Ryschik <i>Russ.</i> Krowia <i>Pol.</i> Hörrurt <i>Dan.</i>
118	Kruidig muizenoor	Orecchio di topo	Miosota	Myosota <i>Port.</i> Dukowka <i>Russ.</i> Forgjæt mig ej <i>Dan.</i>
234	Muizenstaartje	Corde di topo	Cola de raton	Cauda de rato <i>Port.</i> Myschei chwest <i>Russ.</i> Ogonki mysze <i>Pol.</i>
830	Waschboompje	- - -	- - -	Woskownik <i>Russ.</i> Pors <i>Dan.</i> <i>Norw. & Swed.</i>
790	Vederkruid	- - -	- - -	Vingeuert <i>Dan.</i> Fjäderört <i>Swed.</i>
850	Nooten moskaat	Noce moscada	Moscada	Moscadeira <i>Port.</i> Muskad <i>Dan.</i> Muskot-träd <i>Swed.</i>
416	Myrtus	Mirto	Mirto	Ankaenda <i>Cey.</i> Myrter <i>Dan.</i> Myrten <i>Swed.</i>
240	Narcis	Narciso	Narciso	Narcizo <i>Port.</i> Narcisse <i>Dan.</i> Narsiss <i>Swed.</i>
52	Borstelgras	Nardo	Nardo	Nardo <i>Port.</i> Belous <i>Russ.</i>
280	Beenbreekend	Anterico ossi-frago	Anterico ossi-frago	Anterico <i>Port.</i> Kosatki <i>Pol.</i> Beenbrud <i>Dan.</i> Ilagräset <i>Swed.</i>
538	Waterkers	Crescione	Berro	Agriaô <i>Port.</i> Wodanoia kress <i>Russ.</i> Rzezucha <i>Pol.</i>
182	Bankalboom	- - -	- - -	Katu-tsjacca <i>Malab.</i> Cay gao <i>Cochinch.</i>
850	Kanraager	- - -	- - -	Bandura <i>Cey.</i>
498	Kattekruid	Gattaria	Gatera	Kurka <i>Malab.</i> Koschitza mehta <i>Russ.</i>
146	Oleander	Oleandro	Adelfa	Loendro <i>Port.</i> Tiflæ <i>Arab.</i> Oleander <i>Dan. & Swed.</i>
136	Tabak	Tabacco	Tabaco	Petume <i>Brazil.</i> Tamaka <i>Indian.</i> Tabac <i>Russ. & Pol. &c.</i>
476	Nigelle	Nigella	Arañuela	Nigella <i>Port.</i> Ozarnucha ziele <i>Pol.</i>
393	Salpeterstruik	- - -	- - -	Solutucha <i>Russ.</i> Diesengir <i>Kirgis.</i> Sugak <i>Turcoman.</i>
464	- - -	- - -	- - -	Neekblad <i>Swed.</i> Lekuta <i>Bohem.</i>
12	- - -	- - -	- - -	Arvore triste <i>Port.</i> Manja pumeram <i>Malab.</i>
462	Plompen	Nenufaro	Nenufar	Naufar <i>Egypt.</i> Wodanoi lelei <i>Russ.</i>
870	Amerikaansche waterboom	- - -	- - -	
620	Italische erwte	- - -	Tapizot	
510	Basilicum	Bassilico	Albahaca	Alfavaca <i>Port.</i> Rehan <i>Pers.</i> Wasilik <i>Russ.</i> Bazylika <i>Pol.</i>
212	Druivebloem	Enante	Enante	Enante <i>Port.</i> Vand-steenbrek <i>Dan.</i>
318	Tweejaarige	- - -	- - -	Idegen Sarga Viola <i>Hung.</i>
10	Olyfboom	Ulivo	Olivo	Sejtun <i>Arab.</i> Oliva <i>Russ.</i> Olivnie drzewo <i>Pol.</i>
880	Gevoelig welkwaren	Ononide	Detiene-buey	Restaboy <i>Port.</i> Iglischnik <i>Russ.</i> Lisi ogon <i>Pol.</i>
612	Stalkruid	Onopordo	Onopordo	Onopordo <i>Port.</i> Tatarnik <i>Russ.</i> Oset poyloczny <i>Pol.</i>
654	Witte wegdistel	- - -	- - -	Baramei jazsik <i>Russ.</i> Tambü <i>Kirgis.</i> Targa atratzel <i>Hung.</i>
120	Ezelsreuk	- - -	- - -	Lingua de serpente <i>Port.</i> Slangetunge <i>Dan.</i> Läketunga <i>Swed.</i>
888	Adderstong	Lingua serpentina	Lengua de sierpe	
144	Slangenwortel	Radice di serpe	Raiz de serpiente	Hampaddu-tanah <i>Malay.</i>
566	Slangenhout	Legno di serpe	Leño serpentino	Raiz de mongo <i>Port.</i> Ekawerya <i>Cey.</i> Slangetræ <i>Dan.</i>
752	Tweeblad	Ofri	Ophris	Ofrío <i>Port.</i>
750	Standelkruid	Orchide	Orchis	
506	Mariolin	Maggiorana	Mejorana	Mardakusj <i>Arab.</i> Maeran <i>Russ.</i> Maieran <i>Pol.</i>
276	Vogelmelk	Ornitogalo	Ornitogalo	Ornitogale <i>Russ.</i>
628	Vogelpoot	Piede d'uccello	Serradilla	Pê de passaro <i>Port.</i> Fuglefod <i>Dan.</i> Fogelfot <i>Swed.</i>
26	- - -	- - -	- - -	Orneiro <i>Port.</i>
524	Leeuwstaart	Orobanchè	Orobancha	Zaraza <i>Pol.</i> Löverumpe <i>Dan.</i> Skierfrö <i>Swed.</i>
618	Erven	Orobo	Orobo	Museerter <i>Dan.</i>
256	Dryvend kalfsvoet	- - -	- - -	
288	Ryst	Riso	Arroz	Arroz <i>Port.</i> Dschjawat <i>Ind.</i> Ptscheno <i>Russ.</i> Ryz <i>Pol.</i>
886	Troswaren	Osmunda	Osmunda	
792	Italiaansche jukboom	Carpino nero	Carpe	Carpe <i>Port.</i> Asad <i>Pers.</i> Grab <i>Russ. & Pol.</i> Avenbög <i>Dan.</i>
828	Witte osyris	- - -	Retama blanca	Mamaku <i>Jap.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
384	1065	- - - -	Wood sorrel	Surelle	Der sauerklee
172	489	Gardènia	- - - -	- - - -	- - - -
320	906	Vaccinium	Cranberry	La canneberge	Die moosbeere
636	1593	Astragalus	- - - -	- - - -	- - - -
152	439	- - - -	- - - -	Danaïde fétide	Die knackbere
472	1202	- - - -	Pæony	La pivoine	Die pæonie
178	505	Rhâmnus	Christ's thorn	Le paliure	Der Christdorn
242	712	- - - -	Sea daffodil	Narcisse de mer	Die machtililie
820	2041	- - - -	Screw pine	Le baquois	- - - -
52	144	- - - -	Panic grass	Le panis	Das panikgras
460	1170	- - - -	Poppy	Le pavot	Der mohn
48	118	Fris	- - - -	- - - -	- - - -
862	2137	Wall-wort	Pellitory	La pariétaire	Das glaskraut
328	929	- - - -	True love	Pariset	Die einbere
350	976	- - - -	- - - -	Le genet epineux	Der stachlichte ginsterbaum
228	694	- - - -	Grass of Parnassus	Fleur du Parnassus	Das einblatt
744	1840	- - - -	Bastard feverfew	Parthene	Die meidblume
52	139	- - - -	- - - -	Le paspal	Das pfannengras
324	914	- - - -	Sparrow wort	La passerine	Der vogelkopf
564	1459	- - - -	Passion flower	La grenadille	Die passionsblume
222	671	- - - -	Parsnep	Parsnep	Die pastinake
328	923	- - - -	Supple Jack	Liane à persil	- - - -
100	290	Isdra	- - - -	- - - -	- - - -
524	1331	- - - -	- - - -	Pedale	Der ostindische fussangel
528	1349	- - - -	Lousewort	La pédiculaire	Das lausekraut
406	1104	- - - -	Slipper plant	- - - -	- - - -
396	1088	- - - -	Wild Syrian rue	Harmale	Die harmelstaude
568	1461	Geranium	Stork's bill	- - - -	- - - -
544	1403	- - - -	- - - -	Pellette alliaire	Das scheibenkraut
52	135	Panicum	- - - -	- - - -	- - - -
580	1468	- - - -	St. Helena red wood	- - - -	Der scharlachrothe flügelsame
384	1062	- - - -	American night-shade	- - - -	Die fünfspitze
514	1297	Chelone	- - - -	- - - -	- - - -
696	1719	Tanaœtum	- - - -	- - - -	- - - -
288	836	- - - -	Water purslane	Péplide	Die zipfelblume
716	1752	- - - -	- - - -	- - - -	Bürsten
198	590	- - - -	- - - -	Pergulaire	Der laubenstrauch
502	1255	- - - -	- - - -	Perille	Die Indianische melisse
194	574	- - - -	Virginian silk	Periploque	Schlingen
296	865	- - - -	Guinea henweed	- - - -	- - - -
694	1709	- - - -	White wood	- - - -	- - - -
544	1404	Draba	- - - -	- - - -	- - - -
80	229	Prœta	- - - -	- - - -	- - - -
222	670	Hog's fennel	Sulphurwort	Peucedane	Haarstrang
1016	2390	- - - -	Jew's ears	Oreille de Judas	Der beherschwamm
636	1592	- - - -	Bastard vetch	Phaque	Das knollenkraut
58	168	- - - -	Canary grass	Alpiste de Canaire	Kanariengras
1022	2409	- - - -	Morel	Morille	Die morchel
896	2217	- - - -	Beard moss	- - - -	Das bartmos
614	1547	French beans	Kidneybean	Haricot commun	Die gemeine bohne, or phaseole
214	636	- - - -	Water hemlock	La cicutaire des marais	Perdesaamen
414	1114	Mock orange	Syringa	Le seringat	Der pfeifenstrauch
192	553	Gomphrène	- - - -	- - - -	- - - -
58	165	Timothy grass	Cat's-tail grass	Fléole des pres	Das wiesen-lieschgras
506	1268	- - - -	Jerusalem sage	Phlomide	Die strauchartige phlomis
132	369	Bastard Lychnis	Lychnidea	Le phlox	Die flammenblume
828	2049	- - - -	Date palm	Le dattier	Der dattelbaum
286	823	- - - -	New Zealand flax	- - - -	- - - -
810	2027	- - - -	- - - -	- - - -	Die blätterblume
208	617	- - - -	Bastard hare's-ear	Phyllide	Die schöne phyllis
156	448	Alkekengi	Winter cherry	Coqueret	Die judenkirsche
168	465	- - - -	Rampion	La raponcule	Der rapunzel
390	1071	Mountain caloloe	Virginian poke	Morelle à grappes	Die scharlachbere
202	595	Stapèlia	- - - -	- - - -	- - - -
668	1626	Sónchus	- - - -	- - - -	- - - -
672	1634	Yellow succory	Ox tongue	Picride	Das bitterkraut,
782	1961	Urtica	- - - -	- - - -	- - - -
894	2215	Pepper grass	Pillwort	Pilolaire	Der pillenfar
212	635	Anise	Burnet saxifrage	Boucaue	Kleine bibernel
20	52	Yorkshire sanicle	Butterwort	Grassette	Das fettkraut
802	2012	- - - -	Pine or fir	Le pin	Die kiefer
28	77	- - - -	Pepper	Le piovrier	Der pfeffer
606	1524	- - - -	- - - -	Le boisvivant	Der fischfänger
832	2065	Turpentine tree	Pistachia tree	Le pistachier	Der pistazienbaum
620	1560	- - - -	Pea	Pois	Die erbsen
96	278	- - - -	Plantain	Plantain	Wegerich
798	2002	Button wood	Plane tree	Le platane	Der platanus
606	1525	- - - -	Flat pea	- - - -	- - - -
510	1282	O'cymum	- - - -	- - - -	- - - -

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
384	Klaverzuuring	Alleluia	Aleluya	Koganne gusa <i>Jap.</i> Saitschaitshawel <i>Russ.</i>
320	Veenbessen	Ossicocco	Vacernia lagunosa	Glukwa <i>Russ.</i> Tranbär <i>Swed.</i>
152	Stinkende knapbessen	- - -	- - -	Fakobokon, Feifuri kadsura, Kusa panja <i>Jap.</i>
472	Peonie	Peonia	Peonia	Peonia <i>Port.</i> Thuoc duoc <i>Cochinch.</i> Pionnaja rosa <i>Russ.</i>
178	Christdoorn	Paliuro	Paliuro	Taken-ägatch <i>Tart.</i>
242	Trosnarcis	Giglio marino	Amores mios	
820	- - -	- - -	- - -	Kaida <i>Malab.</i> Cay jua <i>Coch.</i> Kadi <i>Arab.</i>
52	Panik	Panico	Panizo	Proso <i>Russ.</i> & <i>Pol.</i> Panikgræs <i>Dan.</i>
460	Maankop	Papavero	Adormidera	Papoiia <i>Port.</i> Post <i>Ind.</i> Mak <i>Russ.</i> & <i>Pol.</i> Valmue <i>Dan.</i>
862	Glaskruid	Parietaria	Parietaria	Parietaria <i>Port.</i> Noc i dzien <i>Pol.</i>
328	Wolfsbezie	Uva di volpe	Ubas de zorro	Parisetta <i>Port.</i> Woronei glas <i>Russ.</i>
350	Doornbremboom			
228	Parnaskruid	Parnasia	Parnasia	Parnasia <i>Port.</i> Pereloi trawa <i>Russ.</i> Jednolist <i>Pol.</i>
744	Maagdebloem			
52	Raspgras			
324	Passerina		Mierdacruz	
564	Passiebloem	Granadiglia	Granadilla	Passionsblomster <i>Dan.</i> Passionsblomma <i>Swed.</i>
222	Pinsternakel	Pastinaca	Pastinaca	Pustarnak <i>Russ.</i> Pasternak <i>Pol.</i> Pastinak <i>Dan.</i>
328	Praatjes	- - -	- - -	Cururu-ape <i>Braz.</i> Kaka-toddaly <i>Mal.</i>
100	Scheelkoorn	- - -	- - -	Pavate <i>Cey.</i> Pavetra <i>Malab.</i> Ta sa <i>Chin.</i>
524	Oostindisch min-kyzer	- - -	- - -	Patiraja <i>Cey.</i> Kaki-mullu <i>Malab.</i>
528	Luiskruid	Pidocchiera	Gallarito	Piolheira <i>Port.</i> Luusurt <i>Dan.</i>
396	Harmel	Armora	Alharma	Harmala <i>Port.</i> Hornaia routa <i>Russ.</i>
544	Schfyzaad			
580	- - -	- - -	- - -	Sjasmin <i>Malab.</i>
384	Vyfpunt			
288	Kleine moerasmuur			
716	Patryskruid			Huo muon, Fi si than <i>Chin.</i>
198	Luifelbloem			Cottam <i>Malab.</i>
502	- - -	- - -	- - -	
194	Slingerplant			Sar modam <i>Tart.</i> & <i>Kalm.</i>
222	Haai-streng	Peucedano	Peucedano	Peucedano <i>Port.</i> Wolosjanka <i>Russ.</i> Wicprzyniec <i>Pol.</i>
1016	Judas-oor	Orecchio di Guida	Oreja de Judas	Orelha de Judas <i>Port.</i>
636	Bootpeul	Faca	Garvancilla	
58	Kanary	Falari	Alpiste	Arai <i>Jap.</i> Kanariegræs <i>Dan.</i> Kanariefrö <i>Swed.</i>
1022	Morilje	Spugnola	Murguras	Morilha <i>Port.</i> Smortschok <i>Russ.</i>
896	Baardmoos			
614	Turksche boonen	Fagiuolo	Fasoles	Feijað <i>Port.</i> Torok mame <i>Jap.</i> Bobü turezkie <i>Russ.</i>
214	Waterkervel	Felandro acuatitico	- - -	Fazoli <i>Pol.</i>
414	Welriekende philadelphus	Stringa bianca	Geringuilla	Kruszykamiem-ziele <i>Pol.</i> Stäkra <i>Swed.</i>
58	Weidig doddegras	- - -	- - -	Philadelpho <i>Port.</i> Tschubuschnik <i>Russ.</i> Hvit schersmin <i>Swed.</i>
506	Heesterig vitkruid	- - -	Aguavientos	Arjanézt <i>Russ.</i> Donhammergræs <i>Dan.</i>
132	Vlambloem			Wetrenaja sapja <i>Russ.</i>
828	Dadelboom	Palma dattilifera	Palma	Palmeira de igreja <i>Port.</i> Nachl <i>Arab.</i> Palma <i>Pol.</i>
810	Bladbloem			
208	Kanarische phyllis			
156	Blaaskruid	Alchechengi	Alcucuenjo	Miachounha <i>Russ.</i> Boborelka <i>Boh.</i>
168	Raponsje	Raperonzolo	Rapunculo	Rapunculo <i>Port.</i> Rapunzel <i>Dan.</i> & <i>Swed.</i>
390	Lakplant	Pianta lacca	Hierba carmin	Kalalio <i>Surinam.</i>
672	Bitterkruid	- - -	- - -	Libbëjn <i>Arab.</i>
894	Pillenkruid	Pilularia	Pilularia	Pilularia <i>Port.</i>
212	Kleine bevermel	Pimpinella sassafraga	Pimpinella blanca	Pimpinella branca <i>Port.</i> Bedrenez <i>Russ.</i>
20	Smeerblad	Pinguicola	Grassila	Grassetta <i>Port.</i> Vibefit <i>Dan.</i> Tetört <i>Swed.</i>
802	Pynboom	Il pino	El pino	Sosna <i>Russ.</i>
28	Peper	Pepe	Pimienta	Pimenteira <i>Port.</i> Pilpil <i>Pers.</i> Perez <i>Russ.</i>
606	Vischboom			
832	Pistacheboom	Pistacchio	Alfocigo	Alfostigo <i>Port.</i> Fistuk <i>Arab.</i>
620	Erwt	Piselli	Pesoles	Ervilhas <i>Port.</i> Wan <i>Jap.</i> Goroch <i>Russ.</i> Groch <i>Pol.</i>
96	Weegbree	Piantaggine	Llanten	Kamasch <i>Pers.</i> Uschik <i>Russ.</i> Babka <i>Pol.</i>
798	Platanus	Platano	Platano	Platano <i>Port.</i> Tschinar <i>Russ.</i> Tschandary <i>Georg.</i>

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758	Pleurothallis R. Br. 1894	Epidéndrum			
118	Plumbago L. 324	- - - -	Leadwort	Dentelaire	Bleywurz
148	Plumieria L. 415	- - - -	Red jasmine	Le franchipanier	Der rothe jasmin
66	Poa L. 196	- - - -	Meadow grass	Paturin	Viehgras
342	Podalyria Lam. 948	Sephora			
460	Podophyllum L. 1166	May apple	Duck's-foot	- - - -	Entenfuss
756	Pogonia R. Br. 1879	Arethusa			
908	Pohlia Hedw. 2239	Brum			
350	Poinciana L. 977	Casalpinia	- - - -	Poincillade	Der pfauenschwanz
132	Polemonium L. 370	Jacob's ladder	Greek valerian	La valériane grecque	Das speerkraut
254	Poliánthes L. 747	- - - -	Tuberose	La tubéreuse	Die tuberose
876	Polybotrya H. & B. 2168	Acrostichum			
74	Polycarpon L. 221	Linum	All-seed		
602	Polygala Tou. 1508	Rattlesnake root	Milkwort	Le polygale	Die kreuzblume
270	Polygónatum Desf. 789	Convallaria	Solomon's seal	Le sceau de Salomon	Die weisswurz
326	Polygonum L. 921	Redshanks	Persicaria	Le persicaire	Flöhkraut
878	Polypodium L. 2175	- - - -	Polypody	Le polypode	Der tüpfelfarren
56	Polypogon Desf. 154	Agrostis			
910	Polytrichum L. 2241	- - - -	Great golden maidenhair	La perce-mousse	Das haarmos
754	Ponthièva R. Br. 1872	Neottia			
840	Populus L. 2087	Abele tree	Poplar	Le peuplier	Die pappel
396	Portulaca L. 1091	- - - -	Purslane	Le pourpier	Der portulak
228	Portulacaria Jac. 692	Claytonia	Purslane tree		
106	Potamogeton L. 317	- - - -	Pond-weed	Le potamot	Das saamkraut
452	Potentilla L. 1153	- - - -	Cinquefoil	Quintefeuille	Das fünffingerkraut
790	Potèrium L. 1990	- - - -	Burnet	La pimprenelle	Die pimprenelle
88	Pòthos L. 252	- - - -	- - - -	- - - -	Anhängsel
512	Prasium L. 1288	- - - -	Hedge-nettle	- - - -	Die nesselstange
670	Prenanthes L. 1630	- - - -	Wall lettuce	Condrielle des murs	Die mauerprenanthe
126	Primula W. 350	- - - -	Primrose	La primevère	Die schlüsselblume
286	Prinos L. 828	- - - -	Winter berry	Apalanche	Die winterbeere
80	Pròtea L. 231	- - - -	- - - -	L'arbre d'argent	Der silberbaum
512	Prunella L. 1286	- - - -	Self-heal	Brunelle	Die prunelle
422	Prunus Tou. 1129	Cerasus	Plum	Prunier	Der pflaumenbaum
	P. Armeniaca	- - - -	Apricot	L'abricotier	Der aprikosenbaum
	P. Cerasus	- - - -	Cherry	Le cerisier	Der kirschbaum
	P. Pádus	- - - -	Bird cherry	Le putier	Die traubenkirsche
416	Psidium L. 1181	- - - -	Guava	Le guyavier rouge	Der kujava-äpfel
638	Psoralea L. 1597	- - - -	- - - -	Trefle bitumineux	Der harzklee
100	Ptélea L. 298	- - - -	- - - -	- - - -	- - - -
882	Ptéris L. 2190	Female fern	Brake	Fougere femelle	Der saumfarren
122	Pulmonaria L. 338	Bugloss cowslip	Lungwort	La pulmonaire	Das lungenkraut
420	Punica W. 1127	- - - -	Pomegranate	Le grenadier	Der granathaum
722	Pyrethrum Sm. 1770	Matricaria	Feverfew	La matricaire officinale	Das mutterkraut
362	Pýrola L. 1022	- - - -	Winter-green	Pyrole	Das wintergrün
424	Pýrus L. 1133	- - - -	Pear	Le poirier	Der birnbaum
	P. Malus L. sp. 7090	- - - -	Apple	Pommier	Der äpfelbaum
354	Quassia W. 1002	- - - -	Quassi wood	Bois de quassie	Die quassie
794	Quercus L. 2000	- - - -	Oak	Le chêne	Die eiche
364	Quisqualis L. 1028	- - - -	- - - -	Le quisqualier	Der sonderling
132	Ramonda Mx. 374	Verbascum			
174	Randia L. 490	Gardenia			
486	Ranunculus Bauh. 1233	Buttercup	Crowfoot	Renoncule	Die ranunkel
556	Raphanus L. 1443	Charlock	Radish	Raifort	Der rettig
426	Raphiölèpis Lindl. 1136	- - - -	Indian hawthorn		
154	Rauwolfia L. 441	- - - -	- - - -	Le boislait	
398	Reseda L. 1102	- - - -	Mignonette	Le réséda	Die reseda
	R. Lutèola L. sp. 6658	Dyer's weed	- - - -	Gaude	Der wau
828	Réstito L. 2047	- - - -	Rope grass		
176	Rhamnus L. 503	- - - -	Buckthorn	Le nerprun	Der kreuzdorn
334	Rhèum L. 938	- - - -	Rhubarb	Rhubarbe	Rhabarber
318	Rhèxia L. 900	- - - -	Virginian soapwort	Quadrette	Die ankerblume
524	Rhinánthus L. 1340	Cock's comb	Yellow rattle	Cocrete des prés	Der hahnenkamm
414	Rhipsalis Gae. 1112	Cactus			
358	Rhododéndron L. 1014	- - - -	Dwarf rosebay	Le rosage	Alprosen
224	Rhús Tou. 681	- - - -	Sumach	Le sumach ordinaire	Der sumach
48	Rhynchospora Fahl	Schœnus			
190	Ribes L. 550	- - - -	Currant	Le groseiller commun	Die Johannisbeere
	R. Grossularia	- - - -	Gooseberry	Le groseiller épineux	Die stachelbeere
814	Ricinus L. 2034	- - - -	Palma-christi	Le ricin ordinaire	Der wunderbaum
626	Robinia L. 1568	- - - -	Locust tree	Acacie commun	Der acacienbaum
442	Rosa Tou. 1148	- - - -	Rose	Le rosier	Die rose
22	Rosmarinus L. 61	- - - -	Rosemary	Romarin	Der rosmarin
94	Rubia L. 267	- - - -	Madder	La garance	Die färberröthe
450	Rubus L. 1149	Blackberry	Bramble	La ronce	Der brombeerstrauch
	R. Idæus L. sp. 7524	- - - -	Raspberry	Framboisier	Der himbeerstrauch
992	Rumex L. 856	Sorrel	Dock	L'oseille	Der sauerampfer
846	Ruscus L. 2111	Knee holly	Butcher's broom	Le fragon piquant	Der mausdorn
354	Ruta Tou. 998	- - - -	Rue	La rue	Die raute
130	Sabbatia Adan. 367	Chironia			
74	Saccharum L. 215	- - - -	Sugar-cane	Cannamelle	Das zuckerrohr
106	Sagina L. 319	Chickweed breakstone	Pearlwort	Sagine	Der vierling

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
118	Loodkruid	Piombaggine	Veleza	Dentellaria <i>Port.</i> Liigtorneurt <i>Dan.</i> Blyrot <i>Swed.</i>
66	Beemdgras	Poa	Poa	Faaregras <i>Dan.</i> Gröe <i>Swed.</i>
460	Eendenpoot			
350	Paauwekuif	- - -	- - -	Tsietti-mandaru <i>Malab.</i> Hoa phung <i>Cochinch.</i>
132	Speerkruid	Polemonio	Valeriana griega	Valeriana grega <i>Port.</i> Grezkoe balderjan <i>Russ.</i>
254	Tuberoos	Tuberoso	Tuberosa	Hoa hue <i>Cochinch.</i> Tuberosa <i>Dan.</i> Tuberos <i>Swed.</i>
602	Kruisbloem	Poligala	Poligala	Fima fagi <i>Jap.</i> Iztod <i>Russ.</i> Wyczka konicza <i>Pol.</i>
270	Salomons zegel	Il ginocchietto	El sello de Salomon	O scello de Salomão <i>Port.</i> Kupena <i>Russ.</i>
326	Personkruid	Persicaria	Persicaria	Ramasch <i>Pers.</i> Potschednaja trawa <i>Russ.</i>
878	Boomvaren	Polipodio	Polipodio	Panna kalengo <i>Malab.</i> Osokor <i>Russ.</i> Paproc <i>Pol.</i>
910	Haairmos	Politrico	Politrico	Politrico <i>Port.</i> Kokuschnik lenn <i>Russ.</i> Jomfruehaar <i>Dan.</i>
840	Abeelboom	Pioppo	Alamo	Topol <i>Russ.</i> Topola <i>Pol.</i> Poppel <i>Dan.</i>
396	Porselein	Porcellana	Verdolaga	Beldroega <i>Port.</i> Cholsa <i>Pers.</i> Schruka <i>Russ.</i>
106	Fonteinkruid	Potamogeto	Potamogeto	Medwesche ucho <i>Russ.</i> Rdest wodny <i>Pol.</i>
452	Vyfvingerkruid	Cinquefoglio	Cinco en rama	Schabnik <i>Russ.</i>
790	Gewoone pimpernel	Pimpinella	Pimpinella	Pimpinella <i>Dan.</i> Pimpernela <i>Swed.</i>
88	Hangbast	- - -	- - -	Potha <i>Cey.</i> Ana-parua <i>Malab.</i> Cay ray leo <i>Cochinch.</i>
670	Muurig knikbloem	- - -	- - -	Vild latuk <i>Dan. & Norw.</i>
126	Slueltbloem	Primavera	Primula veris	Primavera <i>Port.</i> Bukwiza <i>Russ.</i>
80	Zilverboom			
512	Bruinelle	Brunella	Brunella	Prunella <i>Port.</i> Kago noso <i>Jap.</i> Gortanaja trawa <i>Russ.</i>
422	Pruimboom	Prugno	Ciruelo	Amexieira <i>Por.</i> Barkuk <i>Arab.</i> Sliwnik <i>Rus.</i> Sliwina <i>Pol.</i>
	Abrikoos	Albercocco	Albarico-queira	Kuriga <i>Russ.</i> Morela <i>Pol.</i>
	Kersenboom	Ciriegio	Cerezo	Wischnaja <i>Russ.</i> Wisnia <i>Pol.</i>
	Vogelkersen	Pado	Pado	Tocheremucha <i>Russ.</i>
416	Gojaves-appel	- - -	- - -	Xalxocotl <i>Mexico.</i> Malacca pela <i>Malab.</i>
638	- - -	- - -	Culeno	Culeno <i>Chili.</i>
882	Randvaren	Felce feminina	Helecho femenino	Feto femea <i>Port.</i> Warabi <i>Jap.</i> Wodianoi popoi <i>Cnik Russ.</i>
122	Longekruid	Polmonaria	Pulmonaria	Pulmonaria <i>Port.</i> Meduniza <i>Russ.</i> Plucnik <i>Pol.</i>
420	Granaatboom	Granato	Granado	Romeira <i>Port.</i> Rumman <i>Arab.</i> Granatnik <i>Russ.</i>
722	Maartel	Matricaria	Matricaria	Matricaria <i>Port.</i> Matoschnaja trawa <i>Russ.</i>
362	Wintergroen	Pirola	Pirola	Pirola <i>Port.</i> Gruscha dikaja <i>Russ.</i> Vintergrön <i>Dan.</i>
424	Peereboom	Il pero	El peral	Kummiti <i>Arab.</i> Gruscha <i>Russ.</i> Gruszka <i>Pol.</i>
	Appelboom	Melo	Manzano	Maceira <i>Port.</i> Iablon <i>Russ.</i> Tgiffah <i>Arab.</i>
354	Kwassiehout	Legno di quassia	Leño de quassia	Quassiatrae <i>Dan.</i> Quassiatråd <i>Swed.</i>
794	Eik	Quercia	Roble	Pélut <i>Pers.</i> Dub <i>Russ.</i> Dab <i>Pol.</i> Eeg <i>Dan.</i> Ek <i>Swed.</i>
364	Warstruik	- - -	- - -	Xi kiun ssu <i>Chin.</i> Cay tlun <i>Cochinch.</i>
486	Ranonkel	Ranuncolo	Ranunculo	Rainunculo <i>Port.</i> Lutik <i>Russ.</i> Ranunkel <i>Dan. & Swed.</i>
556	Tamme radys	Rafano	Rabano	Daikon <i>Jap.</i> Reddikke <i>Dan.</i> Rattika <i>Swed.</i>
398	Reseda	Reseda	Miñoneta	
	Wouw	Guadarella	Gualdu	Gauda <i>Port.</i> Vau <i>Dan.</i>
175	Wegedoorn	Ranno	Ramno	Escamboeiro <i>Port.</i> Getappel <i>Swed.</i>
334	Rhabarber	Rabarbaro	Ruibarbo	Ruibarbo <i>Port.</i> Rhewen <i>Russ.</i>
318	Ankerbloem			
524	Haanekam	Cresta di gallo	Cresta de gallo	Klopownik <i>Russ.</i> Hanekam <i>Dan.</i> Skallergräs <i>Swed.</i>
228	Roozelaar	- - -	- - -	Pjanischnik <i>Russ.</i> Schei <i>Tart.</i>
924	Sumak	Sommaco	Zumaque	Sumagre <i>Port.</i> Koschewno derewo <i>Russ.</i>
190	Aalbezie	Ribes rosso	Ribes rojo	Groselheira vermelha <i>Port.</i> Smorodina krasnaja <i>Russ.</i>
	Kruisbezie	Uva spina	Uva espina	Groselheira <i>Port.</i> Krischownik <i>Russ.</i>
814	Wonderboom	Ricino	Ricino	Nhambu guacu <i>Brazil.</i> Charua <i>Arab.</i>
626	Zoethoutboom	- - -	- - -	Acacia bastarda <i>Port.</i>
422	Roozeboom	Rosajo	Rosal	Roseira <i>Port.</i> Kim anh tu <i>Coch.</i> Rosa <i>Russ.</i> Roza <i>Pol.</i>
22	Rosmaryn	Rosmarino	Romero	Rosmarinho <i>Port.</i> Kilil <i>Arab.</i> Rosmarin <i>Dan. & Swed.</i>
94	Mee	Robbia	Granza	Mariona <i>Russ.</i> Marzana <i>Pol.</i>
450	Braam	Rovo	Zarza	Jaschewika <i>Russ.</i> Iezyny <i>Pol.</i>
	Braamboos	Rovo ideo	Zarza idea	Malinik <i>Russ.</i> Maliny <i>Pol.</i>
292	Veldzuuring	Acetosa	Acedera	Azedeira <i>Port.</i> Konnewoi schawel <i>Russ.</i>
846	Muisdoorn	Rusco	Brusco	Menschoi myschei tern <i>Russ.</i> Musetorne <i>Dan.</i>
354	Ruite	Ruta	Ruda	Schedab <i>Arab.</i> Ruta <i>Russ.</i> Rude <i>Dan.</i> Vinruta <i>Swed.</i>
74	Suikerriet	Cannamele	Caña de azucar	Cana de assucar <i>Port.</i> Viba <i>Brazil.</i>
106	Vetmuur	- - -	- - -	Takanostme <i>Jap.</i> Grasary <i>Norw.</i>

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
790	Pylkruid	Saetta	Sacta	Setta <i>Port.</i> Bossai <i>Jap.</i> Strelnaja <i>Russ.</i> Piilurt <i>Dan.</i>
778	Sagoeboom 6 Zoudkruid	Il sago Salicornia	El sagú Salicor	O sagúeiro <i>Port.</i> Todda-panna <i>Malab.</i> Sagutrae <i>Dan.</i> Salicornia <i>Port.</i> Chraasi <i>Arab.</i> Salturt <i>Dan.</i> Saltört <i>Swed.</i>
820	Wilg	Salcio	Sauce	Jeno ki <i>Jap.</i> Welta <i>Russ.</i> Piił <i>Dan.</i> Pihl <i>Swed.</i>
204	Loogkruid	Soda	Sosa	Solianka <i>Russ.</i> Salydyer <i>Dan.</i> Soudaört <i>Swed.</i>
22	Salie	Salvia	Salvia	Salva <i>Port.</i> Schalweja <i>Russ.</i> Szalwia <i>Pol.</i>
224	Vlierboom	Sambuco	Sauco	U chu yu <i>Chin.</i> Busina <i>Russ.</i> Bez <i>Pol.</i>
168	Strandpungen	- - -	- - -	Strandsamel <i>Dan.</i>
88	Sorbenkruid	Pimpinella mag- gione	Pimpinela de Italia	Pimpinela de Italia <i>Port.</i> Tschernogolowka <i>Russ.</i>
210	Sanikel	Sanicola	Sanicula	Sanicula <i>Port.</i> Zankiel <i>Pol.</i> Sanikel <i>Dan.</i>
102	Sandelboom	Sandalo	- - -	Sandalo <i>Port.</i> Cay huynh da <i>Coch.</i> Sandeltræ <i>Dan.</i>
694	Cypreskruid	Santolina	Santolina	Santolina <i>Port.</i>
328	Zeepeboom	- - -	- - -	Rarak <i>Java.</i> Cay bon hon <i>Cochinch.</i>
370	Zeepekruid	Saponaria	Jabonera	Saboeira maior ou ordinaria <i>Port.</i> Sabeurt <i>Dan.</i>
496	Keul	Santoreggia	Ajedrea	Segurelia <i>Port.</i> Tschabér <i>Russ.</i> Ozabr <i>Pol.</i> Saer <i>Dan.</i>
750	Bokskulletjes	Satyrio	Satyrio	Satyrio <i>Port.</i>
366	Steenbreek	Sassifragia	Saxifragia	Saxifraga <i>Port.</i> Steenbreek <i>Dan.</i>
90	Schurftkruid	Scabbiosa	Escabiosa	Escabiosa <i>Port.</i> Grudnaja trawa <i>Russ.</i>
208	Tuinkervel	Cerfoglio	Perifollo	Cerofollo <i>Port.</i> Kerwel <i>Russ.</i> Trzebula <i>Pol.</i> Körvel <i>Dan.</i>
482	Heilboom	- - -	Falso pimiento	Mulli <i>Peru.</i>
43	Biesgras	- - -	Escheno	Avnknippe <i>Dan.</i> Ag <i>Swed.</i>
278	Zeeajuin	Scilla	Escila	Alvarraá <i>Port.</i> Skille <i>Dan.</i>
48	Bies	Scirpo	Cirpo	Scirpo <i>Port.</i> Sitnik <i>Russ.</i> Kogleax <i>Dan.</i> Sif <i>Swed.</i>
366	Jaarlyks hardbloem	- - -	- - -	Skleran <i>Russ.</i> Knavel <i>Dan.</i> Tandgräs <i>Swed.</i> & <i>Norw.</i>
678	Varkensdistel	Scolimo	Cardillo	Escolimo <i>Port.</i>
96	Bezemkruid	- - -	Escobilla menuda	Vassorinha do Brasil <i>Port.</i> Tupeicava <i>Brazil.</i>
628	Scorpioenstaart	Scorpioide	Escorpiuro	Escorpioa <i>Port.</i>
666	Skorzoneere	Scorza nera	Escorzanera	Escorcioneira <i>Port.</i> Skorzonere <i>Dan.</i> Skorzonera <i>Swed.</i>
530	Skrofelkruid	Scrofolaria	Escrofularia	Escrofularia <i>Port.</i> Naryschnik <i>Russ.</i>
512	Helmkruid	Terzanaria	Terciaunaria	Tercianaria <i>Port.</i> Schischak trawa <i>Russ.</i> Feberurt <i>Dan.</i>
72	Rog	Segale	Centeno	Senteio <i>Port.</i> Rosch <i>Russ.</i> Rez <i>Pol.</i> Rug <i>Dan.</i> Rag <i>Swed.</i>
382	Huislook	Sedo bianco	Uvas de gato	Steenpyrd <i>Dan.</i> Helleknopp <i>Swed.</i>
220	Wilde eppe	- - -	Apio lechal	Vandmerke <i>Dan.</i> Finsk ingfära <i>Swed.</i> Jert <i>Lapl.</i>
406	Donderbaard	Semprevivo	Siempreviva	Sayaó curto <i>Port.</i> Tschesnok dikoi <i>Russ.</i>
704	Kruikskrud	Senecione	Hierba cana	Tasneirinha <i>Port.</i> Krestownik <i>Russ.</i>
754	Niesblad	Elleborina	Eleborina	Elleborinha <i>Port.</i> Huullabe <i>Dan.</i>
680	Zaagblad	Serratola	Serratula de los tintoreros	Serratula <i>Port.</i> Serp <i>Russ.</i> Jeleni trank <i>Pol.</i>
514	Vygboonen	Sesamo	Ajonjole	Gergelim <i>Port.</i> Kunschut <i>Pers.</i> Sesam <i>Dan.</i> & <i>Swed.</i>
214	Bergvenkel	Seseli	Seseli	Seseli <i>Port.</i> Seselurt <i>Dan.</i> Seselört <i>Swed.</i>
94	- - -	- - -	- - -	Blaameader <i>Norw.</i>
588	Hoornheemst	Abutilo	Abutilo	Abutilo <i>Port.</i>
498	Yzerkruid	- - -	- - -	- - -
150	Yzerboom	- - -	- - -	Svælgkrands <i>Dan.</i>
374	Veldkaars	- - -	- - -	Kabar <i>Arab.</i> Gortschiza <i>Russ.</i> Gorczyka <i>Pol.</i>
554	Mosterd	Senepa	Mostazo	Anomo da Allemanha <i>Port.</i>
216	Kruiderige stee- neppe	- - -	- - -	- - -
214	Watereppe Suikerwortel	Sio Sisaro	Berrera Chirivia tordesca	Rabaça maior ou des rios <i>Port.</i> Sokkerod <i>Dan.</i>
836	Steekende winde	Smilace	Esmilace	Salsaparilha <i>Port.</i>
216	Veldeppe	Macerone	Apio caballar	Olusatro <i>Port.</i>
156	Zwarté nagtschade	Solatro nero	Hierba mora	Herva moira <i>Port.</i> Enabeddib <i>Arab.</i>
	Appeltjes der liefde	Albergamo	Tomates	Tomatciro <i>Port.</i>
	Aardappelen	Tartufbianci	Batatas inglesas	Batata da terra <i>Port.</i>
123	Soutenelle	Verga d'oro	Vara de oro	Vara d'oïro <i>Port.</i> Senbli <i>Jap.</i> Solotoschnik <i>Russ.</i>
710	Goudroede	Sonco	Cerraja	Tschistotél <i>Russ.</i> Mleczne <i>Pol.</i> Svinetidseł <i>Dan.</i>
638	Haazenlatuw	- - -	- - -	- - -

Page	No. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
218	Spanánthe <i>Jac.</i>	659	Hydrocöyle		
40	Sparáxis <i>Ker.</i>	99	<i>I'xia</i>		
774	Spargánium <i>L.</i>	1946	- - - -	Bur reed	Le rubannier
610	Spártium <i>L.</i>	1537	- - - -	Broom	Le genêt
82	Spatálla <i>R. Br.</i>	237	Prötea		
390	Spérçula <i>L.</i>	1070	- - - -	Spurrey	Spergule
94	Spermacöe <i>L.</i>	270	- - - -	Button weed	
896	Sphágnum <i>L.</i>	2216	- - - -	Bog moss	Sphaigne
734	Sphenögýne <i>R. Br.</i>	1816	Arctötis		
134	Spigèlla <i>L.</i>	379	- - - -	Worm grass	
690	Spilánthes <i>L.</i>	1635	- - - -	- - - -	Abécédaire
834	Spinácia <i>L.</i>	2070	- - - -	Spinage	L'épinard
428	Spiráea <i>L.</i>	1141	Queen of the meadows	Meadow sweet, &c.	La reine des prés
906	Spláchnum <i>L.</i>	2231	- - - -	- - - -	Le splane
382	Spóndias <i>L.</i>	1059	- - - -	Hog plum	Le monbain
56	Sporóbulus <i>R. Br.</i>	159	Agróstis		
504	Stáchys <i>L.</i>	1263	- - - -	Hedge nettle	Stachyde
20	Stachytápheta <i>Vahl</i>	54	Verbèna	Bastard vervain	
226	Staphylèa <i>L.</i>	684	- - - -	Bladder nut	Staphilier
234	Státice <i>L.</i>	706	Thrift	Sea lavender	Statice
376	Stellária <i>L.</i>	1049	- - - -	Stitchwort	La stellaire
324	Stellèra <i>L.</i>	913	- - - -	- - - -	La bois caca
814	Stercúlia <i>L.</i>	2036	- - - -	- - - -	- - - -
828	Stilágo <i>L.</i>	2050	- - - -	Chinese laurel	- - - -
54	Stípa <i>L.</i>	150	- - - -	Feather grass	Stipe
616	Stizolóbium <i>P. S.</i>	1551	Dólíchos	Cow-itch	Aloides
482	Stratiótes <i>L.</i>	2096	Water aloe	Water soldier	
270	Streptópús <i>Mx.</i>	786	Uvulária		
880	Struthiópezis <i>W.</i>	2179	Osmónda		
152	Strýchnos <i>L.</i>	437	Náx Vómica	- - - -	Noix vomique
362	Stýrax <i>L.</i>	1025	- - - -	Storax	Albousier
558	Subulária <i>L.</i>	1447	- - - -	Awlwort	Subulaire
626	Sutherlandia <i>H.K.</i>	1571	Colòtea		
352	Swiétónia <i>L.</i>	990	- - - -	Mahogany tree	Le mahagon
170	Symphória <i>Ph.</i>	476	Lonicèra	St. Peter's wort	
122	Sýmphytum <i>L.</i>	334	- - - -	Comfrey	La consoude
728	Synedrèlla <i>Gae.</i>	1791	Verbesina		
12	Sýringa <i>L.</i>	37	- - - -	Lilac	Lilas
880	Tæntis <i>Suz.</i>	2176	Pteris		
718	Tagètes <i>L.</i>	1760	- - - -	African and French marigolds	Oeillet d'Inde
562	Tamarinus <i>L.</i>	1449	- - - -	Tamarind tree	Le tamarinier
228	Támarix <i>L.</i>	685	- - - -	Tamarisk	Tamarisk
838	Támus <i>L.</i>	2082	- - - -	Black bryony	Le tamier
696	Tanacétum <i>L.</i>	1720	Costmary	Tansy	Tanaisie
694	Tarchonánthus <i>L.</i>	1706	- - - -	African fleabane	
848	Táxus <i>L.</i>	2114	- - - -	Yew tree	If
148	Téctona <i>L.</i>	421	Indian oak	Teak wood	
546	Teesdália <i>R. Br.</i>	1411	Ibèris		
228	Telèphium <i>L.</i>	689	Sèdum		
84	Telopèa <i>R. Br.</i>	244	- - - -	Waratah	
634	Tephrosia <i>Pers.</i>	1590	Galèga	Fish poison	
864	Terminália <i>L.</i>	2140	- - - -	- - - -	Le badamier de Malabar
898	Tétraphis <i>Hedw.</i>	2221	Grimmia		
494	Teucrium <i>L.</i>	1244	- - - -	Germander	Germadrée
484	Thalictrum <i>L.</i>	1229	Feathered columbine	Meadow rue	Rue des prés
214	Thápsia <i>L.</i>	643	- - - -	Deadly carrot	Tapsie
650	Theobróma <i>L.</i>	1607	- - - -	Chocolate nut	Le cacaoyer
342	Thermópsis <i>R. Br.</i>	944	Podalýria		
194	Thèsium <i>L.</i>	569	- - - -	Bastard toadflax	Thesium
546	Thlási <i>Dil.</i>	1408	Treacle-mustard	Shepherd's purse	Bourse de pasteur
806	Thúja <i>L.</i>	2018	Tree of life	Arbor-Vitæ	L'arbre de vie
508	Thýmus <i>L.</i>	1275	- - - -	Thyme	Le thym
562	Tigrídia <i>Jac.</i>	1452	- - - -	Tiger flower	
466	Tília <i>L.</i>	1186	Linden tree	Lime tree	Tilleul
886	Tòdea <i>W.</i>	2204	Osmónda		
222	Tordýhium <i>L.</i>	673	Hedge parsley	Hartwort	Le seseli de Crete
454	Tormentilla <i>L.</i>	1154	Tormentil	Septfoil	La tormentille
516	Tourèttia <i>Domb.</i>	1299	Dombèya		
168	Trachèlium <i>L.</i>	466	- - - -	Throatwort	Herbe aux trachèes
260	Tradescántia <i>L.</i>	765	- - - -	Spiderwort	Ephémérine
666	Tragopógon <i>L.</i>	1621	- - - -	Goat's beard	Sersif
104	Trápa <i>L.</i>	308	- - - -	Water caltrops	Macre flottante
1020	Tremèlla <i>L.</i>	2397	- - - -	- - - -	La tremelle
532	Trevirána <i>W. en.</i>	1362	Cyrilla		
354	Tribulus <i>Tow.</i>	966	- - - -	Caltrops	Tribule
122	Trichodésma <i>R. Br.</i>	341	Borágo		
56	Trichódium <i>Mz.</i>	157	Agróstis		
40	Trichonèma <i>Ker.</i>	96	<i>I'xia</i>		
50	Trichóporum <i>Pers.</i>	126	Erióporum		
808	Trichosánthes <i>L.</i>	2019	- - - -	Snake-gourd	Anguine à fruits longs
296	Trièntalis <i>L.</i>	862	- - - -	Winter-green	Trientale
640	Trifólium <i>Tou.</i>	1600	Clover	Trefoil	Trefle
290	Triglòchin <i>L.</i>	841	- - - -	Arrow grass	Triscart

Der igelsknospe
Die pfrieme
Der ackerspergel
Das torfmos
Der spinat
Die wiesenkönigen
Der schirmmos
Der monbinbaum
Die rossnessel
Die pimpermuss
Das seegras
Das augentrostgras
Die sperlingszunge
Der stinkbaum
Der salamanderbaum
Das pfriemengras
Die wasserfeder
Krähenaugen
Der storax
Wasserpfriemen
Der mahagonibaum
Der beinwell
Der syringa
Die sammetblume
Der tamarinendenbaum
Tamarisken
Schwarzwurzeln
Der rheinfaul
Der taxus
Der thekabaum
Bathengel
Die wiesenraute
Der kakaobaum
Das leinblatt
Die hirtentasche
Der baum des lebens
Der thimian
Die linde
Das drehkraut
Tormentil
Das halskraut
Der bocksbart
Die stachelnuss
Die gallerte
Burzeldorn
Der sinésische kürbis
Das sternblümchen
Der klee
Das salzgras

TABLE OF SYNONYMES.

1139

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
774 610	Egelknop Bezembrem	Sparganio Sparzio	Platanaria Retama de escobas	Pindsvünknoppe <i>Dan.</i> Trüggan <i>Swed.</i> Giesteira menor <i>Port.</i> Gyel <i>Dan.</i> Pingstblomma <i>Swed.</i>
390	Akker-spurrie	Spergola	Espergula	Toriza <i>Russ.</i> Knægræs <i>Dan.</i> Fryle <i>Swed.</i>
896	Veenmoss	- - -	- - -	Rödmus <i>Dan.</i> Rödmossa <i>Swed.</i>
834 428	Spinagie Reynette	Spinaci Ulmaria	Espináca Ulmaria	Espinafre <i>Port.</i> Spinasch <i>Russ.</i> Szpinak <i>Pol.</i> Spinat <i>Dan.</i> Medunischnik <i>Russ.</i>
906 382	Parasolmos Varkensprium	Splacno - - -	Splacno Hobo	Spacno <i>Port.</i> Skyggeknop <i>Dan.</i> Parasolmossa <i>Swed.</i> Acaja; Ibametara <i>Brazíl.</i> Oubou <i>Carib.</i>
504	Andoorn	Stachi	Estaquis	Ortiga morta dos bosques <i>Port.</i>
226 234	Pimpernoten Zeegras	Staffilodendro Statice	- - - Statice	Klekotschka <i>Russ.</i> Klokocina lesna krzak <i>Pol.</i> Strandblomster <i>Swed.</i>
376 324	Oogentroostgras Stinkboom	- - - - - -	- - - - - -	Ojentröst <i>Dan.</i> Perer <i>Swed.</i> Moujik-koréne <i>Russ.</i> Rudzik <i>Tangus.</i>
814 825 54	Salamanderboom Kwispeelgras	- - - - - -	- - - Esparto	Satriáo <i>Port.</i> Esparto <i>Port.</i> Kawil <i>Russ.</i> Fejér árva <i>Hung.</i>
482	Ruiterskruid	- - -	- - -	Mudores bolschoi <i>Rus.</i> Vandaloe <i>Dan.</i> Vattu-aloe <i>Swed.</i>
152 362 558	Braaknooten Styraxboom Elskruid	Noce vomica Storace - - -	Mataperros Estoraque - - -	Noz vomica <i>Port.</i> Caniram <i>Malab.</i> Bræknödd <i>Dan.</i> Storaque <i>Port.</i> Storax <i>Dan.</i> & <i>Swed.</i> Sylblad <i>Dan.</i> Frytilje <i>Norw.</i>
352	Nieuwblad-boom			
122 12	Smeerwortel Syring	Consolida Siringa	Consuelda major Lila	Consolda major <i>Port.</i> Solnoi koren <i>Russ.</i> Zywokost <i>Pol.</i> Lilaz <i>Port.</i> Serik <i>Russ.</i> Syreen <i>Swed.</i>
718	Afrikaan	Tagete	Clavel de muerto	Tagecia <i>Port.</i> Sammetsros <i>Swed.</i>
562 228 838 696	Tamarindenboom Tamarisch Vrouwenzegel Reinevanel	Tamarindo Tamarisco Brionia nera Tanaceto	Tamarindo Taray Tamo Tanaceto	Tammer bendi <i>Arab.</i> Tamarintræ <i>Dan.</i> Tamargueira <i>Port.</i> Atl <i>Arab.</i> Grebenschik <i>Russ.</i> Norça preta <i>Port.</i> Tanasia <i>Port.</i> Dikaja riabina <i>Russ.</i> Wrotecz <i>Pol.</i>
848 148	Taxisboom - - -	Tasso - - -	Tejo - - -	Teixo <i>Port.</i> Kja raboku <i>Jap.</i> Tis <i>Rus.</i> Cis <i>Pol.</i> Id <i>Sw.</i> Theka <i>Malab.</i> Cay sao <i>Cochinch.</i>
864	- - -	- - -	- - -	Adamam <i>Malab.</i>
494 484	Gamander Watterruit	Camedrio - - -	Germandrina - - -	Carvalhinba <i>Port.</i> Ozanka <i>Pol.</i> Zolotoucha <i>Russ.</i> Wrzodowiec <i>Pol.</i>
214 650	- - - Kakauboom	- - - Cacao	Zumillo Cacahual	Linossisty tési <i>Russ.</i> Hörbladet naalebæger <i>Dan.</i> Neko no sansin <i>Jap.</i> Jerschow glas <i>Russ.</i>
194 546 806 508 562 466	Vlaschblad Herders-taschjes Boom des levens Gemeene thym Linde	Borsa di pastore Albero di vita Teino - - - Tiglio	Bolsa de pastor Arbol de la vida Tomillo - - - Tilo	Arvore da vida <i>Port.</i> Livets træ <i>Dan.</i> Livets träd <i>Swed.</i> Tomilho <i>Port.</i> Fimiane <i>Russ.</i> Tym <i>Pol.</i> Timian <i>Dan.</i> Oceloxochitl <i>Mexico.</i> Uglamur <i>Arab.</i> Lipa <i>Russ., Pol., Bohem., Siber., &c.</i>
222 454	Gemeen krielzaad Tormentil	- - - Tormentilla	- - - Tormentilla	Seseli de Creta <i>Port.</i> Sabiasnoi koren <i>Russ.</i> Kurze ziele <i>Pol.</i>
168	Halskruid	- - -	Hermosilla	
666 104 1020	Boksbaard Waternooten Lilmos	Barba di becco Tribolo aquatico - - -	Barba cabruna Tribulo acuatico - - -	Barba de bode <i>Port.</i> Kozlowa boroda <i>Russ.</i> Tribulo aquatico <i>Port.</i> Panover-tsjerama <i>Malab.</i> Lévrehinde <i>Dan.</i> Skyfall <i>Swed.</i>
354	Voetangel	Tribolo terrestre	Tribulo terrestre	Tribulo <i>Port.</i> Kotewki <i>Pol.</i>
808	- - -	- - -	- - -	Tota-piri <i>Malab.</i> Kualoonin <i>Jap.</i> Muop saoc <i>Cochinch.</i>
296 640 290	Vintergrön Klaver Zoutgras	Trifoglio - - -	Trebol - - -	Trilistnik <i>Russ.</i> Konicz <i>Pol.</i> Trehage <i>Dan.</i> Sälting <i>Swed.</i> Saltgræs <i>Norw.</i>

Page	Nos. to Genera.	British or Systematic Synonymes.	English Names.	French.	German.
644	1603	- - - -	Fenugreek	Fenu-grec	Das bockshorn
66	191	<i>Festuca</i>	- - - -	- - - -	- - - -
170	478	- - - -	Feverwort	- - - -	- - - -
60	172	<i>Avèna</i>	- - - -	- - - -	- - - -
68	906	- - - -	Wheat	Le froment, le bled	Der weitzen
	1235	- - - -	Spelt	E peautre	- - - -
268	777	<i>Alètris</i>	- - - -	- - - -	- - - -
40	100	<i>P'xia</i>	- - - -	- - - -	- - - -
488	1934	- - - -	Globe flower	Trolle globuleux	Die kugelranunkel
302	875	- - - -	Indian cress	La capucine	Die kapuzinerblume
832	2063	- - - -	Ramoon tree	- - - -	- - - -
266	772	- - - -	Tulip	La tulipe	Die tulpe
540	1389	- - - -	Tower mustard	La tourette	Das thurnkraut
704	1737	Butter-bur	Colt's foot	Tussilage	Der huffattich
774	1945	Reed mace	Cat's tail	Massette	Die rohrkolbe
612	1540	Whin	Furze	Ajone	Der europäische stechgiinster
208	615	- - - -	Elm tree	L'orme	Die ulme
940	2308	- - - -	Laver	Ulve	Watt
778	1949	<i>Carex</i>	- - - -	- - - -	- - - -
64	186	- - - -	Seaside oat	- - - -	- - - -
244	722	<i>Ravenèla</i>	- - - -	- - - -	- - - -
282	818	<i>Zuccagnia</i>	- - - -	- - - -	- - - -
782	1962	- - - -	Nettle	L'ortie	Die brennessel
20	53	- - - -	Hooded milfoil	L'utriculaire	Der wasserschlauch
320	907	Bleaberry	Whortleberry	L'airelle	Der heidelbeere
34	78	- - - -	Valerian	La valériane	Der baldrian
556	1437	- - - -	Cress rocket	- - - -	- - - -
298	778	<i>Alètris</i>	- - - -	- - - -	- - - -
858	2128	- - - -	White hellebore	Hellébore	Die nieswurzel
132	375	High taper	Mullein	Bouillon-blanc	Das wollkraut
520	1322	Holy herb	Vervain	Vervene	Das eisenkraut
686	1680	<i>Serrátula</i>	- - - -	- - - -	- - - -
14	40	Fluellen	Speedwell	Véronique	Der ehrenpreis
544	1400	<i>Alýssum</i>	- - - -	Vesicaire	Die blasenlysse
132	371	<i>Periphragmos</i>	- - - -	- - - -	- - - -
294	679	- - - -	Wayfaring tree	Viome	Der schlingbaum
622	1561	Tare	Vetch	La vesce	Die futterwicke
130	363	<i>Menyanthes</i>	- - - -	- - - -	- - - -
344	957	- - - -	Rush broom	- - - -	- - - -
146	410	- - - -	Periwinkle	La pervenche	Das sinngrün
186	540	- - - -	Violet	Violette de mars	Das mairgveilchen
342	945	<i>Sophora</i>	- - - -	- - - -	- - - -
830	2054	- - - -	Misseltow	Le gui	Der mistel
520	1317	- - - -	Chaste tree	Gatilier	Der keuschbaum
174	501	- - - -	Vine	La vigne	Der weinstock
40	101	<i>Gladliolus</i>	- - - -	- - - -	- - - -
294	858	<i>Menispèrnum</i>	- - - -	- - - -	- - - -
886	2200	<i>Acróstichum</i>	- - - -	- - - -	- - - -
146	412	<i>Nèrium</i>	- - - -	- - - -	- - - -
786	1974	- - - -	Lesser burdock	Lampourde	Die spitzklette
236	709	- - - -	Yellow root	- - - -	- - - -
		<i>Herit.</i>	- - - -	- - - -	- - - -
834	2066	- - - -	Toothach tree	Le clavalier	Der zahnwehbaum
700	1729	- - - -	Everlasting	L'immortelle	Die strohlume
878	2173	<i>Grammitis</i>	- - - -	- - - -	- - - -
480	1224	<i>Anòna</i>	- - - -	- - - -	- - - -
268	781	- - - -	Adam's needle	Yuca	Die yukke
846	2108	- - - -	- - - -	- - - -	Die keulpalme
520	1319	<i>Verbèna</i>	- - - -	- - - -	- - - -
778	1950	Maize	Indian corn	Le maïs	Der mays
4	10	- - - -	Ginger	L'amome des Indes	Der ingwer
788	1979	- - - -	- - - -	- - - -	Seehafer
20	57	- - - -	- - - -	- - - -	Ziziifer
178	506	<i>Rhámnus</i>	- - - -	- - - -	Die brustbeere
630	1587	<i>Hedýsarum</i>	- - - -	- - - -	- - - -
908	2234	- - - -	- - - -	- - - -	- - - -
352	994	- - - -	Bean caper	Fabagelle	Bohnenkapern

Page	Dutch.	Italian.	Spanish.	Portuguese, Danish, Russian, Polish, South American, Oriental, or other Names.
644	Hoornklaver	Fienogreco	Alforva	Alforvas <i>Port.</i> Græskhøe <i>Dan.</i> Fenugrek <i>Swed.</i>
68	Tarw	Grano	Trigo	Ptscheniza <i>Russ.</i> Búza <i>Hun.</i> Budai <i>Tur.</i> Hveté <i>Swe.</i>
488	Drolbloem	- - -	- - -	Kupalniza <i>Russ.</i> Engblomme <i>Dan.</i> Bullerblomster <i>Swe.</i>
302	Spaansche kers	Fior cappucino	Capuchinas	Mastruço do Peru <i>Port.</i> Indiansk karse <i>Dan.</i>
266	Tulp	Tulipano	Tulipan	Tulipa <i>Port.</i> Lalé <i>Turk.</i> Tiulpan <i>Russ.</i> Tulipa <i>Dan.</i>
540	Turrekruid	- - -	- - -	Taarnspidse <i>Dan.</i> Rockentrat <i>Swed.</i> Hvasseknep <i>Norw.</i>
704	Hoefblad	Tossilaggine	Tusilago	Tossilagem <i>Port.</i> Dwoje listnik <i>Russ.</i>
774	Lischdodde	Tifa	Espadaña	Tabúa <i>Port.</i> Bo hoang <i>Cochinch.</i> Paloschnik <i>Russ.</i>
612	Heybrem	- - -	Alhaga	Tojo <i>Port.</i> Tornblad <i>Dan.</i>
208	Olm	Olmo	Olmo	Olmo <i>Port.</i> Kasagatsch <i>Turk.</i> Iilm <i>Russ.</i> Iilm <i>Pol.</i>
940	Watervlies	- - -	Ova	Morskoe salo <i>Russ.</i>
782	Brandenetel	Ortica	Ortiga	Ortiga <i>Port.</i> Pokrzywa <i>Pol.</i>
30	Neetekruid	- - -	- - -	Vandrölike <i>Dan.</i> Vassrölike <i>Norw.</i>
320	Blaauwbessen	Mirtillo	Mirtilo	Myrtillo <i>Port.</i> Tscherniza <i>Russ.</i> Borrowki czarne <i>Pol.</i>
34	Valeriaan	Valeriana	Valeriana	Valeriana <i>Port.</i> Fai so <i>Jap.</i> Balderjan <i>Russ.</i> Kozlki <i>Pol.</i>
858	Nieswortel	Elleboro bianco	Vevegambre blanco	Helleboro branco <i>Port.</i> Tschemeriza <i>Russ.</i> Hvit prustrot <i>Swed.</i>
132	Wollekruid	Tassobarbasso	Gordolobo	Verbasco branco <i>Port.</i> Zaarskii skipetr <i>Russ.</i>
520	Yzerhard	Verbena	Verbena	Verbena <i>Port.</i> Co roi ngua <i>Cochinch.</i> Scheelsnik <i>Russ.</i>
14	Eerenprys	Veronica	Veronica	Veronica <i>Port.</i> Weronika <i>Russ.</i> Ærenpriis <i>Dan.</i>
544	Blaazig tanddraad	- - -	- - -	- - -
224	Viorne	Viburno	Viburno	Germeshek <i>Turk.</i> Gordowina <i>Russ.</i> Hordewid <i>Pol.</i>
622	Tamme vitsen	Veccie	Alverjanas	Myschei goroch <i>Russ.</i> Wyka <i>Pol.</i>
146	Maagdepalm	Pervinca	Pervinca	Congossa <i>Port.</i> Barwinek <i>Pol.</i> Singrön <i>Dan.</i>
186	Tamme viool	Viola marzia	Violeta	Fachutschaja fialko <i>Russ.</i>
830	Marentakken	Vischio	Liga	Visgo <i>Port.</i> Oméla <i>Russ.</i> Jemiel <i>Pol.</i>
520	Kuischboom	Agnocasto	Sauzgatillo	Anhocasto <i>Port.</i> Dikoi perez <i>Russ.</i> Kydskhedstræe <i>Dan.</i>
174	Wyngaard	Vite	Vid	Ænæb <i>Arab.</i> Winograd <i>Russ.</i> Winna macica <i>Pol.</i>
786	Kleine klissen	Lappola minore	Lampazo pequeño	Bardana menor <i>Port.</i> Durkoman <i>Russ.</i>
700	Straalbloem	- - -	- - -	Perpetua larga <i>Port.</i> Souchotzwet <i>Russ.</i>
778	Mays	Gran turco	Maiz	Tlaoilli <i>Mexico.</i> Tyrkisk korn <i>Dan.</i>
4	Gember	Zenzero	Jenfibre	Zenjebel <i>Arab. fel.</i> Inbir <i>Russ.</i> Imbir <i>Pol.</i>
788	Wild koorin	- - -	- - -	- - -
178	Jobenboom	Giuggiolo	Azufaso	Maceira de anafega <i>Port.</i> Unap <i>Turk.</i> Frangulina <i>Russ.</i>
352	Haauwkappers	- - -	- - -	Stroutshkwatye kapërsy <i>Russ.</i>

GENERAL INDEX,

COMPREHENDING

THE SYSTEMATIC AND ENGLISH GENERIC NAMES, AND THE ENGLISH AND SYSTEMATIC SYNONYMES IN COMMON USE.

In this Index, the systematic names are distinguished as classical, i. e. names applied to plants by the ancients, by the first letter being in *Italic*, as *A'bies*; as commemorative, by the terminating letter or letters being in *Italic*, as *Banksia*; and as aboriginal, or of uncertain derivation, by the whole word being in *Italic*, as *Z'rua*. All the other names are formed, in almost every case, from the Greek, but sometimes from the Greek and Latin. Where *n.* is added after the name, it refers to the note.

Page of		No. of		Page of		No. of		Page of		No. of	
Lin. Nat.	Arr. Arr.	Spec. Gen.		Lin. Nat.	Arr. Arr.	Spec. Gen.		Lin. Nat.	Arr. Arr.	Spec. Gen.	
840		Abele-tree	13958 2087	1063		African lote		544	1057	<i>Alýssum</i>	1401
804	1084	<i>A'bies</i>	2013	718		African ma- rigold	12212 1760	786	1080	<i>AMARANTH'CEÆ,</i> Or. 154.	1975
650	1060	<i>Ab'oma</i>	1609	346	1069	<i>A'fzèlia</i>	971	786	1080	<i>Amarántus</i>	1975
118	1080	<i>Ab'ronia</i>	323	260		<i>Agapánthus</i>	767	252	1086	<i>AMARYLLIDÆÆ,</i> Or. 156.	
614	1066	<i>A'brus</i>	1546	986		<i>Agaric</i>	2365	832	1086	<i>Amarýllis</i>	739
856	1067	<i>Acácia</i>	2127	986	1092	<i>Agáricus</i>	2365	252	1086	<i>Ambròsia</i>	2062
814	1082	<i>Acálypha</i>	2038	804	1084	<i>A'gathis</i>	2011	788	1073	<i>Ambròsia</i>	1977
1097		<i>ACANTH'CEÆ,</i> Or. 117.		304	1081	<i>Agathophýllum</i>	1077	428	1067	<i>Ameláncier</i>	1138
516	1079	<i>Acánthus</i>	1301	182	1063	<i>Agathósma</i>	520	726	1074	<i>Améllus</i>	1783
686	1074	<i>Acárna</i>	1671	244	1087	<i>Agáve</i>	724	1083		<i>AMENTA'CEÆ,</i> Or. 142.	
864	1060	<i>A'cer</i>	2143	690	1073	<i>Agératum</i>	1687	864		<i>American almond</i>	2142
752	1085	<i>A'ceras</i>	1865	398	1067	<i>Agrimónia</i>	1101	244		<i>American aloe</i>	4094 724
1060		<i>ACERY'NEÆ,</i> Or. 33.		398		<i>Agrimony</i>	1101	128		<i>American cowslip</i>	352
584	1059	<i>Achània</i>	1479	388	1058	<i>Agrostémma</i>	1066	321		<i>American cran- berry, n.</i>	
726	1073	<i>Achillèa</i>	1781	56	1089	<i>Agrostis</i>	156	541		<i>American cross, n.</i>	
926	1091	<i>Achnánthes</i>	29259	1020	1092	<i>Agýrium</i>	2400	605		<i>American ebony, n.</i>	
58	1089	<i>Achnodónton</i>	166	866		<i>Ailántus</i>	2150	1061		<i>American gam- boge</i>	
150	1076	<i>A'chras</i>	427	55	1089	<i>Aira</i>	170	150		<i>American mar- malade, n.</i>	
190	1080	<i>Achyranthes</i>	552	160	1089	<i>Airópsis</i>	56	604	1067	<i>Amerinnum</i>	1520
744	1072	<i>Acicárpha</i>	1842	762		<i>Air plant</i>	1917	20	1079	<i>Amethýstea</i>	56
792	1083	<i>Acidóton</i>	1992	578	1093	<i>Ait'onia</i>	1462	792	1060	<i>Amir'la</i>	1991
1022	1092	<i>Acinula</i>	2407	494	1079	<i>A'juga</i>	1242	102	1068	<i>Ammánia</i>	302
364	1068	<i>Acisanthèra</i>	1031	302		<i>Akee-tree</i>	885	214	1071	<i>A'mmi</i>	639
728	1074	<i>Acmélla</i>	1793	468	1068	<i>Alángium</i>	1193	688	1073	<i>Amòbbium</i>	1681
834	1081	<i>Acnída</i>	2072	176		<i>Alatérnus</i>	2892 502	4	1085	<i>Amómum</i>	13
474		<i>Aconite, n.</i>		274	1086	<i>Albica</i>	797	614	1066	<i>Amórpha</i>	1545
474	1054	<i>Aconitum</i>	1205	88	1067	<i>Alchemilla</i>	255	176	1061	<i>Ampelópsis</i>	502
256	1069	<i>A'corus</i>	755	391		<i>Alcohol, n.</i>		690	1074	<i>Ampheréphis</i>	1691
1038	1093	<i>Acremónium</i>	2477	928	1091	<i>Alcyonidium</i>	2267	1036	1093	<i>Amphispórium</i>	2464
1020	1092	<i>Acrospermum</i>	2403	780	1083	<i>Alder</i>	1955	148	1077	<i>Ams'onia</i>	419
1040	1093	<i>Acrospermum</i>	2480	690		<i>Ale-cost, n.</i>		420	1067	<i>Amýgdalus</i>	1128
878	1090	<i>Acrostichum</i>	2169	970	1092	<i>Alect'oria</i>	2354	304	1064	<i>Amyris</i>	889
460	1055	<i>Actæ'a</i>	1164	268	1086	<i>Alètris</i>	776	204	1081	<i>Anabásis</i>	608
294	1087	<i>Actinocárcus</i>	860	812	1082	<i>Aleurites</i>	2028	396	1069	<i>Anacámpseros</i>	1093
230	1070	<i>Actinophýllum</i>	697	216		<i>Alexanders</i>	650	752	1085	<i>Anacámpsis</i>	1864
1032	1093	<i>Actinothýrium</i>	2435	846		<i>Alexandrian laurel</i>	14046 2111	334	1064	<i>Anacárdium</i>	935
214	1070	<i>Actinótus</i>	644	868		<i>Algaroba-bean, n.</i>		724	1073	<i>Anacýllis</i>	1777
508	1079	<i>A'cynos</i>	1276	205		<i>Alicant soda, n.</i>		128	1080	<i>Anagallis</i>	357
244		<i>Adam's apple, n.</i>		294	1087	<i>Alisma</i>	861	342	1066	<i>Anagyris</i>	1943
268		<i>Adam's needle</i>	781	146	1076	<i>Alis'ma'CEÆ,</i> Or. 166.		526	1078	<i>Anarrhînum</i>	1345
592	1059	<i>Adans'onia</i>	1471	882	1090	<i>Allantodia</i>	2187	548	1057	<i>Anastática</i>	1416
888		<i>Adder's-tongue</i>	2209	550	1057	<i>Alliaria</i>	1423	466		<i>Anchofy pear</i>	1188
850	1082	<i>Adèlia</i>	2118	480		<i>Alligator apple, n.</i>		120	1078	<i>Anchusa</i>	533
180	1067	<i>Adenándra</i>	518	334	1081	<i>Alligator pear</i>	5651 934	26	1067	<i>Ancistrum</i>	68
350	1063	<i>A denanthèra</i>	982	272	1086	<i>Allium</i>	796	140	1082	<i>Anders'onia</i>	398
2194	1090	<i>Adiantum</i>	884	880	1090	<i>Allosbrus</i>	2180	916	1091	<i>Andràcne</i>	2025
98	1072	<i>Adina</i>	286	74		<i>All-seed</i>	921	182		<i>Andræ'a</i>	2252
606	1056	<i>Adlámia</i>	1505	454	1061	<i>Allspice</i>	1157	390	1087	<i>Androcýmbium</i>	849
484	1054	<i>Adónis</i>	1230	418		<i>Allspice-tree</i>	6985	358	1075	<i>Andrómèdia</i>	1016
328	1070	<i>Adóxa</i>	930	490		<i>Almond</i>	1128	860	1089	<i>Androp'gon</i>	2159
1044	1093	<i>Æcidium</i>	2497	780	1083	<i>Alnus</i>	1955	126	1080	<i>Androsáccæ</i>	349
2154	1089	<i>Ægilops</i>	362	560	1086	<i>A'loe</i>	770	676	1073	<i>Andr'obala</i>	1642
96	1079	<i>Ægiphila</i>	974	234	1087	<i>Alons'oda</i>	1377	126	1087	<i>Anelèma</i>	89
468	1062	<i>Ægle</i>	1196	56	1089	<i>Alopecúrus</i>	164	486	1090	<i>Anémia</i>	2207
216	1070	<i>Ægopódium</i>	652	518	1079	<i>Alóysia</i>	1313	482	1054	<i>Aném'ne</i>	1256
764	1085	<i>Æcránthes</i>	1922	368		<i>Alpine-brook</i>	1041	218	1071	<i>Anèthum</i>	654
762	1085	<i>Aérides</i>	1917	4	1085	<i>Alpinia</i>	8	928	1071	<i>Angélica</i>	664
192	1080	<i>Æ'rua</i>	560	228	1059	<i>Alsène</i>	688	230		<i>Angélica-tree</i>	3859 686
630	1066	<i>Æschynómene</i>	1582	254	1086	<i>Alstrómèria</i>	748	534	1078	<i>Angl'onia</i>	1371
296	1060	<i>Æ'sculus</i>	866	192	1080	<i>Alternanthèra</i>	556				
552	1057	<i>Æthionèma</i>	1429	584	1059	<i>Althè'a</i>	1474				
218	1071	<i>Æthusa</i>	661								
864		<i>African almond</i>	2142								
694		<i>African fleabane</i>	1706								
260		<i>African lily</i>	767								

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
1062			Angostura-bark	392			Asarabacca	932	1091		Bångia
764	1085		<i>Angraecum</i>	392	1082		<i>A sarum</i>	380	1061		Banistèria
772	1069		Angria		1077		ASCLEPIA'DEAE, Or. 102.	86	1081		Banksia
59			Angus oat, <i>n.</i>	196	1077		Asclepias	872			Banyan tree
912	1091		Anictangium	1018	1092		Ascobolus	342	1066		Baptisia
244	1085		Anigozanthos	1036	1093		Ascophora	848			Barbadoes
60			Animal oat, 1054	658	1061		A'scyrum				cedar
212			Anise	868	1076		Ash-tree	380			Barbadoes cherry
478			Aniseed tree	480	1055		<i>Asimina</i>	414			Barbadoes
494	1079		Anisomèles	606	1066		Aspalathus				gooseberry
758	1083		Anisopetalum	282	1086		Asparagus	252			Barbadoes lily
480	1055		Anmōna	840			Aspen	540	1057		Barbara
	1055		<i>Annona'ceae</i> , Or. 4.	1040	1093		Aspergillus	286			Barberry
588	1059		Anōda	124	1078		Asperugo	205			Barilla, <i>n.</i>
42	1086		Anomathēca	94	1072		Asperula	516	1079		Barlèria
912	1091		Anomodon	280			Asphodel	72	1088		Barley
702	1073		Antennaria		1086		ASPHON'ELEE, Or. 160.	75			Barley sugar, <i>n.</i>
724	1073		A'nthemis	280	1086		Asphodelus	100			Barren-wort
280	1086		Antihéricum	8	1061		Aspicarpa	596	1068		Barringtonia
534	1078		Anthocercis	258	1089		Aspidistra	752	1085		Barthollina
922	1091		Anthoceros	884	1092		Aspidium	414	1069		Bartonia
44	1086		Antholyza	880	1090		Asplènium	908	1091		Bartramia
832	1072		Anthospermum	220	1070		Assa-fetida	524	1078		Bartsia
28	1089		Anthoxanthum	617			Asses' eyes, <i>n.</i>	180	1063		Barysma
208	1071		Anthriscus	700	1073		Astelia	228	1081		Baselia
612	1066		Anthyllis	706	1074		A'ster	400			Base-rocket
834	1093		Antidēsmā	1032	1093		Asterōma	510			Basil
526	1078		Antirrhinum	636	1061		Astragalus	822			Basket osier
882	1090		Antrophyum	298	1064		Astranthus	394	1076		Bassia
584			Antwerp holly- heck	222	1070		Astrantia	190			Bastard alkanet, <i>n.</i>
192	1080		Anychia	580	1060		Astrape'a	510			Bastard balm
344	1066		Aōtus	142			Astroloma	604			Bastard cabbage- tree
670	1073		Apargia	254			Atamasco lily	182			Bastard cedar
464	1060		Apicia	212	1071		Athamanta	650			Bastard cinna- mon
324	1080		Aphananthe	696	1073		Athanasia	332			Bastard here's-ear
518	1079		Aphelandra		1083		ATHEROSPE'RMEAE, Or. 139.	208			Bastard indigo
1091			APHYLLAE, Cl. 2.	700	1073		Athrixia	614			Bastard lupine
272	1086		Aphyllanthes	1024	1092		Atractobolus	2416			Bastard maunchieel
216	1070		A'pium	636	1074		Atracylis	1670			Bastard orpine
194	1076		APOCY'NEAE, Or. 101.	288	1081		Atraphaxis	810			Bastard quince
292	1090		Apocynum	862	1081		A'triplex	2138			Bastard toadflax
466			Apothecaries' boxes, <i>n.</i>	154	1078		A'tropa	446			Bastard vervain
180			Apple-berry	442			Attar, <i>n.</i>	194			Bastard vetch
426	1067		Apple-tree	544	1057		Aubergines	90			Bastard wood
422	1067		Apple-tree	784	1093		A'cuba	636			Bastard yew
476	1054		Aquilégia	828	1081		A'clax	2410	1092		Batárrea
540	1057		A'rabis	1062			AURANTIA'CEAE, Or. 45.	932	1091		Batrachospèrnum
614	1067		A'rachis	126			Auricula	120	1078		Batschia
230	1070		Aralia	58	1089		Avēna	470	1070		Bauhinia
	1070		ARALIA'CEAE, Or. 78.	454			Avens	346	1067		Bauhōny
846	1084		Araucaria	380	1061		A verrhda	216			Bawd money
806	1064		A'rbor Vitæ	520	1079		Avicennia	831			Bayberry-bush, <i>n.</i>
360	1075		A'rbutus	177			Avignon berries, <i>n.</i>	332	1081		Bay-tree
502			Archangel	558			Awlwort	352			Beach-tree
680	1074		A'retium	52	1089		Axonopus	425			Beam-tree, <i>n.</i>
872	1070		A'retopus	772	1081		Axÿris	622	1065		Bean
734	1073		Arctotheca		1072		Ayapana of Brazil	352			Bean-caper
740	1073		Arctotis	182	1060		Ayēnia	342			Bean-trefoil
152	1075		Ardisia	144	1075		Azalea	360			Bear-berry
152	1077		Arđuna	424			Azarole	414			Bear-bind
800	1088		Arēca	42	1086		Babōna	102			Bear's breech
378	1059		Arenaria	678	1074		Bacchia	518			Bear's-ear sanicle
754	1084		Arēthusa	702	1074		Baccharis	488			Bear's-foot
124	1080		Arētia	790	1088		Bactris	652	1068		Beaufortia
462	1056		Argemone	304	1068		Bæ'ckia	479			Beaver-tree, <i>n.</i>
967			Argol, <i>n.</i>	970	1092		Bæomyces	66	1089		Beckmännia
244	1085		Argolasia	176			Bahama red wood	92			Bed-straw
140	1077		Argyræia	884	1090		Balantium	792			Beech
44	1086		Aristea	504	1079		Ballota	206	1081		Beet
766	1082		Aristolobchia	508	1079		Balm	790	1081		Begonia
	1082		ARISTOLOCHIE, Or. 135.	508	1079		Balm	1081			BEGONIA'CEAE, Or. 128.
394	1064		Aristotelia		1064		Balm of Acouchi	394	1075		Bejaria
234	1080		Armēria	804			Balm of Gilead	802	1084		Bèlis
716	1074		A'rnicia				fir	252			Belladonna lily
666	1073		Arnopogon	184			Balsam	540			Belleisle cress
464	1058		Arnotta	808			Balsam apple	162			Bell-flower
	1089		AROIDÆE, Or. 176.	1061			BALSAMI'NEAE, Or. 41.	718	1074		Bèllis
290			Arrow-grass	696	1073		Balsamita	718	1074		Bèllium
790			Arrow-head	350	1065		Balsam of Capevi	468			Bengal quince
2	1085		Arrow-root	305	1064		Balsam of Mecca, <i>n.</i>	334			Benjamin-tree
1034	1093		Arsycyria	1065			Balsam of Peru	56			Bent-grass
480			Artabotrys	1064			Balsam of Tolu	363	1068		Benzoïn, <i>n.</i>
220	1071		Artedia	866			Balsam-tree	684	1074		Berardia
696	1073		Artemisia	738	1074		Baltimora	1035			Berberidea, Or. 6.
976	1092		Arthrosia	256			Bamboo-cane	286	1055		Berberis
280	1086		Arthropodium	256	1089		Bambusa	286			Berberis
684	1072		Artichoke	244			Banana-tree	732	1073		Berckhèya
770	1083		Artocarpus	793			Bandboxes, <i>n.</i>	848			Bermudas ce. dar
800	1089		A'rum	100			Bandhooka	544	1057		Berterda
74	1089		Arunđinaria	460			Bane-berry	534	1078		Besleria
60	1089		Arundo	1083			Bang				14050 2113 1398 1573

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.		
306	Besoms, <i>n.</i>	864	Box elder	2144	774	Bur reed	1946
206	1081 <i>Beta</i>	156	Box thorn	450	182	Bursaria	530
28	Betle-nic	780	Box-tree	1957	872	1064 Bursaria	2164
502	1079 <i>Betonica</i>	864	1081 Brabëjum	2142	344	1066 Burtônia	955
502	Betony	64	1089 Brachypodium	185	846	Butcher's broom	2111
708	1083 <i>Betula</i>	342	1066 Brachysesma	953	840	Butcher's trays <i>n.</i>	
692	1074 <i>Bidens</i>	202	1077 Brachystelma	597	606	1066 Butea	1522
514	1077 <i>Bignonia</i>	882	Brake	2190	1087	BUTOMÆÆ, Or. 165.	
1077	<i>BIGNONIACEÆ, Or. 104.</i>	450	Bramble	1149	336	1087 Bütomus	939
320	Biberry	350	Brasiletto	978	240	Butter and eggs	
180	Billardiëra	762	1085 Brassavola	1914			4035 711
140	Bindweed	756	1085 Brássia	1886	704	Butter bur	11891 1737
384	1061 Biophytum	552	1057 Brássica	1432	487	Buttercups, <i>n.</i>	
780	1083 Birch	540	1057 Bräya	1387	487	Butter-flower, <i>n.</i>	
830	Bird-lime, <i>n.</i>	300	1064 Brazil-wood, <i>n.</i>		758	Butterfly-plant	
160	Bird-pepper	770	1083 Bread fruit	1935			12212 1895
136	Bird's-eye	870	Bread root	2158	794	Butter nut	13377 1999
628	Bird's-foot	640	Bread-root	10756 1597	1076	Butter-tree	
642	Bird's-foot trefoil	144	1093 Brëxia	405	20	Butterwort	52
766	Birthwort	866	1082 Brigëlia	2148	182	1060 Buttneria	526
546	1057 Biscutëlla	705	British herb-tobacco, <i>n.</i>		354	Button flower	1001
638	1066 Bisërrula	66	1089 Briza	195	188	Button-tree	544
326	Bistort	218	Broad-seed	660	94	Button-weed	270
1067	Bitter almond	555	Broccoli		96	Button-wood	275
618	Bitter vetch	44	1086 Brodië'a	114	908	1091 Buxbaumia	2236
464	1058 <i>Bixa</i>	272		792	780	1082 Búxus	1957
1058	<i>BIZACEÆ, Or. 18.</i>	64	Brome-grass	184	930	1091 Byssolopodium	2273
372	Bizarres, <i>n.</i>	246	1087 Bromëlia	736	500	1079 Bystropogon	1255
964	Black ash, <i>n.</i>	1086	BROMELIACEÆ, Or. 162.		1059	BYTTNERIACEÆ, Or. 25	
838	Black bryony	64	1089 Brömus	184	393	Carbarett, <i>n.</i>	
648	Black nonesuch, <i>n.</i>	16	Brooklime	234 40	552	1057 Cabbage	1432
56	Black quitch, <i>n.</i>	168	Brookweed	471	800	Cabbage-tree	2009
194	Black saltwort	610	1064 Broom rape	1335	692	1074 Cactia	1701
476	Black snakeroot	870	1083 Brösimum	2158	1065	Cachou	
		184	1075 Brossë'a	534	224	1071 Cächrys	677
406	1064 Blackwëllia	746	1074 Brotëra	1852	1069	CA'cri, Or. 72.	
586	Bladder ketmia	760	1085 Broughtonia	1905	410	1069 Cactus	1111
		832	1083 Broussonëtia	2059	350	1067 Cädia	983
226	Bladder-nut	532	1078 Browälia	1360	690	1073 Cæstina	1688
626	Bladder senna	580	1067 Bröwnea	1464	350	1067 Cæsalpina	978
98	1075 Blä'ria	418	Brown gum-tree		280	1086 Cæsia	812
394	1068 Bläkea	832	1064 Brücea	2061	694	1074 Cæsulia	1712
260	1086 Blandfordia	134	1078 Brugmansia	377	1065	Cajan	
320	Bleaberry	184	1063 Brünia	533	1068	Cajeputi-oil	
880	1090 Blëchum	184	1063 BRUNIACEÆ, Or. 55.		652	Cajeputi-tree	10938 1610
518	1079 Blëchum	380	1081 Brunnichia	1052	548	1057 Calite	1417
736	Blessed thistle	534	1078 Brunfelsia	1375	524	Calabash-tree	1336
		250	1186 Brunsvigia	737	798	1089 Caladium	2005
762	1085 Blëtia	810	1069 Bryonia	2024	508	Calamint	1277
302	1060 <i>Blighia</i>	810	Bryony	2024	508	1079 Calamintha	1277
1041	Blight, <i>n.</i>	323	1070 Bryophyllum	928	256	1088 Calamus	753
8	1081 <i>Blitum</i>	940	1091 Bryopsis	2306	764	1085 Calánthe	1923
248	Blood-flower	908	1091 Brÿum	2240	2	1085 Calathæ	3
460	Blood-wort	651	1091 Brÿum	2240	202	Calathian violet	3368 600
734	Blue-bottle	214	1071 Bÿbon	640	18	1078 Calceolaria	51
320	Blue tangles	650	1060 Bubroma	1608	148	1079 Caldasia	422
320	Bluets <i>q.</i>	532	1078 Buchnera	1369	520		1324
592	Baobab, <i>n.</i>	364	1082 Bucida	1033	694	1074 Cälea	1907
392	1056 Boccônia	130	Buck bean	362	696	1076 Calëacte	1716
718	1074 Bœberia	546	Buckler mustard	1413	756	1084 Calëdna	1881
782	1083 Bœhmëria	168	Buck's-horn	2740 464	740	1074 Calëndula	1830
154	1075 Bœobötrÿs	176	Buckthorn	503	556	1057 Calëpina	1441
6	1080 Boerhaavia	326	1081 Buckwheat	5602 921	954	1092 Calico	2333
130	Bog bean, <i>n.</i>	362	Buckwheat-tree	1021	356	Calico-bush	5915 1011
48	Bog rush	98	1078 Büddlea	279	298	1089 Cälla	869
1008	1092 Boletus	642	Buffalo clover	10803 1600	96	1079 Callicarpa	272
722	1074 Boltônia	104	1059 Bufônia	311	398	1070 Callicoma	1099
1039	BOMBA'CEE, Or. 24.	494	Bugle	1242	406	1081 Calligonum	1106
592	1059 Bómbax	120	Bugloss	333	36	1087 Callisia	87
322	Bonace bark	476	Bugwort	1214	342	1066 Callistachys	— 852
249	Bonana bird's nest, <i>n.</i>	280	1086 Bulbine	807	8	1069 Callitriche	27
942	1091 Bonnemaisonia	936	1091 Bulbochæ'te	2293	1012	1092 Callicera	2380
524	1079 Bontia	270	1087 Bulbocodium	784	182	1063 Calodéndrum	528
124	Borage	1018	1092 Bulgária	2392	466	1061 Calophyllum	1189
1077	BORGNEÆ, Or. 108.	422	Bullace-tree	7046 1129	756	1084 Calopogon	1778
192	1078 Borago	176	Bull-grape	2863 501	242	1086 Calostëmma	815
836	1088 Borëssus	54	1089 Bull-rush	976 148	652	1068 Calothamnus	1612
606	1066 Borbônia	150	Bully-tree, <i>n.</i>		932	1091 Cálóthrix	2286
674	1073 Borkhadisia	204	1063 Bumälda	605	714	1074 Calötis	1742
302	1063 Borbônia	148	1076 Bumëlia	423	196	1077 Calötropis.	584
964	1102 Borëra	558	1057 Bünias	1444	490	1054 Cáltha	1239
826	1082 Borsca	212	1071 Bünium	631	354	Caltrops	996
206	1081 Bösca	728	1087 Buonapartea	723	1083	CALYCA'NTHEÆ, Or. 138.	
608	1066 Bossia'a	218	1070 Buphthalmum	1797	454	1083 Calycánthus	1157
838	Botany-bay tea	52	Bur	657	1072	CALYCE'REE, Or. 88.	
		162	1072 Burchëllia	914 134	1063	CALYCFLO'REÆ, Subc. 2.	
886	1090 Botrychium	680	Burdock	459	36	1080 Calymënia	81
1040	1093 Böttrÿs	804	Burgundy pitch, <i>n.</i>	1660	764	1085 Calÿpso	1929
846	Bourbon palm	790	Burnet		418	1068 Calÿptránthes	1122
152	1078 Bourrëria	212	Burnet saxifrage	635	140	1077 Calÿstëgia	387
98	1072 Bouvãrdia	210	Bur parsley	625	760	1085 Camaridium	1901
1084	1093 Bonista				550	1057 Camëlina	1425
466	Bowls, <i>n.</i>				592	1062 Camëllia	1476

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
142	1077		<i>Cobæ'a</i> 388	1072			Corn salad 133	1026	1092		<i>Cucurbitària</i> 2422
	1077		<i>Cobæ'dæcæ</i> , Or. 105.	52	1089		Cornucopiæ 306	900			<i>Cudbear</i> 15524 2340
778	1089		<i>Cobresia</i> 1948	102	1071		<i>Córnus</i> 306	332			<i>Culliban</i> 5647 934
100	1072		<i>Coccocypsilum</i> 293	520	1079		<i>Cornútia</i> 1318	732	1073		<i>Cullúmbia</i> 1809
326	1081		<i>Coccoloba</i> 922	1075			<i>COROLLIFLÓRA</i> , Subc. 3.	188 } 214 }			<i>Cumin</i> { 548 { 641
844	1055		<i>Cocculus</i> 2101	628	1066		<i>Coronilla</i> 1576	214	1071		<i>Cumnum</i> 641
412			<i>Cochineal fig</i> 6888 1111	550	1057		<i>Corónopus</i> 1427	20	1079		<i>Cynila</i> 58
546	1057		<i>Cochleària</i> 1407	302	1063		<i>Corræ'z</i> 880	366	1070		<i>Cynonia</i> 1038
192	1080		<i>Cock's-comb</i> 565	228	1089		<i>Corrigiola</i> 6'0				<i>CYNOSIDAÆA</i> , Or. 77
62			<i>Cook's-foot grass</i> 180	128	1080		<i>Cortusa</i> 351	398	1068		<i>Cypha</i> 1097
651			<i>Cocoa-nut, n.</i>	600	1056		<i>Corydalis</i> 1998	806	1084		<i>Cypræssus</i> 2017
788			<i>Cocoa-nut-tree</i>	792	1083		<i>Corylus</i> 2369	472	1055		<i>Curatella</i> 1201
428			<i>Cocoa plum</i> 1130	928	1091		<i>Corynæphora</i>	256	1086		<i>Curculigo</i> 751
788	1088		<i>Cocos</i> 1983	58	1089		<i>Corynæphorus</i> 762	6	1085		<i>Curcuma</i> 14
10	1067		<i>Codarium</i> 30	258	1088		<i>Corypha</i> 1803	190	1069		<i>Curran</i> 55'5
940	1091		<i>Codium</i> 2305	732	1074		<i>Cosmea</i> 831	100	1063		<i>Curtisia</i> 300
320			<i>Codlins and cream</i> 5477 903	286	1060		<i>Cossignia</i> 1718	104	1077		<i>Cuscuta</i> 310
354	1078		<i>Codon</i> 1000	696			<i>Costmary</i>	204	1077		<i>Cussubia</i> 607
758	1085		<i>Cælogyne</i> 1897	4	1085		<i>Còstus</i> 1139	480			<i>Custard apple</i> 1220
170	1072		<i>Caffæa</i> 479	428	1067		<i>Cotoneàster</i> 1481	286	1086		<i>Cyanella</i> 824
170	1072		<i>Caffæe-tree</i> 479	588			<i>Cotton</i> 1325	886	1090		<i>Cyathæa</i> 2201
332			<i>Cog-wood-tree</i> 5644 934	50			<i>Cotton grass</i> 1838	1084			<i>CYCA'DEÆ</i> , Or. 148.
778	1089		<i>Còix</i> 1951	742			<i>Cotton rose</i> 1636	846	1084		<i>Cycas</i> 2107
476	1055		<i>Colbértia</i> 1211	684			<i>Cotton thistle</i> 1775	128	1080		<i>Cyclamen</i> 354
292	1087		<i>Colchicum</i> 851	722	1073		<i>Cótula</i> 1060	342	1066		<i>Cydonia</i> 946
106	1078		<i>Colidénia</i> 316	382	1070		<i>Cotylèdon</i> 206	426	1067		<i>Cydonia</i> 1134
972	1092		<i>Collèma</i> 2358	70			<i>Couch grass</i> 1239 206	1042	1093		<i>Cylindropòrium</i> 2496
24	1079		<i>Collinsonia</i> 63	162	1072		<i>Coutarea</i> 461	6'8	1066		<i>Cyllista</i> 1554
844			<i>Colombo-root, n.</i>	616			<i>Cowage or cowitch</i> 1551	534	1078		<i>Cymbària</i> 1379
809	1068		<i>Coloquintida gourd, n.</i>	216			<i>Cowbane</i> 5519 907	756	1085		<i>Cymbidium</i> 1885
1068			<i>Colocinth resin</i>	302			<i>Cowdie pine</i> 13501 2011	196	1077		<i>Cynanchum</i> 581
864			<i>Colpoon</i> 2141	222			<i>Cow parsnep</i> 672	684	1074		<i>Cynara</i> 1668
226			<i>Colpoon-tree</i> 682	126	1080		<i>Cowslip</i> 2022 350	68	1089		<i>Cynodon</i> 203
704			<i>Colt's-foot</i> 1738	1076			<i>Cow tree of South America</i>	122	1078		<i>Cynoglossum</i> 336
476			<i>Columbine</i> 1208	520			<i>Cow wheat</i> 1315	348	1067		<i>Cynometra</i> 973
1055			<i>Columbo-root</i>	466			<i>Cradles, n.</i>	62	1089		<i>CYPERA'CEÆ</i> , Or. 175.
728	1073		<i>Columclia</i> 1785	556	1057		<i>Crámbe, n.</i> 1442	50	1089		<i>Cyperus</i> 127
532	1078		<i>Colúmbia</i> 1363	380			<i>Cranberry</i> 906	188	1075		<i>Cyphia</i> 545
456	1067		<i>Colúria</i> 1160	578			<i>Crane's bill</i> 1463	806			<i>Cypress</i> 2017
626	1066		<i>Colútea</i> 1537	230	1070		<i>Crássula</i> 699	800			<i>Cypress powder, n.</i>
452	1067		<i>Cómurum</i> 1152	424	1067		<i>Cratæ'gus</i> 1132	833			<i>Cypress turpentine, n.</i>
1068			<i>COMBRETÆ'CEÆ</i> , Or. 64.	396	1053		<i>Cratæ'va</i> 1086	766	1085		<i>Cyripedium</i> 1931
324	1068		<i>Combrætum</i> 916	1034	1093		<i>Cratèrium</i> 2446	184	1075		<i>Cyrilla</i> 536
122			<i>Comfrey</i> 334	674	1073		<i>Crèpis</i> 1638	258	1086		<i>Cyrtanthus</i> 736
36	1087		<i>Commellina</i> 88	524	1078		<i>Crèscéntia</i> 1336	758	1085		<i>Cyrtopodium</i> 1896
1087			<i>COMMELINÆA</i> , Or. 167.	552			<i>Cress</i> 9212 1428	600	1056		<i>Cysticæpnos</i> 1503
232	1060		<i>Commersonia</i> 703	556			<i>Cress rocket</i> 1437	946	1091		<i>Cystoscæra</i> 2329
626			<i>Common aca-cia</i> 10460 1118	1034	1093		<i>Cribrària</i> 2448	1030	1093		<i>Cytisòdra</i> 2429
36	1064		<i>Comoclàdia</i> 85	250	1086		<i>Crinum</i> 735	624	1066		<i>Cýstus</i> 156'5
1072			<i>COMPOSITÆ</i> , Or. 89.	588	1059		<i>Cristària</i> 1484	1020	1092		<i>Dacrymýces</i> 2399
772	1083		<i>Comptònia</i> 1941	212	1071		<i>Crithmum</i> 633	62	1089		<i>Dactylis</i> 180
254	1086		<i>Conanthera</i> 749	36	1085		<i>Crocus</i> 93	68	1089		<i>Dactyloctenium</i> 201
934	1091		<i>Confèrva</i> 2292	518	1079		<i>Crossandra</i> 1307	1006	1092		<i>Dædælea</i> 2371
1083			<i>CONFÈRÆ</i> , Or. 145.	94			<i>Crosswort</i> 271	196	1077		<i>Dæ'modia</i> 580
216	1071		<i>Conium</i> 649	608	1066		<i>Crotalària</i> 1530	242			<i>Daffodil</i> 4040 711
188	1068		<i>Conocostum</i> 544	812	1082		<i>Croton</i> 2032	718	1074		<i>Dahlia</i> 1758
906	1091		<i>Conogòstum</i> 2232	826			<i>Crowberry</i> 2045	364	1082		<i>Dais</i> 1032
88			<i>Contrajeriva root</i> 1527 257	354	1063		<i>Cròwea</i> 999	718			<i>Daisy</i> 1756
270	1086		<i>Convallària</i> 787	486	1054		<i>Crowfoot</i> 1233	604	1067		<i>Dalbérgia</i> 1513
1077			<i>CONVOLVULÆ'CEÆ</i> , Or. 117.	388			<i>Crown of the field, n.</i>	638	1066		<i>Dalea</i> 1596
140	1077		<i>Convólulus</i> 384	94	1072		<i>Crucianella</i> 271	814	1083		<i>Dalechàmpia</i> 2039
702	1073		<i>Conyza</i> 1734	1056			<i>CRUCIFÈRÆ</i> , Or. 12.	452	1067		<i>Dalibàrda</i> 1150
356	1062		<i>Co'kia</i> 1006	56	1089		<i>Crýpsis</i> 163	912	1091		<i>Daltonia</i> 2248
351			<i>Copaiba balsam, n.</i>	760	1085		<i>Cryptarrhena</i> 1909	294	1084		<i>Damasonium</i> 859
350	1067		<i>Copaifera</i> 986	874	1090		<i>CRYPTOGA'NIA</i> , Cl. 24.	802			<i>Dammar pine</i> 2011
1004	1092		<i>Coprinus</i> 2366	876	1090		<i>C. FULICES</i> , Or. 1.	168	1075		<i>Dampiera</i> 470
488	1239		<i>Còptis</i> 1238	890	1090		<i>C. EQUISETA'CEÆ</i> , Or. 2.	670			<i>Dandelion</i> 1631
222			<i>Coquaine parsnep, n.</i>	892	1090		<i>C. LYCOPODI'NEÆ</i> , Or. 3.	60	1089		<i>Danthonia</i> 173
756	1085		<i>Corallorrhiza</i> 1882	894	1090		<i>C. MARSILEÆCÆ</i> , Or. 4.	322	1082		<i>Daphne</i> 910
604	1064		<i>Coral tree</i> 1519	894	1091		<i>C. M'USCI</i> , Or. 5.	70			<i>Darnel</i> 207
466	1060		<i>Córchorus</i> 1187	9'8	1091		<i>C. HEPATICEÆ</i> , Or. 6.	828			<i>Date palm</i> 2049
150	1078		<i>Córdia</i> 428	924	1091		<i>C. ALGÆ</i> , Or. 7.	870			<i>Date plum</i> 2159
1078			<i>CORDAÆCÆ</i> , Or. 109.	948	1091		<i>C. LICHENES</i> , Or. 8.	844	1083		<i>Datisca</i> 2099
732	1074		<i>Coreòpsis</i> 1804	978	1092		<i>C. FUNGI</i> , Or. 9.	134	1078		<i>Datúra</i> 376
208			<i>Coriander</i> 618	1020	1092		<i>Cryptomýces</i> 2396	210	1071		<i>Daucus</i> 625
208	1071		<i>Coriàndrum</i> 618	88	1072		<i>Cryptospermum</i> 251	884	1090		<i>Davàllia</i> 2196
482	1063		<i>Coriària</i> 2091	1026	1092		<i>Cryptospha'ria</i> 2423	345	1066		<i>Daviesia</i> 966
1063			<i>CORIARIÆ'Æ</i> , Or. 50.	196	1077		<i>Cryptostégia</i> 575	210			<i>Day lily</i> 769
130	1080		<i>Coris</i> 360	734	1073		<i>Cryptostemma</i> 1814	264			<i>Deadly carrot</i> 643
8	1081		<i>Corsispèrnum</i> 26	480			<i>Cubèbs, n.</i>	154			<i>Deadly night-shade</i> 2479 446
794			<i>Cork-tree</i> 13395 2000	794			<i>Cuckold</i> 13373 1998	502			<i>Dead nettle</i> 1261
480			<i>Corkwood</i> 7925 1220	858			<i>Cuckold-tree</i> 14'87 2127	802			<i>Deal-wood, n.</i>
102			<i>Cornier, n.</i>	487			<i>Cuckoo buds of yellow hue, n.</i>	338			<i>DECA'NDRIA</i> , Cl. 10.
388			<i>Corn cockle</i> 6535 1066	542			<i>Cuckoo flower</i> 9026 1392	340			<i>D. MONOGY'NIA</i> , Or. 1.
102			<i>Cornelian cherry</i>	372	1059		<i>Cucubalus</i> 1047	364			<i>D. DIGY'NIA</i> , Or. 2.
42			<i>Corn flag</i> 105	808	1068		<i>Cucumber</i> 2022	372			<i>D. TRIGY'NIA</i> , Or. 3.
970	1092		<i>Corniculària</i> 2356	479			<i>Cucumber-tree, n.</i>	380			<i>D. PENTAGY'NIA</i> , Or. 4.
532			<i>Comish moneywort</i>	808	1069		<i>Cucumis</i> 2022	390			<i>D. DECAGY'NIA</i> , Or. 5.
			8887 1358	808	1069		<i>Cucùrbita</i> 2021	806			<i>Deciduous cypress</i> 13538 2015
				1068			<i>CUCURBITÆ'CEÆ</i> , Or. 66.				

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	
688	1073		<i>Eupatdrium</i>	1685	470	1071	<i>Fothergilla</i>	1200	1077		<i>GENTIA'ncea</i> , 103.	
400	1083		<i>Euphorbia</i>	1103	118		Four o'clock flower, <i>n.</i>		756	1085	<i>Geodorum</i>	
	1082		<i>EU-PHOR-BIA'ceae</i> , Or.	136.	530		Fox-glove	1355	604	1067	<i>Geoffroya</i>	
526	1078		<i>Euphrasia</i>	1342	174		Fox-grape	2860	1012	1092	<i>Geoglossum</i>	
1036	1083		<i>Eurythium</i>	2463	56		Fox-tail grass	164		1061	<i>GERANIA'CEAE</i> , Or. 38.	
394	1062		<i>Eurya</i>	1083	452	1067	<i>Fragaria</i>	1151	578	1061	<i>Geranium</i>	
464	1056		<i>Euryale</i>	1177	926	1091	<i>Fragillaria</i>	2261	528	1078	<i>Gerardia</i>	
242	1086		<i>Eurycloma</i>	714	288	1059	<i>Franklinia</i>	835	716	1074	<i>Gerardia</i>	
130	1077		<i>Eustoma</i>	365	1059		<i>FRANKENIA'ceae</i> , Or. 22.		494		<i>Germander</i>	
282	1086		<i>Eustrephus</i>	815	1064		Frankincense of Indian temples		124		<i>German madwort</i>	
344	1066		<i>Eutaxia</i>	961	786	1083	<i>Franzèra</i>	1973	1089		<i>German sarsaparilla</i>	
168	1075		<i>Euthales</i>	469	98	1077	<i>Fraxinea</i>	282	666	1073	<i>Geropogon</i>	
746	1074		<i>Euxenia</i>	1854	354		<i>Fraxinella</i>	997	512	1075	<i>Gesneria</i>	
40	1073		<i>Evax</i>	1724	868	1076	<i>Fraxinus</i>	2157	1075		<i>GESNERI'ceae</i> , Or. 93.	
40			Evening flower	98	177		French beans		254	1086	<i>Gethyllis</i>	
698			Everlasting	1722	632		French berries, <i>n.</i>		362	1068	<i>Getonia</i>	
966	1092		<i>Evornia</i>	2348			French honey-suckle	10592	454	1067	<i>Gëum</i>	
228	1077		<i>Evolvulus</i>	695	718		French mary-gold	19211	96	1079	<i>Ghinia</i>	
98	1077		<i>Evxacum</i>	280			French mushroom	15936	220		Giant fennel	
850	1083		<i>Exaccaria</i>	2117	998		French oak, <i>n.</i>		428	1067	<i>Gillenia</i>	
1020	1092		<i>Exidia</i>	2398			French sorrel		538	1057	Gillyflower	
786	1084		<i>Exocarpus</i>	1970				19211	4	1085	Ginger	
1042			<i>Exospidium</i>	2490	26		French violet of N. Holland		298		Gingerbread-tree	
162	1072		<i>Exostemma</i>	458	12		Fringe-tree	34			5073	
526			Eye-bright	1347	266	1087	<i>Fritillaria</i>	773	872	1070	<i>Ginseng</i>	
414	1068		<i>Fabricia</i>	1116	266		Fritillary	773	232		<i>Gisèkia</i>	
102	1063		<i>Fagàra</i>	303	842		Frogbit	2089	42	1086	<i>Gladolus</i>	
354	1062		<i>Fagônia</i>	995	870		Fruit of Jove, <i>n.</i>		6		Glasswort	
792	1003		<i>Fagus</i>	1997	60		Frumerly <i>n.</i>		424		Glastonbury-thorn	
991			Fairy rings, <i>n.</i>		12						7075	
204	1077		<i>Falkia</i>	602	266	1087	<i>Fritillaria</i>	773	460	1056	<i>Glaçium</i>	
258			Fan palm	762	266		Fritillary	773	194	1068	<i>Glaçus</i>	
542	1057		<i>Fanetia</i>	1397	842		Frogbit	2089	502	1079	<i>Gléchoma</i>	
54			Feather-grass	150	870		Fruit of Jove, <i>n.</i>		868	1067	<i>Gleditschia</i>	
26	1072		<i>Fedia</i>	72	60		Frumerly <i>n.</i>		406	1069	<i>Glinus</i>	
202			Felwort	599	320	1069	<i>Fúchia</i>	904	6	1085	<i>Globba</i>	
218			Fennel	326 654	946	1091	<i>Fúcus</i>	2328	194	1080	Globe amaranth	
476			Fennel flower	1209	602	1056	<i>Fumaria</i>	1507	488		Globe flower	
644			Fenugreek	1603	61	1056	<i>FUMARIA'CEAE</i> , Or. 11.		746		Globe thistle	
876	1090		Ferns		602		<i>Fumitory</i>	1507	90	1080	<i>Globularia</i>	
866	1062		<i>Ferônia</i>	2149	908	1091	<i>Funaria</i>	2237	1080		<i>GLOBULARINE</i> , Or. 120.	
562	1086		<i>Ferrària</i>	1451	978		Funguses		270	1087	<i>Gloriösa</i>	
220	1071		<i>Férulia</i>	668	946	1091	<i>Fungcellaria</i>	2327	752	1085	<i>Glossula</i>	
62			Fescue-grass	182	246	1087	<i>Furcra'a</i>	725	5	2	1075	<i>Gloxinia</i>
62	1089		<i>Festuca</i>	182	612	1064	Furze	1540	62	1089	<i>Glycèria</i>	
722			Feverfew	1770	864	1082	<i>Fusinus</i>	2141	618	1066	<i>Glycine</i>	
170			Feverwort	478	1042	1093	<i>Fusarium</i>	2489	628	1066	<i>Glycyrrhiza</i>	
484	1054		<i>Ficaria</i>	1232	1042	1093	<i>Fusidium</i>	2491	356	1062	<i>Glycösmis</i>	
	1069		<i>FICOIDEAE</i> , Or. 70.		782		Fustick-wood	13211	518	1079	<i>Gmelina</i>	
872	1083		<i>Ficus</i>	2167	356	1061	<i>Gærtnera</i>	1007	698	1073	<i>Gnaphalium</i>	
292			Fiddle	5009	276	1086	<i>Gæga</i>	801	324	1082	<i>Gnidia</i>	
522			Fiddle-wood	1329	618	1066	<i>Galactia</i>	1555	666		Goat's-beard	
94			Field madder	269	738	1074	<i>Galactites</i>	1820	384		Goat's-foot	
430			Fig marygold	1146	4	1085	Galangale	12	636		Goat's-horn	
872	1083		<i>Fig-tree</i>	2167	248	1056	<i>Galanthus</i>	732	634		Goat's rue	
530			<i>Figwort</i>	1356	732	1073	<i>Galardia</i>	1801	638		Goat's thorn	
742	1073		<i>Filago</i>	1838	130	1070	<i>Gälax</i>	361	532		Goat-weed	
792			Filbert	13370	562	1086	<i>Galaxia</i>	1453	487		Gold-cups, <i>n.</i>	
886			Filmy leaf	2203	1070		<i>Galbanum</i>		710		Golden rod	
48	1089		<i>Fimbristylis</i>	121	624	1066	<i>Galèga</i>	1591	206		Golden rod-tree	
52			Finger-grass	143	324	1081	<i>Galènia</i>	917	366		Golden saxifrage	
56			<i>Fiorin</i>	995	502	1079	<i>Galeabdolon</i>	1261	678		Golden thistle	
804			Fir	2013	502	1079	<i>Galeopsis</i>	1360	550		Gold of pleasure	
706			Fire-weed, <i>n.</i>		728	1074	<i>Galinsögea</i>	1792	694		Goldy locks	
793			Fishing-rods, <i>n.</i>		16	1063	<i>Galipça</i>	41	756	1085	<i>Gömèza</i>	
552			Fish-poison	9224	92	1072	<i>Gallium</i>	266	354	1063	<i>Gömphia</i>	
912	1091		<i>Fissidens</i>	2243	669		Gall of the earth, <i>n.</i>		196	1077	<i>Gomphocarpus</i>	
1008	1092		<i>Fistulina</i>	2374		1061	<i>Gamboe</i>		344	1066	<i>Gomphobdium</i>	
844	1058		<i>Floacörtia</i>	2101	394	1061	<i>Garcinia</i>	1079	194	1080	<i>Gomphrena</i>	
	1058		<i>FLACOURTIA'ncea</i> , Or. 23.		18		Garden-balsam	297	1006	1092	<i>Gomphus</i>	
290	1087		<i>Flagellaria</i>	839	61		Gardener's gart, <i>n.</i>		198	1077	<i>Gonolobus</i>	
372			Flakes, <i>n.</i>		172	1072	<i>Gardènia</i>	487	168	1075	<i>Goodenia</i>	
606			Flat pea	1525	380	1054	<i>Garidèlla</i>	1053		1075	<i>GOODENOVIA</i> , Or. 91.	
744	1074		<i>Flavèria</i>	1845	2		Garland-flowers	6	610	1066	<i>Goödia</i>	
232	1059		Flax	701	272		Garlic	796	754	1084	<i>Goodyera</i>	
286			Flax lily	823	396		Garlic pear	1086	190	1069	Gooseberry	
702			Flex bane	1754	356	1064	<i>Gariga</i>	1010	258		Goose-corn	
98			Fleawort	1714	406	1070	<i>Gastonia</i>	1109	206		Goose-foot	
630	1066		<i>Flemingia</i>	1586	56	1089	<i>Gastridium</i>	155	93		Goose-grass, <i>n.</i>	
550			Flix-weed	1422	344	1066	<i>Gastrolbium</i>	963	592	1062	<i>Gordönia</i>	
350			Flower-fence	5840	60	1089	<i>Gaudinia</i>	174	734	1073	<i>Gortèria</i>	
286			Flowering ash	69	360	1075	<i>Gaultheria</i>	1018	588	1059	<i>Gossypium</i>	
			Flowering fern		318	1069	<i>Gaura</i>	208	866	1063	<i>Gouania</i>	
				14607	734	1073	<i>Gazania</i>	1813	808	1068	<i>Gourd</i>	
336			Flowering rush	939	1034	1093	<i>Géastrum</i>	2445	216		Gout-weed	
834	1082		<i>Flügga</i>	2071	40	1085	<i>Geissorhiza</i>	97	4		Grains of parad. 76	
	1090		<i>FLUVIA'LES</i> , Or. 177.		84	1083	<i>Gelönium</i>	2104	4	1088	<i>GRAMINEAE</i> , Or. 174.	
	1090		<i>FOLIA'CEAE</i> , Cl. I. Div. 2.		154	1077	<i>Gelsëmium</i>	440	564		<i>Granadilla, n.</i>	
26	1076		<i>Fontanesia</i>	66	172	1072	<i>Gemipa</i>	488	724	1073	<i>Grängea</i>	
912	1091		<i>Fontinalis</i>	2245	172		<i>Gemip-tree</i>	488	394	1067	<i>Grangèria</i>	
218			Fool's parsley	661	6	1066	<i>Gemista</i>	1538	174	1061	Grape	
119			Forget-me-not, <i>n.</i>		202	1077	<i>Gentian</i>	600	284		Grape hyacinth	
320	1083		<i>Forskohle</i>	933	202	1077	<i>Gentiàna</i>	600	976	1092	<i>Gräphis</i>	

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.		
68 1089	Leptochlōa	202		862 1089	Manisuris	2135	
930 1091	Leptomitus	2281		26 1076	Manna, <i>n.</i>		
414 1068	Leptospermum	1115		26	Manna ash	484 69	
1032 1093	Leptostroma	2436		62	Manna seeds, <i>n.</i>		
912 1091	Léskea	2250		631	Manna truncheon, <i>n.</i>		
630 1066	Lessedèza	1585		6	1085	Mantisia	16
626 1066	Lestrtia	1572		532 1078	Manulea	1370	
192 1080	Lestibudèsia	516		864	Maple	2143	
668 1072	Letucea	1628		2	1085	Maránta	2
830 1081	Letucadéndron	2053		888 1090	Marántia	2210	
506 1079	Leucas	1269		458 1060	Marcgraavia	1163	
912 1091	Leucodon	2244		1060	MARCGRAAVIACEÆ, Or. 32.		
248 1086	Leucodium	733		922 1091	Marchántia	2254	
144	Leucopogon	401		6	Mare's-tail	25	
80 1081	Leucospermum	232		46 1086	Marica	117	
734 1074	Leucza	1818		506 1079	Marjoram	1274	
792	Lever-wood, <i>n.</i>			50 1089	Mariscus	130	
720 1073	Leysera	1765		173	Marmalade box, <i>n.</i>		
688 1073	Liatris	1682		504 1079	Marrubium	1263	
1036 1093	Licca	2459		57	Marrum, <i>n.</i>		
946 1091	Lichina	2326		198 1077	Marsdenia	1691	
290 1087	Lichtensteinia	842		909 1074	Marshálla	594	
260 1088	Licula	763		452	Marsh cinquefoil		
722 1073	Lidbeckia	1773				7575 1152	
188 1075	Lighthótia	546		584	Marsh mallow	1474	
332	Lignum-vitæ-tree	993		490	Marsh margold	1239	
220 1071	Ligástium	66		218	Marsh pennywort		
12 1076	Ligástrium	36				3656 658	
12 1076	Lilac	37		7	Marsh samphire, <i>n.</i>		
1087	LILIA'CEÆ, Or. 163.			264	Martagon	4495 771	
1086	Lilies of the field			516 1079	Martynia	1300	
264 1087	Lilium	771		516 1079	Marum		
264 1087	Lily	771		118 1080	Marvel of Peru	422	
270 1086	Lily of the valley	787		740	Marygold	1830	
272	Lily pink	794		278 1086	Massonia	805	
100	Lily thorn	289			Masterwort	{ 662	
652	Lime	10974 1615				{ 674	
466 1060	Lime-tree	1186		508	Mastick	8411 1275	
298 1069	Limeum	871		834 1064	Mastick-tree	13893 2065	
464 1087	Limonchàris	1175		56	Mat-grass	{ 137	
356 1066	Limonia	1003				{ 162	
532 1078	Limosella	1359		538 1057	Matholia	1381	
526 1078	Linaria	1344		722 1073	Matricaria	1771	
532 1078	Lindernia	1366		120 1078	Mattia	328	
1059	LINDLEË, Or. 21.			528 1075	Maurândya	1347	
232	Linen cloth, <i>n.</i>			838 1088	Mauritia	2080	
303	Ling, <i>n.</i>			758 1085	Maxillaria	1892	
5. 4 1071	Linnæa	1292		460, <i>n.</i>	May apple	7652 1166	
26 1076	Linociera	67		10 1063	Maytênus	31	
232	Lint, <i>n.</i>			528 1078	Mèzus	1353	
232 1059	Linum	701		128	Meàdia, <i>n.</i>		
700	Lion's-foot	1723		66	Meadow grass	196	
286	Lion's-leaf	4913 825		494	Meadow rue	1229	
506	Lion's-tail	1270		282	Meadow saffron	851	
624 1066	Lipària	1565		214	Meadow saxifrage	642	
764 1085	Lipparia	1928		428	Meadow sweet		
518 1079	Lippia	1314				7148 1141	
798 1083	Liquidambar	2001		60	Meal, <i>n.</i>		
628 1065	Liquorice	1575		462 1056	Meconopsis	1171	
628 1066	Liquoritia	1575		290 1086	Medeola	846	
478 1055	Liriodéndron	1216		646 1066	Medicàgo	1605	
134 1077	Lisiánthus	378		646	Medick	1605	
142	Lissánthe	395		424 1067	Medlar	1131	
756 1085	Lissochilus	1887				6697 1103	
754 1084	Listera	1876		68	1089	Megastachya	198
302	Litchi	5101 883		652 1068	Melaleuca	1610	
120 1078	Lithospermum	330		740 1074	Melampodium	1828	
784 1080	Littorèlla	1967		590 1078	Melampyrum	1315	
68	Live-grass	197		690 1074	Melananthera	1093	
298	Lizard's-tail	872		684	Melancholy thistle, <i>n.</i>		
75	Loaf sugar, <i>n.</i>					1087 MELANTHACEÆ, Or. 164.	
658 1069	Loasa	1619		290 1087	Melanthium	845	
1069	Loasææ, Or. 67.			42 1086	Melasphæra	104	
166 1075	Lobelia	464		364 1068	Melastoma	1029	
346	Locust-tree	971				1068 MELASTOMACEÆ, Or. 62.	
610 1066	Loddigèsia	1535		564 1060	Melhania	1457	
36 1080	Lœffingia	82		352 1062	Mèlia	988	
130 1077	Logània	368				1062 MELIA'CEÆ, Or. 43.	
350	Logwood	985		514 1062	Meliánthus	1293	
70 1089	Lolium	207		66 1089	Mèlica	193	
880 1090	Lomària	2182				66	
84 1081	Lomàtia	245		302 1060	Mellicocca	1598	
882 1090	Lonchitis	2192		640	Melilot	1598	
366	London pride	6063 1041		540 1066	Melilotus	1278	
550	London rocket	9172 1422		608 1079	Melissa	1280	
302	Longan	5102 883		510 1079	Melittis	1280	
718 1073	Longchampsia	1764		564 1060	Melochia	1456	
170 1071	Lonicera	475		194 1077	Melochinus	573	
814	Looking-glass plant	2037		410 1068	Melon	13573 2022	
128	Loose-strife	356		926 1091	Meloseira	2262	
6 1069	Lopezia	18					
244 1085	Lophola	718					
1030 1092	Lophium	2426					
426 1067	Loquat	1137					
1071	LORA'NTHEÆ, Or. 83.						
610	Lord Anson's						
	pea	10368 1558					
178	Lote-tree	2897 506					
642 1066	Lótus	1601					
850 1082	Loureira	2119					
528	Lousewort	1349					
220	Lovage	665					
156	Love-apple	2517 451					
68	Love-grass	12.0 198					
786 1080	Love-lies-bleed-						
	ing	13302 1975					
142 1080	Lubinia	392					
646	Lucern	10892 1605					
104 1069	Ludwigia	309					
788 1069	Luffa	1976					
542 1057	Lunaria	1395					
122	Lungwort	338					
404 1066	Lupinaster	1599					
614	Lupine	1544					
614 1066	Lupinus	1544					
258 1087	Luzula	761					
132	Lychnidea	369					
383 1059	Lýchnis	1067					
156 1078	Lýcium	450					
1036 1093	Lycogala	2456					
1034 1093	Lycopodium	3443					
892 1090	Lycopodium	2212					
124 1078	Lycopsis	344					
20 1079	Lycopus	55					
56 1080	Lygèum	132					
226 1087	Lýgodium	2906					
72	Lyme-grass	908					
932 1091	Lýngbia	2287					
128 1080	Lysimachia	356					
142	Lysinèma	399					
398 1068	Lýthrum	1094					
840 1076	Maba	2006					
870 1076	Mabolo-fruit	14373 2159					
788	Macaw-tree	13322 1983					
850 1081	Mace, <i>n.</i>						
784 1083	Maclura	1969					
758 1085	Macradènia	1898					
162 1072	Macrocnemum	457					
542 1057	Macropodium	1391					
394	Madagascar nutmeg	1077					
160	Mad apple	2566 451					
94 1071	Madder	267					
334	Madeira mahogany, <i>n.</i>						
352	Madeira wood, <i>n.</i>						
704 1074	Midia	1735					
544	Madwort	1401					
478 1055	Magnolia	1217					
1055	MAGNOLIACEÆ, Or. 3.						
352 1062	Mahogany-tree	990					
854 1055	Mahonias						
884	Maiden-hair	2194					
798	Maiden-hair-tree	13441 2003					
36	Maiden plum	85					
1088	Maize						
228	Malabar nightshade	693					
18	Malabar nut	302 47					
584 1059	Malachra	1476					
764 1085	Maláxis	1925					
416	Malay apple-tree						
548 1057	Malcolmia	6958 1119					
884	Male-fern	14590 2199					
582	Mallow	1472					
582 1059	Málope	1471					
380 1060	Malpighia	1054					
1060	MALPIGHIA'CEÆ, Or. 34.						
73	Malt, <i>n.</i>						
582 1059	Málva	1472					
582 1059	MALVA'CEÆ, Or. 23.						
466 1061	Mammèa	1190					
150	Mammee	2409 427					
466	Mammee-tree	1190					
812	Manchineel	2030					
814	Mandica, <i>n.</i>						
154 1078	Mandràgora	447					
154 1078	Mandrake	447					
161	Man-dram, <i>n.</i>						
100 1072	Manétia	296					
180 1064	Mangifera	513					
152 1076	Manglita	434					
6	Mango-ginger	94 14					
394	Mangosteen	1079					
180 1064	Mango-tree	513					
394 1071	Mangrove	1078					

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.
392 1082	<i>Memécylion</i> 908	1084	MONOCOTYLE'DONES,	1042 1093	<i>Namaspora</i> 2495
878 1090	<i>Meniscium</i> 2172		Cl. 2.	1020 1092	<i>Namatèlia</i> 2402
	1055 <i>MENISPE'RMEE</i> , Or. 5.	768	MONO'CIA, Cl. 21.	832 1083	<i>Nagàia</i> 2056
844 1055	<i>MENISPE'RMUM</i> 2100	770	M. MONA'NDRIA, Or. 1.		1087 NA'ADES, Or. 171.
500 1079	<i>Mentha</i> 1254	772	M. DIA'NDRIA, Or. 2.	60	Naked oat, <i>n.</i>
468 1069	<i>Mentzèlia</i> 1194	772	M. TRIA'NDRIA, Or. 3.	286 1055	<i>Nandina</i> 830
130 1077	<i>Menyanthes</i> 362	780	M. TETRA'NDRIA, Or. 4.	484 1054	<i>Naravàlia</i> 1228
316 1075	<i>Menzièsia</i> 893	786	M. PENTA'NDRIA, Or. 5.	240 1086	<i>Narcissus</i> 711
840 1082	<i>Mercurialis</i> 2088	788	M. HEXA'NDRIA, Or. 6.	52 1089	<i>Nardus</i> 137
840	<i>Mercury</i> 2088	790	M. POLYA'NDRIA, Or. 7.	280 1086	<i>Narthécium</i> 813
1006 1092	<i>Merulius</i> 2369	800	M. MONADE'LPHIA, Or. 8.	150	<i>Nasberry-tree</i> 2411 427
430 1069	<i>Mesembryanthemum</i> 1146	142	Monòtoca 400	538 1057	<i>Nastòrtium</i> 1383
	356 1075 <i>Monòtropa</i> 1008		353	353	<i>Native gum, n.</i>
932 1091	<i>Mesogòdia</i> 2282	580 1061	<i>Monsònia</i> 1465	151	<i>Natural marmalade, n.</i>
424 1067	<i>Mespilus</i> 1131	76 1069	<i>Mòntia</i> 224	182 1072	<i>Naúclea</i> 521
304 1060	<i>Metàiba</i> 886	832 1069	<i>Montinia</i> 2064	744 1074	<i>Nauenbèrgia</i> 1847
700 1077	<i>Metallisa</i> 1726	844	Moon-seed 2100	382	<i>Navelwort</i> 1060
416 1068	<i>Metrosideros</i> 1117	646	Moon-trefoil 10890 1605	912 1091	<i>Neckèra</i> 2247
216 1070	<i>Meum</i> 653	886	Moon-wort 2208	341	<i>Necklace-tree, n.</i>
252	<i>Mexican lily</i> 4239 739	46 1086	<i>Mora'a</i> 116	420 1067	<i>Nectarine</i> 7020 1128
638	<i>Mexican tea</i> 10750 1597	1014 1092	<i>Morchèlia</i> 2386	860	<i>Negro guinea corn, n.</i>
562	<i>Mexican tiger-flower</i> 9343 1452	1014	<i>Morel</i> 2386	864 1060	<i>Negàndium</i> 2144
		554 1057	<i>Moricàndia</i> 1434	476	<i>Nelumbo, n.</i>
728 1074	<i>Meyera</i> 1787	26 1072	<i>Morina</i> 70	476 1056	<i>Nelumbium</i> 1213
322	<i>Mezereon</i> 5526 910	174 1072	<i>Morinda</i> 496	526 1078	<i>Nemèsia</i> 1346
710	<i>Michaelmas daisy</i> 12037 1739	462	<i>Morphia, n.</i>	140 1078	<i>Nemòphila</i> 386
		782 1083	<i>Morus</i> 1959	754 1084	<i>Nectòtia</i> 1873
316 1075	<i>Michaúxia</i> 895	678 1073	<i>Moscària</i> 1654	850 1093	<i>Nepèntes</i> 2121
480 1055	<i>Michèlia</i> 1218	328	<i>Moschatel</i> 930	498 1079	<i>Népeta</i> 1249
72 1089	<i>Microchòba</i> 211	892	<i>Mosses</i>	786 1060	<i>Nephèlium</i> 1971
196 1077	<i>Microlóma</i> 578	506	<i>Motherwort</i> 1267	966 1092	<i>Nephroma</i> 2346
744 1073	<i>Micròpus</i> 1839	964	<i>Mouceron, n.</i>	252 1086	<i>Nerine</i> 738
764 1085	<i>Migròstyliis</i> 1927	934 1091	<i>Mougeòtia</i> 2290	146 1076	<i>Nerium</i> 411
400	<i>Mignonette</i> 6676 1102	1040 1092	<i>Mouldiness</i> 2482	398 1068	<i>Nesè'a</i> 1095
688 1073	<i>Mikània</i> 1683	425	<i>Mountain ash</i> 7101 1133	550 1057	<i>Néssia</i> 1426
1022 1041 <i>n.</i> }	<i>Milweed</i> 2408	355	<i>Mountain damson, n.</i>	782	<i>Nettle</i> 1962
726	<i>Milfoil</i> 1781	346	<i>Mountain ebony</i> 970	864	<i>Nettle-tree</i> 2145
52 1089	<i>Milium</i> 141	1065	<i>Mountain liquorice</i>	694 1073	<i>Neurola'na</i> 1710
220	<i>Milk parsley</i> 663	294	<i>Mountain sorrel</i> 857	1062	<i>New Holland cedar</i>
149	<i>Milk tree, n.</i>	863	<i>Mountain spinage, n.</i>	178	<i>New Jersey tea</i>
636	<i>Milk vetch</i> 1594	672	<i>Mouse ear</i> 11184 1635		2918 510
870	<i>Milk wood</i> 14364 2158	388	<i>Mouse ear chick-weed</i> 1068	1086	<i>New Zealand flax</i>
602	<i>Milk wort</i> 1508	64 }	<i>Mouse tail</i> { 183	430	<i>New Zealand spinage</i>
738 1074	<i>Millèria</i> 1822	234 }	234 }		7161 1145
52	<i>Millet grass</i> 141	632	<i>Moving plant</i> 10568 1588	414	<i>New Zealand tea</i>
82 1081	<i>Mimètes</i> 233	699	<i>Moxa, n.</i>		6918 1115
854 1067	<i>Mimòsa</i> 2124	1036 1093	<i>Mùcor</i> 2460	134 1078	<i>Nicàndra</i> 380
528 1078	<i>Mimulus</i> 1351	532	<i>Mudwort</i> 1359	350	<i>Nicker-tree</i> 979
302 1076	<i>Mimusops</i> 881	698	<i>Mugwort</i> 11733 1721	136 1078	<i>Nicotiàna</i> 382
500 1079	<i>Mint</i> 1254	54 1089	<i>Muhlenbèrgia</i> 151	1024 1092	<i>Nidulària</i> 2413
76 1080	<i>Minuàrtia</i> 226	782 1083	<i>Mulberry</i> 1959	476 1054	<i>Nigèlla</i> 1209
118 1080	<i>Miràbilis</i> 322	132	<i>Mullein</i> 375	13	<i>Night-flower, n.</i>
346 1066	<i>Mirbèlia</i> 967	626 1066	<i>Mullèra</i> 1567	318	<i>Night-primrose, n.</i>
830 1071	<i>Misletoe</i> 2054	602 1058	<i>Múndia</i> 1510	516 1078	<i>Nightshade</i> 451
100 1072	<i>Mitchèlia</i> 294	464 1060	<i>Muntingia</i> 1184	752 1085	<i>Nigrítèlia</i> 1860
368 1070	<i>Mitella</i> 1043	602 1058	<i>Muràltia</i> 1509	800 1088	<i>Nipa</i> 2008
1014 1092	<i>Mitrilla</i> 2383	356 1062	<i>Murràya</i> 1005	678	<i>Nipplewort</i> 1651
794	<i>Mocker nut, n.</i>	244 1085	<i>Mùsa</i> 721	604 1066	<i>Nissòlia</i> 1512
836 1068	<i>Mocèca</i> 2075	1085	<i>MUSA'CEÆ</i> , Or. 153.	936 1091	<i>Nitèlia</i> 2294
324 1059	<i>Mochringia</i> 920	284 1086	<i>Muscàri</i> 821	396 1069	<i>Nitrària</i> 1090
510	<i>Moldavian balm</i> 8446 1273	423	<i>Muscle plum, n.</i>	82 1081	<i>Nivènia</i> 235
		75	<i>Muscovado sugar, n.</i>	124 1078	<i>Nolàna</i> 347
702 1074	<i>Mollna</i> 1733	1002	<i>Mushroom</i> 16013 2365	292 1087	<i>Nollna</i> 853
66 1089	<i>Mollinia</i> 194	586	<i>Musk okro</i> 9839 1480	185	<i>Nolitangere, n.</i>
194 1080	<i>Móllia</i> 567	174 1072	<i>Musca'nda'</i> 491	124 1078	<i>Nònea</i> 243
76 1059	<i>Mollùgo</i> 225	554 1057	<i>Mustard</i> 1433	646	<i>Nonesuch</i> 10898 1605
506	<i>Molucca balm</i> 1271	552 1057	<i>Mýagrum</i> 1431	846	<i>Norfolk island pine</i>
506 1079	<i>Moluccèlia</i> 1271	930 1091	<i>Mycinèma</i> 2274		14048 2112
808 1069	<i>Momòrdica</i> 2020	64 1089	<i>Mygalùrus</i> 183	804	<i>Norway deal, n.</i>
560	MONADE'LPHIA, Cl. 16.	104 1063	<i>Mygànda</i> 314	804	<i>Norway spruce</i>
562	M. TRIA'NDRIA, Or. 1.	362 1075	<i>Mylocàrpum</i> 1021	928 1091	<i>Nòstoc</i> 2268
562	M. PENTA'NDRIA, Or. 2.	1079	MYOPORI'NEÆ, Or. 115.	12 1076	<i>Notolè'a</i> 35
568	M. HEPTA'NDRIA, Or. 3.	524 1079	<i>Myopòrum</i> 1332	880 1090	<i>Notòchla'na</i> 2177
578	M. OCTA'NDRIA, Or. 4.	676 1073	<i>Myosèris</i> 1640	540 1057	<i>Notòceras</i> 1385
578	M. DECA'NDRIA, Or. 5.	118 1078	<i>Myosòtis</i> 326	758 1085	<i>Noty'lia</i> 1893
589	M. DODECA'NDRIA, Or. 6.	234 1054	<i>Myosùrus</i> 707	464 1056	<i>Nùphar</i> 1176
582	M. POLYA'NDRIA, Or. 7.	830 1083	<i>Myrica</i> 2055	850 1081	<i>Nutmeg</i> 2120
1	MONA'NDRIA, Cl. 1.	1024 1092	<i>Myriocòccum</i> 2414	792	<i>Nut-tree</i> 1998
2	M. MONOGY'NIA, Or. 1.	790 1069	<i>Myriophýllum</i> 1987	1076	<i>Nux vomica tree</i>
8	M. DIGY'NIA, Or. 2.	850 1081	<i>Myristica</i> 2120	1080	NYCTAG'NEÆ, Or. 123.
		1081	MYRISTI'CEÆ, Or. 130.	12 1076	<i>Nyctànthes</i> 38
20 1079	<i>Monàrda</i> 60	422	<i>Myrobalan plum</i> 7047 1129	160 1078	<i>Nyctèrium</i> 452
72 1089	<i>Monèrma</i> 213	592 1059	<i>Myròdia</i> 1473	462 1056	<i>Nymphæ'a'CEÆ</i> , Or. 9.
100 1077	<i>Monètia</i> 299	212	<i>Myrrh</i> 630	870 1082	<i>Nýssa</i> 2161
128	<i>Money-wort</i> 2063 356	212 1071	<i>Mýrrhis</i> 630	774 1083	<i>Oak</i> 2000
1038 1093	<i>Monifèa</i> 2469	870 1075	<i>Myrsine</i> 2160		
528	<i>Monkey-flower</i> 1351	1075	MYRSI'NEÆ, Or. 95.	58 1083	<i>Oak gall</i> 171
592	<i>Monkies'-bread, n.</i>	290 1086	<i>Myrsiphýllum</i> 843	468 1063	<i>Oat-grass</i> 1191
474	<i>Monk's hood</i> 7872 1205	1068	MYRTA'CEÆ, Or. 63.	1063	<i>O'ch'na</i> 1458
600 1063	<i>Monnèria</i> 1500	416 1068	<i>Myrtle</i> 1121	564 1059	<i>O'chrua</i> 1458
1080	MONOCHLAMY'DEÆ. Subd. 2.	416 1068	<i>Mýrtus</i> 1121	620 1066	<i>O'chrus</i> 1559

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.
548 1057	Ochthodium	1915		272 1086	Peliosánthes
300	OCT'NDRIA, Cl. 8.			862	Pellitory
302	O. MONOGY'NIA, Or. 1.			724	Pellitory of Spain
324	O. DIGY'NIA, Or. 2.				1230 1778
326	O. TRIGY'NIA, Or. 3.			544 1057	Peltaria
328	O. TETRAGY'NIA, Or. 4.			966 1092	Peltidea
762 1085	Octomèria	1913		998	Pené'a
510 1079	O'cymum	1281		54 1089	Penicillaria
744 1073	Edèra	1844		1040 1093	Penicillum
212 1070	Enánthe	632		52 1089	Pennissetum
176 1063	Enópia	504		546	Penny cress
318 1069	Enothèra	901		500	Pennyroyal
870	Gechee-lime	14385 2161		496	Pennyroyal-tree
		2162			8157 1246
870	Oil-nut			218	Pennywort
	Oil of ben			108	PENTA'NDRIA, Cl. 5.
333	Oil of camphor, z.			118	P. MONOGY'NIA, Or. 1.
333				191	P. DIGY'NIA, Or. 2.
417 5	1068 Oil of cloves, z.			224	P. TRIGY'NIA, Or. 3.
342	Oil of roses, z.			228	P. TETRAGY'NIA, Or. 4.
514	Oily grain	1296		228	P. PENTAGY'NIA, Or. 5.
836	Oily palm	2077		234	P. POLYGY'NIA, Or. 6.
				580 1060	Pentapètes
100 1072	Oldenlándia	295		384 1070	Penthorum
666	Old man's beard	1620		514 1078	Pentstèmon
10 1076	Olea	32		228	Péntzia
146 1076	Oleander	411		288 1068	Péplis
90	Oleaster	259		28 1084	Pepper
				942	Pepper-dulse
849	1076 OLÉ'NE, Or. 99.			894	Pepper-grass
	Olibanum, z.			500	Peppermint
10 1076	Olive	32		418	Peppermint-tree
364	Olive bark-tree	1033			6999 1126
212 1071	Oliveria	628		501	Peppermint water, z.
180	Olive-wood	516		543	Pepper-root, z.
418 1068	Olynthia	1124		576	Pepper-vine
780 1089	Olyra	1954		152	Peppervort
510	Omine plant	8482 1282		716 1074	Perdicium
812 1083	Omphalea	2029		198 1077	Pergularia
122 1078	Omphalodes	337		502 1079	Perilla
	ONAGRA'LE, Or. 69.			1022 1092	Periola
758 1089	Oncidium	1895		194 1077	Periploca
274	Onion	4686 796		588 1059	Periptera
686 1074	Onobroma	1674		146	Periwinkle
880 1090	Onocla	2178		74 1089	Perotis
612 1066	Ononis	1541		326	Persicaria
684 1074	Onopordum	1666		84 1081	Persoonia
120 1078	Onosma	332		1081	Peruvian cinnamon
122 1078	Onosmodium	335			
1032 1083	Onygena	2440		705	Pestilent-wort, z.
974 1092	Op'grapha	2360		364 1068	Petaloba
6	Opera girls	99 16		600 1066	Petalostènum
88 1072	Opercularia	250		226 1081	Petiveria
	OPERCLARINE, Or. 85.			520 1079	Petrea
				694 1074	Petrobium
888 1090	Ophioglossum	2209		544 1057	Petrocallis
272 1086	Ophiopogon	797		80 1081	Petrophala
144 1072	Ophiopiza	406		612	Petty-whin
866 1077	Ophioxylon	2152		222 1071	Peucedanum
72 1089	Ophiorus	212		844 1083	Pezomus
752 1085	O'phrys	1866		1016 1082	Peziza
461 1056	Opium, z.			368 1066	Phacca
	Opopanax			132 1078	Phacelia
862	Orache	2138		1030 1093	Phacidium
652 1062	Orange-tree	1615		58 1089	Phalaris
1091	Orchal			1022 1092	Phalaris
1084	ORCHIDÆ, Or. 150.			228 1059	Pharnaceum
750 1085	O'rechis	1859		788 1089	Pharus
506 1079	O'rganum	1274		896 1091	Phascum
340 1066	O'rmisia	942		614 1066	Phascolus
760 1085	O'rnithidium	1902		516 1079	Phaylo'psis
762 1085	O'rnithoc'phalus	1910		484	Pheasant's-eye
276 1086	O'rnithogalum	802		214 1070	Phellandrium
628 1066	O'rnithopus	1578		1070	PHILADE'LPHIÆ, Or. 76.
302 1060	O'rnitrophe	882			
26 1070	O'robun	69		414 1070	Philadelphus
524 1078	O'robánche	1335		12 1076	Phillyrea
1078	OROB'ANCHE, Or. 111.			192 1080	Philo'xerus
618 1066	O'robos	1557		6 1087	Philydrum
256 1089	O'ro'ntium	756		1010 1092	Philebia
228	O'rpine	689		58 1089	Philem
46	O'rrice-root, z.			506 1077	Phlomis
36 1059	O'rtégia	91		132 1077	Phlòx
54 1080	Orthopogon	147		828 1088	Pho'nix
906 1091	Orthotrichum	2233		760 1085	Pholidota
288 1089	O'ryza	837		1030 1093	Phoma
52 1089	O'ryzopsis	138		286 1086	Phormium
784	Osage orange	1969		426 1067	Photinia
316 1068	Osbeckia	899		512 1079	Phryma
932 1091	Oscillat'ria	2285		2 1085	Phrynum
826	Osier	13802 2042		188 1063	Phylica
732 1073	Osmites	1806		810 1082	Phyllanthus
886 1090	Osmónda	2205		208 1072	Phyllis
742 1074	Osteospermum	1832		268 1086	Phylloba
					775
792 1083	O'strya	1995			
22	Oswego tea	364 60			
828 1082	O'syris	2051			
382	Otaheite apple	6402 1059			
362	Otaheite chestnut	1024			
788	Otaheite myrtle	1978			
696 1073	Otánthus	1715			
742 1074	Othónna	1833			
384 1061	OXALIDÆ, Or. 39.				
723	Oxalis	1065			
720	Ox-eye daisy	12238 1769			
126	Ox-lip	2021 1350			
172 1072	Oxyánthus	489			
320 1075	Oxyococcus	906			
342 1066	Oxylobium	951			
294 1081	Oxýria	857			
195 1077	Oxystelma	582			
636 1066	Oxýtropis	1593			
1038 1093	Ozónium	2474			
784 1082	Pachysándra	1963			
152 1072	Pæderia	439			
472 1055	Pæonia	1202			
472	Pæony	1202			
686 1073	Palafóxia	1678			
588 1059	Palavia	1483			
178 1053	Paliurus	505			
814	Palma Christi	2034			
259 1088	Palm, z.				
926 1088	PA'LME, Or. 173.				
956 1091	Palmella	2265			
790	Palm oil, z.				
872 1070	Panax	2166			
242 1086	Pancratium	712			
	Pandaneæ, Or. 170.				
820 1087	Pandanus	2041			
52	Panic-grass	144			
52 1089	Panicum	144			
460 1056	Papaver	1170			
	PAPAYER'CEÆ, Or. 10.				
842 1068	Papaw-tree	1095			
832	Paper mulberry	13880 2059			
		128			
50 1089	Papýrus				
1063	Paraguay tea				
48 1086	Pardánthus	118			
848 1055	Parèira brava root	2116			
789	Pariah arrack, z.				
862 1083	Parietaria	2137			
298 1067	Parnatarium	870			
328 1086	Páris	929			
604 1067	Paribda	1519			
350 1067	Parkinsonia	976			
928 1092	Parmelia	2941			
1238 1061	Parnassia	694			
192 1080	Parnychia	557			
540 1057	Párrya	1388			
216	Parsley	651			
	Parsley-piert	1519 255			
222 1070	Parsnep	671			
744 1074	Parthenium	1840			
728 1074	Pascalia	1795			
52 1089	Paspalum	139			
482	Paque flower	7957 1236			
324 1082	Passerina	914			
564 1068	Passiflora	1459			
	PASSIFLORÆ, Or. 65.				
564 1068	Passion-flower	1459			
292 1071	Pastinaca	671			
562 1086	Patersnaca	1450			
292	Patience	4997 856			
326	Patience dock, z.				
34 1072	Patrinia	79			
328 1060	Paulinia	923			
100 1072	Pavetta	290			
	Pavia				
584 1059	Pavonia	1478			
620 1065	Pea	4560			
420 1067	Peach	7020 1128			
426 1067	Pear	7086 1130			
73	Pearl-barley, z.				
106	Pearlwort	317			
718 1074	Péctis	1763			
	PEDALNÆ, Or. 114.				
524 1079	Pedálum	3331			
528 1078	Pedicularis	1349			
406 1083	Pedilanthus	1104			
60	Peel corn, z.				
396 1062	Péganum	1088			
794	Pekan-nut, z.				
568 1061	Pelargonium	1461			

Lin.	Nat.	Sp.	Gen.
156	1078		Phýsalis 448
1034	1093		Phýsarum 2454
812			Physic-nut 2033
168	1075		Zhyteuma 465
390	1081		Phytolácca 1071
202	1077		Piaranthus 595
11	1081		Pichurim-bean
			Pickled olives, <i>n.</i>
390			Pickpurse, <i>n.</i>
372			Picotees, <i>n.</i>
834	1064		Picrámmia 2067
668	1073		Picáridia 1626
672	1073		Picris 1634
624			Pigeon pea 10443
782	1083		Pilea 1961
484			Pilewort 1232
894			Pillwort 2215
1024	1092		Pilóbolus 2415
894	1090		Pilulária 2215
26	1082		Pimelèa 73
418	1068		Piménta 1123
128			Pimpernel 357
212	1070		Pimpínella 635
174	1072		Pinkneya 492
802			Pine 2012
246	1086		Pine-apple 726
20	1097		Pinguicula 52
370			Pink 1046
412			Pin-pillow 6897
802	1083		Pinus 1111
28	1084		Piper 77
	1084		PIPERACEÆ, Or. 147.
76			Pipewort 223
694	1073		Piquéria 1704
606	1066		Piscidia 1524
296	1080		Pisonia 864
832	1064		Pistachia-tree 2065
832	1064		Pistácia 2065
1014	1092		Pistillária 2385
620	1065		Pisum 1560
246	1087		Pitcairnia 728
	1084		Pitch
850			Pitcher-plant 2121
182			Pittosporum 522
208	1083		Planera 616
798	1083		Plane-tree 2002
608			Plank-plant 10121
	1080		PLANTAGINÆÆ, Or. 122.
96	1080		Plantago 278
96	1083		Plantain 278
244			Plantain-tree 721
103			Plant of glutty, <i>n.</i>
750	1085		Platanthera 1857
798	1088		Plátanus 2002
606	1066		Platýlobium 1525
692	1074		Platypteris 1698
510	1079		Plectranthus 1282
188	1063		Plectrónia 543
758	1085		Pleurothállis 1894
174	1072		Pleocama 495
702			Plowman's spikenard
			1732
816	1082		Plukenétia 2040
422	1067		Plum 1129
	1080		PLUMBAGINÆÆ, Or. 121.
118	1080		Plumbago 324
148	1076		Plumieria 415
66	1089		Poa 196
342	1066		Podalýria 948
880			Pod fern 2181
806	1084		Podocarpus 2016
716	1073		Podolèpis 1747
342	1066		Podolobium 950
	1055		PODOPHYLLACEÆ, Or. 7.
460	1055		Podophýllum 1166
656	1073		Podospermum 1624
828			Poet's cassia 2051
756	1084		Pogónia 1879
908	1091		Pohlia 2239
350	1067		Poinciana 977
250			Poison-bulb 4187
152			Poison-nut 2446
226			Poison-oak 3801
	1077		POLEMONIACEÆ, Or. 106.
132	1077		Polemoniùm 370
254	1086		Pollánthes 747
6	1081		Pollíchia 21
496			Poly 8137
650			POLYADELPHIA, Cl. 18.
650			P. DECA'NDRIA, Or. 1.
652			P. POLYA'NDRIA, Or. 2.
456			POLYA'NDRIA, Cl. 13.

Lin.	Nat.	Sp.	Gen.
458			P. MONOGY'NIA, Or. 1.
470			P. DI-TRIGY'NIA, Or. 2.
474			P. PENTAGY'NIA, Or. 3.
476			P. POLYGY'NIA, Or. 4.
1024	1092		Polyangium 2415
240			Polyanthus 4008
876	1090		Polybótريا 2168
74	1080		Polycaérpon 221
36	1081		Polycænium 92
602	1058		Polygæa 1508
	1058		POLYGALÆÆ, Or. 16.
852			POLYGAMIA, Cl. 23.
854			P. MONGE'CIA, Or. 1.
818			P. DIGE'CIA, Or. 2.
270	1086		Polygonatum 789
1081			POLYDNEÆ, Or. 127.
326	1081		Polygonum 921
940	1091		Polyides 2310
740	1074		Polyimnia 1826
878	1090		Polyppidium 2175
878			Polyppy 2175
56	1089		Polyppogon 154
1006	1092		Polypporus 2372
938	1091		Polysiphonia 2929
706	1085		Polystachya 1908
1042	1093		Polythrinium 2492
910	1091		Polytrichum 2241
180	1063		Pomadérris 512
220	1068		Pomegranate 1127
	1067		Pond-weed { 816
	772		{ 1008
604	1067		Pongómia 1514
248	1087		Pontedèria 780
754	1084		Ponthièva 1872
674			Poor Robin's plan-tain, <i>n.</i>
840	1083		Poplar 2087
460	1056		Poppy 1170
840	1083		Pópulus 2087
976	1092		Porina 2362
940	1091		Pórphyra 2369
162	1072		Portlándia 462
800			Portland sago, <i>n.</i>
422			Portugal laurel
			7030 1129
396	1069		Portulæca 1091
228	1069		Portulacária 692
1069			PORTULACÆÆ, Or. 71.
172	1072		Posoquéria 485
106	1090		Potamogeton 317
205	947		Potash, <i>n.</i>
156	1078		Potato 2521
59			Potato oat, <i>n.</i>
73			Pot-barley, <i>n.</i>
452	1067		Potentilla 1153
790	1067		Potérium 1990
88	1089		Póthos 252
848			Pounce, <i>n.</i>
512	1079		Prásium 1288
670	1073		Prenánthes 1630
764	1084		Prescótia 1925
54			Prickly-grass 146
415			Prickly pear, <i>n.</i>
875			Priest's-tree, <i>n.</i>
126	1080		Primrose 350
126	1080		Primula 350
1080			PRIMULACEÆ, Or. 119.
786			Prince's feather
			13229 1975
286	1063		Prinos 828
520	1079		Priva 1320
12			Privet 36
464	1058		Próckia 1179
350	1067		Prósopis 984
512	1079		Prostanthera 1284
80	1081		Prôtea 231
1181			PROTEACEÆ, Or. 131.
927			Protococcus, <i>n.</i>
990	1091		Protonema 2279
512	1079		Prunella 1286
422	1067		Prúnus 1129
1067			Prussic acid
56	1089		Psamma 162
742	1074		Psádia 1836
416	1088		Psidium 1181
892	1090		Psilótum 2213
638	1066		Psoralea 1597
172	1072		Psychótria 483
100	1064		Ptélea 298
882	1090		Ptéris 2190
604	1067		Pterocárpus 1515
904	1091		Pteiogónium 2229
542	1057		Pteroneuron 1383

Lin.	Nat.	Sp.	Gen.
686	1074		Pteronia 1679
580	1060		Pterospérmum 1470
940	1061		Ptilota 2311
1046	1063		Puccinia 2498
460			Puccoon 1165
1084			Puff-ball 2443
716	1073		Pulicaria 1745
122	1078		Pulmonária 338
	1064		Pulse
944	1066		Pultenæ'a 965
808			Pumpkin 13563
420,	1068		Ponica 1187
396	1069		Purslane 1091
228			Purslane-tree 692
278	1086		Puschkinia 804
506	1079		Pycnánthemum 1273
424			Pyracántha 7072
956	1092		Pyréula 2337
732	1073		Pyréthrum 1770
622	1075		Pyrola 1082
424	1067		Pythagorean bean
			of antiquity
130	1077		Pyxidánthera 359
66			Quaking-grass 195
278			Quamash 4773
354	1063		Quássia 1000
794	1083		Quécрус 2002
76	1080		Quèria 227
	56		Quick, <i>n.</i>
894			Quillwort 2214
456	1067		Quince 1134
364	1068		Quisquádis 1028
352	1062		Quisina 989
1038	1093		Racádium 2470
108	1059		Radiola 321
556	1057		Radish 1443
606	1066		Ráfúta 1527
388			Ragged Robin 6540
742			Ragwort 1067
838	1086		Rajánia 2084
970	1092		Ramalua 2355
786			Rambutan 1971
132	1078		Ramónda 374
832			Ramoon-tree 2063
168	1075		Rampion 1063
274			Ramson 4671
174	1072		Rándia 490
1054			RANUNCULACEÆ, Or. 1.
486	1054		RANUNCULUS 1233
554	1057		Rape 9247
556	1057		Ráphanus 1443
542	1067		Raphiólèpis 1136
428	1057		Rápisium 1418
450			Raspberry 7524
256			Rattan-caue, <i>n.</i>
886			Rattlesnake-fern
			14619 2208
602			Rattlesnake-root
			10065 1508
154	1077		Rauwólfia 441
75			Raw sugar, <i>n.</i>
474	1069		Reaumúria 1210
336			Red bay 5653
793			Red beech, <i>n.</i>
818			Red cedar 14056
802			Red deal, <i>n.</i>
1043			Red gum, <i>n.</i>
418			Red gum-tree 6992
296			Red lac 3792
588	1059		Redoutèa 1482
604			Red Saunder's-wood
			1515
927			Red snow plant, <i>n.</i>
586			Red sorrel, <i>n.</i>
65			Red-top, <i>n.</i>
176			Red-wood 2872
60			Reed 175
720	1073		Reihánia 1767
50	1089		Remírea 131
762	1085		Renánthera 1918
398	1083		Resèda 1102
	1083		RESEDA'CEÆ, Or. 137.
612			Rest harrow 1541
	1087		RESTIA'CEÆ, Or. 172.
828	1087		Réstio 2047
142	1077		Rétzia 391
678	1075		Rhagadólus 163
192,	1081		Rhagódia { 562
862			{ 2139
	1063		RHA'MNEÆ, Or. 54.
176	1063		Rhámmus 503
866	1088		Rhâpis 2153

Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.	Lin.	Nat.	Sp.	Gen.
784	1069		Serpícula	1968	1078		SOLA'NE'E, Or. 110.	73			Squirrel grass, <i>n.</i>
628			Serradilla	10515	156	1078	Solànum	451	808	1068	Squirting cucumber
680	1074		Serrátula	1661	123	1080	Soldanella	352			13559 2020
82	1081		Serrària	234	676	1073	Soldevilla	1649		56	Squitch, <i>n.</i>
152	1076		Sersalicia	438	854		Soldier-wood	2123	178	1063	Stàvia
426			Service	7100	1133	940	Solènia	2307	1040	1063	Stachylidium
514	1079		Sésamum	1296	710	1074	Solidàgo	1740	504	1079	Stichys
630	1066		Sesbània	1581	742	1073	Solvà	1835	20	1079	Stachytàrpheta
214	1070		Séseli	642	270		Solomon's seal	788	686	1074	Stàchhna
60	1089		Seslèria	177	950	1092	Solorina	2331	178		Staff-tree
428	1069		Sesvium	1143	668	1073	Sónchus	1627	198	1077	Stapèla
54	1089		Setària	145	340	1066	Sophora	941	226	1063	Staphylèa
654			Shaddock	10980	860	1089	Sorghum	2131	150	1076	Star-apple
274			Shallot	4664	82	1081	Sorocéphalus	236	198		Star-fish
648			Shamrock, <i>n.</i>		294	1081	Sorrel	5031 856	728	1074	Stárkea
356			Sheep laurel	5916	587		Sorrel cool drink, <i>n.</i>		276		Star of Bethlehem
166			Sheep's beard	1623	360		Sorrel-tree	5952 1016	98		Star of the earth
688			Sheep's scabious	547	592		Sour gourd	9941 1491			
294			Sheep's sorrel	856	870		Sour gum	14381 2161	736		Star-thistle
794			Shell bark hickory, <i>n.</i>		480		Soursop	7920 1290	706		Starwort
832	1082		Shephèrdia	2057	696		Southernwood		234	1080	Státice
132			Shepherd's club						764	1085	Stèlis
				2133	106		South Sea tea	1831 315	376	1059	Stellària
546			Shepherd's purse	1408	272	1086	Sowerbæa	795	324	1082	Stellèra
				9	60		Sowins, <i>n.</i>		532	1078	Stemodia
94	1072		Sheràrdia	269	668		Sow-thistle	1627	1034	1093	Stemomitis
884			Shield fern	2199	616		Soy	10289 1550	144		Stenanthèra
353			Ship-blocks, <i>n.</i>		218	1070	Spanànthe	659	84	1081	Stenocàrpus
784			Shore-weed	1967	552		Spanish cress	9221 1428	524	1079	Stenochilus
100			Shrubby trefoil	298	150		Spanish elm	2415 428	754	1084	Stenorhynchus
588			Shuttlecock	9865	46		Spanish nut	824 46	814	1060	Sterculia
236	1067		Sibbàldia	710	140		Spanish potato, <i>n.</i>		970	1092	Stereocálon
426			Siberian crab	7092	205		Spanish soda, <i>n.</i>		254	1086	Sternbergia
626			Siberian pea-tree	1569	40	1085	Sparaxis	99	690	1073	Stèvia
532	1078		Sibthòrpa	1358	774	1090	Sparanium	1946	966	1092	Sticta
810	1069		Sicyos	2023	683	1074	Sparganophorus	1684	1018	1092	Stictis
588	1067		Sida	1487	464	1060	Sparmànnia	1182	930	1091	Stigonèma
498	1079		Sideritis	1252	324		Sparrow-wort	914	828	1083	Stilago
100	1072		Siderodendrum	292	52	1089	Spartina	136	1042	1093	Stilbospòra
150	1076		Siderogylon	425	610	1066	Spartium	1537	1038	1093	Stilbum
462			Side-saddle flower	1173	82	1081	Spatàlla	237	810	1083	Stillingia
728	1074		Siegesbeckia	1789	226	1064	Spathèlia	683			Stinging nettle
456	1059		Sievèrsia	1161	1014	1092	Spatularia	2382	504		Stinking horehound
374	1059		Silène	1048	500		Spearmint, <i>n.</i>		54	1089	Stipa
592			Silk-cotton-tree	1492	46		Spearwort	8025 1233	376		Stitchwort
856			Silk-tree	14159	127		Speedwell	40	616	1066	Stizolobium
738	1074		Silphium	1824	70		Spelt	1235 206	686	1074	Stobæa
682	1074		Silybum	1664	390	1059	Spèrgula	1076	538	1057	Stock
830			Silver-tree	13840	94	1072	Spermacòce	270	744	1073	Stœbe
140			Silver-weed	385	162	1072	Spermadietion	455	686	1074	Stœbia
	1063		Simarubàcœa, Or. 52.		940	1091	Sphacellaria	2302	382		Stoncrop
732	1074		Simsia	1805	744	1073	Sphæránthus	1849	362		Storax
554	1057		Sinapis	1433	1028	1092	Sphæria	2425	158		Stork's-bill
810			Single-seeded cucumber	2023	1024	1092	Sphærobolus	2419	384		Strambonium
846			Sir Joseph Banks's pine	14047	922	1091	Sphærocàrpus	2258	228		Strapwort
				612	942	1091	Sphærococcus	2314	482	1084	Stratibotes
216	1070		Sison	2447	344	1066	Sphærolbium	958	418	1068	Stravàdium
1010	1092		Sistrèma	2376	1030	1093	Sphæronæ'ma	2427	452		Strawberry
550	1057		Sisymbrium	1422	970	1092	Sphærophoron	2353	8		Strawberry blite
214	1071		Sium	646	896	1091	Sphågnum	2216	412		Strawberry pear, <i>n.</i>
214			Skirret	3598	734	1073	Sphenogyne	1816	360		Strawberry-tree
140			Skirret of Peru, <i>n.</i>		752		Spider	ophrys	194	1085	Strelitzia
512			Skullcap	1285				12838 1866	270	1086	Streptopus
406			Slipper-plant	1104	260		Spiderwort	765	148	1076	Strophanthus
18			Slipperwort	51	520	1079	Spielmannia	1321	250	1086	Strumària
464	1060		Sloanea	1180	134	1077	Spigèlia	379	86	1082	Struthiola
422			Sloe-tree	7052	212		Spignell	634	880	1090	Struthiopterus
	1086		SOLA'CEÆ, Or. 16L		48		Spike-rush	124	152	1077	Strýchnos
270	1086		Sililacina	788	690	1074	Spilánthes	1695	592	1062	Stuàrtia
836	1086		Smilax	2081	950	1092	Spilòma	2330		1075	STYLIDÆE, Or. 92.
628	1066		Smithia	1580	834	1081	Spinacia	2070	766	1075	Stylidium
216	1071		Smyrnium	650	834	1081	Spinage	2070	630	1066	Stylosánthes
616			Snail-flower	10256	178		Spindle-tree	509	142		Styphèlia
808			Snake-gourd	2019	428	1067	Spiræa	1141	362	1076	Stýrax
144	1076		Snake-root	406	754	1084	Spiránthes	1874	558	1058	Subulària
272			Snake's-beard	790	906	1091	Spláchnum	2231	678	1072	Succory
886			Snake's tongue	2206	880		Spleenwort	2186	263		Succotrine aloë, <i>n.</i>
326			Snake's-weed	5594	382	1064	Spondias	1059	556	1057	Succóvia
826			Snake-wood	2043	858		Sponge-tree	14190	75		Sugar, <i>n.</i>
526			Snap-dragon	1343	1042	1093	Sporidèrium	2494	75		Sugar cane, <i>n.</i>
18			Snap-tree	304	56	1089	Sporobolus	159	74	1068	Sugar-candy
26			Sneezewort	12348	944	1091	Sporòchnus	2321	222		Sulphurwort
224			Snowball-tree	3774	1038	1093	Sporòtrichum	2478	224		Sumach
172			Snowberry	480	142		Sprengèlia	397	206		Summer cypress
248			Snowdrop	732	28		Spring-grass	76			
394	1076		Snowdrop-tree	1079	275		Spring salad onion, <i>n.</i>		232	1058	Sundew
248			Snowflake	733	804		Spruce-beer, <i>n.</i>		730		Sunflower
328			Soap-berry	926	1036	1093	Spumària	2457	470		Sun rose
370			Soapwort	1045	400		Spurge	1103	328		Supple jack
205			Soda, <i>n.</i>		322		Spurge laurel	5530	626	1066	Sutherlandia
860			Soft-grass	2132	390		Surrey	1070	626	1066	Swainsònia
154	1078		Solandra	444	278		Squill	803	196		Swallow-wort

Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.	Lin. Nat.	Sp. Gen.
868	Swamp locust-tree 14325 2155	104	T. TETRAGY'NIA, Or. 3.	350	Trenails, <i>n.</i>
479	Swamp sassafras, <i>n.</i>	898 1091	Tetráphis 2221	930 1091	Trentepöhlia 2276
426	Swedish beam-tree 7097 1133	302 1060	Tetrathèca 879	532 1078	Trevirana 1362
554	Swedish turnip 9245 1432	494 1079	Thèdrium 1244	30	TRIA'NDRIA, Cl. 3.
332	Sweet bay 5646 934	1054	THALAMIFLÒRE, Subc. 1.	34	T. MONOGY'NIA, Or. 1.
448	Sweet briar 7503 1148	2	1085 Thàlia 4	52	T. DIGY'NIA, Or. 2.
564	Sweet calabash 9394 1459	484 1054	Thalictum 1299	74	T. TRIGY'NIA, Or. 3.
256	Sweet flag 4316 755	1036 1093	Thamnidium 2461	192	1069 Triánthema { 564 1036
830	Sweet gale 13865 2055	214 1071	Thápsia 643	354 1062	Tribulus 996
798	Sweet gum 13435 2001	1024 1092	Thelëbolus 2417	1034 1093	Trichia 2452
1076	Sweet leaf 12350 1781	1010 1092	Theléphora 2378	352 1062	Trichilia 987
726	Sweet maudlin 10362 1558	956 1092	Thelotrëma 2336	1040 1093	Trichodërma 2485
620	Sweet pea 2264 384	792 1083	Thelýgonum 1993	122 1078	Trichodësma 347
140 1077	Sweet potato 2264 384	650 1060	Theobróma 1607	56 1089	Trichodium 151
480	Sweet sop 7922 1200	146 1075	Theophrásta 944	886 1090	Trichomanes 2202
738	Sweet sultan 12627 18.9	342 1066	Thermópsis 408	40 1085	Trichonëma 966
370	Sweet William 6.40 1046	194 1082	Thësius 569	50 1089	Trichophorum 126
202 1077	Swértia 599	680	Thistle 1663	808 1069	Trichosánthes 2019
352 1062	Swietënia 990	546 1057	Thláspi 1408	512 1079	Trichostëma 1283
676	Swine's succory 1645	182 1060	Thomásia 524	902 1091	Trichostomum 2226
878	Sword fern 2173	134	Thorn apple 376	1040 1093	Trichothëcium 2479
864	Sycamore 14279 2143	218	Thorough-wax 3684 657	64 1089	Trichópsis 187
170 1071	Symphória 476	234	Thrift 705	726 1074	Tridax 1782
122 1078	Symphytum 334	260 1088	Thrinax 764	296 1080	Trientális 862
122 1078	SYMPLOCA'CEÆ, Or. 97.	672 1073	Thrinacia 1633	640 1066	Trifolium 1600
652 1076	Symplocos 16.14	168	Throatwort 466	290 1090	Triglobëchin 1800
728 1074	Synedrëlla 1791	806 1084	Thüja 2018	644 1066	Trigonëlla 1603
660	SYNGENE'SIA, Cl. 19.	518 1079	Thunbërgia 1308	290 1086	Trillium 850
666	S. ÆQUALIS, Or. 1.	496 1079	Thýmbra 1247	214 1071	Trinia 645
696	S. SUPE'RFLUA, Or. 2.	508 1079	Thyme 1279	66 1089	Triodia 191
730	S. FRUSTA'NEA, Or. 3.	1052	THYMELE'Æ, Or. 132.	170 1071	Triostëma 478
738	S. NECESSARIA, Or. 4.	508 1079	Thýmus 1275	174 1062	Triphasia 500
744	S. SEGREGATA, Or. 5.	276 1086	Thysanótus 799	482 1081	Triplaris 2090
396	Syrina rue 6611 1088	368 1070	Tiarélla 1042	808 1089	Tripsacum 1952
12 1076	Syringa 37	120 1078	Tiaridium 329	678 1074	Triptilion 1656
148 1077	Taberhamontana 418	623	Ticks, <i>n.</i>	60 1089	Trisetum 1722
840 1083	Tacamahac 13970 2087	8	Tickseed 26	652 1068	Tristantia 1611
256 1089	Tacca 758	562	Tiger-flower 1452	56 1089	Tristegis 158
880 1090	Tænitis 2176	562 1086	Tigridia 1452	68 1089	Triticum 206
718 1074	Tæticus 1760	40	Tile-root 97	208 1086	Tritoma 777
358	Taliera palm 4358 762	466 1060	Tilia 1186	40 1085	Tritonia 100
396 1069	Tallium 1092	1060	TILIA'CEÆ, Or. 27.	396 1060	Triumfetta 1087
250	Tallipot palm, <i>n.</i>	108 1070	Tillæ'a 320	740 1074	Trixis 1825
831	Tallow shrub, <i>n.</i>	246 1087	Tillandsia 729	758 1085	Trizeaxis 1890
810	Tallow-tree 13603 2026	58	Timothy grass, <i>n.</i>	488 1054	Tróllus 1234
562	Tamarind-tree 1449	732 1074	Tithóna 1802	1061	TROPÆOLE'Æ, Or. 40.
562 1067	Tamarindus 1449	526	Toad-flax 1344	302 1061	Tropæolum 875
228	Tamarisk 685	136 1078	Tobacco 382	832 1083	Tròphis 2083
228 1069	Tamarisk 685	182 1064	Toddia 529	666 1073	Tròximom 1622
838 1086	Tamus 2082	789	Toddy, <i>n.</i>	436	True service 7100 1133
696 1073	Tanacetum 1720	886 1090	Tòdea 2204	1022	Truffis 2411
690	Tangier pea 10365 1558	290 1087	Tofélda 844	514	Trumpet flower 1294
696	Tansy 1720	676 1073	Tòpis 1641	1022 1092	Tuber 2411
814	Tapioca, <i>n.</i>	676 1078	Tomatòes 1641	1040 1093	Tubercularia 2488
694 1074	Tarchonánthus 1706	604 1063	Tonquin bean 1518	268 1086	Tuberose 747
624	Tare 1562	834	Toothache-tree 2066	266 1087	Tulbaghia 780
912 1091	Targónia 2257	524	Toothwort 1339	266 1087	Tulip 772
1072	Tarragon	410	Torch-thistle, <i>n.</i>	266 1087	Tulipa 772
557	Tartarian-bread, <i>n.</i>	222 1071	Toréthium 673	478	Tulip-tree 1216
337 1081	Tart rhubarb	212 1071	Torilis 627	870	Tupelo 2161
848 1084	Táxus 2114	454 1067	Tormentilla 1154	1032 1093	Tulostoma 2441
148 1079	Teak-wood 421	904 1091	Tórtula 2238	256 1089	Tupistra 757
90	Teasel 262	1038 1093	Tórtula 2468	151	Turnip berry-tree, <i>n.</i>
592	Tea-tree 1496	184	Touch-me-not 3019 558	354	Turkey-blossom, <i>n.</i>
148 1079	Téctona 421	124 1078	Tournefórtia 346	6 1085	Turmeric 14
534 1078	Tèdia 1374	516 1078	Tourréttia 1299	228 1069	Turnera 686
546 1057	Teesdalia 1411	232	Tow, <i>n.</i>	554 1057	Turnip 9245 1432
228 1069	Telëphium 689	540	Tower mustard 1389	118 1082	Turnsole 325
84 1081	Telopëa 244	168 1075	Trachëlium 466	804	Turnpentine, <i>n.</i>
608 1066	Templetonia 1533	214 1071	Trachyspërmum 638	832	Turpentine-tree 13891 2065
634 1066	Tephrosia 1590	474 1055	Trachytëlla 1206	540 1057	Turrítis 1389
616 1066	Terámnus 1548	260 1087	Tradescántia 765	704 1074	Tussilágo 1737
1064	TÈREBINTHA'CEÆ, Or. 58.	774 1082	Tràgia 1944	656	Tutsan 11000 1617
864 1062	Terminália 2140	666 1073	Tragopògon 1621	754	Twayblade 1876
1068	TERNSRÒMIDACEÆ, Or. 46.	104 { 1069 } 1084 }	Tràpa 308	774 1090	Týpha 1945
464	Terra orellana, <i>n.</i>	484	Traveller's joy 7983 1227	1014 1092	Týphula 2384
838 1086	Tëstudinària 2083	544	Treacle mustard 1402	612 1066	U'lex 1540
272	Tëta, <i>n.</i>	392	Tree celandine 6582 1073	1083	ULMA'CEÆ, Or. 143.
476 1055	Tëtrácera 1212	884	Tree fern, <i>n.</i>	208 1083	Ulmus 615
536	TETRADYNA'MIA, Cl. 15.	584	Tree mallow 9777 1475.	218 1071	Ulospërmum 1650
404 1069	Tëtragonia 1145	274	Tree onion 4684 796.	940 1091	U'va 2308
644 1066	Tëtragonoglobus 1602	294	Tree sorrel 5019 856.	1070	UMBELLI'FERÆ, Or. 79.
716 1074	Tëtragonothëca 1753	640	Trefoil 1600	478	Umbrella-tree 7914 1217
76	TETRA'NDRIA, Or. 1.	1060	TREMANDRE'Æ, Or. 26.	36	Umbrell-wort 81
80	T. MONOGY'NIA, Or. 1.	840	Trembling Ame- rican-tree 13960 2087	778 1089	Ucincia 1949
104	T. DIGY'NIA, Cl. 2.	1020 1092	Tremëlla 2397	275	Underground onion, <i>n.</i>
				64 1089	Unola 186
				1083	Upas-tree
				244 1085	Urania 722
				958 1092	Urceolària 2339

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